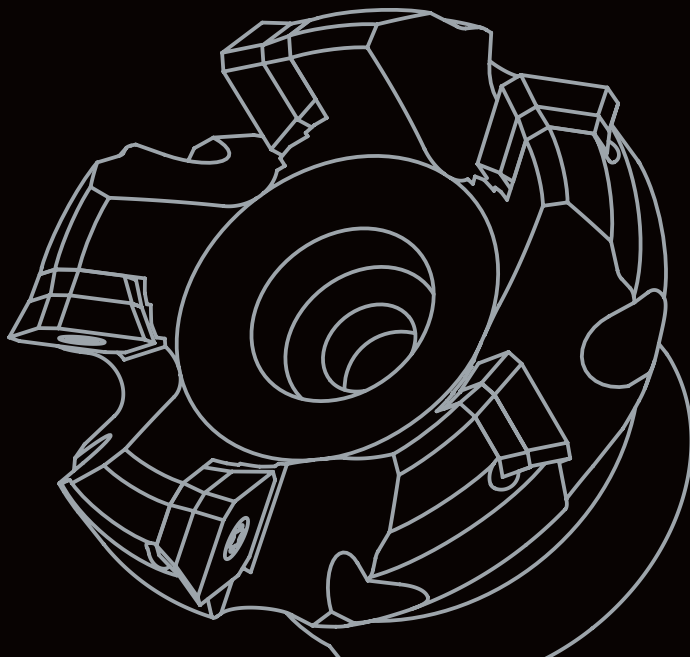


CATALOGUE 2014



WIKO TOOLS





STOCK CLASSIFICATION

- , ● Standard stock items, usually available in warehouse.
- , ○ Non standard stock items, please ask for availability and minimum order quantity if applicable.
- Stock exhaustion.
- ★ Future introduction.

○, ● Not included in the previous catalogue.

STANDARD PACKAGING

- holders, PCBN, diamond 1 piece
- carbide, ceramic 10 pieces

Due to continuous evolution of cutting materials and introduction of new products, stock situation reported in the present catalogue may vary without notice.



CLASSIFICAZIONE STOCK

- , ● Materiale stock standard, normalmente disponibile a magazzino.
- , ○ Materiale NON stock standard, richiedere disponibilità ed eventuale quantitativo minimo.
- Esaurimento stock.
- ★ Articolo di futura introduzione.

○, ● Non incluso nel catalogo precedente.

CONFEZIONAMENTO STANDARD

- holders, PCBN, diamond 1 pezzo
- carbide, ceramic 10 pezzi

Grazie alla continua introduzione di nuovi prodotti ed all'evoluzione dei materiali da taglio, la situazione stock menzionata nel presente catalogo può variare senza preavviso.



KLASSIFIZIERUNG DER VERFÜGBARKEIT

- , ● Stock standard, normalerweise Verfügbar - Lagerware.
- , ○ NICHT Stock standard, KEINE Lagerware. Verfügbarkeit und Mindestmenge muss angefragt werden.
- Vorraterschöpfung.
- ★ Artikel, der in Zukunft eingeführt wird.

○, ● Nicht im vorherigen Katalog vorhanden.

STANDARD VERPACKUNGSEINHEIT

- holders, PCBN, diamond 1 Stk
- carbide, ceramic 10 Stk

Wegen der ständigen Entwicklung neuer Produkte und Schneidstoffe, kann die angegebene Verfügbarkeit der Produkte in jedem Moment ohne Voranmeldung geändert werden.



CLASSIFICATION STOCK

- , ● Matériel stock standard, normalement disponible en stock.
- , ○ Matériel stock non standard, demander disponibilité au magasin et éventuellement quantitatif minimum.
- Épuisement du stock.
- ★ Article prochainement introduit.

○, ● Pas présent dans l'ancien catalogue.

CONDITIONEMENT STANDARD

- holders, PCBN, diamond 1 pièce
- carbide, ceramic 10 pièces

Grace à l'introduction continue de nouveaux produits et à l'évolution des outils de coupe, la situation des stocks mentionnés dans ce catalogue peut être modifiée sans préavis.



CLASIFICACIÓN DE STOCK

- , ● Artículos stock standard, usualmente disponibles en almacén.
- , ○ Artículos NON stock standard, ponerse en contacto con nosotros para verificar disponibilidad y eventual cantidad mínima.
- Agotamiento de stock.
- ★ Artículo disponible en futuro.

○, ● Artículo no disponible anteriormente.

CAJA STANDARD

- holders, PCBN, diamond 1 unidad
- carbide, ceramic 10 unidad

En consecuencia de la continua introducción de nuevos productos y de la evolución de los materiales de corte, la clasificación de stock indicada en el presente catálogo puede cambiar sin previo aviso.



КЛАССИФИКАЦИЯ НАЛИЧИЯ НА СКЛАДЕ

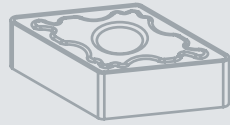
- , ● Стандартный склад, обычно в наличии на складе.
- , ○ Нестандартный склад, наличие на складе не гарантируется.
- складские остатки.
- ★ Продукция на фазе внедрения

○, ● Отсутствует в предыдущем каталоге.

СТАНДАРТНАЯ УПАКОВКА

- holders, PCBN, diamond 1 ШТУКА
- carbide, ceramic 10 ШТУК

Благодаря постоянному внедрению новой продукции и разработке новых материалов, продукция упомянутая в данном каталоге, а также наличие на её складе, может изменяться без предварительного уведомления.



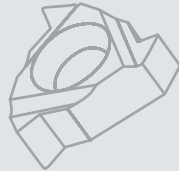
TURNING / 3



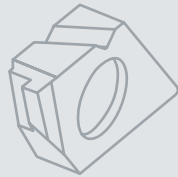
MICRONEGA / 171



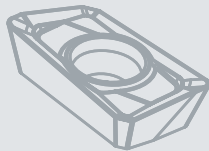
MICROBORING / 201



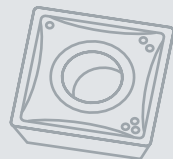
THREADING / 227



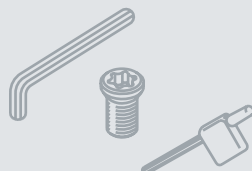
GROOVING / 251



MILLING / 269

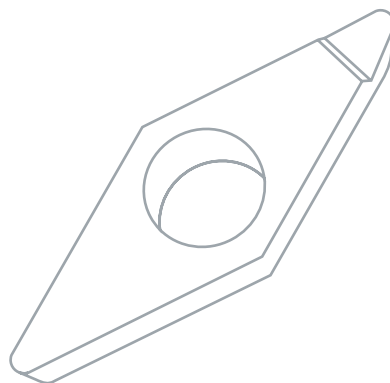
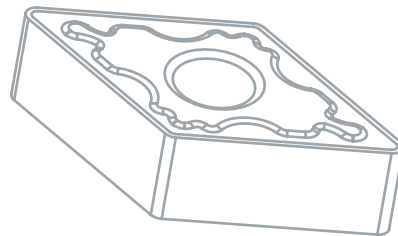
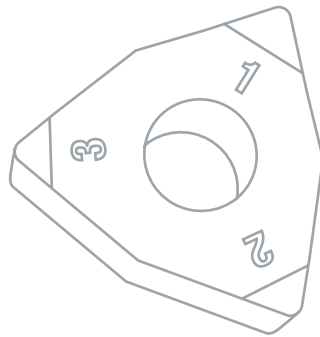


DRILLING / 341



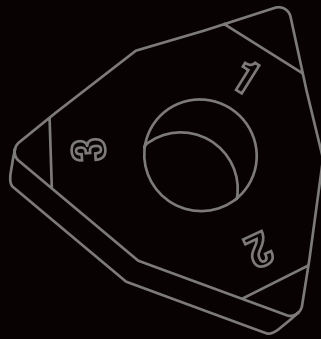
SPARE PARTS / 355

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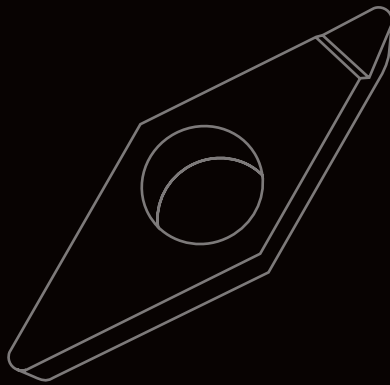
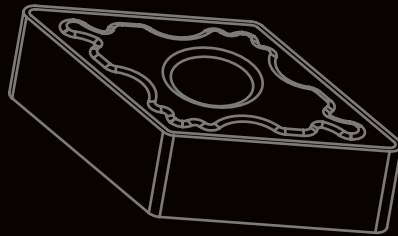


TURNING /

carbide /5
PCBN /43
diamond /77
ceramic /95
holders /117



TURNING / carbide



ISO 1832

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

1	GEOMETRY	
C		80°
D		55°
K		55°
S		90°
T		60°
V		35°
W		80°

2	CLEARANCE ANGLE	
B		5°
C		7°
N		0°

3	TOLERANCE [mm]	
G	±0.025	±0.13
M	±0.05 ~0.15	±0.13
U	±0.08 ~0.25	±0.13

4	SHAPE	
A		
G		
M		
T		
X	NIKKO NORM	




5	EDGE LENGTH [mm]	
06 09 12 16 19 25	C	
07 11 15	D	
16	K	
09 12 15 19 25	S	
09 11 16 22	T	
11 16 22	V	
06 08 12(06)	W	

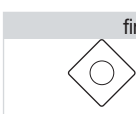
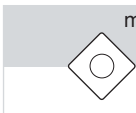
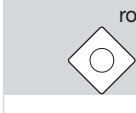
6	THICKNESS [mm]	
02	2.38	
03	3.18	
T3	3.97	
04	4.76	
06	6.35	
09	9.52	

7	RADIUS [mm]	
...		

8	DIRECTION	
L		
R		

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

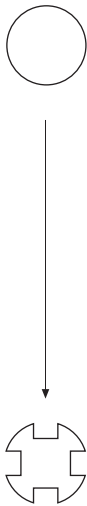
9	SHAPE STYLE
M	 negative single side
N	 negative double side
P	 positive

10	APPLICATION
F	 finishing
S	
M	 medium
U	
R	 roughing
T	

11	WORKPIECE MATERIAL
K	ISO K
M	ISO M
N	ISO N
P	ISO P
S	ISO S
U	UNIVERSAL

12	COATING TECHNOLOGY
JC	CVD
JD	DLC
JP	PVD
JU	UNCOATED

13	INSERT MATERIAL
30~34	CARBIDE ISO S
40~44	CERMET
50~54	CARBIDE UNIVERSAL
60~64	CARBIDE ISO N
70~74	CARBIDE ISO K
80~84	CARBIDE ISO P
90~94	CARBIDE ISO M

14	ISO CLASSIFICATION
05	
10	
15	
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40	
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THREADING

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MILLING














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	ISO DIN 513					ISO DIN 513					ISO DIN 513					ISO DIN 513				
	K					P					M					N				
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40
CARBIDE CVD	JC7005	JC7010	JC7020			JC8005 ^{NEW}	JC8015	JC8025	JC8035		JC9025									
CARBIDE PVD		JP5025				JP5025					JP9015	JP5025	JP9030							
CARBIDE UNCOATED																JU6010	JU6020			
CERMET UNCOATED	JU4015					JU4015					JU4015									

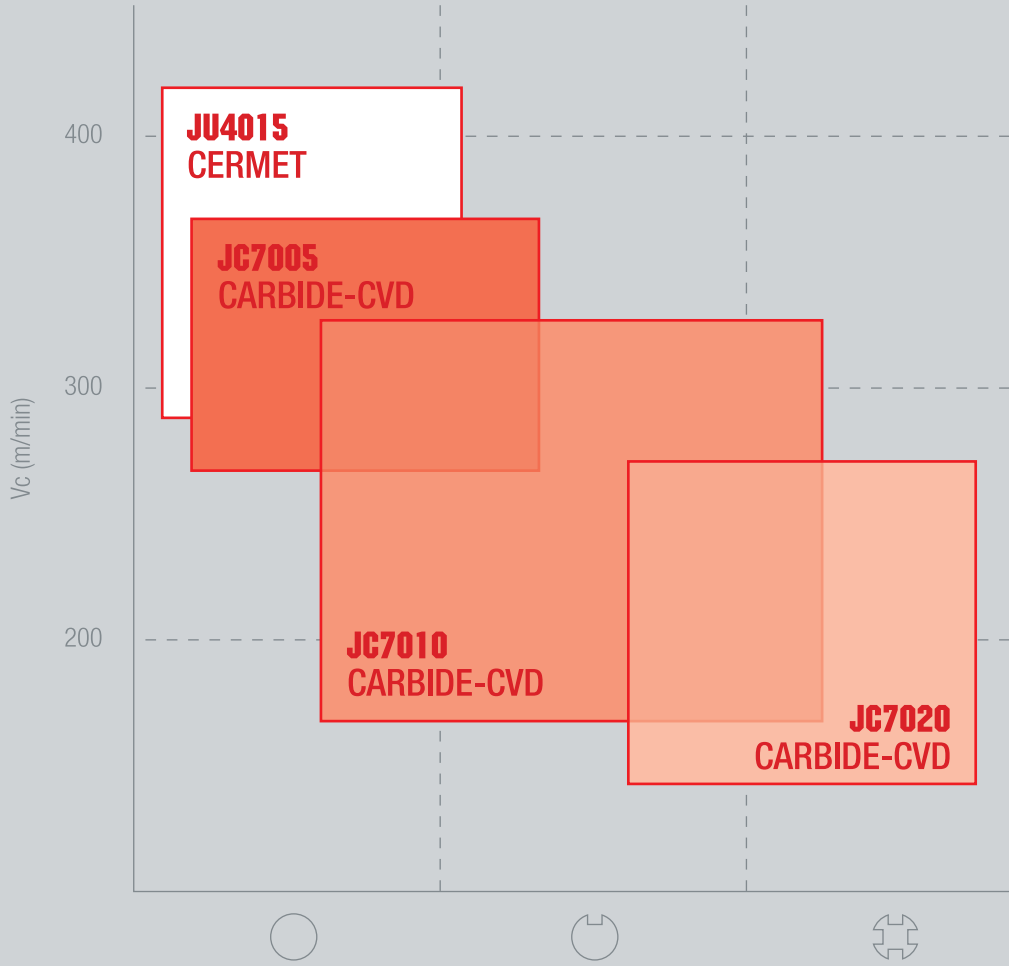
CHIPBREAKERS SELECTION (NEGATIVE )

	CN□□	DN□□	SN□□	TN□□	VN□□	WN□□
K NMK	20 	24 	28 	31 	35 	37 
Edge Length	12 16 19	15	12	16 22	16	08
K NRK	20 	24 	28 	31 	35 	37 
Edge Length	12 16 19	15	12 19	16 22	16	06 08
K (Flat)	20 	24 	28 	31 		37 
Edge Length	12 16 19	15	09 12	16 22		06 08
P NSP	20 	24 	28 	31 	35 	37 
Edge Length	12	11 15	12	16	16	06 08
P NFP	20 	24 	28 	31 	35 	37 
Edge Length	12	11 15	12	16	16	06 08
P NMP	20 	24 	28 	31 	35 	37 
Edge Length	12 16 19	11 15	12	16 22	16	06 08
P NUP	21 	24 	28 	31 	35 	37 
Edge Length	12 16 19	11 15	12	16 22	16	06 08
P NRP	21 	24 	28 	31 		37 
Edge Length	12 16 19	15	12 19	16 22		08
P NTP	21 	24 	28 			37 
Edge Length	12 16 19	15	12			08
P <small>NEW</small> MRP	21 		29 			
Edge Length	19 25		19 25			
P M NMU	21 	24 	29 	32 		
Edge Length	12	15	12	16		
M <small>NEW</small> NFM	21 	25 	29 	32 	35 	38 
Edge Length	12	11 15	12	16	16	06 08
M NMM	21 	25 	29 	32 	35 	38 
Edge Length	12 16 19	11 15	12 19	16 22	16	06 08
N NMN	22 	25 	29 	32 	35 	38 
Edge Length	12	15	12	16	16	06 08

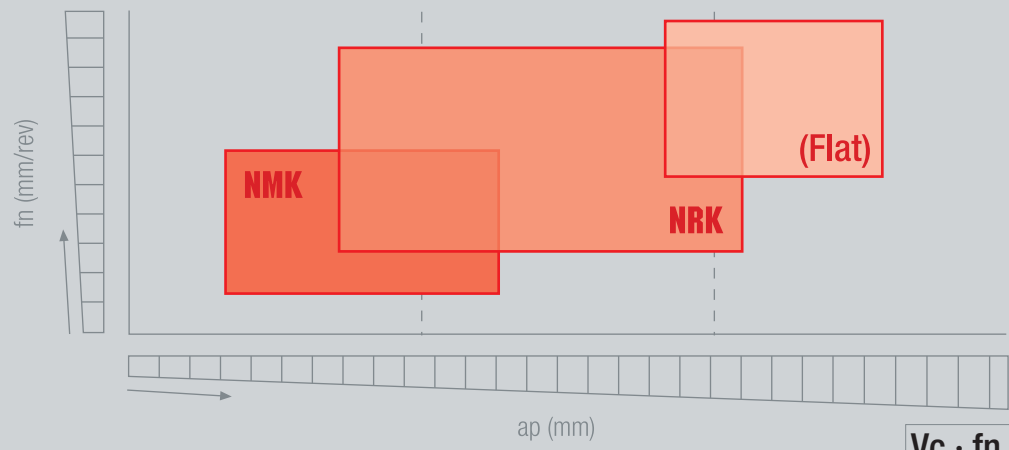
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RANGE ISO **K** (NEGATIVE)

GRADES



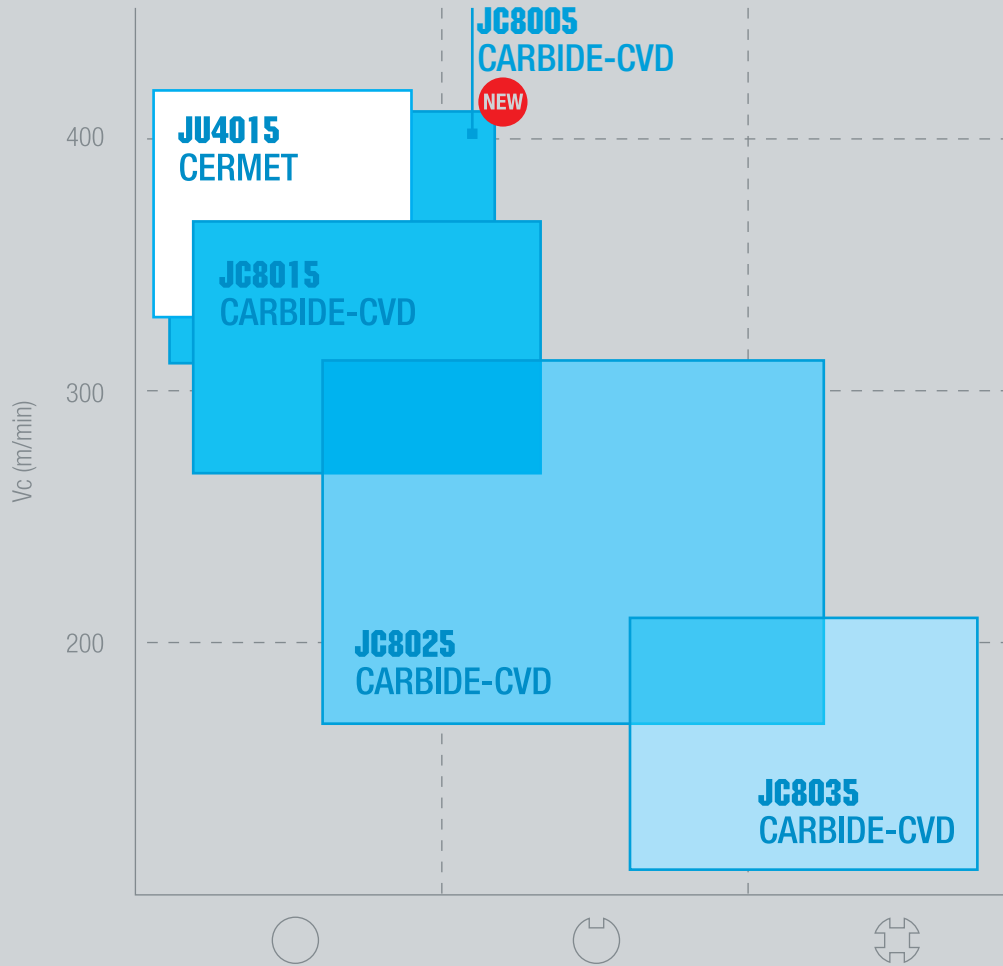
CHIPBREAKERS



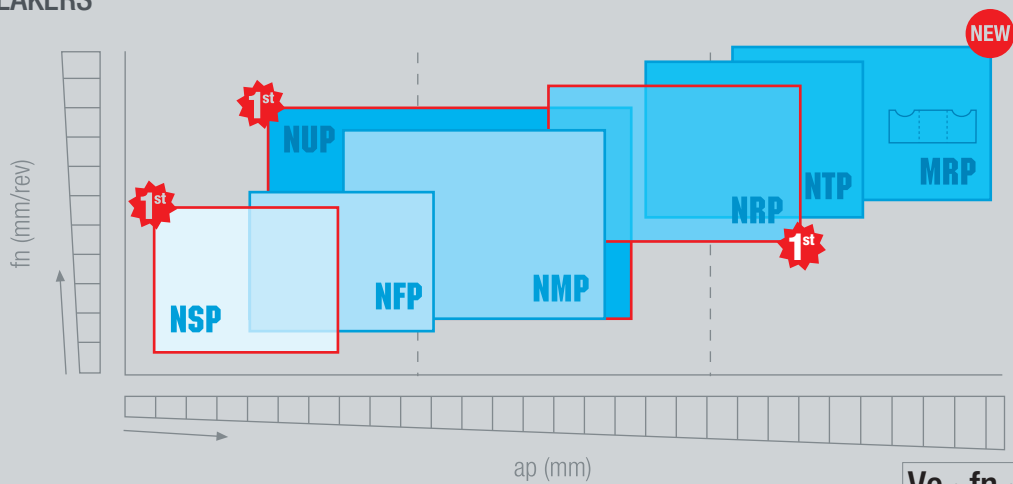
$V_c \cdot f_n \cdot a_p$  39

RANGE ISO **P** (NEGATIVE )

GRADES



CHIPBREAKERS

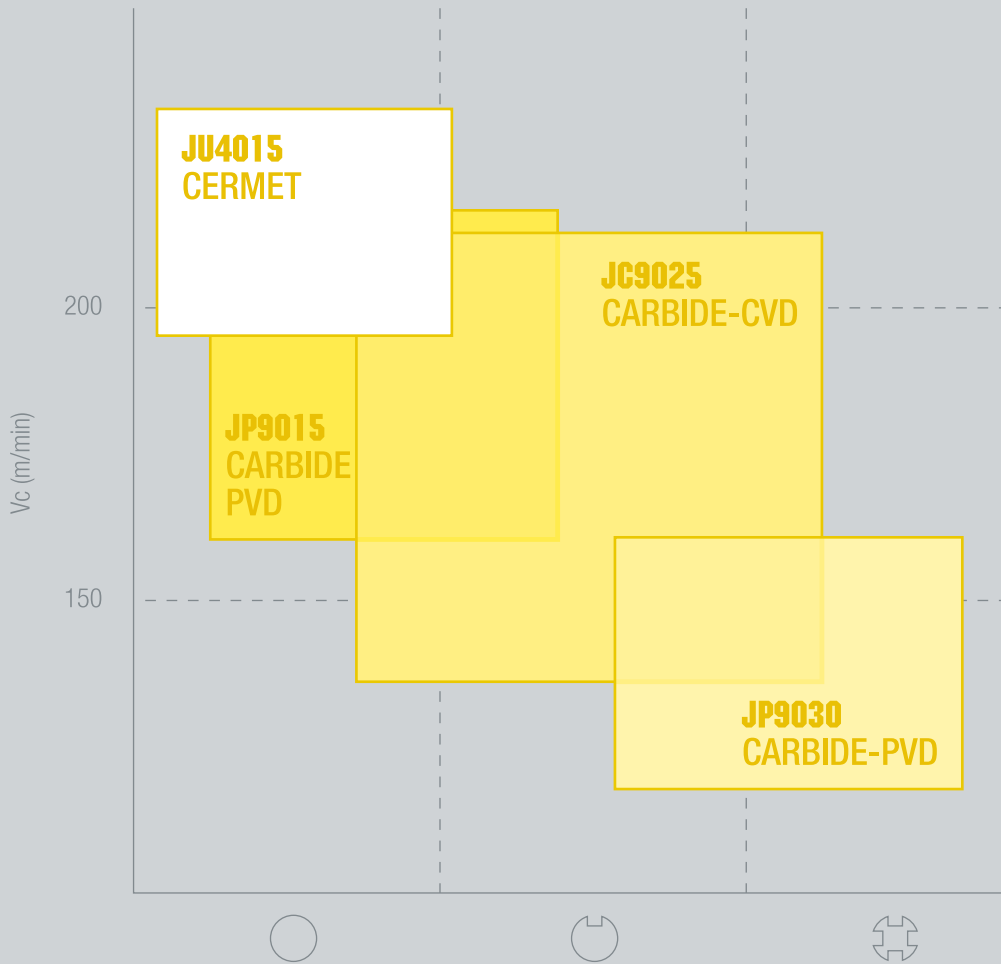


$V_c \cdot f_n \cdot a_p$

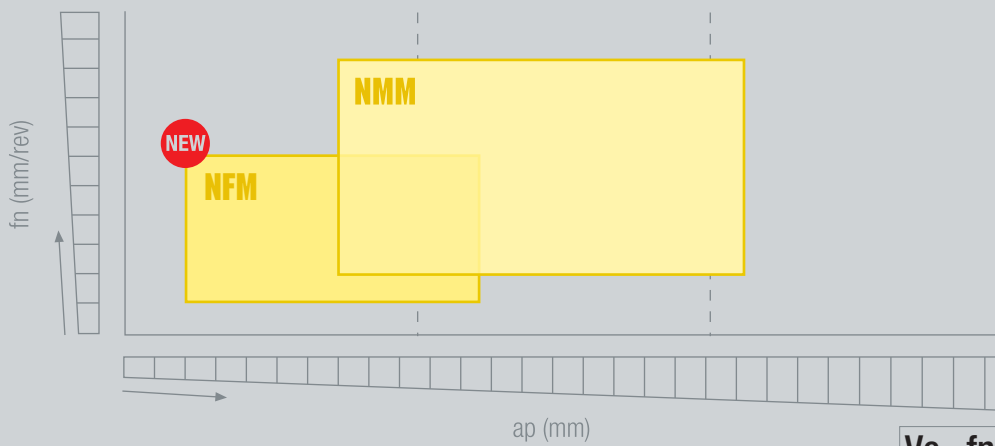
39

RANGE ISO **M** (NEGATIVE )

GRADES



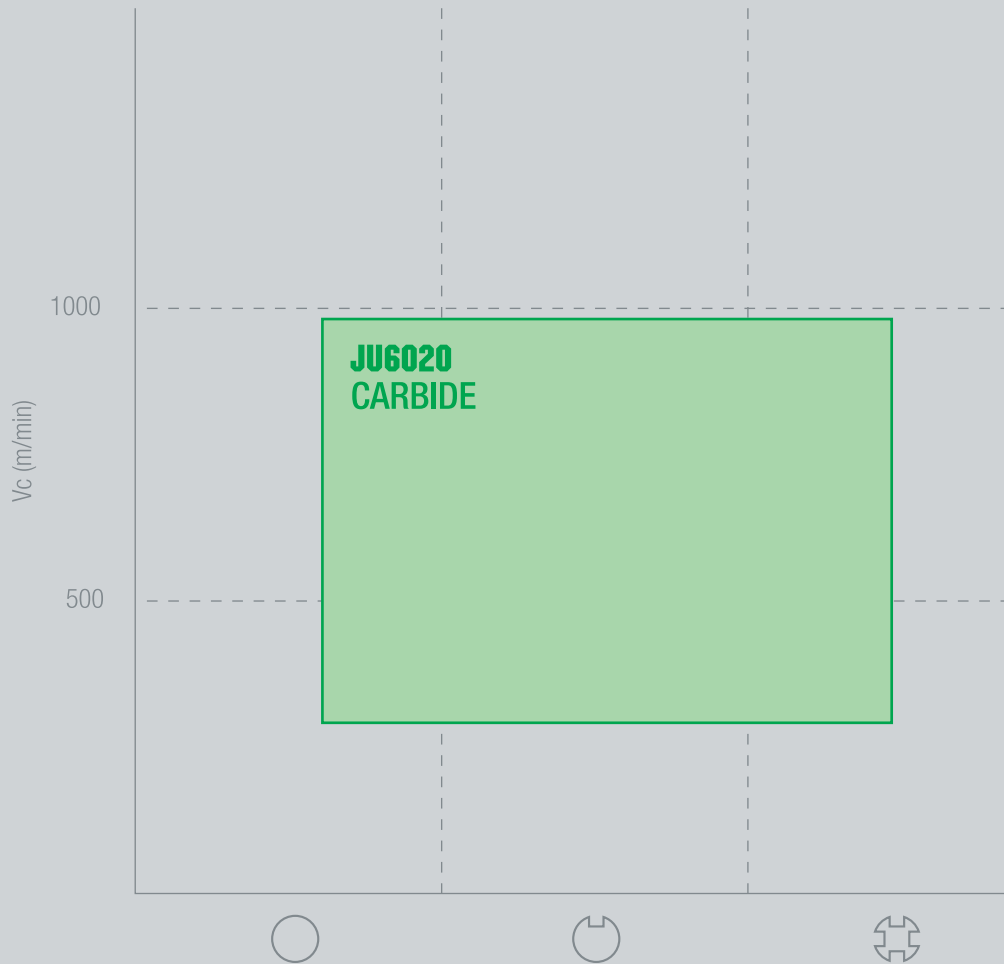
CHIPBREAKERS



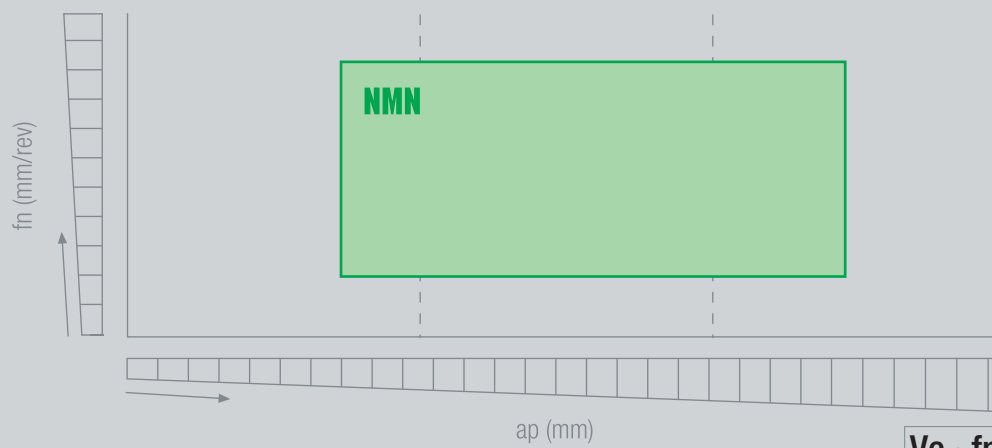
$V_c \cdot f_n \cdot a_p$

RANGE ISO **N** (NEGATIVE )

GRADES



CHIPBREAKERS



$V_c \cdot f_n \cdot a_p$

39

TURNING

MICROBORA

MICROBORING

THREADING

GROOVING


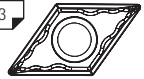


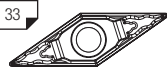
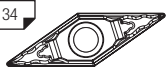

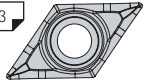


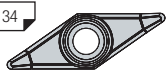

MILLING

DRILLING

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CHIPBREAKERS SELECTION (POSITIVE )

	CC□□	DC□□	SC□□	TC□□	VB□□	VC□□
K P M PMU	19 	23 	27 	30 	33 	34 
Edge Length	06 09 12	07 11 15	09 12	09 11 16 22	16	11 16
N PMN	19 	23 	27 	30 		34 
Edge Length	06 09 12	07 11	09 12	09 11 16		11 16 22
	WC□□					
K P M PMU	36 					
Edge Length	12 (06)					
N PMN						
Edge Length						

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

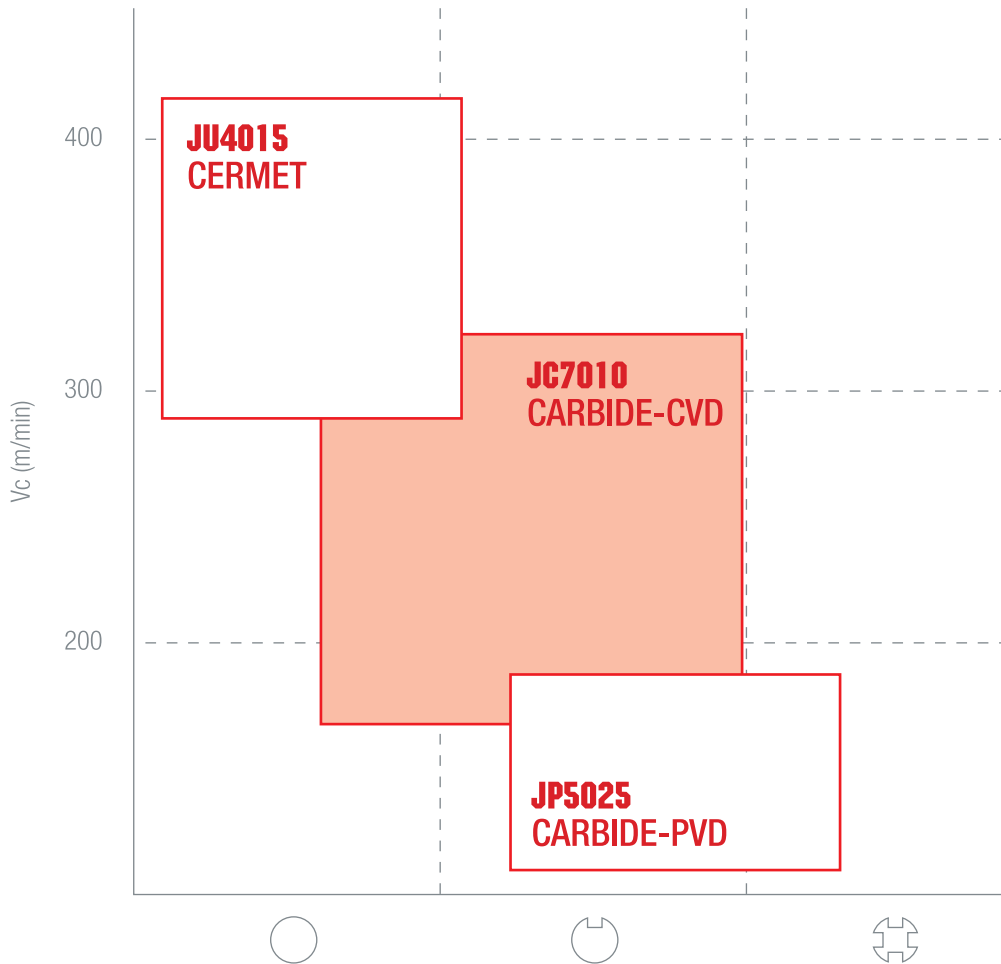
DRILLING

SPARE PARTS

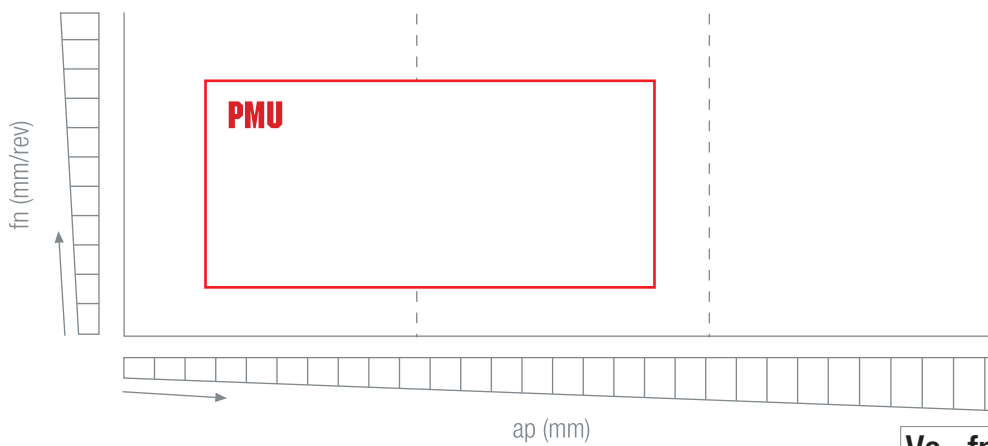
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RANGE ISO **K** (POSITIVE )

GRADES



CHIPBREAKERS

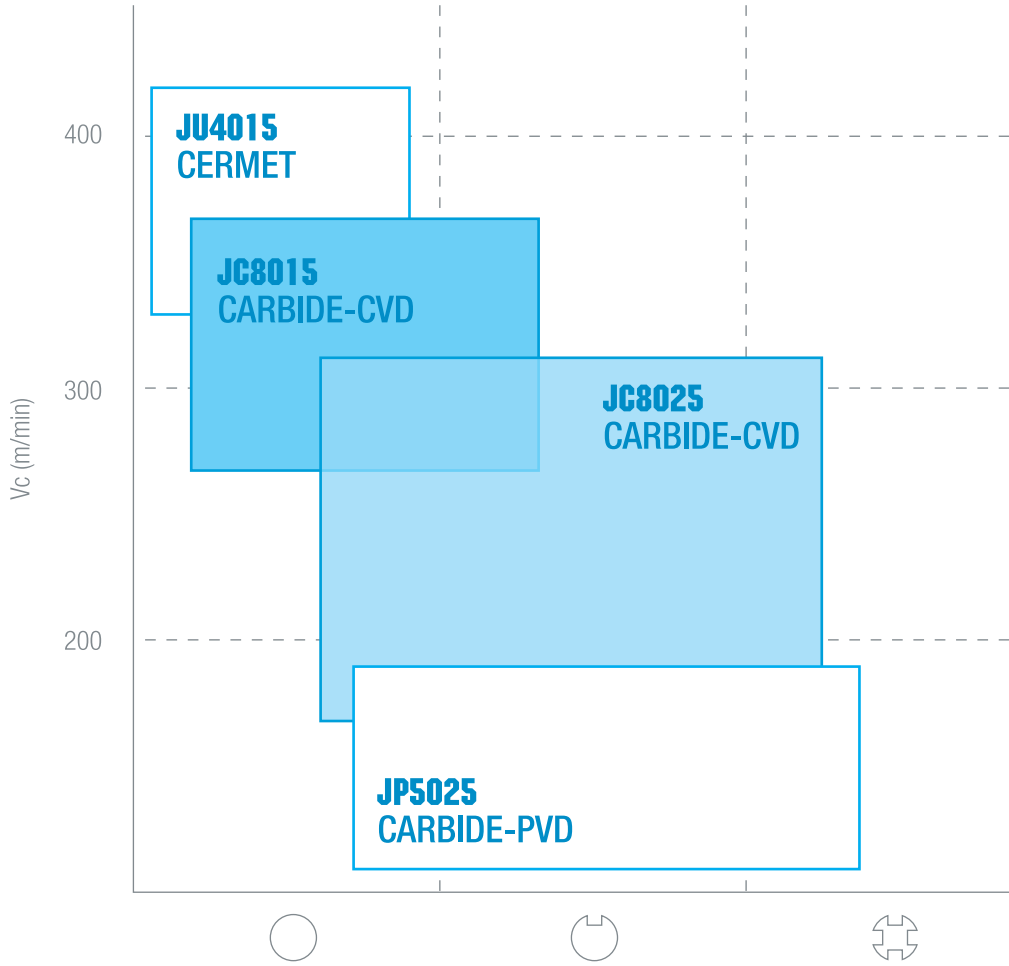


$V_c \cdot f_n \cdot a_p$

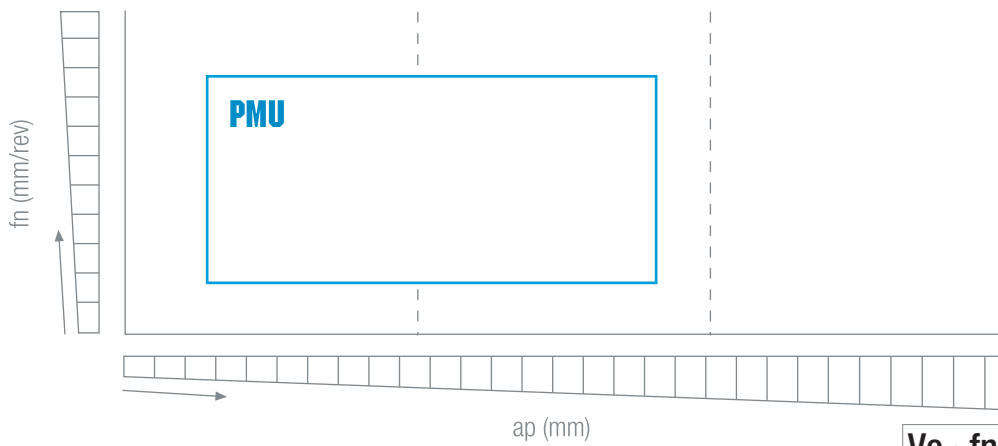
- TURNING
- MICROMEGA
- MICROBORING
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- GROOVING
- MILLING
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RANGE ISO **P** (POSITIVE )

GRADES



CHIPBREAKERS

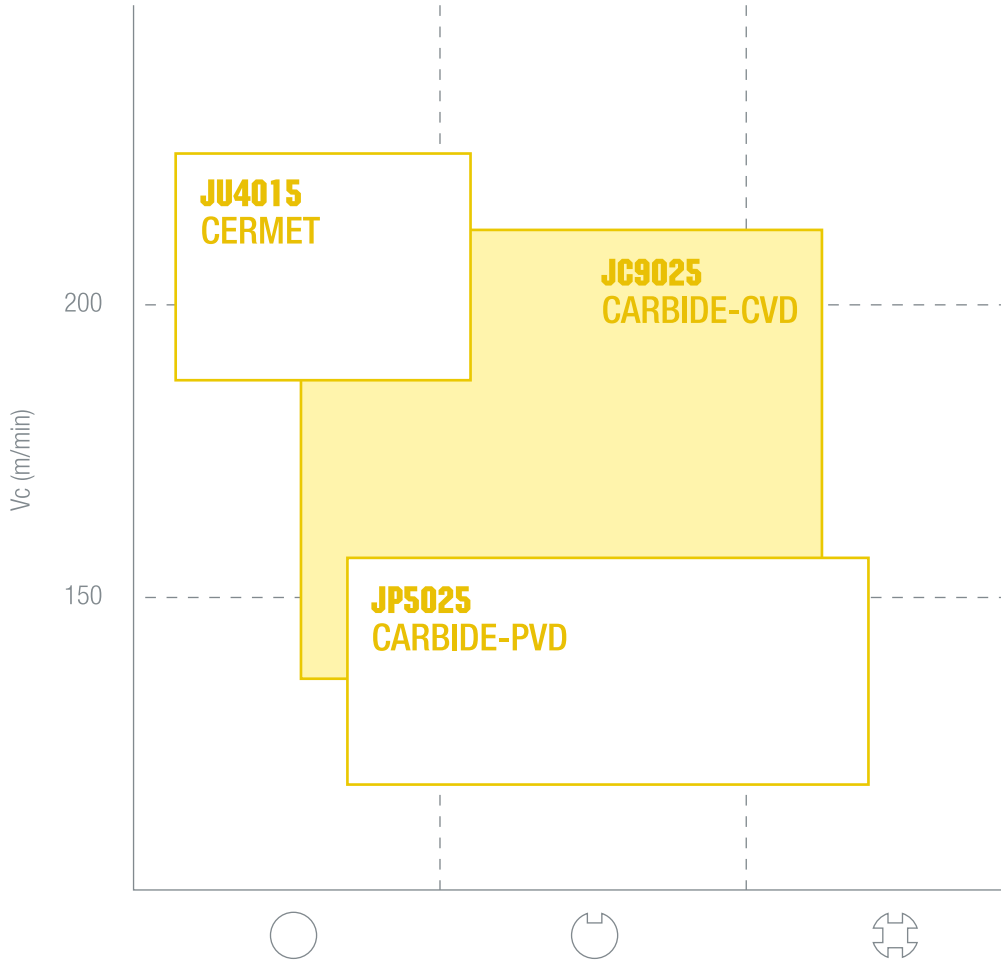


$V_c \cdot f_n \cdot a_p$

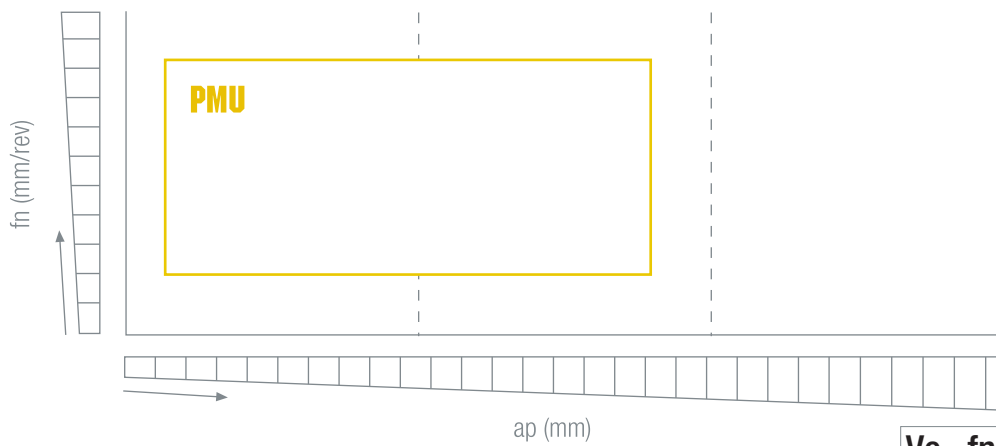
- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
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- INDEX

RANGE ISO **M** (POSITIVE )

GRADES



CHIPBREAKERS



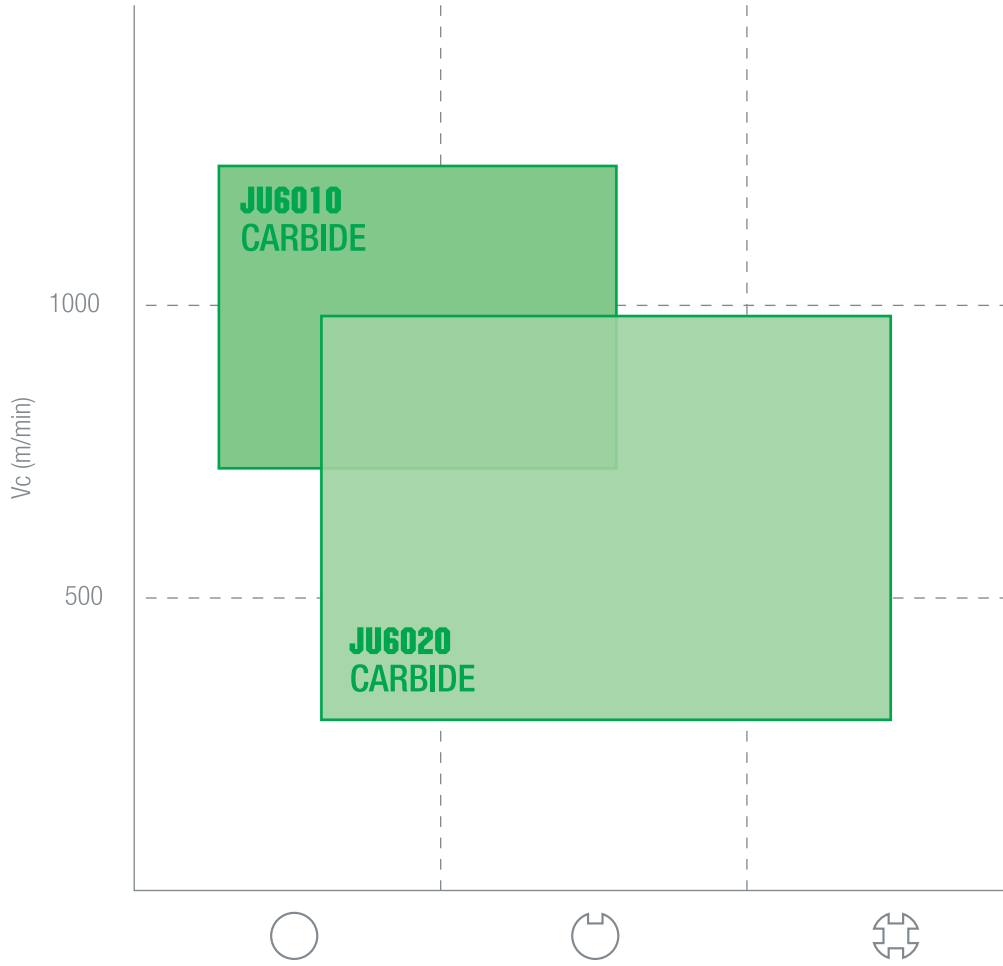
$V_c \cdot f_n \cdot a_p$

- TURNING
- MICRONEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
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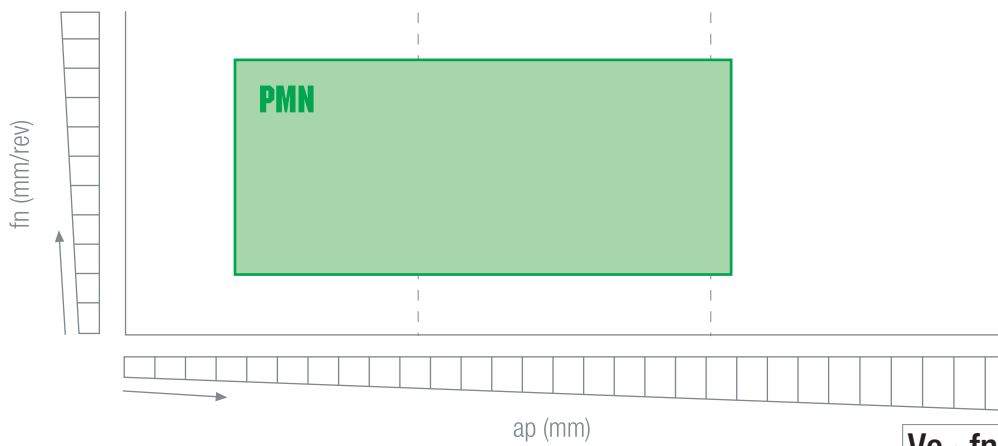
- TURNING
- MICRONEGA
- MICROBORING
- THREADING
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RANGE ISO **N** (POSITIVE)

GRADES



CHIPBREAKERS



$V_c \cdot f_n \cdot a_p$

POSITIVE 7° with hole

CC □ □

IC T od 7°

CC □ □	0602 □ □	09T3 □ □	1204 □ □
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
od	2,80	4,40	5,50

HOLDERS ▶ 127 127 127

DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE		CERMET		
	JC7005	JC7010	JC7020	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015	
 PMU 	CCMT 060202-PMU	○		○	●		●			●			●	
	060204-PMU	●		●	●		●			●			●	
	060208-PMU	●		●	●		●			●			●	
	CCMT 09T302-PMU	○		●	●		●			●			●	
	09T304-PMU	●		●	●		●			●			●	
	09T308-PMU	●	●	●	●		●			●			●	
	CCMT 120404-PMU	●		●	●		●			●			○	
	120408-PMU	●	●	●	●		●			●			○	
	120412-PMU	●		●	●		●							
 PMN 	POLISHED	CCGX 060202-PMN									●			
		060204-PMN									●	●		
		060208-PMN									○	●		
		CCGX 09T302-PMN									●	●		
		09T304-PMN									●	●		
		09T308-PMN									○	●		
		CCGX 120404-PMN									●	●		
		120408-PMN									●	●		

●, ○ = NEW ITEM

finishing medium roughing

Vc · fn · ap ▶ 39

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

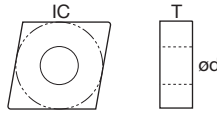
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NEGATIVE with hole

CN□□



CN□□	1204□□	1606□□	1906□□	2509□□
IC	12,70	15,875	19,05	25,40
T	4,76	6,35	6,35	9,52
Ød	5,16	6,35	7,93	9,12
HOLDERS	131	131	131	-

DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET						
	JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015			
 CNMG 120404-NMK 120408-NMK 120412-NMK 120416-NMK CNMG 160608-NMK 160612-NMK 160616-NMK CNMG 190612-NMK 190616-NMK	●	●	○														
	 CNMG 120408-NRK 120412-NRK 120416-NRK CNMG 160612-NRK 160616-NRK CNMG 190612-NRK 190616-NRK	●	●	●													
		 CNMA 120404 120408 120412 120416 CNMA 160612 160616 CNMA 190612 190616	●	●	●												
			 CNMG 120404-NSP 120408-NSP					●									★
				 CNMG 120404-NFP 120408-NFP 120412-NFP					●	●							
			 CNMG 120404-NMP 120408-NMP 120412-NMP 120416-NMP CNMG 160608-NMP 160612-NMP 160616-NMP CNMG 190612-NMP 190616-NMP						●	●							
								●	●								●
						●	●										
					●	●											

●, ○ = NEW ITEM
 finishing
 medium
 roughing
Vc · fn · ap
39

NEGATIVE with hole

CN □ □

CN □ □	1204 □ □	1606 □ □	1906 □ □	2509 □ □
IC	12,70	15,875	19,05	25,40
T	4,76	6,35	6,35	9,52
Ød	5,16	6,35	7,93	9,12
HOLDERS				

DESCRIPTION		CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET				
		JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015	
NUP		CNMG 120404-NUP				★	●	●								
		CNMG 120408-NUP				★	●	●								
		CNMG 120412-NUP				★	●	●								
		CNMG 120416-NUP				★	●	●								
		CNMG 160608-NUP					○	○								
		CNMG 160612-NUP					●	●		○						
NRP		CNMG 120408-NRP				●	●	●								
		CNMG 120412-NRP				●	●	●								
		CNMG 120416-NRP				●	●	●								
		CNMG 160612-NRP				●	●	●								
		CNMG 160616-NRP				●	●	●								
		CNMG 190612-NRP					●	●								
NTP		CNMG 120408-NTP				●	●									
		CNMG 120412-NTP				●	●									
		CNMG 160612-NTP				●	●									
		CNMG 190612-NTP				●	●									
MRP		CNMM 190624-MRP						●	●							
		CNMM 250924-MRP							●	●						
		CNMM 250932-MRP														
NMU		CNMG 120408 ^R /L-NMU						○	★							
NFM		CNMG 120404-NFM								●						
		CNMG 120408-NFM								●						
		CNMG 120412-NFM														
NMM		CNMG 120404-NMM						●	●	●					●	
		CNMG 120408-NMM						●	●	●					●	
		CNMG 120412-NMM						●	●	●						
		CNMG 120416-NMM						○	○	○						
		CNMG 160608-NMM						●	●	○						
		CNMG 160612-NMM						●	●	●						
		CNMG 160616-NMM						●	●	●						
		CNMG 190612-NMM						○	○	○						
CNMG 190616-NMM						○	○	○								

●, ○ = NEW ITEM

finishing

medium

roughing

Vc · fn · ap

TURNING

MICROBORING

THREADING

GROOVING

MILLING

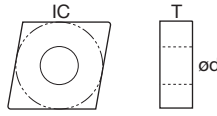
DRILLING

SPARE PARTS

INDEX

NEGATIVE
with hole

CN



CN 1204 1606 1906 2509

IC	12,70	15,875	19,05	25,40
T	4,76	6,35	6,35	9,52
Ød	5,16	6,35	7,93	9,12


HOLDERS	<input type="checkbox"/> 131	<input type="checkbox"/> 131	<input type="checkbox"/> 131	<input type="checkbox"/> -
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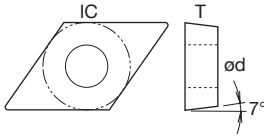
DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET				
	JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015	
CNGG 120404-NMN 120408-NMN 120412-NMN													•		
													•		
													•		

finishing medium roughing


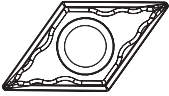

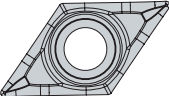
Vc · fn · ap 39




- TURNING
- MICRONEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

POSITIVE 7° with hole
DC □ □ 



DC □ □	0702 □ □	11T3 □ □	1504 □ □
IC	6,35	9,525	12,70
T	2,38	3,97	4,76
Ød	2,80	4,40	5,60
HOLDERS	135	135	-

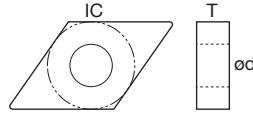
DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET			
	JC7005	JC7010	JC7020	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JU6010	JU6020	JU4015	
 PMU 	DCMT 070202-PMU	○		●	●		○			●			●	
	070204-PMU	●		●	●		●			●			●	
	070208-PMU	○		○	●					●			●	
	DCMT 11T302-PMU	○		●	●		●			●			●	
	11T304-PMU	●		●	●		●			●			●	
	11T308-PMU	●		●	●		●			●			●	
	DCMT 150404-PMU	○		○	●		○							
	150408-PMU	○		○	●		●							
	150412-PMU	○		○	●		●							
 PMN 	DCGX 070202-PMN										●			
	070204-PMN										○	●		
	070208-PMN											●		
	DCGX 11T302-PMN										●			
	11T304-PMN										●	●		
	11T308-PMN											●		

●, ○ = NEW ITEM  finishing  medium  roughing Vc · fn · ap  39

TURNING
MICROMEGA
MICROBORING
THREADING
GROOVING
MILLING
DRILLING
SPARE PARTS
INDEX

NEGATIVE
with hole

DN



DN 1104 1506

IC	9,525	12,70
T	4,76	6,35
Od	3,81	5,16

HOLDERS 141 141

DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET				
	JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015	
 DNMG 150604-NMK DNMG 150608-NMK DNMG 150612-NMK		●	○												
		●	○												
		●	○												
 DNMG 150608-NRK DNMG 150612-NRK		●	○												
		●	○												
 DNMA 150608 DNMA 150612		●	○												
		●	○												
 DNMG 110404-NSP DNMG 110408-NSP DNMG 150604-NSP DNMG 150608-NSP					●									★	
					●										★
					●										★
					●										★
 DNMG 110404-NFP DNMG 110408-NFP DNMG 150604-NFP DNMG 150608-NFP					●	●									
					●	●									
					●	●									
 DNMG 110404-NMP DNMG 110408-NMP DNMG 150604-NMP DNMG 150608-NMP DNMG 150612-NMP DNMG 150616-NMP					●	●									
					●	●									
					●	●									
					●	●									
					●	●									
 DNMG 110404-NUP DNMG 110408-NUP DNMG 150604-NUP DNMG 150608-NUP DNMG 150612-NUP					●	●									
					●	●									
				★	●	●		●							
				★	●	●		●							
 DNMG 150608-NRP DNMG 150612-NRP DNMG 150616-NRP					●	●	●								
					●	●	●								
				★	●	●	●								
 DNMG 150608-NTP DNMG 150612-NTP					●	●									
					●	●									
 DNMG 150604 ^R /L-NMU DNMG 150608 ^R /L-NMU					○	●		★							
					○	●		★							

●, ○ = NEW ITEM



finishing



medium



roughing

Vc · fn · ap

39

NEGATIVE with hole

DN

DN 	1104 	1506
IC	9,525	12,70
T	4,76	6,35
Ød	3,81	5,16
HOLDERS	141	141

DESCRIPTION		CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET					
		JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015		
NFM	 DNMG 110404-NFM DNMG 110408-NFM DNMG 150604-NFM DNMG 150608-NFM								●								
										●							
											●						
NMM	 DNMG 110404-NMM DNMG 110408-NMM DNMG 150604-NMM DNMG 150608-NMM DNMG 150612-NMM							●		●							
									●		●						
									●		●						
									●		●						
									●		●						
NMN	 DNGG 150604-NMN DNGG 150608-NMN												●				
														●			

●, ○ = NEW ITEM

finishing medium roughing

Vc · fn · ap

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TURNING

MICROBORING

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

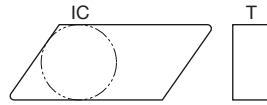
SPARE PARTS

INDEX

**NEGATIVE
without hole**

NEW

KN □ □



KN □ □ 1604 □ □

IC 9,525

T 4,76

Od -

HOLDERS



TURNING

MICRONEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET			
	JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015
KNUX 160405 ^R /L-11 160410 ^R /L-11						●								
						●								

●, ○ = NEW ITEM



finishing




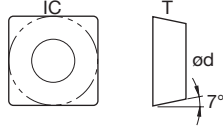
medium



roughing

POSITIVE 7° with hole



SC □ □

SC □ □	09T3 □ □	1204 □ □
IC	9,525	12,70
T	3,97	4,76
Ød	4,40	5,50
HOLDERS	144	144

DESCRIPTION		CARBIDE-CVD					CARBIDE-PVD			CARBIDE		CERMET			
		JC7005	JC7010	JC7020	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JJ6010	JJ6020	JJ4015	
PMU	SCMT	09T304-PMU	●			●	●							●	
		09T308-PMU	●			●	●							●	
	SCMT	120404-PMU	○			●	●								
		120408-PMU	●			●	●								
PMN	POLISHED	SCGX 09T304-PMN									○	●			
		SCGX 09T308-PMN									○	●			
		SCGX 120404-PMN									○	●			
		SCGX 120408-PMN									○	●			

●, ○ = NEW ITEM

 finishing  medium  roughing

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TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

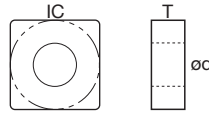
DRILLING

SPARE PARTS

INDEX

NEGATIVE
with hole

SN



SN <input type="text"/>	0903 <input type="text"/>	1204 <input type="text"/>	1906 <input type="text"/>	2509 <input type="text"/>
IC	9,525	12,70	19,05	25,40
T	3,18	4,76	6,35	9,52
Ød	3,81	5,16	7,93	8,80
HOLDERS	<input type="text"/>	145	145	<input type="text"/>

DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET			
	JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015
SNMG 120408-NMK SNMG 120412-NMK		●	○											
		●	○											
SNMG 120408-NRK SNMG 120412-NRK SNMG 120416-NRK SNMG 190612-NRK SNMG 190616-NRK		●	○											
		●	○											
		○	○											
		○	○											
SNMA 090308 SNMA 120408 SNMA 120412 SNMA 120416		●	○											
		●	○											
		●	○											
		●	○											
SNMG 120404-NSP SNMG 120408-NSP					●									★
					●									★
SNMG 120404-NFP SNMG 120408-NFP					●	●								
					●	●								
SNMG 120404-NMP SNMG 120408-NMP SNMG 120412-NMP SNMG 120416-NMP					●	●								
					●	●								
					○	○								
					○	○								
SNMG 120404-NUP SNMG 120408-NUP SNMG 120412-NUP SNMG 120416-NUP					○	○								
					○	○								
					○	○								
					○	○								
SNMG 120408-NRP SNMG 120412-NRP SNMG 120416-NRP SNMG 190612-NRP SNMG 190616-NRP SNMG 190624-NRP						●	●							
						●	●							
						●	●							
						●	●							
						●	●							
SNMG 120408-NTP SNMG 120412-NTP					●	●								
					●	●								

●, ○ = NEW ITEM

finishing medium roughing

Vc · fn · ap 39

NEGATIVE with hole

SN □ □

SN □ □	0903 □ □	1204 □ □	1906 □ □	2509 □ □
IC	9,525	12,70	19,05	25,40
T	3,18	4,76	6,35	9,52
Ød	3,81	5,16	7,93	8,80
HOLDERS	-	145	145	-

DESCRIPTION		CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET				
		JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015	
MRP		SNMM 190624-MRP						●	●							
		SNMM 250924-MRP							●	●						
		250932-MRP														
NMU		SNMG 120408 ^R /L-NMU						○		★						
NFM		SNMG 120404-NFM								●						
		120408-NFM								●						
NMM		SNMG 120404-NMM						●		○						
		120408-NMM							●		○					
		120412-NMM							●		○					
		120416-NMM							○		○					
		SNMG 190612-NMM							○		○					
NMN		SNMG 190616-NMM						○		○						
		SNGG 120404-NMN												●		
		120408-NMN												●		
		SNGG 120412-NMN											●			

●, ○ = NEW ITEM

finishing

medium

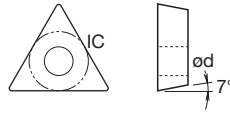
roughing

Vc · fn · ap

- TURNING
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

POSITIVE 7°
with hole

TC □ □



TC □ □	0902 □ □	1102 □ □	16T3 □ □	2204 □ □
IC	5,56	6,35	9,525	12,70
T	2,38	2,38	3,97	4,76
Ød	2,50	2,80	4,40	5,60
HOLDERS	149	149	149	-

DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE		CERMET	
	JC7005	JC7010	JC7020	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015
 PMU	TCMT 090204-PMU	●		●	●		●			●			●
	TCMT 110202-PMU	○		○	●		●			●			●
	110204-PMU	●		●	●		●			●			●
	110208-PMU	●		●	●		●			●			●
	TCMT 16T304-PMU	●		●	●		●			●			●
	16T308-PMU	●	●	●	●		●			●			●
	16T312-PMU	●		○	●								
TCMT 220408-PMU	○		○	●			○						
 PMN POLISHED	TCGX 090202-PMN										○		
	090204-PMN										○	●	
	TCGX 110202-PMN										○		
	110204-PMN										○	●	
	110208-PMN										○	●	
	TCGX 16T304-PMN										○	●	
16T308-PMN											●		

●, ○ = NEW ITEM

finishing medium roughing

Vc · fn · ap 39

NEGATIVE with hole

TN□□

TN□□	1604□□	2204□□
IC	9,525	12,70
T	4,76	4,76
Ød	3,81	5,16

HOLDERS 153

154

DESCRIPTION		CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET				
		JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015	
NMK		TNMG 160404-NMK	●	○												
		160408-NMK	●	○												
		160412-NMK	●	○												
		160416-NMK	○	○												
		TNMG 220408-NMK	●	○												
		220412-NMK	●	○												
NRK		TNMG 160408-NRK	○	○												
		160412-NRK	○	○												
		TNMG 220408-NRK	○	○												
		220412-NRK	●	○												
		220416-NRK	○	○												
(Flat)		TNMA 160404	●	○												
		160408	●	○												
		160412	●	○												
		160416	●	○												
		TNMA 220408	●	○												
		220412	●	○												
NSP		TNMG 160404-NSP				●									★	
		160408-NSP				●									★	
NFP		TNMG 160404-NFP				●	●									
		160408-NFP				●	●									
NMP		TNMG 160404-NMP				●	●								●	
		160408-NMP				●	●								●	
		160412-NMP				●	●									
		TNMG 220408-NMP				●	●									
NUP		TNMG 160404-NUP			★	●	●									
		160408-NUP			★	●	●		●							
		160412-NUP			★	●	●		●							
		TNMG 220408-NUP				○	○									
		220412-NUP				○	○									
		220416-NUP				○	○									
NRP		TNMG 160408-NRP					●	●								
		160412-NRP					●	●								
		TNMG 220412-NRP					●	●								
		220416-NRP					●	●								

●, ○ = NEW ITEM

finishing

medium

roughing

Vc · fn · ap

TURNING

MICROBORING

THREADING

GROOVING

MILLING

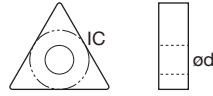
DRILLING

SPARE PARTS

INDEX

NEGATIVE
with hole

TN□□



TN□□ 1604□□ 2204□□

IC	9,525	12,70
T	4,76	4,76
Ød	3,81	5,16



DESCRIPTION	CARBIDE-CVD							CARBIDE-PVD			CARBIDE	CERMET		
	JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015
 TNMG 160404 ^R /L-NMU 160408 ^R /L-NMU					○	●		★						
					○	●		★						
 TNMG 160404-NFM 160408-NFM									●					
									●					
 TNMG 160404-NMM 160408-NMM 160412-NMM TNMG 220408-NMM 220412-NMM 220416-NMM								●	●	●				●
								●	●	●				●
								●		○				
								○		○				
								○		○				
								○		○				
 TNGG 160404-NMN 160408-NMN 160412-NMN												●		
												●		
												●		

●, ○ = NEW ITEM



Vc · fn · ap

POSITIVE 5° with hole

VB

NEW

VB	1604
IC	9,525
T	4,76
Ød	4,40
HOLDERS	158

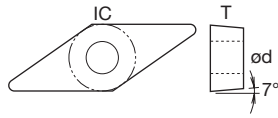
DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE		CERMET	
	JC7005	JC7010	JC7020	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JJ6010	JJ6020	JJ4015
 VBMT 160404-PMU 160408-PMU	●	○		●	●		●			●			●
		●		●	●		●			●			●

●, ○ = NEW ITEM
 finishing
 medium
 roughing
 Vc · fn · ap 39

TURNING
 MICRONEGA
 MICROBORING
 THREADING
 GROOVING
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 INDEX

POSITIVE 7°
with hole

VC □ □



VC □ □ 1103 □ □ 1604 □ □ 2205 □ □

IC	6,35	9,525	12,70
T	3,18	4,76	5,56
Od	2,80	4,40	5,60

HOLDERS

159

159

-

DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE		CERMET	
	JC7005	JC7010	JC7020	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015
 VCMT 110304-PMU VCMT 160404-PMU 160408-PMU		●		●	●		●			●			★
		●		●	●		●			●			★
		●		●	●		●			●			★
 POLISHED VCGX 110302-PMN 110304-PMN 110308-PMN VCGX 160402-PMN 160404-PMN 160408-PMN 160412-PMN VCGX 220530-PMN											●		
											○	●	
												●	
											○	●	
											●	●	
											○	●	
											●	●	
											●	●	

●, ○ = NEW ITEM



finishing



medium



roughing

Vc · fn · ap

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NEGATIVE with hole

VN □ □

VN □ □	1604 □ □
IC	9,525
T	4,76
Ød	3,81
	163

DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET				
	JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015	
VNMG 160404-NMK 160408-NMK 160412-NMK		●	○												
	VNMG 160408-NRK 160412-NRK		○	○											
		VNMG 160404-NSP 160408-NSP					●								
VNMG 160404-NFP 160408-NFP						●	●								
	VNMG 160404-NMP 160408-NMP 160412-NMP					●	●								●
VNMG 160404-NUP 160408-NUP 160412-NUP						○	○								
		VNMG 160404-NFM 160408-NFM								●					
	VNMG 160404-NMM 160408-NMM								●		○				
VNGG 160404-NMN 160408-NMN													●		

●, ○ = NEW ITEM finishing medium roughing Vc · fn · ap 39

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

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POSITIVE 7°
with hole

WC



WC 12T3

IC 9,525

T 3,97

Od 4,40

HOLDERS

166

DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE		CERMET	
	JC7005	JC7010	JC7020	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015
 WCMT 12T304-PMU 12T308-PMU		●		●	●		●						●
		●		●	●		●						

finishing
 medium
 roughing

Vc · fn · ap 39

- TURNING
- MICRONEGA
- MICROBORING
- THREADING
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- MILLING
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- SPARE PARTS
- INDEX

NEGATIVE with hole

WN

WN	0604	0804
IC	9,525	12,70
T	4,76	4,76
Ød	3,81	5,16
HOLDERS	167	167

DESCRIPTION		CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET				
		JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015	
MMK		WNMG 080404-NMK	●	○												
		080408-NMK	●	●	●											
		080412-NMK	●	●	●											
NRK		WNMG 060408-NRK		●	●											
		080408-NRK	●	●	●											
		080412-NRK	●	●	●											
(Flat)		WNMA 060404		○	○											
		060408		●	○											
		080408		●	○											
		080412		●	○											
		080416		○	○											
NSP		WNMG 060404-NSP						●							★	
		060408-NSP						●							★	
		080404-NSP						●							★	
		080408-NSP						●							★	
NFP		WNMG 060404-NFP					●	●								
		060408-NFP					●	●								
		080408-NFP					●	●								
NMP		WNMG 060404-NMP					●	●								
		060408-NMP					●	●								
		080404-NMP					●	●							●	
		080408-NMP					●	●							●	
		080412-NMP					●	●								
NUP		WNMG 060404-NUP					●	●								
		060408-NUP					●	●								
		080404-NUP				★	●	●								
		080408-NUP				★	●	●	●							
		080412-NUP				★	●	●	●							
NRP		WNMG 080408-NRP					●	●	●							
		080412-NRP					●	●	●							
		080416-NRP					●	●	●							
NTP		WNMG 080408-NTP					●	●								
		080412-NTP					●	●								

●, ○ = NEW ITEM

finishing

medium

roughing

Vc · fn · ap 39

TURNING

MICROBORING

THREADING

GROOVING

MILLING

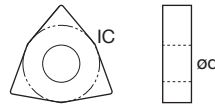
DRILLING

SPARE PARTS

INDEX

NEGATIVE
with hole

WN



WN 0604 0804

IC	9,525	12,70
T	4,76	4,76
Ød	3,81	5,16



TURNING

MICRONEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

DESCRIPTION	CARBIDE-CVD						CARBIDE-PVD			CARBIDE	CERMET			
	JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JUG010	JUG020	JU4015
WNMG 060404-NFM WNMG 060408-NFM WNMG 080404-NFM WNMG 080408-NFM									●					
									●					
									●					
									●					
WNMG 060404-NMM WNMG 060408-NMM WNMG 080404-NMM WNMG 080408-NMM WNMG 080412-NMM								●		●				
								●		●				
								●	●	●				●
								●	●	●				●
WNGG 060404-NMN WNGG 060408-NMN WNGG 080404-NMN WNGG 080408-NMN WNGG 080412-NMN													●	
													●	
													●	
													●	

●, ○ = NEW ITEM



Vc · fn · ap

39



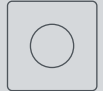



CUTTING PARAMETERS Vc (m/min)

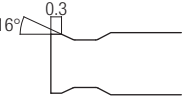
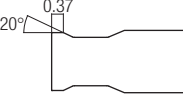
K	KG	GREY CAST IRON	M	MM	MARTENSITIC AND FERRITIC STAINLESS STEEL
		GHISA GRIGIA			ACCIAI INOSSIDABILI MARTENSITICI E FERRITICI
		GRAUGUSS			MARTENSITISCHE UND FERRITISCHE ROSTFREIE STÄHLE
		FONTE GRISE			ACIERS INOXYDABLES MARTENSITIQUES ET FERRITIQUES
		FUNDICIÓN GRIS			ACEROS INOXIDABLES AUSTENITICOS Y FERRITICOS
		ЧУГУН			МАРТЕНСИТНЫЕ И ФЕРРИТНЫЕ НЕРЖАВЕЮЩИЕ СТАЛИ
K	KN	NODULAR CAST IRON	M	MA	AUSTENITIC STAINLESS STEEL
		GHISA SFEROIDALE			ACCIAI INOSSIDABILI AUSTENITICI
		SPHÄROGUSS			AUSTENITISCHE ROSTFREIE STÄHLE
		FONTE NODULAIRE			ACIERS INOXYDABLES AUSTENITIQUES
		FUNDICIÓN NODULAR			ACEROS INOXIDABLES AUSTENITICOS
		ЧУГУН С ШАРОВИДНЫМ ГРАФИТОМ			АУСТЕНИТНЫЕ НЕРЖАВЕЮЩИЕ СТАЛИ
P	PL	LOW CARBON AND FREE CUTTING STEEL	N	NA	ALUMINUM ALLOYS
		ACCIAI A BASSO TENORE DI CARBONIO ED AUTOMATICI			LEGHE DI ALLUMINIO
		KOHLENSTOFFARME STÄHLE			ALUMINIUMLEGIERUNGEN
		ACIERS BAS CARBONE ET POUR DÉCOLLETAGE			ALLIAGES D'ALUMINIUM
		ACEROS DE BAJO CARBONO			ALEACIONES DE ALUMINIO
		НИЗКОУГЛЕРОДИСТАЯ И АВТОМАТНАЯ СТАЛЬ			СПЛАВЫ АЛЮМИНИЯ
P	PM	MEDIUM CARBON STEEL	N	NH	ALUMINUM ALLOYS AGED AND HARDENED
		ACCIAI A MEDIO TENORE DI CARBONIO			LEGHE DI ALLUMINIO TRATTATE ED INVECCHiate
		MITTELGEKOHLTE FLUSSSTÄHLE			GEALTERTE UND BEHANDELTE ALUMINIUMLEGIERUNGEN
		ACIERS MOYEN CARBONE			ALLIAGES D'ALUMINIUM TRAITÉES ET VIEILLIES
		ACEROS DE MEDIO CARBONO			ALEACIONES DE ALUMINIO TRATADAS Y ENVEJACIDAS
		СРЕДНЕУГЛЕРОДИСТАЯ СТАЛЬ			СПЛАВЫ АЛЮМИНИЯ ОБРАБОТАННЫЕ И СОСТАРЕННЫЕ
P	PH	HIGH CARBON STEEL	N	NB	BRASS
		ACCIAI AD ELEVATO TENORE DI CARBONIO			OTTONE
		KOHLENSTOFFREICHE STÄHLE			MESSING
		ACIERS HAUT CARBONE			LAITON
		ACEROS DE ALTO CARBONO			LATÓN
		ВЫСОКОУГЛЕРОДИСТАЯ СТАЛЬ			ЛАТУНЬ
P	PA	ALLOY STEEL	N	NC	BRONZE AND ELECTROLYTIC COPPER
		ACCIAI LEGATI			BRONZO E RAME ELETTRolitICO
		LEGIERTE STÄHLE			ELEKTROLYTISCHES KUPFER UND BRONZE
		ACIERS ALLIÉS			BRONZE ET CUIVRE ÉLECTROLYTIQUE
		ACEROS ALEADOS			BRONCE Y COBRE ELECTROLÍTICO
		СРЕДНЕЛЕГИРОВАННАЯ СТАЛЬ			БРОНЗА И ЭЛЕКТРОЛИТИЧЕСКАЯ МЕДЬ

MATERIAL	CARBIDE-CVD							CARBIDE-PVD			CARBIDE	CERMET			
	JC7005	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9025	JP9015	JP9030	JP5025	JU6010	JU6020	JU4015	
K	KG	250~400	200~360	160~300								100~170			250~400
	KN	180~300	150~280	120~250								80~150			180~300
P	PL				300~420	250~350	200~320	160~250				100~180			280~380
	PM				260~360	220~300	180~260	140~200				80~160			240~330
	PH				240~340	200~280	160~250	120~180				80~140			220~300
	PA				220~300	180~250	150~220	100~170				60~120			200~280
M	MM							150~230	120~220	100~150	80~120				180~250
	MA							120~180	100~180	80~120	60~100				160~220
N	NA											600~2000	500~1500		
	NH											400~900	300~700		
	NB											300~500	250~400		
	NC											200~350	150~250		

CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

negative 



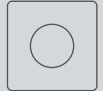



NEGATIVE INSERT SIZE		CN□□	-	1204...	1606...	1906...	2509...
		DN□□	1104...	1506...	-	-	-
		SN□□	0903...	1204...	-	1906...	2509...
		TN□□	-	1604...	2204...	-	-
		VN□□	-	1604...	-	-	-
		WN□□	0604...	0804...	-	-	-

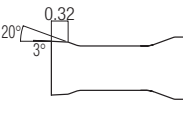
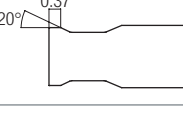
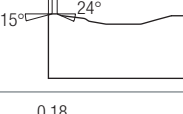

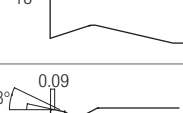
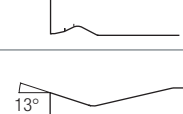

K		NMK	a_p (mm)	1.00~4.00	2.00~7.00	3.00~9.00			
			f_n (mm/rev)	R04: 0.16~0.27 R08: 0.22~0.38 R12: 0.26~0.44 R16: 0.29~0.50	R08: 0.27~0.46	R12: 0.32~0.53 R16: 0.35~0.60	R12: 0.34~0.58 R16: 0.38~0.65		
			a_p (mm)	1.00~3.50	2.00~5.00	4.00~8.00	5.00~11.00		
P		NRK	f_n (mm/rev)	R08: 0.23~0.39 R12: 0.33~0.56 R16: 0.37~0.63	R08: 0.28~0.48 R12: 0.40~0.68 R16: 0.45~0.76	R08: 0.34~0.58 R12: 0.40~0.70 R16: 0.45~0.78	R12: 0.43~0.73 R16: 0.49~0.82		
			(Flat)	a_p (mm)	1.00~4.00	2.00~6.00	4.00~10.00	5.00~13.00	
				f_n (mm/rev)	R04: 0.16~0.28 R08: 0.23~0.40 R12: 0.33~0.58 R16: 0.37~0.65	R04: 0.20~0.35 R08: 0.28~0.50 R12: 0.33~0.58 R16: 0.45~0.78	R08: 0.34~0.60 R12: 0.40~0.70 R16: 0.45~0.78	R12: 0.43~0.76 R16: 0.49~0.85	
NSP	a_p (mm)	0.35~1.50		0.50~2.00					
	f_n (mm/rev)	R04: 0.05~0.17 R08: 0.07~0.24	R04: 0.06~0.21 R08: 0.08~0.30						
	NFP	a_p (mm)	0.70~2.00	1.00~2.50					
f_n (mm/rev)		R04: 0.05~0.15 R08: 0.07~0.20	R04: 0.06~0.18 R08: 0.08~0.25 R12: 0.10~0.29						
NUP		a_p (mm)	0.70~3.50	1.00~4.50	2.00~8.00	3.00~10.00			
	f_n (mm/rev)	R04: 0.09~0.20 R08: 0.12~0.28 R12: 0.15~0.33 R16: 0.20~0.46	R04: 0.11~0.25 R08: 0.15~0.35 R12: 0.18~0.41 R16: 0.24~0.56	R08: 0.18~0.42 R12: 0.22~0.50 R16: 0.24~0.56	R08: 0.20~0.46 R12: 0.24~0.54 R16: 0.26~0.60				
	NMP	a_p (mm)	1.00~3.00	1.50~4.00	3.00~7.00	4.00~9.00			
f_n (mm/rev)		R04: 0.11~0.20 R08: 0.15~0.27	R04: 0.13~0.24 R08: 0.18~0.33 R12: 0.21~0.38 R16: 0.24~0.43	R08: 0.22~0.40 R12: 0.26~0.46 R16: 0.29~0.52	R12: 0.28~0.50 R16: 0.32~0.56				

Cermet JU4015 f_n -15%

CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

negative 

NEGATIVE INSERT SIZE		CN□□	-	1204...	1606...	1906...	2509...
		DN□□	1104...	1506...	-	-	-
		SN□□	0903...	1204...	-	1906...	2509...
		TN□□	-	1604...	2204...	-	-
		VN□□	-	1604...	-	-	-
		WN□□	0604...	0804...	-	-	-



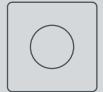



P		NRP	a_p (mm)	2.50~5.50	4.00~9.00	6.00~12.00	
			f_n (mm/rev)	R08: 0.25~0.45 R12: 0.29~0.52 R16: 0.33~0.59	R12: 0.35~0.63 R16: 0.40~0.71	R12: 0.38~0.68 R16: 0.43~0.77 R24: 0.49~0.86	
P		NTP	a_p (mm)	3.00~6.00	5.00~10.00	7.00~13~00	
			f_n (mm/rev)	R08: 0.28~0.50 R12: 0.33~0.58	R12: 0.40~0.70 R16: 0.45~0.78	R12: 0.43~0.76 R16: 0.49~0.85	
P M		MRP	a_p (mm)			6.00~13.00	8.00~18.00
			f_n (mm/rev)			R16: 0.35~0.80 R24: 0.40~0.90	R24: 0.50~1.10
P M		NMU	a_p (mm)	1.00~4.50			
			f_n (mm/rev)	R04: 0.14~0.28 R08: 0.20~0.40			
M		NFM	a_p (mm)	0.35~1.50	0.50~2.00		
			f_n (mm/rev)	R04: 0.05~0.17 R08: 0.07~0.24	R04: 0.06~0.21 R08: 0.08~0.30		
M		NMM	a_p (mm)	1.00~3.00	1.50~4.00	3.00~7.00	4.00~9.00
			f_n (mm/rev)	R04: 0.13~0.23 R08: 0.18~0.32	R04: 0.16~0.28 R08: 0.22~0.40 R12: 0.26~0.46	R08: 0.27~0.48 R12: 0.32~0.56 R16: 0.35~0.63	R12: 0.34~0.60 R16: 0.38~0.68
N		NMN	a_p (mm)	0.70~2.50	1.00~3.50		
			f_n (mm/rev)	R04: 0.09~0.23 R08: 0.12~0.32	R04: 0.11~0.28 R08: 0.15~0.40 R12: 0.18~0.46		


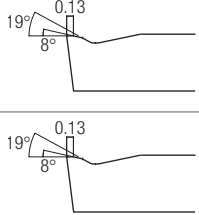

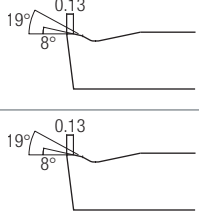

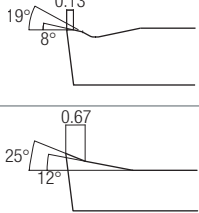

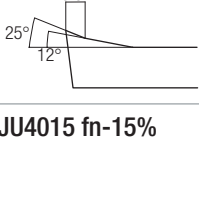
Cermet JU4015 f_n -15%

TURNING
MICROBORING
MICROBORING
THREADING
GROOVING
MILLING
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SPARE PARTS
INDEX

CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

positive 

POSITIVE INSERT SIZE		CC□□	0602...	09T3...	1204...	-	
		DC□□	0702...	11T3...	1504...	-	
		SC□□	-	09T3...	1204...	-	
		TC□□	0902...	1102...	16T3...	2204...	
		VB / VC□□	-	1103...	1604...	2205...	
		WC□□	-	12T3...	-	-	

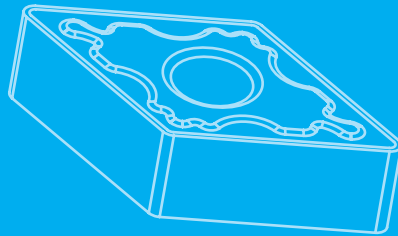
 	PMU	a_p (mm)	0.50~1.50	0.80~2.50	1.50~4.50	2.00~6.00
		f_n (mm/rev)	R02: 0.06~0.15	R02: 0.07~0.18		
			R04: 0.08~0.20	R04: 0.10~0.25	R04: 0.12~0.30	
			R08: 0.10~0.24	R08: 0.12~0.29	R08: 0.15~0.35	R08: 0.18~0.44
 	PMU	a_p (mm)	0.50~1.50	0.80~2.50	1.50~4.50	2.00~6.00
		f_n (mm/rev)	R02: 0.06~0.13	R02: 0.07~0.16		
			R04: 0.08~0.18	R04: 0.10~0.22	R04: 0.12~0.27	
			R08: 0.10~0.21	R08: 0.12~0.26	R08: 0.15~0.32	R08: 0.18~0.39
 	PMU	a_p (mm)	0.50~1.50	0.80~2.50	1.50~4.50	2.00~6.00
		f_n (mm/rev)	R02: 0.04~0.12	R02: 0.05~0.14		
			R04: 0.06~0.16	R04: 0.07~0.20	R04: 0.09~0.24	
			R08: 0.08~0.19	R08: 0.09~0.23	R08: 0.11~0.28	R08: 0.14~0.35
 	PMN	a_p (mm)	0.50~2.00	0.80~3.00	1.50~5.50	2.00~7.00
		f_n (mm/rev)	R02: 0.05~0.15	R02: 0.06~0.18	R02: 0.07~0.21	
			R04: 0.07~0.20	R04: 0.08~0.25	R04: 0.10~0.30	
			R08: 0.08~0.24	R08: 0.10~0.29	R08: 0.12~0.35	R30: 0.27~0.66
				R12: 0.14~0.40		

Cermet JU4015 f_n -15%

- TURNING
- MICRONEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX







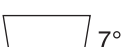












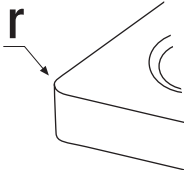







TURNING / PCBN



ISO 1832

C	N	G	A	120408	-4E	V	-GP	NB	S	9000		
1	2	3	4	5	6	7	8	9	10	11	12	13

1	GEOMETRY	2	CLEARANCE ANGLE	3	TOLERANCE [mm]	4	SHAPE
C		B			 	A	
D		C		G	± 0.025 ± 0.13	N	
R		N		M	± 0.05 ~ 0.15 ± 0.13	W	
S		P				X	NIKKO NORM
T							
V							
W							

5	EDGE LENGTH [mm]	6	THICKNESS [mm]	7	RADIUS [mm]
06 09 12	C 	02	2.38		
07 11 15	D 	03	3.18		
06 09 12	R 	T3	3.97		
09 12	S 	04	4.76		
08 09 11 16	T 	06	6.35		
11 16	V 				
08	W 				
				00  inch	

C	N	G	A	12	04	08	-	4E	V	-	GP	NB	S	9000
1	2	3	4	5	6	7		8	9		10	11	12	13

8	NR. OF EDGES
2E	
3E	
4E	
6E	
8E	

9	TIP STYLE
V	vertical
-	carbide reinforced

10	EDGE PREPARATION
CC	
CS	
GP	
GS	
HI	
WH wiper	

11	PCBN STYLE
NB	NIKKO PCBN

12	PCBN STYLE
S	solid
	vertical
-	carbide reinforced

13	APPLICATION
0~3 _{□□}	ISO H
4~5 _{□□}	ISO K S
9 _{□□}	UNIVERSAL

TURNING

MICROBORA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

GRADES

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
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- DRILLING
- SPARE PARTS
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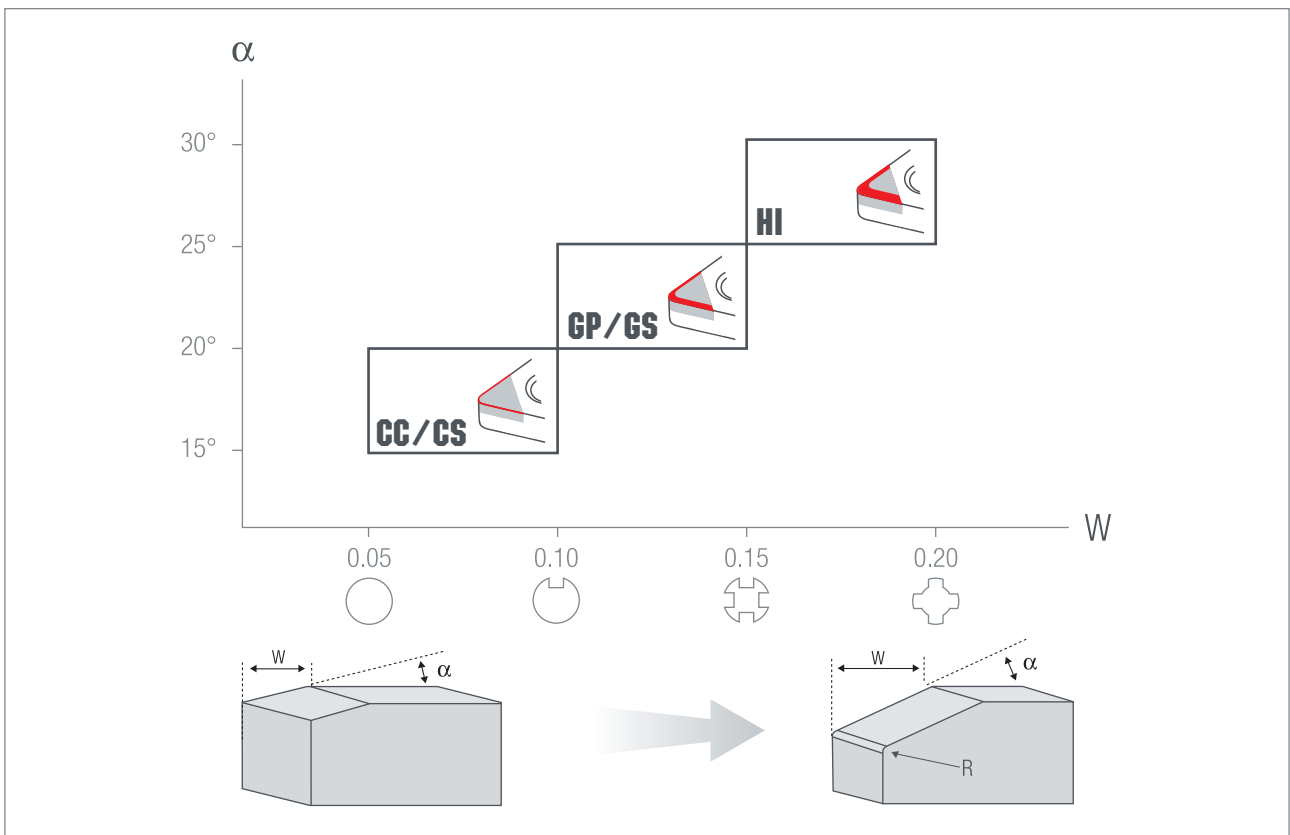
	ISO DIN 513														
	H					K					S				
	H01	H10	H20	H30	H40	K01	K10	K20	K30	K40	S01	S10	S20	S30	S40
PCBN-Carbide reinforced	NB050														
	NB150					NB400									
	NB200					NB450					NB440				
	NB250					NB500									
	NB300					NB550									
	NB350														
PCBN-Vertical & Solid (NBS Series)	NBS050														
	NBS150					NBS450									
	NBS200					NBS500									
	NBS250					NBS9000									
	NBS300					NBS9050									
	NBS350					NBS9090									
	NBS9000														
	NBS9050														
	NBS9090														

COATED

INSERT STYLE

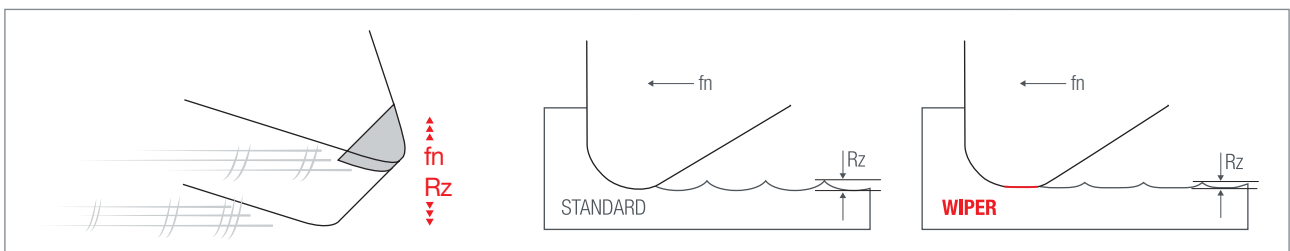


EDGE PREPARATION



CS, GS available only for positive inserts.

WIPER



TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

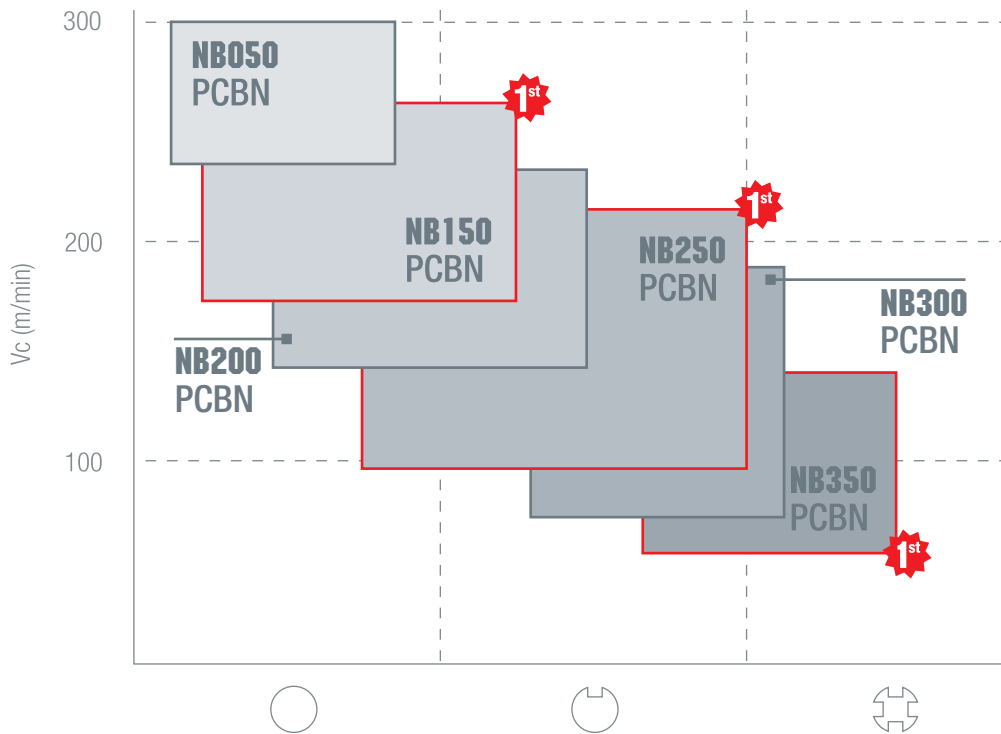
DRILLING

SPARE PARTS

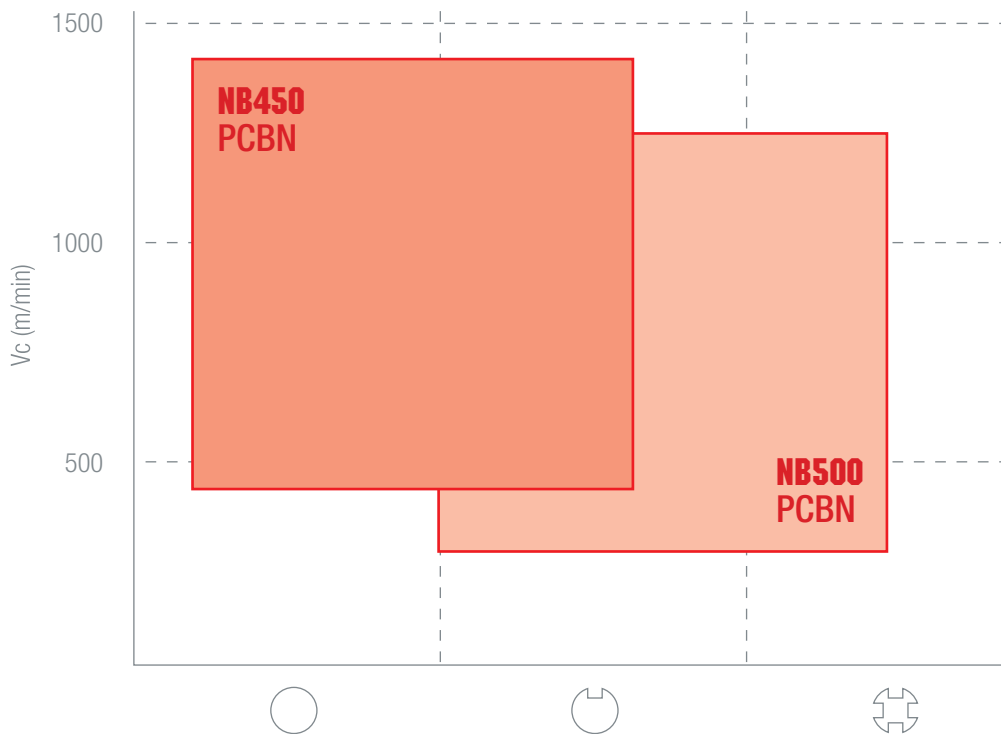
INDEX

- TURNING
- MICROMEGA
- MICROBORING
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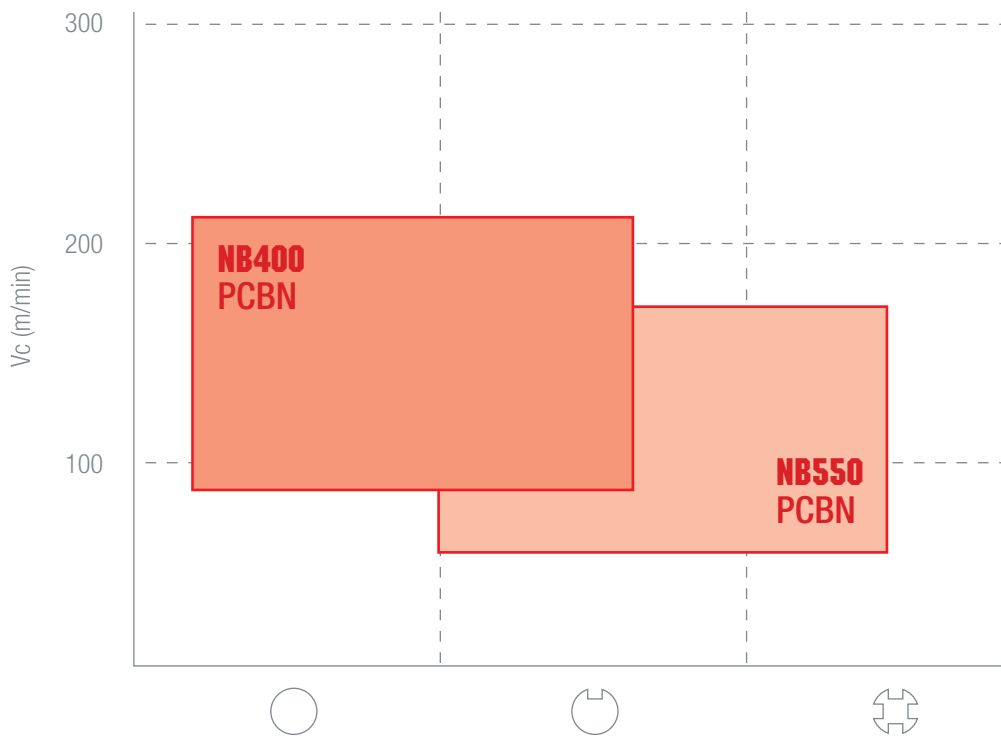
RANGE ISO **H** PCBN-Carbide reinforced



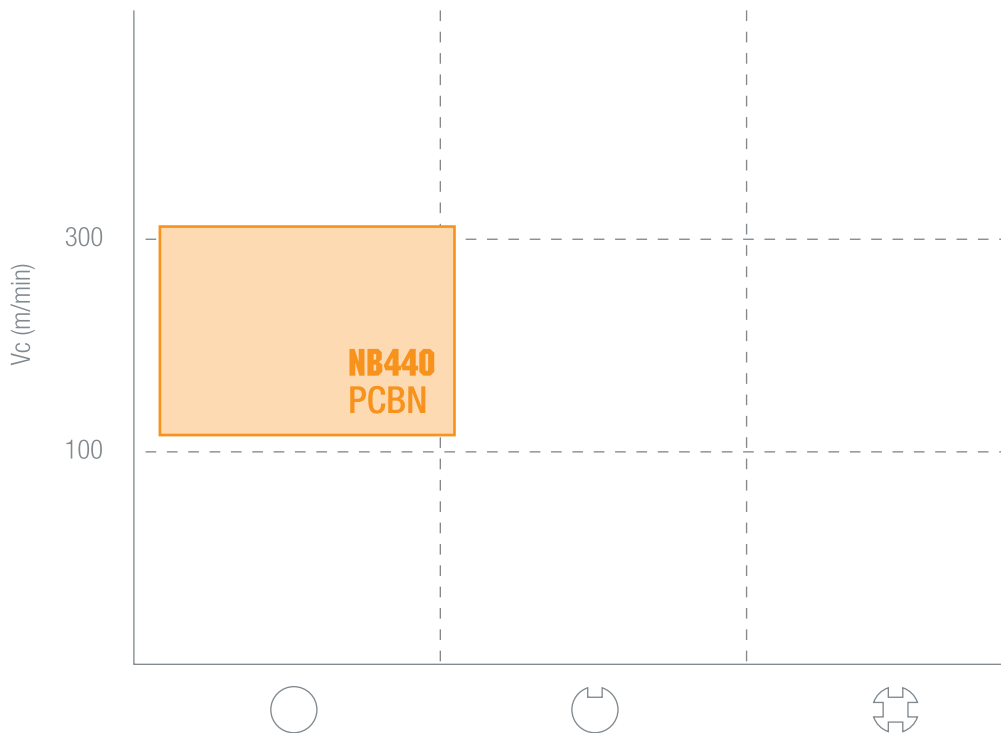
RANGE ISO **K** PCBN-Carbide reinforced



RANGE ISO K (Powder Metal) PCBN-Carbide reinforced



RANGE ISO S PCBN-Carbide reinforced



Vc · fn · ap

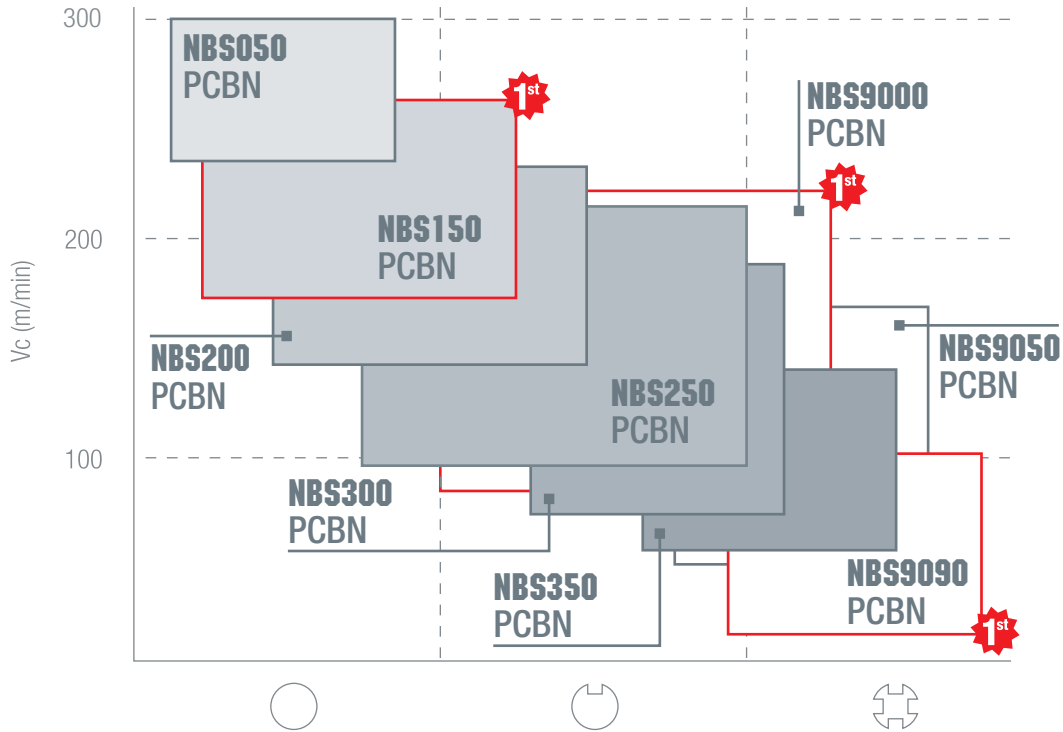


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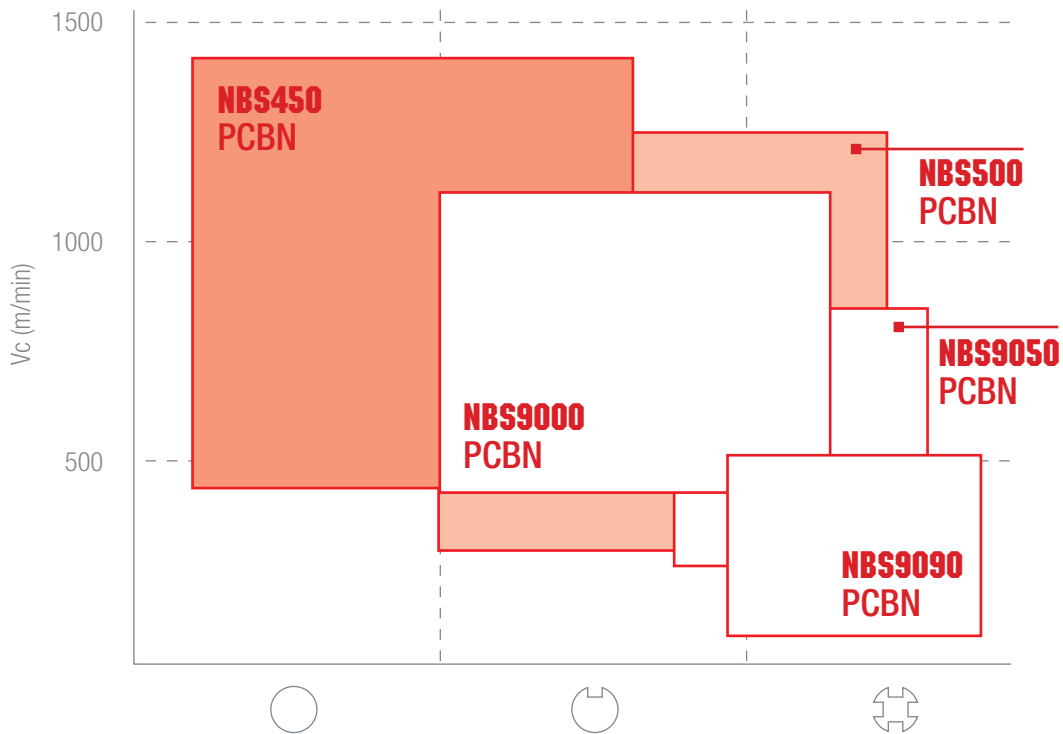
- TURNING
- MICROMEGA
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RANGE ISO **H** PCBN-Vertical & Solid (NBS Series)



RANGE ISO **K** PCBN-Vertical & Solid (NBS Series)



$V_c \cdot f_n \cdot a_p$

POSITIVE 7° with hole

CC □ □

CC □ □	0602 □ □	09T3 □ □	1204 □ □
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
Ød	2,80	4,40	5,50

HOLDERS ▶ 127 127 127

DESCRIPTION		IC	T	PCBN-Carbide reinforced													
				NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB440			
CC		CCGW	060202-2E-CC		2.8	●		○									
					2.8	○			●							■	
					2.7	●			●				●			■	
					2.8		○										
					2.8	○	●		●				●			■	
					2.7	●		●				●				■	
CS		CCGW	060202-2E-CS		2.8		○	○									
					2.8		●	●									
					2.7		○	○									
					2.8		○	○									
					2.8		●	●									
					2.7		○	○									
GP		CCGW	060202-2E-GP		2.8					●							
					2.8	○	●		●		●	●			■		
					2.7		○		●		●	●					
					2.8				●		●	●					
					2.8	○	●		●		●	●			■		
					2.7		●		●		●	●					
GS		CCGW	060204-2E-GS		2.8			●	○	●							
					2.7			○	○	○							
					2.8			●	○	●							
					2.7			●	○	●							
HI		CCGW	060204-2E-HI		2.8					●			○				
					2.7					●			○				
					2.8					●			○				
					2.7					●			○				
WH WIPER		CCGW	09T304-2E-WH		2.8	●	○			○							
					2.7	●	○			○							

●, ○ = NEW ITEM

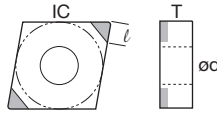
Vc · fn · ap ▶

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- TURNING
- MICROBORING
- MICROBORING
- THREADING
- THREADING
- GROOVING
- GROOVING
- MILLING
- MILLING
- DRILLING
- DRILLING
- SPARE PARTS
- SPARE PARTS
- INDEX
- INDEX

NEGATIVE
with hole

CN □ □



CN □ □ 1204 □ □

IC 12,70
T 4,76
ød 5,16



TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

DESCRIPTION		e	PCBN-Carbide reinforced													
			NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB440			
CC	CNGA 120404-2E-CC 120408-2E-CC 120412-2E-CC		2.8	○	●		●					○	●			
			2.7	○	●		●					○	●			
			2.6	○	●		●						○	●		
GP	CNGA 120404-2E-GP 120408-2E-GP 120412-2E-GP		2.8	○	●		●		●		●	●				
			2.7	○	●		●		●		●	●	●	○	■	
			2.6	○	●		●		●		●	●	●	●	○	
HI	CNGA 120404-2E-HI 120408-2E-HI 120412-2E-HI		2.8				●									
			2.7		●		●						○			
			2.6		●		●						○			
WH WIPER	CNGA 120404-2E-WH 120408-2E-WH 120412-2E-WH		2.8	●	●					●						
			2.7	●	●					●		○				
			2.6	●	●					●		○				

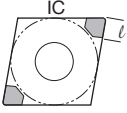

●, ○ = NEW ITEM

Vc · fn · ap

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NEGATIVE - VERTICAL with hole NEW

CN □ □

CN □ □	1204 □ □
IC	12,70
T	4,76
Ød	5,16
HOLDERS	

DESCRIPTION				e	PCBN-Vertical										
					NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000		
CC		CNGA 4 EDGES		2.7	○	○									
				2.6	○	○									
				2.5	○	○									
GP		CNGA 4 EDGES		2.7	●	●	●						●		
				2.6	●	●	●			○	○	●			
				2.5	●	●	●			○	○	●			
HI		CNGA 4 EDGES		2.7					○	○			●		
				2.6					●	●		○	●		
				2.5					●	●		○	●		
WH WIPER		CNGA 4 EDGES		2.7	○	○	○								
				2.6	○	○	○								
				2.5	○	○	○								

●, ○ = NEW ITEM

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

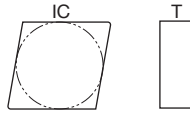
DRILLING

SPARE PARTS

INDEX

**NEGATIVE - SOLID
without hole**

CN □ □



CN □ □ 0903 □ □ 1204 □ □

IC 9,525 12,70
T 3,18 4,76



TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS


INDEX

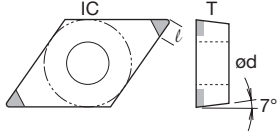
DESCRIPTION			PCBN-Solid												
			NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000	NBS9050	NBS9090		
GP		CNGN 090308-GP	S02020									●	●	○	
		090312-GP	S02020										●	●	○
		090316-GP	S02020										○	○	○
		CNGN 120408-GP	S02020										●	●	○
		120412-GP	S02020										●	●	○
		120416-GP	S02020										●	○	○



●, ○ = NEW ITEM


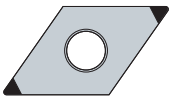
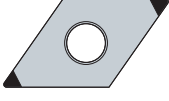
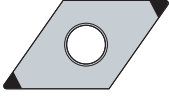
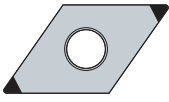
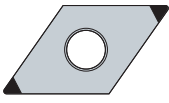
Vc · fn · ap

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POSITIVE 7° with hole
DC □ □ 



DC □ □	0702 □ □	11T3 □ □
IC	6,35	9,525
T	2,38	3,97
Ød	2,80	4,40
HOLDERS		

DESCRIPTION			e	PCBN-Carbide reinforced														
				NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB440				
CC		DCGW	070202-2E-CC	2.5	●		○											
			070204-2E-CC	2.4	●		●											
			070208-2E-CC	2.0	○		○											
	DCGW	11T302-2E-CC	2.5	○		●												
		11T304-2E-CC	2.4	●		●											■	
11T308-2E-CC		2.0	●		●						●					■		
CS		DCGW	070202-2E-CS	2.5	○	○												
			070204-2E-CS	2.4	●	●												
			070208-2E-CS	2.0	○	○												
	DCGW	11T302-2E-CS	2.5	○	○													
		11T304-2E-CS	2.4	●	●													
11T308-2E-CS		2.0	○	○														
GP		DCGW	070202-2E-GP	2.5	○		●			○								
			070204-2E-GP	2.4	●		●			●								
			070208-2E-GP	2.0	○		●			○								
	DCGW	11T302-2E-GP	2.5	○		●			●									
		11T304-2E-GP	2.4	●		●			●								■	
11T308-2E-GP		2.0	○		●			●			●							
GS		DCGW	070204-2E-GS	2.4		●	○	●										
			070208-2E-GS	2.0		○	○	○										
	DCGW	11T304-2E-GS	2.4		●	○	●											
		11T308-2E-GS	2.0		●	○	●											
HI		DCGW	070204-2E-HI	2.4						●								
			070208-2E-HI	2.0						●								
		DCGW	11T304-2E-HI	2.4						●								
			11T308-2E-HI	2.0			●			●			●*					
			11T312-2E-HI	2.1						●								
		*NB450U = uncoated																

●, ○ = NEW ITEM

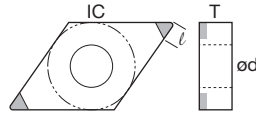
Vc · fn · ap

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- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

**NEGATIVE
with hole**

DN □ □



DN □ □ 1504 □ □ 1506 □ □

IC	12,70	12,70
T	4,76	6,35
Ød	5,16	5,16



- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

DESCRIPTION		e	PCBN-Carbide reinforced														
			NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB440				
CC	DNGA 150404-2E-CC 150408-2E-CC		2.4	●													
			2.0	●													
	DNGA 150604-2E-CC 150608-2E-CC 150612-2E-CC		2.4	○		○	●										
			2.0	○	●	○	●										
GP	DNGA 150404-2E-GP 150408-2E-GP		2.4				●										
			2.0				●										
	DNGA 150604-2E-GP 150608-2E-GP 150612-2E-GP		2.4		●	●	●	○	●			○					
			2.0		●	●	●	○	●			●	○				
HI	DNGA 150604-2E-HI 150608-2E-HI 150612-2E-HI		2.4							○							
			2.0				●		●								
			2.1						●								

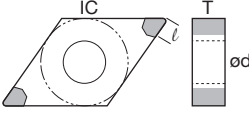
●, ○ = NEW ITEM

Vc · fn · ap

NEGATIVE - VERTICAL with hole NEW

DN

55°



DN <input type="checkbox"/>	1506 <input type="checkbox"/>
IC	12,70
T	6,35
Ød	5,16

HOLDERS 141

DESCRIPTION				e	PCBN-Vertical												
					NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000				
CC		DNGA 4 EDGES		150604-4EV-CC	3.2												
				150608-4EV-CC	2.9												
				150612-4EV-CC	2.5												
GP		DNGA 4 EDGES		150604-4EV-GP	3.2										●		
				150608-4EV-GP	2.9											●	
				150612-4EV-GP	2.5												●
HI		DNGA 4 EDGES		150604-4EV-HI	3.2										○		
				150608-4EV-HI	2.9											○	
				150612-4EV-HI	2.5												○

●, ○ = NEW ITEM

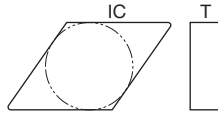
Vc · fn · ap

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- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

**NEGATIVE - SOLID
without hole**

DN □ □



DN □ □ 1103 □ □

IC 9,525

T 3,18

Od -



- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

DESCRIPTION		S02020	PCBN-Solid																		
			NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000	NBS9050	NBS9090								
GP	DNGN 110308-GP	S02020																			
	110312-GP	S02020																			
	110316-GP	S02020																			

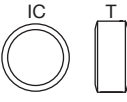
●, ○ = NEW ITEM

Vc · fn · ap

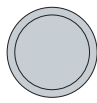
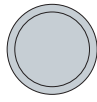
NEGATIVE - SOLID
without hole

RN □ □

360°



	RN □ □	0603 □ □	0903 □ □	0904 □ □	1203 □ □	1204 □ □
IC	6,35	9,525	9,525	12,70	12,70	
T	3,18	3,18	4,76	3,18	4,76	
Ød	-	-	-	-	-	-
HOLDERS						

DESCRIPTION			PCBN-Solid												
			NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000	NBS9050	NBS9090		
GP		RNGN 060300-GP	S02020								●	●	●	●	
		RNGN 090300-GP	S02020								●	●	●	●	
		RNGN 090400-GP	S02020									○		○	
		RNGN 120300-GP	S02020									●	●	●	
		RNGN 120400-GP	S02020									●	●	●	●
HI		RNGN 120400-HI	S10020									●	●	●	

●, ○ = NEW ITEM

Vc · fn · ap

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

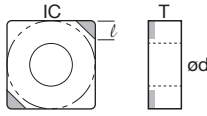
DRILLING

SPARE PARTS

INDEX

NEGATIVE
with hole

SN □ □



SN □ □ 1204 □ □

IC 12,70
T 4,76
ød 5,16



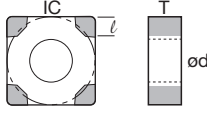
DESCRIPTION		IC	T	PCBN-Carbide reinforced													
				NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB440			
CC		SNGA	120404-2E-CC		2.9	○		○									
						120408-2E-CC	○		○								
						120412-2E-CC	○		○								
GP		SNGA	120404-2E-GP		2.9	○		○		○							
						120408-2E-GP	○		●		○						
						120412-2E-GP	○		○		○						
HI		SNGA	120404-2E-HI		2.9					○							
						120408-2E-HI				○							
						120412-2E-HI				●							

Vc · fn · ap








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NEGATIVE - VERTICAL with hole NEW

SN



SN	1204
IC	12,70
T	4,76
Ød	5,16
HOLDERS	145

DESCRIPTION				l	PCBN-Vertical										
					NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000		
CC		SNGA 8 EDGES		2.3		○									
					120404-8EV-CC		○								
					120408-8EV-CC		○								
GP		SNGA 8 EDGES		2.3				○						●	
					120404-8EV-GP			○						●	
					120408-8EV-GP			○						●	
HI		SNGA 8 EDGES		2.3							○			○	
					120404-8EV-HI						○			○	
					120412-8EV-HI						○			○	

●, ○ = NEW ITEM

Vc · fn · ap

74

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

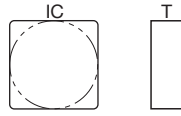
DRILLING

SPARE PARTS

INDEX

**NEGATIVE - SOLID
without hole**

SN □ □




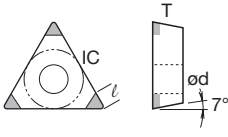
SN □ □	0903 □ □	0904 □ □	1204 □ □
IC	9,525	9,525	12,70
T	3,18	4,76	4,76
Ød	-	-	-
HOLDERS			




DESCRIPTION	S02020	PCBN-Solid											
		NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000	NBS9050	NBS9090	
GP 	SNGN 090308-GP									○	○		
	090312-GP									●	●		
	090316-GP									○	○		
	SNGN 090408-GP									○			
	090412-GP									●			
	090416-GP									○			
	SNGN 120408-GP									●	○		
	120412-GP									●	●		
	120416-GP									○	○		


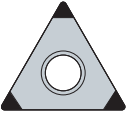

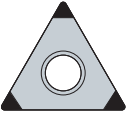





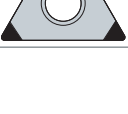

●, ○ = NEW ITEM

Vc · fn · ap

POSITIVE 7° with hole
TC □ □ 



TC □ □	0902 □ □	1102 □ □	16T3 □ □
IC	5,56	6,35	9,525
T	2,38	2,38	3,97
Ød	2,50	2,80	4,40
HOLDERS	 149	 149	 149

DESCRIPTION			r	PCBN-Carbide reinforced															
				NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB440					
CC			2.6	TCGW 090202-3E-CC		○		○											
				TCGW 090204-3E-CC				●											
				TCGW 110202-3E-CC		●			○										
				TCGW 110204-3E-CC		●			●										
				TCGW 110208-3E-CC		●			●					●					
				TCGW 16T304-3E-CC		●			○										■
CS			2.6	TCGW 110202-3E-CS		○		○											
				TCGW 110204-3E-CS		●		●											
				TCGW 110208-3E-CS		○		○											
				TCGW 16T304-3E-CS		●		●											
				TCGW 16T308-3E-CS		○		○											
				TCGW 16T308-3E-CS		○		○											
GP			2.6	TCGW 090202-3E-GP		○		○											
				TCGW 090204-3E-GP		○		●											
				TCGW 110202-3E-GP		○		●			○								
				TCGW 110204-3E-GP		●		●			●		●		●				
				TCGW 110208-3E-GP		●		●			○		●		●		●		■
				TCGW 16T304-3E-GP		●		●			○		●		●		●		■
GS			2.5	TCGW 110204-3E-GS				●		●									
				TCGW 110208-3E-GS				○		○									
				TCGW 16T304-3E-GS				●		○		●							
				TCGW 16T308-3E-GS				●		○		●							
				TCGW 110204-3E-GS				○		○									
				TCGW 110208-3E-GS				○		○		○							
HI			2.5	TCGW 110204-3E-HI				○		●		●*		○					
				TCGW 110208-3E-HI						●		●*		○					
				TCGW 16T304-3E-HI							○		○*						
				TCGW 16T308-3E-HI							○		○*						
				*NB450U = uncoated															

●, ○ = NEW ITEM

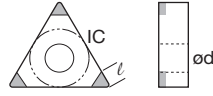
Vc · fn · ap

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- TURNING
- MICROBORING
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- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

NEGATIVE
with hole

TN□□



TN□□ 1604□□

IC 9,525
T 4,76
ød 3,81



DESCRIPTION		Image	r	PCBN-Carbide reinforced														
				NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB400				
CC			2.5		●		●											
				160408-3E-CC		●		●										
				160412-3E-CC		●		○					●					
GP			2.5		●		●		●									
				160408-3E-GP		●		●		●		●						
				160412-3E-GP		●		●		○			○					
HI			2.5						●									
				160408-3E-HI						●								
				160412-3E-HI						●								

Vc · fn · ap

**NEGATIVE - VERTICAL
with hole**

TN □ □

NEW

60°

TN □ □	1604 □ □
IC	9,525
T	4,76
Ød	3,81
HOLDERS	153

DESCRIPTION		e	PCBN-Vertical										
			NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000		
CC	 TNGA 160404-6EV-CC 160408-6EV-CC 160412-6EV-CC	 2.0 2.6 2.4		●	○								
				●	○								
				○	○								
GP	 TNGA 160404-6EV-GP 160408-6EV-GP 160412-6EV-GP	 2.0 2.6 2.4		●	●	●				○	○	●	
				●	●	●				○	○	●	
				●	●	●				○	○	●	
HI	 TNGA 160404-6EV-HI 160408-6EV-HI 160412-6EV-HI	 2.0 2.6 2.4						○	○			○	
								○	○		○		
								○	○		○		

●, ○ = NEW ITEM

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

**NEGATIVE - SOLID
without hole**

TN □ □



TN □ □ 1103 □ □ 1604 □ □

IC	6,35	9,525
T	3,18	4,76
Od	-	-

HOLDERS




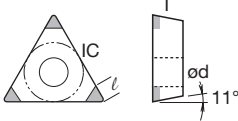
PCBN-Solid




GP	DESCRIPTION	S02020	PCBN-Solid												
			NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000	NBS9050	NBS9090		
	TNGN 110308-GP	S02020										●			○
	110312-GP	S02020										○			○
	110316-GP	S02020										○			○
	TNGN 160408-GP	S02020										○			○
	160412-GP	S02020										○			○
	160416-GP	S02020										○			○


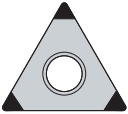





●, ○ = NEW ITEM

Vc · fn · ap

POSITIVE 11° with hole
TP □ □ 



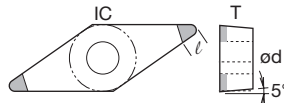
TP □ □	0802 □ □	0902 □ □	1103 □ □
IC	4,76	5,56	6,35
T	2,38	2,38	3,18
Ød	2,30	3,00	3,30
HOLDERS		156 	156 

DESCRIPTION			r	PCBN-Carbide reinforced														
				NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB440				
CC			2.6	TPGW 080202-3E-CC	○		○											
				TPGW 080204-3E-CC	○		○											
				TPGW 090202-3E-CC	○		●											
				TPGW 090204-3E-CC	○		●	○										
				TPGW 110302-3E-CC	○		○											
				TPGW 110304-3E-CC	○		●											
GP			2.6	TPGW 080202-3E-GP	○		●											
				TPGW 080204-3E-GP	○		○											
				TPGW 090202-3E-GP	○		○											
				TPGW 090204-3E-GP	○		●											
				TPGW 110302-3E-GP	○		●											
				TPGW 110304-3E-GP	○		●											
HI			2.2	TPGW 110308-3E-HI								●*						
*NB450U = uncoated																		

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
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POSITIVE 5°
with hole

VB □ □



VB □ □ 1103 □ □ 1604 □ □


IC	6,35	9,525
T	3,18	4,76
Od	2,80	4,40

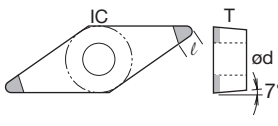
HOLDERS ▶ 158 ▶ 158

DESCRIPTION		e	PCBN-Carbide reinforced														
			NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB440				
CC		VBGW 110302-2E-CC	3.0	○			○										
			2.6	●			○										
			3.0	○			○										
			2.6	●			●										
CS		VBGW 110304-2E-CS	3.0	○	○												
			2.6	●	●												
			3.0	○	○												
			2.6	●	●												
GP		VBGW 160402-2E-GP	3.0	○			●										
			2.6	○			●										
			3.0	●			●										
			2.6	●			●		●		●	○					
GS		VBGW 160404-2E-GS	2.6			●	○	●									
			1.7			○	○	○									
			2.6			●	○	●									
			1.7			●	○	●									
HI		VBGW 110308-2E-HI	2.6						○								
			1.7						○								
		VBGW 160408-2E-HI	2.6						●		○*	○					
			1.7						●		○*	○					
*NB450U = uncoated																	


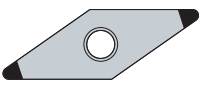
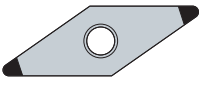
●, ○ = NEW ITEM

Vc · fn · ap ▶

POSITIVE 7° with hole
VC □ □ 



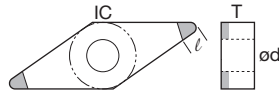
VC □ □	1103 □ □	1604 □ □
IC	6,35	9,525
T	3,18	4,76
Ød	2,80	4,40
HOLDERS	159	159

DESCRIPTION			l	PCBN-Carbide reinforced															
				NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB440					
CC		VCGW	110302-2E-CC	3.0		○		○											
			110304-2E-CC	2.5		●		○											
	VCGW	160404-2E-CC	2.5		○		●												
		160408-2E-CC	1.7		○		○												
GP		VCGW	110302-2E-GP	3.0				○											
			110304-2E-GP	2.5				○											
	VCGW	160404-2E-GP	2.5				○			○									
		160408-2E-GP	1.7				○			○									

TURNING
MICROMEGA
MICROBORING
THREADING
GROOVING
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**NEGATIVE
with hole**

VN □ □



VN □ □ 1604 □ □

IC 9,525
T 4,76
ød 3,81



- TURNING
- MICRONEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
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DESCRIPTION		e	PCBN-Carbide reinforced														
			NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB500	NB440				
CC	VNGA 160404-2E-CC 160408-2E-CC	2.5	●			●											
		1.7	●			○											
GP	VNGA 160404-2E-GP 160408-2E-GP	2.5		○		●		○									
		1.7		○		●		●									
HI	VNGA 160404-2E-HI 160408-2E-HI	2.5						○									
		1.7						○									

**NEGATIVE - VERTICAL
with hole**

VN

NEW

VN	1604
IC	9,525
T	4,76
Ød	3,81
HOLDERS	163

DESCRIPTION	IC	e	PCBN-Vertical											
			NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000			
CC 4 EDGES VNGA 160404-4EV-CC 160408-4EV-CC		2.3		○										
		2.2		○										
GP 4 EDGES VNGA 160404-4EV-GP 160408-4EV-GP		2.3				○				○		●		
		2.2				○				○		●		
HI 4 EDGES VNGA 160404-4EV-HI 160408-4EV-HI		2.3							○		○	○		
		2.2							○		○	○		

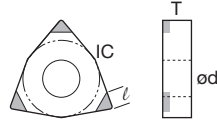
●, ○ = NEW ITEM

Vc · fn · ap 74

- TURNING
- MICROMEGA
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**NEGATIVE
with hole**

WN □ □



WN □ □ 0804 □ □

IC 12,70

T 4,76

ød 5,16



TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

DESCRIPTION		e	PCBN-Carbide reinforced											
			NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB440	
CC	 WNGA 080404-3E-CC 080408-3E-CC 080412-3E-CC	2.8	●		○									
		2.7	●		○									
		2.6	○		○									
GP	 WNGA 080404-3E-GP 080408-3E-GP 080412-3E-GP	2.8		○			○							
		2.7		○		●		○	●					
		2.6		○		○		○		○				
HI	 WNGA 080404-3E-HI 080408-3E-HI 080412-3E-HI	2.8						●						
		2.7						●						
		2.6						●						

Vc · fn · ap

74

NEGATIVE - VERTICAL
with hole

WN

NEW

WN	0804				
IC	12,70				
T	4,76				
Ød	5,16				
HOLDERS	167				

DESCRIPTION			e	PCBN-Vertical												
				NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000				
CC		WNGA 6 EDGES	080404-6EV-CC	2.7		○										
			080408-6EV-CC	2.6		○										
			080412-6EV-CC	2.5		○										
GP		WNGA 6 EDGES	080404-6EV-GP	2.7				○						●		
			080408-6EV-GP	2.6				○			○			●		
			080412-6EV-GP	2.5				○			○			●		
HI		WNGA 6 EDGES	080404-6EV-HI	2.7						○				●		
			080408-6EV-HI	2.6						○		○		●		
			080412-6EV-HI	2.5						○		○		●		

●, ○ = NEW ITEM

Vc · fn · ap

74

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

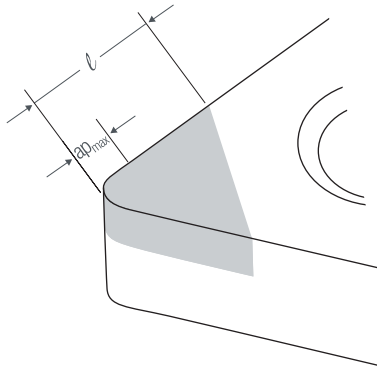
MILLING

DRILLING

SPARE PARTS

INDEX

CUTTING PARAMETERS



$$a_{p\max} < 20 \sim 30\% l$$

H HH	HARDENED STEEL
	ACCIAIO TEMPRATO
	GEHÄRTETER STAHL
	ACIER TREMPÉ
	ACERO TEMPLADO
H HC	ЗАКАЛЁННАЯ СТАЛЬ
	CASEHARDENED STEEL
	ACCIAIO CEMENTATO
	EINGESETZTER STAHL
	ACIER CEMENTÉ
H HB	ACERO CEMENTADO
	ЦЕМЕНТИРОВАННАЯ СТАЛЬ
	BEARING STEEL
	ACCIAIO PER CUSCINETTI
	STAHL FÜR LAGER
H HM	ACIER POUR ROULEMENTS
	ACERO PARA RODAMIENTOS
	СТАЛЬ ДЛЯ ПОДШИПНИКОВ
	HARD METAL (Co≥17%)
	METALLO DURO (Co≥17%)
K KG	VHM (Co≥17%)
	CARBURE (Co≥17%)
	METAL DURO (Co≥17%)
	ТВЁРДЫЙ СПЛАВ (Co≥17%)
	GREY CAST IRON
K KN	GHISA GRIGIA
	GRAUGUSS
	FONTE GRISE
	FUNDICIÓN GRIS
	ЧУГУН
K KN	NODULAR CAST IRON
	GHISA SFEROIDALE
	SPHÄROGUSS
	FONTE NODULAIRE
	FUNDICIÓN NODULAR
	ЧУГУН С ШАРОВИДНЫМ ГРАФИТОМ

K KW	WHITE CAST IRON
	GHISA BIANCA
	WEISSGUSS
	FONTE BLANCHE
	FUNDICIÓN BLANCA
K KS	БЕЛЫЙ ЧУГУН
	SINTERED MATERIAL (FERROUS)
	MATERIALI SINTERIZZATI (FERROSI)
	SINTERMATERIALIEN (EISERNE)
	MATÉRIAUX FRITTÉS (FERREUX)
S SA	MATERIALES SINTERIZADOS (BASE HIERRO)
	СПЕЧЁННЫЕ МАТЕРИАЛЫ (МЕТАЛЛ)
	SUPER ALLOYS (Ni BASED)
	SUPERLEGHE (BASE Ni)
	SONDERLEGIERUNGEN (Ni BASIS)
	SUPERALLIAGES (BASE Ni)
	SUPERALEACIONES (BASE Ni)
	СУПЕРСПЛАВЫ (НА ОСНОВЕ Ni)

CUTTING PARAMETERS PCBN-Carbide reinforced

MATERIAL	ap (mm)	fn (mm/rev)	CUTTING CONDITIONS		PCBN-Carbide reinforced													
					NB050	NB150	NB200	NB250	NB300	NB350	NB400	NB450	NB500	NB550	NB440			
H	HH	0.05~0.25	0.05~0.20	○	☹	120~250	*	100~230	100~200									
				☹	☹			80~180	80~180	*								
	HC	0.05~0.25	0.08~0.25	○	☹				*	100~180	100~160							
				☹	☹			80~160	80~160	*								
	HB	0.05~0.25	0.05~0.20	○	☹	120~220	*	100~200	100~180									
				☹	☹			80~150	80~150	*								
K	KG	0.10~0.50	0.10~0.30	○	☹								*	400~1000	400~1000			
				☹	☹									*	400~800	400~800		
	KN	0.10~0.30	0.05~0.20	○	☹							*	250~400			250~400		
				☹	☹										*	150~300	150~300	
	KW	0.10~0.30	0.10~0.30	○	☹								*	60~100	60~100			
				☹	☹									*	50~80	50~80		
KS	0.05~0.20	0.05~0.25	○	☹		100~220					*	160~250	160~250					
			☹	☹					60~180						120~200	*	120~200	
S	SA	0.05~0.20	0.05~0.20	○	☹											120~300	*	120~300

* = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор

TURNING

MICROBORA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

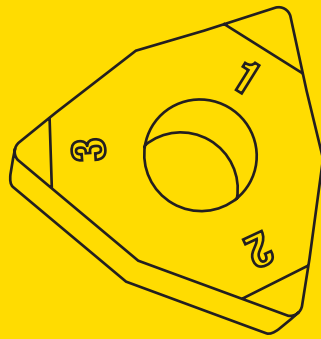
SPARE PARTS

INDEX

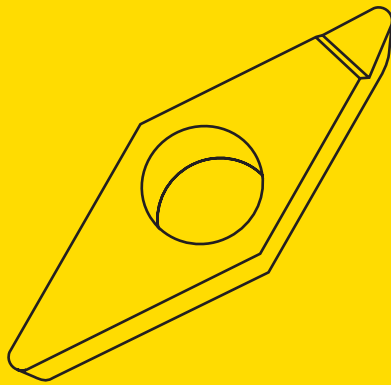
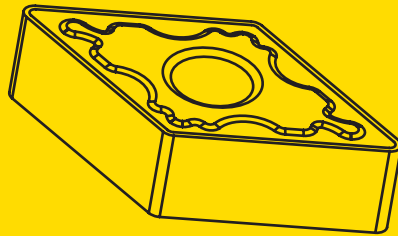
CUTTING PARAMETERS PCBN-Vertical & Solid (NBS Series)

	MATERIAL	ap (mm)	fn (mm/rev)	CUTTING CONDITIONS	PCBN-Vertical & Solid															
					NBS050	NBS150	NBS200	NBS250	NBS300	NBS350	NBS450	NBS500	NBS9000	NBS9050	NBS9090					
H	HH	VERTICAL	0.05~0.25	0.05~0.20				120~280	120~280*	100~250	100~220									
		SOLID	0.30~3.00	0.10~0.30							80~200	80~200	60~180*				80~180			
	HC	VERTICAL	0.05~0.25	0.08~0.25							100~200*	100~200	100~180							
		SOLID	0.30~3.00	0.10~0.30							80~180	80~180	60~150*				80~160			
	HB	VERTICAL	0.05~0.25	0.05~0.20				120~240	120~240*	100~220	100~200									
		SOLID	0.30~2.00	0.20~0.40							80~170	80~170	60~140*				90~150			
	HM	VERT. VER.	0.05~0.25	0.05~0.15																
		SOLID	0.30~2.00	0.10~0.25													10~40*		10~40	
	K	KG	VERTICAL	0.10~0.50	0.10~0.30										400~1200*	400~1200	400~1200			
			SOLID	0.50~3.00	0.20~0.60											400~1000*	400~1000	400~1000		
		KN	VERTICAL	0.10~0.30	0.05~0.20											500~1500*	500~1500	500~1500		
			SOLID	0.40~3.00	0.20~0.60											400~1000*	400~1000	400~1000		
KW		VERTICAL	0.10~0.30	0.10~0.30											250~500*	250~500	250~500			
		SOLID	0.40~3.00	0.20~0.60											200~400*	200~400	200~400			
KS		VERTICAL	0.10~0.40	0.05~0.25											60~120*	60~120	60~120			
		SOLID	0.40~3.00	0.10~0.30											50~100*	50~100	50~100			
KS		VERTICAL	0.10~0.40	0.05~0.25											60~120*	60~120	60~120			
		SOLID	0.40~3.00	0.10~0.30											50~100*	50~100	50~100			
KS		VERTICAL	0.10~0.40	0.05~0.25											100~240*					
		SOLID	0.40~3.00	0.10~0.30											100~240*					
KS	VERTICAL	0.10~0.40	0.05~0.25											60~200*						
	SOLID	0.40~3.00	0.10~0.30											60~200*						

* = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор












TURNING / diamond









ISO 1832






C	N	G	A	120408	-LRG	ND100
1	2	3	4	5	6	7
					8	9
						10

1	GEOMETRY	
C		80°
D		55°
T		60°
V		35°
W		80°

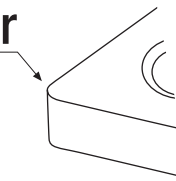
2	CLEARANCE ANGLE	
B		5°
C		7°
N		0°
P		11°

3	TOLERANCE [mm]	
		
G	±0.025	±0.13





4	SHAPE
A	
M	
T	
W	
X	NIKKO NORM

5	EDGE LENGTH [mm]	
06 09 12	C	
07 11 15	D	
08 09 11 16	T	
11 16	V	
08	W	

6	THICKNESS [mm]
02	2.38
03	3.18
T3	3.97
04	4.76
06	6.35

7	RADIUS [mm]
...	

C	N	G	A	12	04	08	-	LRG	ND	100
1	2	3	4	5	6	7		8	9	10







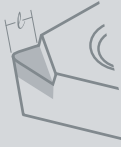


8	
CBF	 finishing chipbreaker
CBG	 roughing chipbreaker
LRG	 large tip
-	 standard tip

9	
ND	PCD diamond
NDC	CVD diamond
NDM	MONOcrystalline

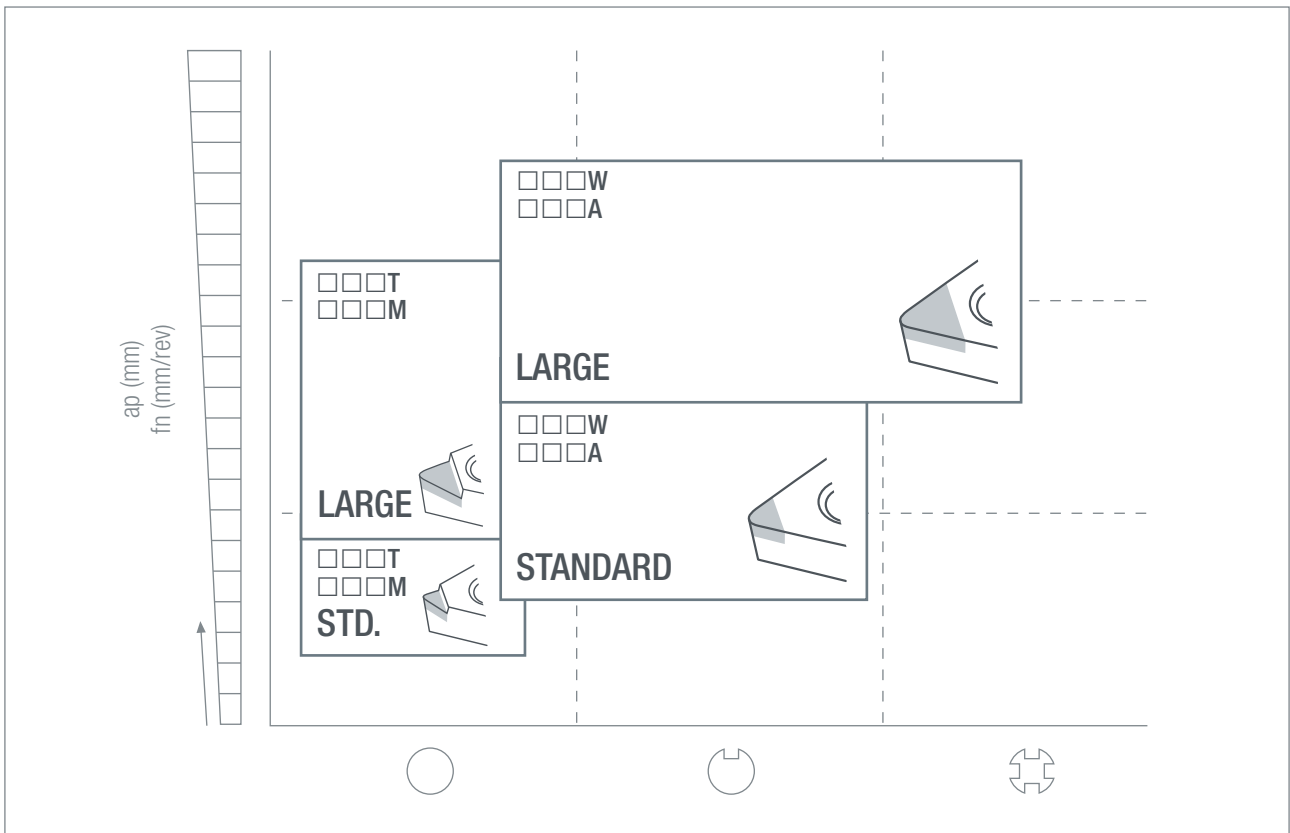
10	
050	PCD fine grit
100	PCD medium grit
120	PCD medium grit
150	PCD mixed grit
190	PCD coarse grit
300	CVD diamond
500	MONOcrystalline

TURNING
MICROMEGA
MICROBORING
THREADING
GROOVING
MILLING
DRILLING
SPARE PARTS
INDEX

CUTTING EDGE STYLE

 W	 STANDARD	 LARGE	 CHIPBREAKER
 A			
 T	 STANDARD		 LARGE
 M			

CUTTING EDGE APPLICATION



TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

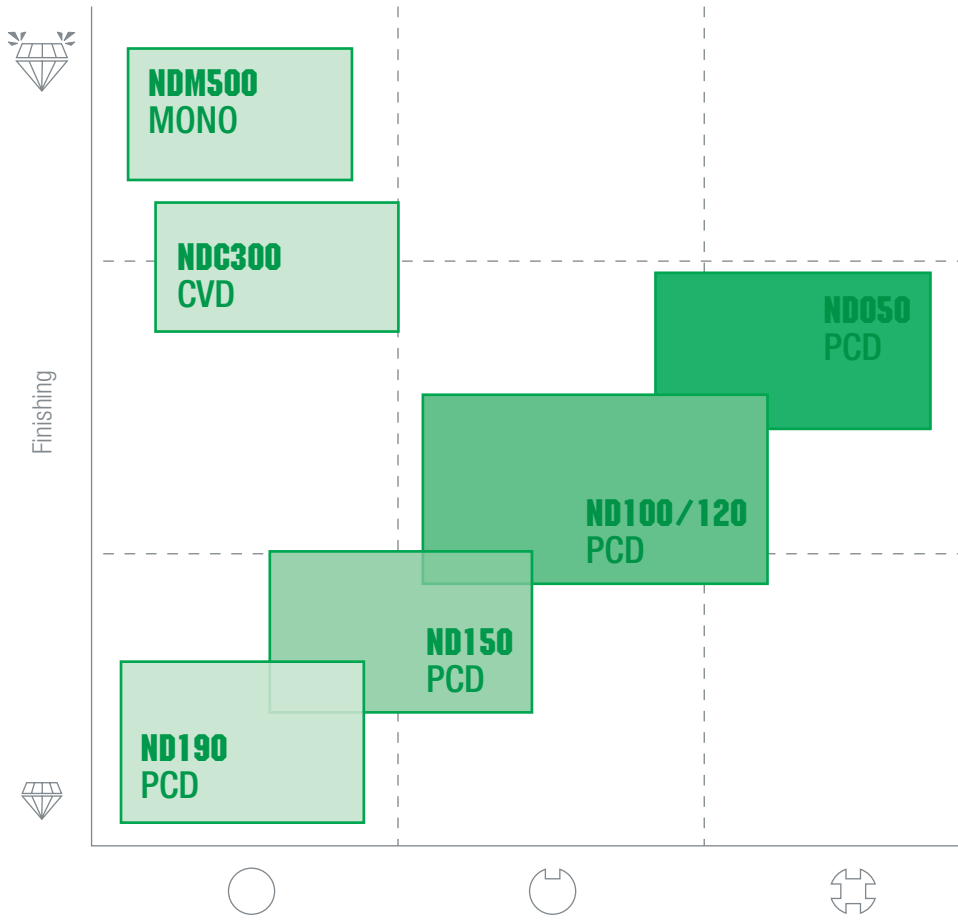
MILLING

DRILLING

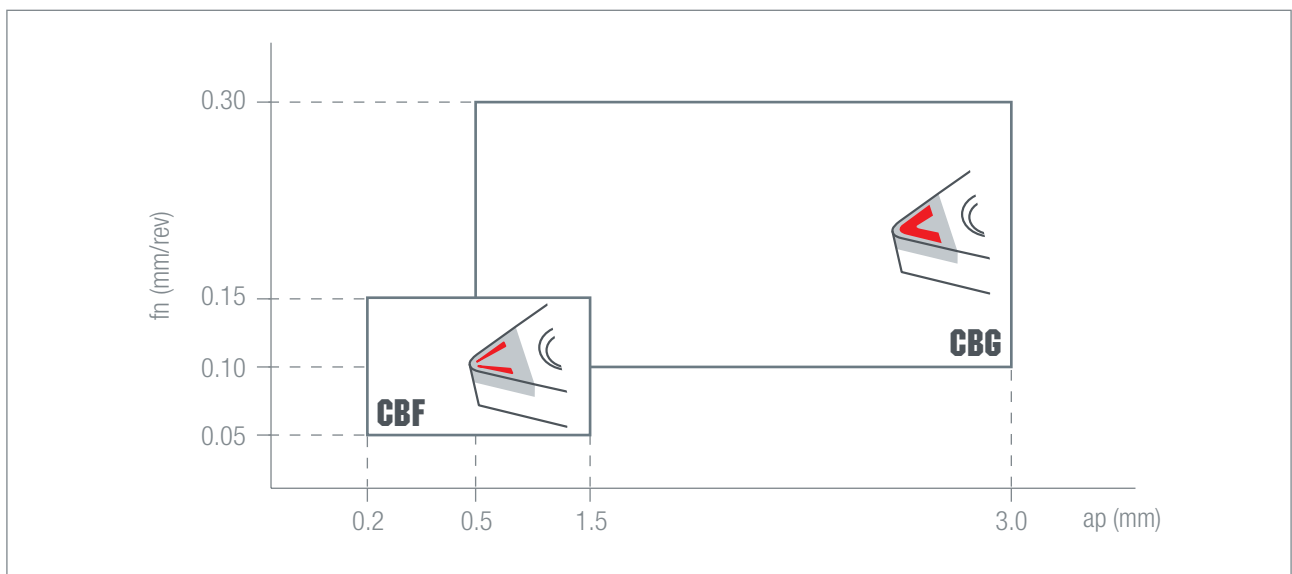
SPARE PARTS

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RANGE ISO **N** DIAMOND



CHIPBREAKER APPLICATION



Vc · fn · ap 93

**POSITIVE 7°
with hole**

CC □ □

CC □ □	0602 □ □	09T3 □ □	1204 □ □
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
Ød	2,80	4,40	5,50
HOLDERS	127	127	127

	DESCRIPTION	IC	l	PCD					CVD	MONO										
				ND050	ND100	ND120	ND150	ND190	NDC300	NDM500										
STANDARD		CCGT	060202	2.8	●															
				2.8	○			●												
				2.7	●			●												
			CCGT	09T302	2.8	●														
					2.8	●	●		●	○	○									
					2.7	●	●		●	○	○									
CCGT	120404	2.8	●	●																
		2.7	●	●																
LARGE		CCGT	060204-LRG	4.3	○															
				CCGT	09T304-LRG	4.3	●													
						4.2	●													
		CCGT	120404-LRG	4.3	●															
				4.2	○															
				4.2	○															
STANDARD		CCGW	060202	2.8	○	●		○												
				2.8	●	●		●												
				2.7	●	●		○												
		CCGW	09T302	2.8	●	●														
				2.8	●	●		●	●	○	○									
				2.7	●	●		●	●	○	○									
CCGW	120404	2.8	○	●		○														
		2.7	○	●		○														
		2.7	○	●		○														
LARGE		CCGW	060204-LRG	4.3	●															
				CCGW	09T304-LRG	4.3	○	●		○										
						4.2	○	●		○										
		CCGW	120404-LRG	4.3	●															
				4.2	●															
				4.2	●															
CHIPBREAKER		CCGX	060202-CBF	4.3			●													
				CCGX	09T302-CBF	4.3			●											
						4.3			●											
		CCGX	060204-CBG	4.3			●													
				CCGX	09T304-CBG	4.3			●											
						4.2			●											
FULL EDGE		CCGX	060204 ^R /L-1S	-		○														
				CCGX	09T304 ^R /L-1S	-		○												

●, ○ = NEW ITEM

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TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

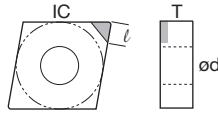
DRILLING

SPARE PARTS

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NEGATIVE with hole

CN □ □




CN □ □ 1204 □ □

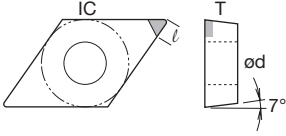
IC 12,70
T 4,76
ød 5,16



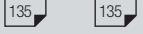
	DESCRIPTION	e	PCD					CVD	MONO					
			ND050	ND100	ND120	ND150	ND190	NDC300	NDM500					
STANDARD	CNGA 120404	2.8		●				○						
			120408	2.7	●				○					
LARGE	CNGA 120404-LRG	4.3		○										
			120408-LRG	4.2	●									
STANDARD	CNGM 120404	2.8	○	●		●								
			120408	2.7	○	●		○						
LARGE	CNGM 120404-LRG	4.3		○										
			120408-LRG	4.2		○								


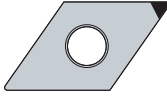

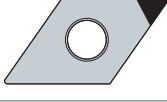

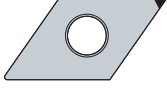

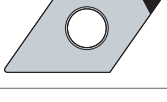

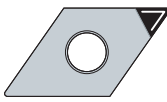
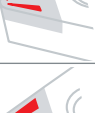
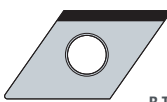

Vc · fn · ap

POSITIVE 7° with hole
DC □ □ 



DC □ □	0702 □ □	11T3 □ □
IC	6,35	9,525
T	2,38	3,97
Ød	2,80	4,40

HOLDERS 

	DESCRIPTION		l	PCD					CVD	MONO											
				ND050	ND100	ND120	ND150	ND190	NDC300	NDM500											
STANDARD			2.3	DCGT 070202	○																
				DCGT 070204	●																
				DCGT 070208	●																
				DCGT 11T302	●																
				DCGT 11T304	●																
LARGE			3.9	DCGT 070204-LRG	●																
				DCGT 11T304-LRG	●																
				11T308-LRG	●																
STANDARD			2.3	DCGW 070202	●	●		●													
				DCGW 070204	○	●		●													
				DCGW 070208	○	○		○													
				DCGW 11T302	○	●		○				○									
				DCGW 11T304	●	●		●	●		○	○									
LARGE			3.9	DCGW 070204-LRG	●																
				DCGW 11T304-LRG	●																
				11T308-LRG	○																
CHIPBREAKER			4.0	DCGX 070202-CBF			●														
				DCGX 070204-CBF			●														
				DCGX 11T302-CBF			●														
				DCGX 11T304-CBF			●														
				DCGX 070204-CBG			●														
				DCGX 11T304-CBG			●														
FULL EDGE			-	DCGX 070204 ^R /L-1S		○															
				DCGX 11T304 ^R /L-1S		○															

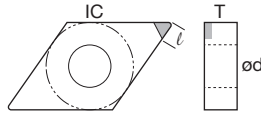
●, ○ = NEW ITEM

Vc · fn · ap  93

- TURNING
- MICROBORING
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

**NEGATIVE
with hole**

DN □ □



DN □ □ 1506 □ □


IC 12,70
T 6,35
Ød 5,16

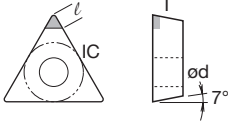


	DESCRIPTION	e	PCD					CVD	MONO					
			ND050	ND100	ND120	ND150	ND190	NDC300	NDM500					
STANDARD	 DNGA 150604	 2.4	○											
			●											
LARGE	 DNGA 150604-LRG	 3.9	○											
			○											
STANDARD	 DNGM 150604	 2.4	○											
			○											
LARGE	 DNGM 150604-LRG	 3.9	○											
			○											




Vc · fn · ap


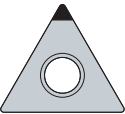

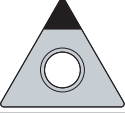

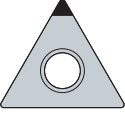

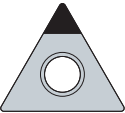

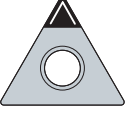

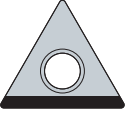

93

POSITIVE 7° with hole
TC □ □ 



TC □ □	0902 □ □	1102 □ □	16T3 □ □
IC	5,56	6,35	9,525
T	2,38	2,38	3,97
Ød	2,50	2,80	4,40

HOLDERS  149  149  149

	DESCRIPTION		e	PCD					CVD	MONO								
				ND050	ND100	ND120	ND150	ND190	NDC300	NDM500								
STANDARD			2.6	TCGT 090202	○													
				TCGT 090204	○													
				TCGT 110202	○													
				TCGT 110204	●													
				TCGT 110208	○													
				TCGT 16T304	●													
LARGE			4.0	TCGT 110204-LRG	○													
				TCGT 110208-LRG	○													
				TCGT 16T304-LRG	○													
				TCGT 16T308-LRG	○													
				TCGT 16T304-LRG	○													
				TCGT 16T308-LRG	○													
STANDARD			2.6	TCGW 090202	○													
				TCGW 090204	●													
				TCGW 110202	●													
				TCGW 110204	●	●		●										
				TCGW 110208	●	○		○										
				TCGW 16T304	●	●		○										
LARGE			4.0	TCGW 110204-LRG	○													
				TCGW 110208-LRG	○													
				TCGW 16T304-LRG	○													
				TCGW 16T308-LRG	○													
				TCGW 16T304-LRG	○													
				TCGW 16T308-LRG	○													
CHIPBREAKER			4.1	TCGX 090202-CBF			●											
				TCGX 090204-CBF			●											
				TCGX 110202-CBF			●											
				TCGX 110204-CBF			●											
				TCGX 16T304-CBF			●											
				TCGX 090204-CBG			●											
				TCGX 110204-CBG			●											
				TCGX 110208-CBG			●											
				TCGX 16T304-CBG			●											
				TCGX 16T308-CBG			●											
FULL EDGE			-	TCGX 090204-1S	○													
				TCGX 110204-1S	●													
				TCGX 16T304-1S	●													

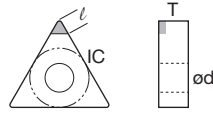
●, ○ = NEW ITEM

Vc · fn · ap  93 

- TURNING
- MICROBORING
- MICROBORING
- THREADING
- GROOVING
- GROOVING
- MILLING
- MILLING
- DRILLING
- DRILLING
- SPARE PARTS
- SPARE PARTS
- INDEX
- INDEX

**NEGATIVE
with hole**

TN □ □



TN □ □ 1604 □ □

IC 9,525
T 4,76
ød 3,81



	DESCRIPTION	Image	l	PCD					CVD	MONO				
				ND050	ND100	ND120	ND150	ND190	NDC300	NDM500				
STANDARD	 TNGA 160404 160408		2.5	○										
			2.0	○										
LARGE	 TNGA 160404-LRG 160408-LRG		4.0	○										
			3.7	○										
STANDARD	 TNGM 160404 160408		2.5	●										
			2.0	●										
LARGE	 TNGM 160404-LRG 160408-LRG		4.0	○										
			3.7	○										

Vc · fn · ap

POSITIVE 11° with hole
TP □ □

TP □ □	0802 □ □	0902 □ □	1103 □ □
IC	4,76	5,56	6,35
T	2,38	2,38	3,18
ød	2,30	3,00	3,30

HOLDERS ▶ 156 156

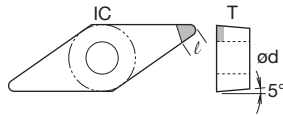
DESCRIPTION	PCD	CVD	MONO															
				ND050	ND100	ND120	ND150	ND190	NDC300	NDM500								
STANDARD 	TPGT 080202	2.6	●	○														
	080204	2.5		●														
	TPGT 090202	2.6		○														
	090204	2.5		●														
	TPGT 110302	2.6		●														
	110304	2.5		●														
STANDARD 	TPGW 080202	2.6		○														
	080204	2.5		○														
	TPGW 090202	2.6		○														
	090204	2.5		●														
	TPGW 110302	2.6		○														
	110304	2.5		●														
CHIPBREAKER 	TPGX 090202-CBF	4.1				●												
	090204-CBF	4.0				●												
	TPGX 110302-CBF	4.1				●												
	110304-CBF	4.0				●												
	TPGX 090204-CBG	4.0				●												
	82 TPGX 110304-CBG	4.0				●												

Vc · fn · ap 93

- TURNING
- MICROBORING
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

**POSITIVE 5°
with hole**

VB □ □



VB □ □ 1103 □ □ 1604 □ □

IC	6,35	9,525
T	3,18	4,76
Od	2,80	4,40


HOLDERS ▶ 158 ▶ 158

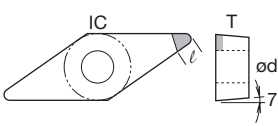
	DESCRIPTION	e	PCD					CVD	MONO						
			ND050	ND100	ND120	ND150	ND190	NDC300	NDM500						
STANDARD	VBGT 110302 110304	3.0	●			●									
			2.5		●										
	VBGT 160404 160408	2.5	●	●		○	○	○							
			1.7	●	●		●	○	○						
LARGE	VBGT 160404-LRG 160408-LRG	4.6		●											
		3.7		●											
STANDARD	VBGW 110302 110304	3.0	●	●		○									
			2.5	○	●		○								
	VBGW 160404 160408	2.5	○	●		●	○	○	○						
			1.7	○	●		○	○	○	○					
LARGE	VBGW 160404-LRG 160408-LRG	4.6		●											
		3.7		●											
CHIPBREAKER	VBGX 110302-CBF 110304-CBF	5.0			●										
		4.6			●										
	VBGX 160404-CBF 110304-CBG	4.6			●										
			4.6			●									
	VBGX 160404-CBG 160408-CBG	4.6			●										
			3.7			●									

fn · ap ▶ 82

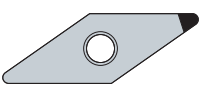
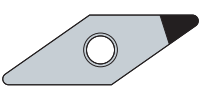
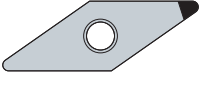
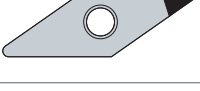
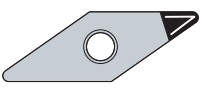
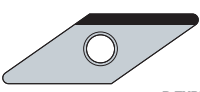
Vc · fn · ap ▶ 93

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

POSITIVE 7° with hole
VC □ □ 



VC □ □	1103 □ □	1604 □ □
IC	6,35	9,525
T	3,18	4,76
Ød	2,80	4,40
HOLDERS	159	159

	DESCRIPTION	IC	l	PCD					CVD	MONO										
				ND050	ND100	ND120	ND150	ND190	NDC300	NDM500										
STANDARD		VCGT	110302	3.0	●	●														
			110304	2.5		●														
			160402	3.0		●					○									
			160404	2.5	●	●		●	○	○										
			160408	1.7	●	●		●	○	○										
LARGE		VCGT	160404-LRG	4.6		●														
			160408-LRG	3.7		●														
STANDARD		VCGW	110302	3.0	●	●														
			110304	2.5		●														
		VCGW	160404	2.5	●	●		●	○	○	○									
			160408	1.7	●	●		○	○	○	○									
LARGE		VCGW	110304-LRG	4.6		●														
			160404-LRG	4.6		●														
			160408-LRG	3.7		●														
CHIPBREAKER		VCGX	110302-CBF	5.0			●													
			110304-CBF	4.6			●													
		VCGX	160404-CBF	4.6			●													
			110304-CBG	4.6			●													
			160404-CBG	4.6			●													
			160408-CBG	3.7			●													
FULL EDGE		VCGX	110304 ^R /L-1S	-			○													
			160404 ^R /L-1S	-			○													

●, ○ = NEW ITEM

Vc · fn · ap  93

TURNING

MICROBORING

MICROBORING

THREADING

GROOVING

MILLING

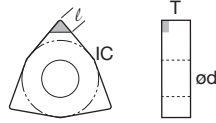
DRILLING

SPARE PARTS

INDEX

**NEGATIVE
with hole**

WN □ □



WN □ □ 0804 □ □

IC 12,70

T 4,76

Ød 5,16

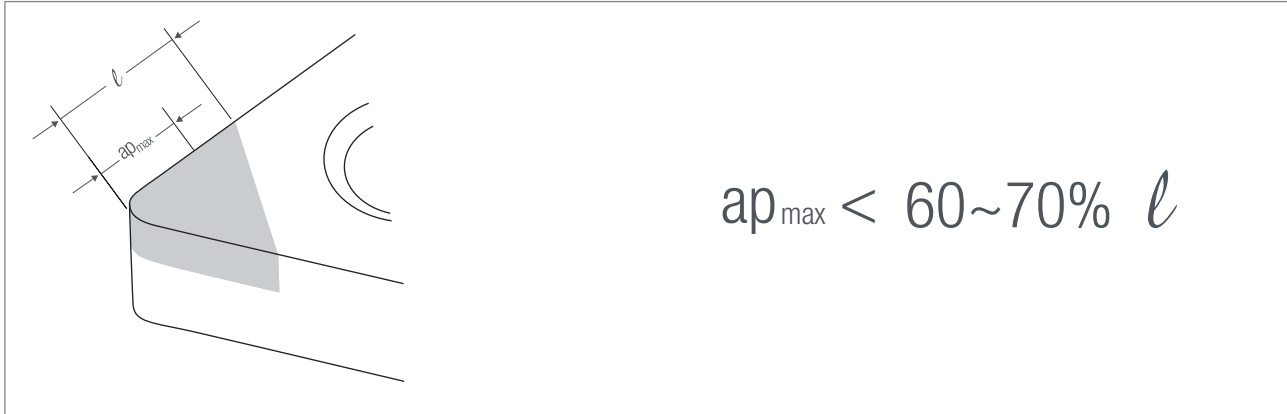
HOLDERS 167

	DESCRIPTION	IC	PCD					CVD	MONO				
			ND050	ND100	ND120	ND150	ND190	NDC300	NDM500				
STANDARD	 WNGA 080404	 080408	2.8	●									
			2.7	○									
LARGE	 WNGA 080404-LRG	 080408-LRG	4.3	○									
			4.2	●									
STANDARD	 WNGM 080404	 080408	2.8	●									
			2.7	●									
LARGE	 WNGM 080404-LRG	 080408-LRG	4.3	○									
			4.2	○									

Vc · fn · ap

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CUTTING PARAMETERS



N	NA	ALUMINUM ALLOYS
		LEGHE DI ALLUMINIO
		ALUMINIUMLEGIERUNGEN
		ALLIAGES D'ALUMINIUM
		ALEACIONES DE ALUMINIO
СПЛАВЫ АЛЮМИНИЯ		
N	NS	ALUMINUM ALLOYS (Si >15%)
		LEGHE DI ALLUMINIO (Si >15%)
		ALUMINIUMLEGIERUNGEN (Si >15%)
		ALLIAGES D'ALUMINIUM (Si >15%)
		ALEACIONES DE ALUMINIO (Si >15%)
СПЛАВЫ АЛЮМИНИЯ (Si >15%)		
N	NH	ALUMINUM ALLOYS AGED AND HARDENED
		LEGHE DI ALLUMINIO TRATTATE ED INVECCHiate
		GEALTERTE UND BEHANDELTE ALUMINIUMLEGIERUNGEN
		ALLIAGES D'ALUMINIUM TRAITÉES ET VIEILLIES
		ALEACIONES DE ALUMINIO TRATADAS Y ENVEJACIDAS
СПЛАВЫ АЛЮМИНИЯ ОБРАБОТАННЫЕ И СОСТАРЕННЫЕ		
N	NB	BRASS
		OTTONE
		MESSING
		LAITON
		LATÓN
ЛАТУНЬ		

N	NC	BRONZE AND ELECTROLYTIC COPPER
		BRONZO E RAME ELETTROLITICO
		ELEKTROLYTISCHES KUPFER UND BRONZE
		BRONZE ET CUIVRE ÉLECTROLYTIQUE
		BRONZE Y COBRE ELECTROLÍTICO
БРОНЗА И ЭЛЕКТРОЛИТИЧЕСКАЯ МЕДЬ		
N	NG	GRAPHITE
		GRAFITE
		GRAPHIT
		GRAPHITE
		ГРАФИТО
H	HM	HARD METAL (Co ≤16%)
		METALLO DURO (Co ≤16%)
		VHM (Co ≤16%)
		CARBURE (Co ≤16%)
		METAL DURO (Co ≤16%)
ТВЕРДЫЙ СПЛАВ (Co ≤16%)		
S	ST	TITANIUM ALLOYS
		LEGHE DI TITANIO
		TITAN LEGIERUNGEN
		ALLIAGES DE TITANE
		ALEACIONES DE TITANIO
СПЛАВЫ ТИТАНА		

TURNING

MICROBORA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

CUTTING PARAMETERS

MATERIAL	ap (mm)	fn (mm/rev)	CUTTING CONDITIONS	PCD					CVD	MONO	
				ND050	ND100	ND120	ND150	ND190	NDC300	NDM500	
N	NA	0.10~1.00	0.08~0.25	○ ⊕	⊖	★ 600~2500	600~2500				1000~3000
		1.00~2.50	0.15~0.50	○ ⊕	⊖	★ 600~1600	600~1600				1000~2000
	NS	0.10~1.00	0.05~0.20	○ ⊕	⊖			500~1800	★ 500~1800	1000~2000	
		1.00~2.50	0.08~0.35	○ ⊕	⊖			500~1200	★ 500~1200		
	NH	0.10~1.00	0.05~0.20	○ ⊕	⊖			400~1000	★ 400~1000	800~1500	
		1.00~2.50	0.08~0.35	○ ⊕	⊖			400~800	★ 400~800		
	NB	0.10~1.00	0.10~0.30	○ ⊕	⊖	★ 400~1200	400~1200				800~2000
		1.00~2.50	0.15~0.25	○ ⊕	⊖	★ 400~1000	400~1000				800~2000
	NC	0.10~1.00	0.10~0.30	○ ⊕	⊖	★ 300~800	300~800				
		1.00~2.50	0.15~0.25	○ ⊕	⊖	★ 300~500	300~500				
NG	0.10~1.00	0.08~0.25	○ ⊕	⊖		★ 300~800	300~800	300~800			
	1.00~2.50	0.15~0.50	○ ⊕	⊖		★ 300~600	300~600	300~600			
H	HM	0.10~0.50	0.08~0.25	○	⊖			10~40	★ 10~40		
S	ST	0.10~1.00	0.05~0.20	○ ⊕	⊖	★ 100~200	100~200				
		1.00~2.50	0.08~0.20	○ ⊕	⊖	★ 100~150	100~150				

★ = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор

TURNING

MICROBORA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

ISO 1832

C	N	G	A	12	04	08	-	GP	NAC	200
1	2	3	4	5	6	7		8	9	10

1	GEOMETRY	
C		80°
D		55°
R		360°
S		90°
T		60°
V		35°
W		80°

2	CLEARANCE ANGLE	
C		7°
N		0°
P		11°

3	TOLERANCE [mm]	
G	±0.025	±0.13
M	±0.05 ±0.15	±0.13

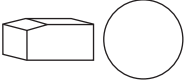
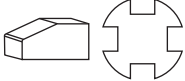
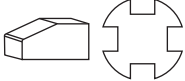

4	SHAPE
A	
N	
W	
X	NIKKO NORM

5	EDGE LENGTH [mm]	
09 12 16	C	
15	D	
06 09 12 15 19	R	
09 12	S	
11 16	T	
16	V	
08	W	

6	THICKNESS [mm]
03	3.18
T3	3.97
04	4.76
06	6.35
07	7.94
10	10.00

7	RADIUS [mm]
...	
00	inch

C	N	G	A	12	04	08	-GP	NAC	200
1	2	3	4	5	6	7	8	9	10

8	EDGE PREPARATION
CC	
GP	↓
GS	
HI	
WH wiper WK	

9	
NAC	Al ₂ O ₃ + TiCN
NAZ	Al ₂ O ₃ + ZrO ₂
NSA	SiAlON
NSN	Si ₃ N ₄
NWR	Whisker

10	APPLICATION
1~2 _{□□}	ISO H
3~4 _{□□}	ISO K
6 _{□□}	ISO S K
7 _{□□}	ISO S

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

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SPARE PARTS

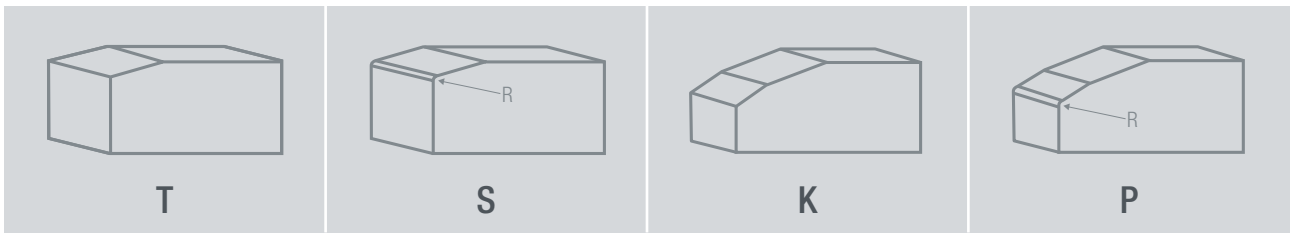
INDEX

GRADES

ISO DIN 513	H					K					S				
	H01	H10	H20	H30	H40	K01	K10	K20	K30	K40	S01	S10	S20	S30	S40
Al ₂ O ₃	NAC200		NAC250												
Al ₂ O ₃ PVD	NAC150														
ZrO ₂						NAZ300									
Si ₃ N ₄						NSN350		NSN400			NSN450				
SiAlON											NSA600		NSA650		
Whisker											NWR700		NWR750		

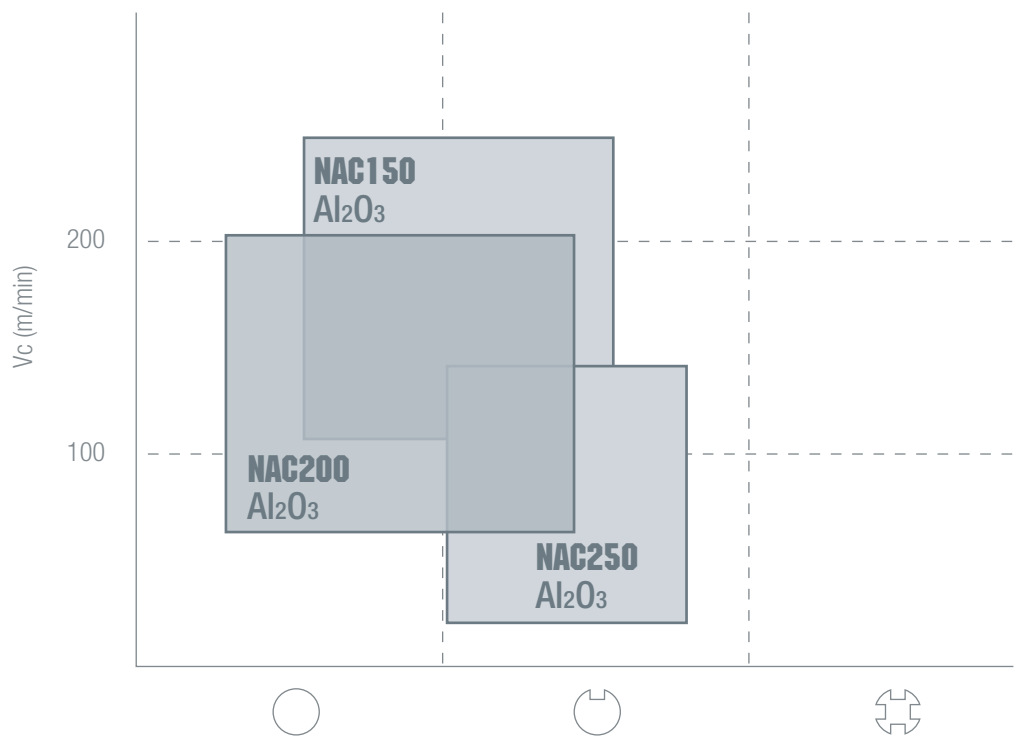
COATED

EDGE PREPARATION STYLE



				H	K	S
CC	T	T00520 T01020		✓	✓	✓
GP	T	T01520 T02020 T02025		✓ ✓	✓	✓ ✓
GS	S	S01525 S02020 S02025		✓ ✓ ✓		
HT	K	K20015		✓	✓	
HI	P	P15015 P20015		✓ ✓		

RANGE ISO **H** CERAMIC



Vc · fn · ap 116

TURNING

MICROBORA

MICROBORING

THREADING

GROOVING

MILLING

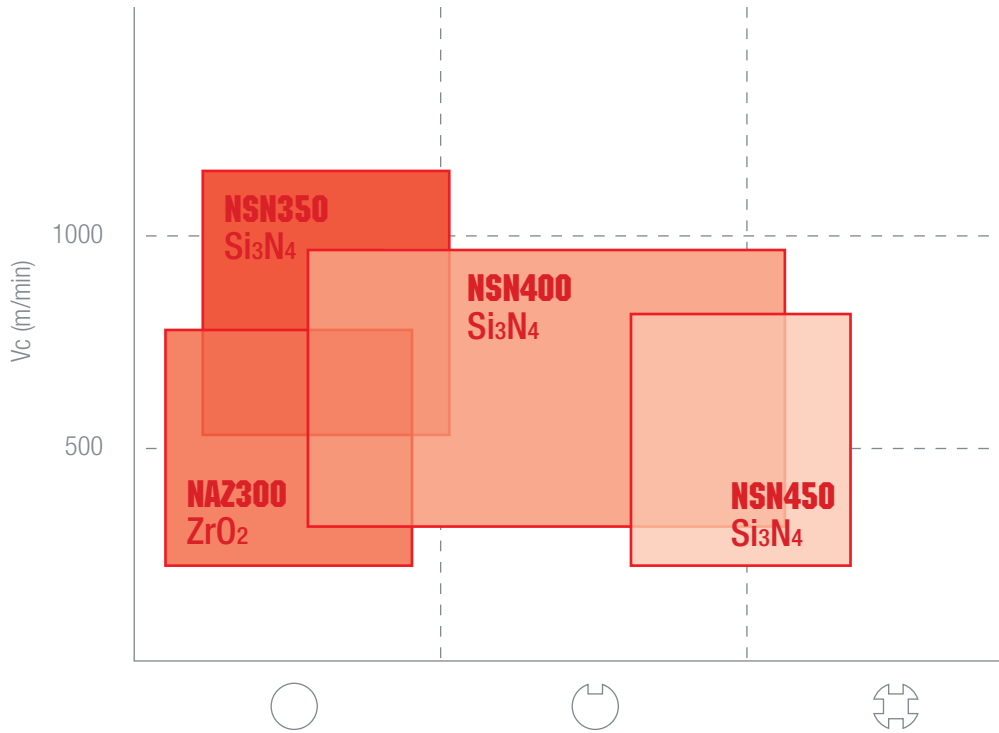
DRILLING

SPARE PARTS

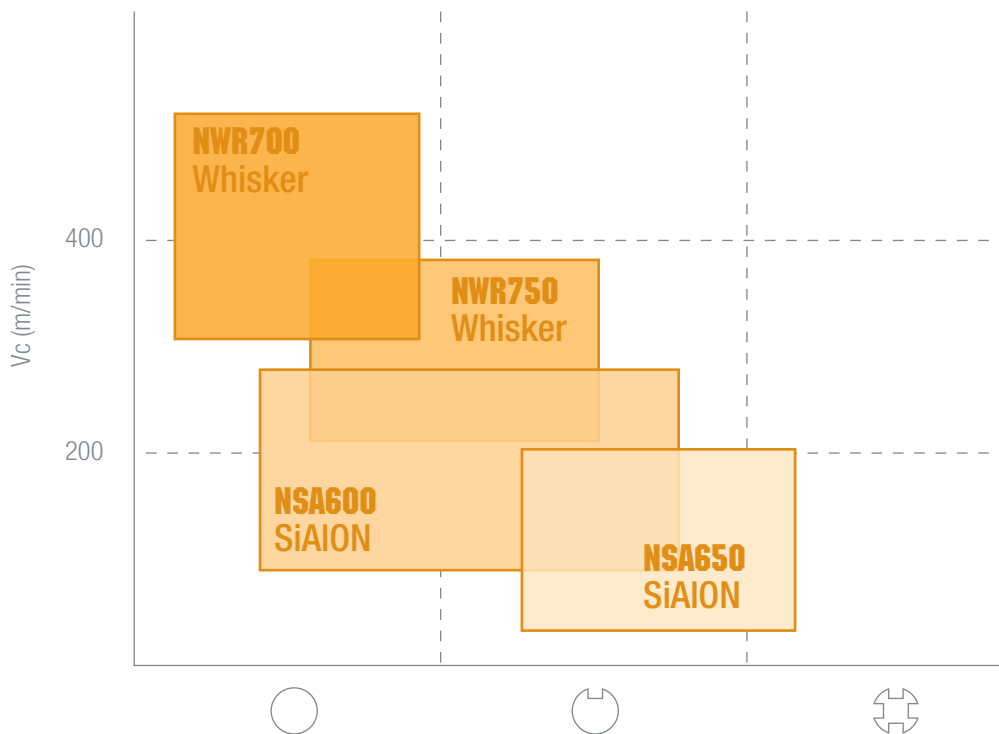
INDEX

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

RANGE ISO **K** CERAMIC




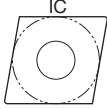

RANGE ISO **S** CERAMIC





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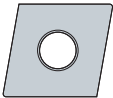
POSITIVE 7° with hole

CC □ □

CC □ □	09T3 □ □	1204 □ □
IC	9,525	12,7
T	3,97	4,76
Ød	4,40	5,50

HOLDERS  127  127

DESCRIPTION	T02020	Al ₂ O ₃		ZrO ₂	Si ₃ N ₄		SiAlON		Whisker			
		NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700	NWR750
GP 	CCGW 09T308-GP	T02020										
	09T312-GP	T02020										
	CCGW 120408-GP	T02020										
	120412-GP	T02020										

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

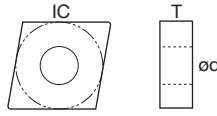
SPARE PARTS

INDEX

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NEGATIVE
with hole

CN



CN 1204 1606 1906

IC	12,70	15,875	19,05
T	4,76	6,35	6,35
Ød	5,16	6,35	7,93

HOLDERS 131 131 131

DESCRIPTION	Al ₂ O ₃	ZrO ₂	Si ₃ N ₄	SiAlON	Whisker														
						NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700	NWR750			
CC	CNGA 120404-CC	T01020	●	●	○														
	120408-CC	T01020	●	●	●														
	120412-CC	T01020	●	●	○														
GP	CNGA 120404-GP	T02020		●		○													
	120404-GP	T02025		●															
	120408-GP	T02020		●	●														
	120408-GP	T02025		●	●														
	120412-GP	T02020		●	●														
	120412-GP	T02025		●	●														
	120416-GP	T02020		○	○														
	120416-GP	T02025		○	○														
	CNGA 160612-GP	T02020																	
	160612-GP	T02025		●															
	160616-GP	T02020																	
	160616-GP	T02025		○															
	CNGA 190616-GP	T02020																	
	190616-GP	T02025		○															
	CNMA 120408-GP	T02020					○	●	○										
120412-GP	T02020					○	●	○											
120416-GP	T02020					○	●	○											
CNMA 160612-GP	T02020							●											
160616-GP	T02020							●											
GS	CNGA 120404-GS	S01525	●																
	120404-GS	S02025		●															
	120408-GS	S01525	●																
	120408-GS	S02025		●															
	120412-GS	S01525	●																
	120412-GS	S02025		●															
WH WIPER	CNGA 120410-WH	T02020		●															
WK WIPER	CNGA 120410-WK	T02020									●								

●, ○ = NEW ITEM

Vc · fn · ap

116

NEGATIVE
without hole

CN □ □

CN □ □	1204 □ □	1207 □ □
IC	12,70	12,70
T	4,76	7,94
Ød	-	-

DESCRIPTION				Material													
				Al ₂ O ₃			ZrO ₂	Si ₃ N ₄		SiAlON		Whisker					
				NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700	NWR750			
CC		CNGN	120408-CC	T00520										○			
			120412-CC	T00520											○		
			120708-CC	T00520												○	
GP		CNGN	120408-GP	T01520										○	○		
			120408-GP	T02020		○				○		○			○	○	
			120412-GP	T01520											○	○	
			120412-GP	T02020		○					○		○			○	○
			120416-GP	T01520											○	○	
			120416-GP	T02020		○					○		○			○	○
		CNGN	120708-GP	T01520											○	○	
			120708-GP	T02020		○				○	●		●	○		○	○
			120712-GP	T01520											○	○	
			120712-GP	T02020		○				○	●		●	○		○	○
			120716-GP	T01520											○	○	
			120716-GP	T02020		○				○	○		○	○		○	○
		CNMN	120412-GP	T02020							○						
			120416-GP	T02020							○						
			CNGX	120708-GP	T02020		●										
CNMX	120712-GP	T02020		●													
	120712-GP	T02020						○	●	○	○						
	120716-GP	T02020						●	●	○	○						

●, ○ = NEW ITEM

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TURNING

MICROBORA

MICROBORING

THREADING

GROOVING

MILLING

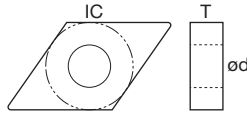
DRILLING

SPARE PARTS

INDEX

NEGATIVE
with hole

DN □ □



DN □ □ 1506 □ □

IC 12,70
T 6,35
ød 5,16



DESCRIPTION	IC	T	ød	Al ₂ O ₃			ZrO ₂	Si ₃ N ₄			SiAlON		Whisker	
				NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700	NWR750
CC 	DNGA	150604-CC	T01020	●	●		○							
		150608-CC	T01020	●	●		○							
		150612-CC	T01020	○	●		○							
GP 	DNGA	150604-GP	T02020		●	○								
		150604-GP	T02025		●									
		150608-GP	T02020		●	●								
		150608-GP	T02025		●									
		150612-GP	T02020		●	○								
		150612-GP	T02025		●									
		DNMA 150612-GP	T02020								●			
GS 	DNGA	150604-GS	S01525	●										
		150604-GS	S02025		●									
		150608-GS	S01525		●									
		150608-GS	S02025		●									
		150612-GS	S01525		○									
		150612-GS	S02025			○								

●, ○ = NEW ITEM

Vc · fn · ap

116

**NEGATIVE
without hole**

DN □ □

DN □ □	1507 □ □
IC	12,70
T	7,94
Ød	-

DESCRIPTION		T02020	Al ₂ O ₃			ZrO ₂	Si ₃ N ₄		SiAlON		Whisker	
			NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700
GP		DNGN 150708-GP	T02020	○				○				
		150712-GP	T02020	○				○				
		150716-GP	T02020	●				○				

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

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POSITIVE 7°
without hole

RC □ □



	RC □ □	0606 □ □	0607 □ □	0907 □ □	1207 □ □	1510 □ □	1910 □ □
IC	6,35	6,35	9,525	12,70	15,87	19,05	
T	6,35	7,94	7,94	7,94	10,00	10,00	
Ød	-	-	-	-	-	-	-
HOLDERS							

DESCRIPTION	IC	Al ₂ O ₃			ZrO ₂	Si ₃ N ₄		SiAlON		Whisker		
		NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700	NWR750
GP	RCGX 090700-GP	T01520										
		T02020	○	○	○				○	○		
	RCGX 120700-GP	T01520										
		T02020	○	○	○				○	○		
GS	RCGX 060600-GS	S02020		●								
		S02020		●								
HI	RCGX 090700-HI	P15015	●	●	●							
		P15015	●	●	●							
	RCGX 151000-HI	P20015		○	○							
		P20015		○	○							

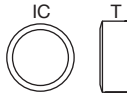
●, ○ = NEW ITEM

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**NEGATIVE
without hole**


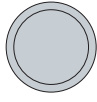
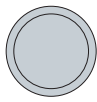
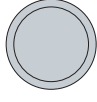
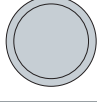
RN □ □

360°



RN□□	1204□□	1207□□	1907□□
IC	12,70	12,70	19,05
T	4,76	7,94	7,94
Ød	-	-	-



DESCRIPTION				Al ₂ O ₃			ZrO ₂	Si ₃ N ₄			SiAlON		Whisker		
				NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700	NWR750	
CC		RNGN 120400-CC	T00520										○	○	
		RNGN 120700-CC	T00520											○	○
		RNGN 190700-CC	T00520											○	○
GP		RNGN 120400-GP	T01520										●	●	
		120400-GP	T02020	○	●	○				●	●				
		RNGN 120700-GP	T01520											●	●
		120700-GP	T02020	○	●	○				●	●				
		RNGN 190700-GP	T01520											○	○
		190700-GP	T02020									○	○		
HI		RNGN 120700-HI	P15015	●	●	●									
		RNGN 190700-HI	P15015			○									
HT		RNGN 120700-HT	K20015	●		●									

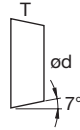
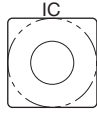
●, ○ = NEW ITEM

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- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
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POSITIVE 7°
with hole

SC □ □



SC □ □ 09T3 □ □ 1204 □ □

IC	9,525	12,70
T	3,97	4,76
Ød	4,40	5,50



DESCRIPTION



Al ₂ O ₃	ZrO ₂	Si ₃ N ₄	SiAlON	Whisker
NAC150				
NAC200				
NAC250				
NAZ300				
NSN350				
NSN400				
NSN450				
NSA600				
NSA650				
NWR700				
NWR750				

GP



SCGW	09T308-GP	T02020
SCGW	120408-GP	T02020


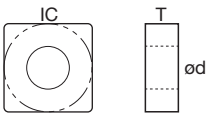
Vc · fn · ap




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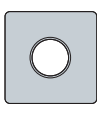
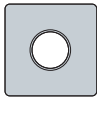
- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

NEGATIVE with hole
SN □ □

SN □ □	1204 □ □
IC	12,70
T	4,76
Ød	5,16

HOLDERS  145

DESCRIPTION	IC	T	Ød	Al ₂ O ₃	ZrO ₂	Si ₃ N ₄	SiAlON	Whisker	Material											
									NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700	NWR750	
CC		SNGA	120404-CC	T01020		●		○												
			120408-CC	T01020		●		○												
			120412-CC	T01020		●		○												
GP		SNGA	120404-GP	T02020				○												
			120404-GP	T02025		●														
			120408-GP	T02020					○											
			120408-GP	T02025		●														
			120412-GP	T02020					○											
			120412-GP	T02025		●														
		SNMA	120408-GP	T02020					●											
			120412-GP	T02020					●											
			120416-GP	T02020					●											

TURNING

MICROBORING

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

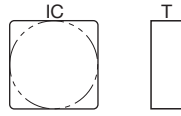
SPARE PARTS

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NEGATIVE
without hole

SN



SN 0904 1204 1207

IC 9,525 12,70 12,70
T 4,76 4,76 7,94
Ød - - -



DESCRIPTION	IC	T	Ød	Al ₂ O ₃		ZrO ₂	Si ₃ N ₄		SiAlON		Whisker		
				NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700
CC	SNGN	120408-CC	T00520										
		120408-CC	T01020				○						
		120412-CC	T00520									○	
		120412-CC	T01020				○						
	SNGN	120708-CC	T00520									○	
		120708-CC	T01020				○						
		120712-CC	T00520									○	
		120712-CC	T01020				○						
GP	SNGN	090408-GP	T02020						●				
		090412-GP	T02020				●		●				
	SNGN	120408-GP	T01520									○	○
		120408-GP	T02020		○				●		○		
		120412-GP	T01520									○	○
		120412-GP	T02020		○				●	●	○		
		120416-GP	T01520									○	○
		120416-GP	T02020		○				○	○	○		
	SNGN	120708-GP	T01520									○	○
		120708-GP	T02020	●	●		●		○		○	○	
		120712-GP	T01520									○	○
		120712-GP	T02020		●				○		○	○	
		120716-GP	T01520									○	○
		120716-GP	T02020		○				○		○		
	SNMN	120416-GP	T02020						●				
	SNGX	120708-GP	T02020		●								
120712-GP		T02020		●									
SNMX		120712-GP	T02020					○	●	○	○		
		120716-GP	T02020					○	●	○	○		

●, ○ = NEW ITEM

Vc · fn · ap

116

NEGATIVE with hole

TN □ □

TN □ □	1604 □ □
IC	9,525
T	4,76
Ød	3,81
HOLDERS	153

DESCRIPTION		TNGA	T01020	Al ₂ O ₃			ZrO ₂	Si ₃ N ₄		SiAlON		Whisker	
				NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700
CC		TNGA	160404-CC	T01020	●	●	○						
			160408-CC	T01020	●	●	○						
			160412-CC	T01020	○	●	○						
GP		TNGA	160404-GP	T02020		●	○						
			160404-GP	T02025		●							
			160408-GP	T02020		●	●						
			160408-GP	T02025		●							
			160412-GP	T02020		●	●						
			160412-GP	T02025		●							
GS		TNGA	160404-GS	S01525	●								
			160404-GS	S02025		●							
			160408-GS	S01525		●							
			160408-GS	S02025		●							
			160412-GS	S01525		○							
			160412-GS	S02025			○						

●, ○ = NEW ITEM

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TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

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**NEGATIVE
without hole**

TN □ □



TN □ □ 1604 □ □ 1607 □ □

IC 9,525 9,525

T 4,76 7,94

Ød - -



DESCRIPTION



Al₂O₃

ZrO₂

Si₃N₄

SiAlON

Whisker

NAC150

NAC200

NAC250

NAZ300

NSN350

NSN400

NSN450

NSA600

NSA650

NWR700

NWR750

CC		TNGN	160408-CC	T01020										
			160412-CC	T01020										
GP		TNGN	160408-GP	T02020		○								
			160412-GP	T02020		○								
		TNGN	160708-GP	T02020		○								
			160712-GP	T02020		○								

Vc · fn · ap



116

**POSITIVE 11°
without hole**

TP □ □

TP □ □	1103 □ □	1603 □ □
IC	6,35	9,525
T	3,18	3,18
Ød	-	-
HOLDERS	157	157

DESCRIPTION		Diagram	Al ₂ O ₃		ZrO ₂	Si ₃ N ₄		SiAlON		Whisker				
			NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700	NWR750	
CC		TPGN	110302-CC	T01020	●	●								
			110304-CC	T01020	●	●								
			110308-CC	T01020	●	●								
		TPGN	160304-CC	T01020	●	●								
			160308-CC	T01020	●	●								
GP		TPGN	110302-GP	T02025		●								
			110304-GP	T02020				○						
			110304-GP	T02025		●								
		TPGN	110308-GP	T02020				●						
			110308-GP	T02025		●								
			160304-GP	T02020					○					
			160304-GP	T02025		●								
		TPGN	160308-GP	T02020				●						
			160308-GP	T02025		●								
			160312-GP	T02020					●					
160312-GP	T02025													
GS		TPGN	110302-GS	S02020	○									
			110304-GS	S02020	○									
			110308-GS	S02020	○									
		TPGN	160304-GS	S02020	○									
			160308-GS	S02020	○									

●, ○ = NEW ITEM

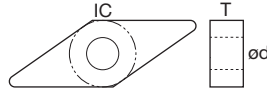
Vc · fn · ap

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- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

**NEGATIVE
with hole**

VN □ □



VN □ □ 1604 □ □

IC 9,525
T 4,76
ød 3,81




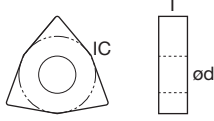
DESCRIPTION	IC	T	ød	Al ₂ O ₃		ZrO ₂	Si ₃ N ₄		SiAlON		Whisker	
				NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650
CC 	VNGA	160404-CC	T01020	●	●		○					
		160408-CC	T01020	●	●		○					
		160412-CC	T01020	○	○		○					
GP 	VNGA	160404-GP	T02020			○		○				
		160404-GP	T02025		●							
		160408-GP	T02020			○		●				
		160408-GP	T02025		●							
		160412-GP	T02020			○			○			
		160412-GP	T02025		○							
GS 	VNGA	160404-GS	S01525	●								
		160404-GS	S02025		●							
		160408-GS	S01525		●							
		160408-GS	S02025		●							
		160412-GS	S01525		○							
		160412-GS	S02025			○						



●, ○ = NEW ITEM


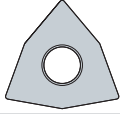
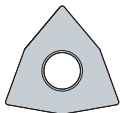
Vc · fn · ap

116

NEGATIVE with hole
WN 



WN <input type="checkbox"/>	0804 <input type="checkbox"/>
IC	12,70
T	4,76
Ød	5,16
	

DESCRIPTION				Al ₂ O ₃		ZrO ₂	Si ₃ N ₄		SiAlON		Whisker	
				NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650
CC		WNGA 080404-CC	T01020	●								
		080408-CC	T01020	●								
		080412-CC	T01020	●								
GP		WNGA 080404-GP	T02020				○					
		080404-GP	T02025	●								
		080408-GP	T02020				●					
		080408-GP	T02025	●								
		080412-GP	T02020				●					
		080412-GP	T02025	●								

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MICROMEGA

MICROBORING

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CUTTING PARAMETERS

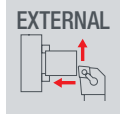
H	HH	HARDENED STEEL
		ACCIAIO TEMPRATO
		GEHÄRTETER STAHL
		ACIER TREMPÉ
		ACERO TEMPLADO
		ЗАКАЛЁННАЯ СТАЛЬ
H	HC	CASEHARDENED STEEL
		ACCIAIO CEMENTATO
		EINGESETZTER STAHL
		ACIER CEMENTÉ
		ACERO CEMENTADO
		ЦЕМЕНТИРОВАННАЯ СТАЛЬ
H	HB	BEARING STEEL
		ACCIAIO PER CUSCINETTI
		STAHL FÜR LAGER
		ACIER POUR ROULEMENTS
		ACERO PARA RODAMIENTOS
		СТАЛЬ ДЛЯ ПОДШИПНИКОВ

K	KG	GREY CAST IRON
		GHISA GRIGIA
		GRAUGUSS
		FONTE GRISE
		FUNDICIÓN GRIS
		ЧУГУН
K	KN	NODULAR CAST IRON
		GHISA SFEROIDALE
		SPHÄROGUSS
		FONTE NODULAIRE
		FUNDICIÓN NODULAR
		ЧУГУН С ШАРОВИДНЫМ ГРАФИТОМ
S	SA	SUPER ALLOYS (Ni BASED)
		SUPERLEGHE (BASE Ni)
		SONDERLEGIERUNGEN (Ni BASIS)
		SUPERALLIAGES (BASE Ni)
		SUPERALEACIONES (BASE Ni)
		СУПЕРСПЛАВЫ (НА ОСНОВЕ Ni)

MATERIAL	ap (mm)	fn (mm/rev)	CUTTING CONDITIONS	Al ₂ O ₃			ZrO ₂	Si ₃ N ₄		SiAlON		Whisker		
				NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700	NWR750
H	HH	0.10~0.50	0.05~0.20	○ ⊕	120~240	* 100~220	60~160							
		0.50~2.00	0.10~0.30	○ ⊕	100~180	* 80~150	40~100							
	HC	0.10~0.50	0.05~0.20	○ ⊕	100~200	* 80~180	50~160							
		0.50~2.00	0.10~0.30	○ ⊕	80~140	* 60~120	40~80							
	HB	0.10~0.50	0.05~0.20	○ ⊕	100~220	* 80~200	40~140							
		0.50~2.00	0.10~0.30	○ ⊕	80~160	* 60~140	30~100							
K	KG	0.20~0.50	0.10~0.30	○ ⊕ ⊕			* 400~800	600~1200	500~1000					
				⊕ ⊕ ⊕					500~1000	* 450~800				
		1.00~4.00	0.25~0.50	○ ⊕ ⊕					600~1200	* 500~1000	450~800			
	KN			⊕ ⊕ ⊕					500~1000	* 450~800	400~600			
		0.20~0.50	0.10~0.30	○ ⊕ ⊕		* 300~600			400~800	350~700				
				⊕ ⊕ ⊕					300~600	250~500		* 250~500		
S	SA	0.50~1.00	0.10~0.30	○ ⊕ ⊕								* 250~500		
				⊕ ⊕ ⊕							180~300	150~280	* 200~350	200~350
		1.00~4.00	0.15~0.40	○ ⊕ ⊕							* 150~250		200~400	
		⊕ ⊕ ⊕								140~240	* 120~220			

* = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор

ISO 1832



NT - P C L N R 25 25 M 12

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

1	CLAMPING SYSTEM	2	GEOMETRY	3	LEAD ANGLE	4	CLEARANCE ANGLE
D		C	80°	A	90° P 117.5°	B	5°
		D	55°	B	75° R 75°	C	7°
		S	90°	D	45° S 45°	N	0°
		T	60°	F	90° V 72.5°		
		V	35°	G	90°		
		W	80°	J	93°		
M				K	75°		
				L	95°		
				N	63°		
P							
S							

5	DIRECTION	6	SHANK	7	8	TOTAL LENGTH [mm]	9	EDGE LENGTH [mm]	
L		(H)		(B)		L	06 09 12	C	
							16 19	D	
							07 11 15	S	
N							09 12 19	T	
							09 11 16 22	V	
R							11 16	W	
							06 08		

ISO 1832



NT - **A 10 K** - **S C L C R 06**

1 2 3 4 5 6 7 8 9

1	2 SHANK DIAMETER [mm]	3 TOTAL LENGTH [mm]	4 CLAMPING SYSTEM
A STEEL + Coolant		 H 100	D
E CARBIDE + Coolant		K 125	M
S STEEL		M 150	P
V VORTEX BAR		Q 180	S
		R 200	
		S 250	
		T 300	
		U 350	

5	9	6 LEAD ANGLE	7 CLEARANCE ANGLE	8 DIRECTION
C	06 09 12 16 19	A	B	L
D	07 11 15	F	C	
S	09 12 19	J	N	R
T	06 09 11 22	K	P	
V	11 16	L		
W	06 08 12(06)	Q		
		U		
		Z		

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

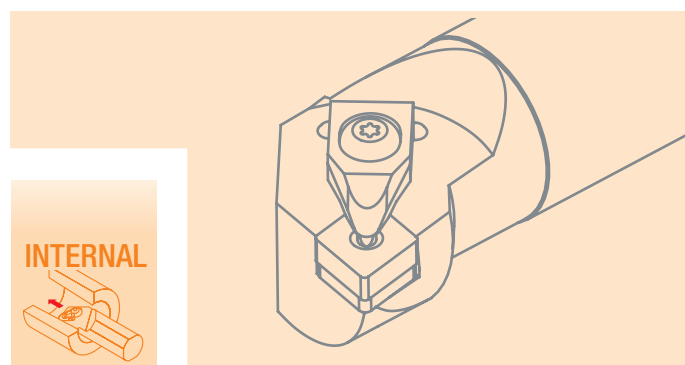
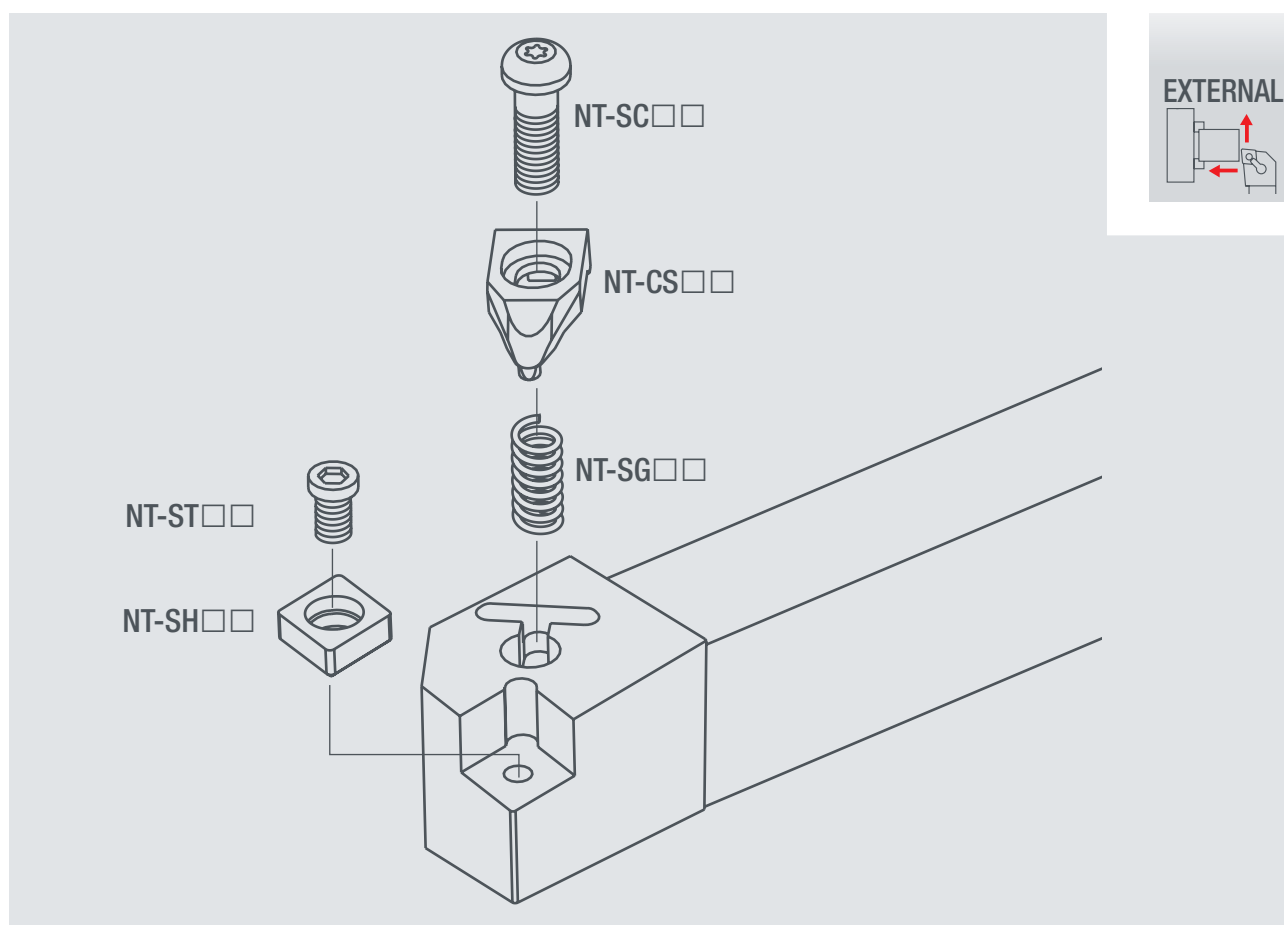
SPARE PARTS

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CLAMPING SYSTEM (NEGATIVE)







D

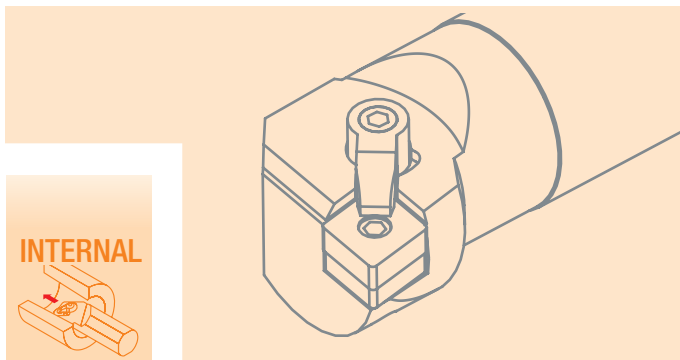
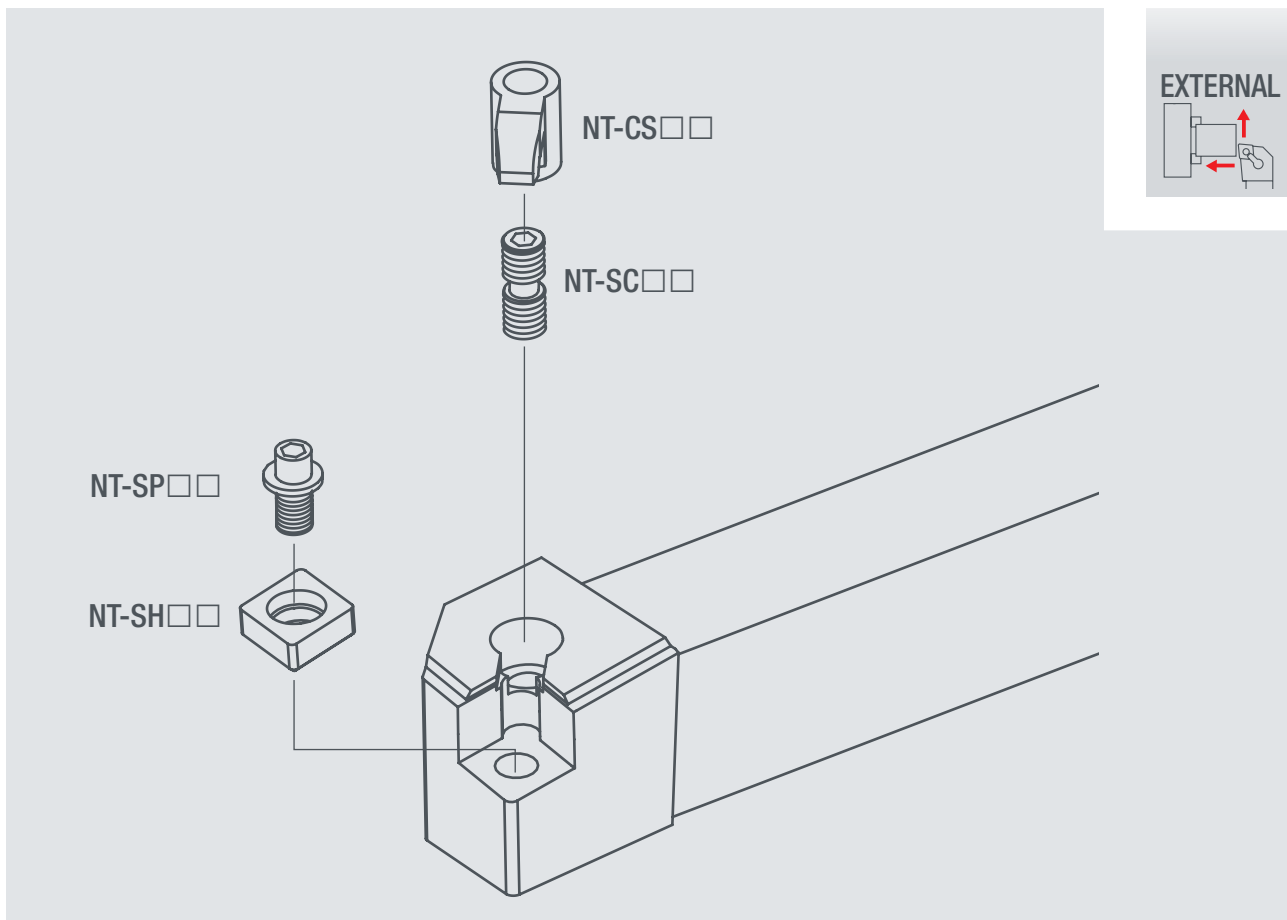
-  FAST CLAMPING - IDEAL FOR SHORT CHIP MATERIALS
-  SERRAGGIO RAPIDO - IDEALE PER MATERIALI A TRUCIOLO CORTO
-  SCHNELLVERSCHLUSS - BESONDERS GEEIGNET BEI KURZSPANENDEN MATERIALIEN
-  SERRAGE RAPIDE - PARFAIT POUR MATIÈRES À COPEAUX COURTS
-  AMARRE RAPIDO - IDEAL PARA MATERIALES DE VIRUTA CORTA
-  БЫСТРОЕ КРЕПЛЕНИЕ - ИДЕАЛЬНО ПОДХОДИТ ДЛЯ КОРОТКОСТРУЖЕЧНЫХ МАТЕРИАЛОВ



CLAMPING SYSTEM (NEGATIVE)

M

-  HIGH CLAMPING STRENGTH - FIRST CHOICE FOR CERAMIC INSERTS
-  ELEVATA FORZA DI SERRAGGIO - PRIMA SCELTA PER INSERTI CERAMICI
-  HOHE VERSCHLUSSKRAFT - ERSTE WAHL BEI KERAMIK WENDEPLATTEN
-  HAUTE FORCE DE SERRAGE - PREMIER CHOIX POUR PLAQUETTES EN CÉRAMIQUE
-  ALTA FUERZA DE APRIETE - PRIMERA ELECCIÓN PARA PLACAS EN CERAMICO
-  ПОВЫШЕННАЯ ЖЁСТКОСТЬ КРЕПЛЕНИЯ - ПЕРВЫЙ ВЫБОР ДЛЯ КЕРАМИЧЕСКИХ ПЛАСТИН



TURNING

MICROEGA

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DRILLING

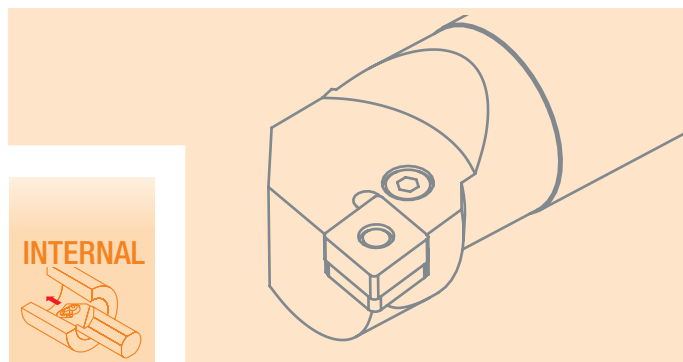
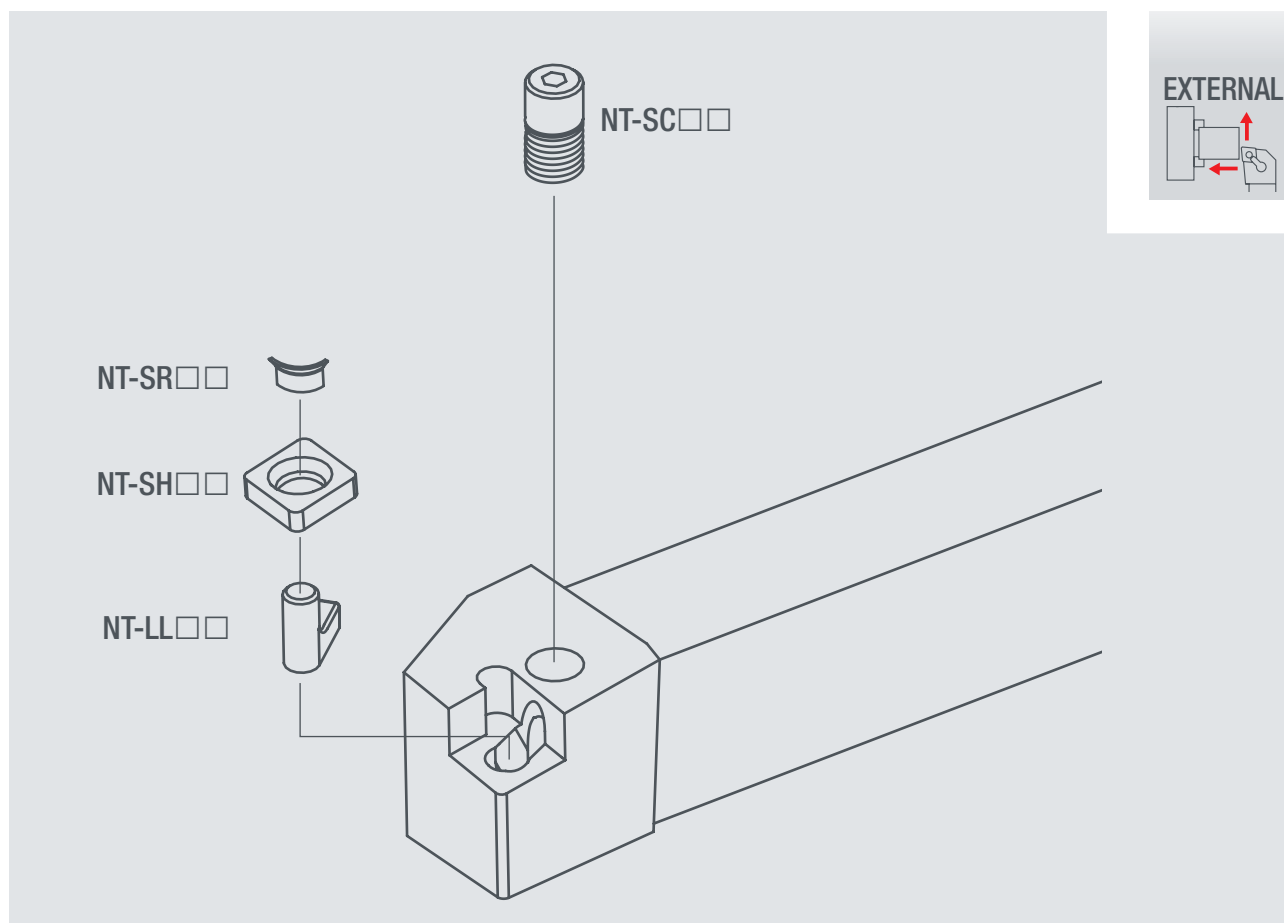
SPARE PARTS

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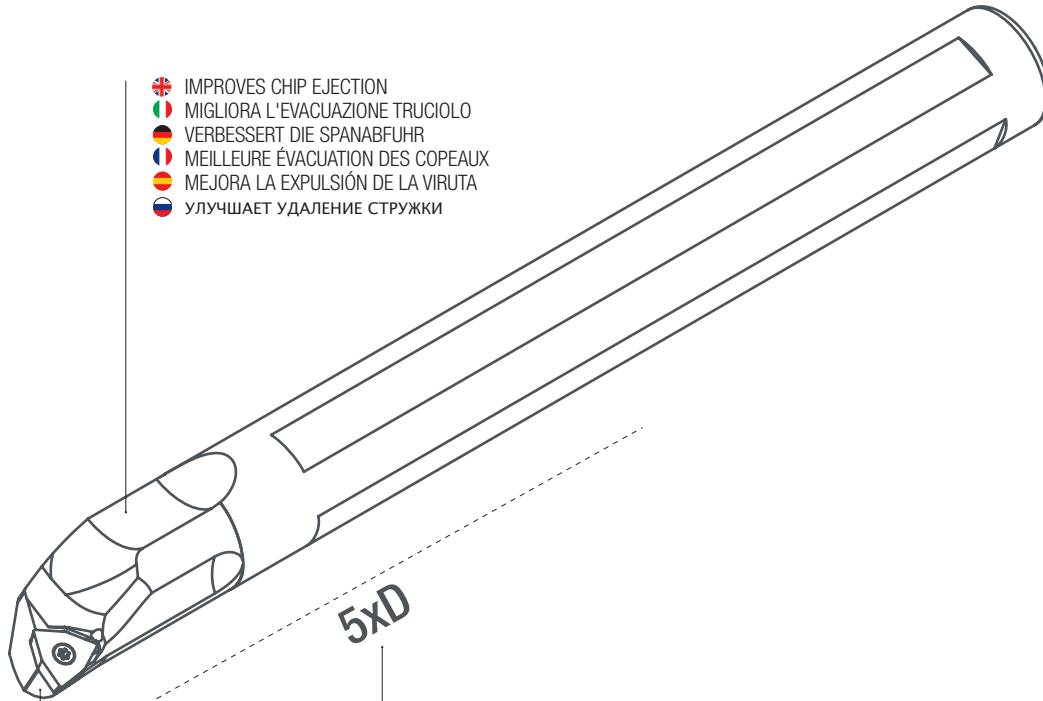
P

CLAMPING SYSTEM (NEGATIVE)

-  EASY TO USE - EXCELLENT CHIP EJECTION
-  FACILITÀ DI UTILIZZO - OTTIMA EVACUAZIONE TRUCIOLO
-  EINFACHE EINSATZMÖGLICHKEIT - OPTIMALE SPANABFUHR
-  GRANDE FACILITÉ D'EMPLOI - EXCELLENTE ÉVACUATION DES COPEAUX
-  DE FÁCIL EMPLEO - EXCELENTE EXPULSIÓN DE VIRUTA
-  ЛЕГКОСТЬ В ИСПОЛЬЗОВАНИИ - ОТЛИЧНОЕ УДАЛЕНИЕ СТРУЖКИ



VORTEX BAR CONCEPT

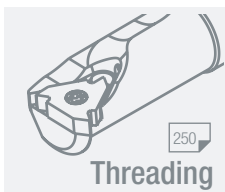
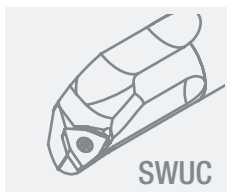
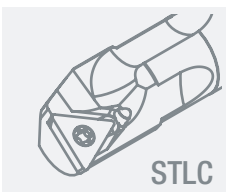
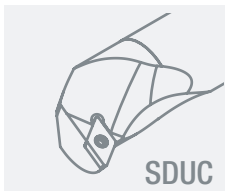
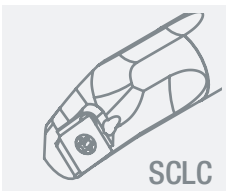


- IMPROVES CHIP EJECTION
- MIGLIORA L'EVACUAZIONE TRUCIOLO
- VERBESSERT DIE SPANABFUHR
- MEILLEURE ÉVACUATION DES COPEAUX
- MEJORA LA EXPULSIÓN DE LA VIRUTA
- УЛУЧШАЕТ УДАЛЕНИЕ СТРУЖКИ

5xD

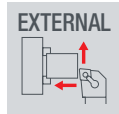
- REDUCES VIBRATIONS EVEN WITH SIGNIFICANT OVERHANG (MAX 5xD)
- RIDUCE LE VIBRAZIONI ANCHE AD ELEVATE SPORGENZE (MAX 5xD)
- REDUZIERT DIE SCHWINGUNG AUCH BEI GROSSEN AUSKRAGUNGSLÄNGEN (MAX 5xD)
- RÉDUCTION DES VIBRATIONS, AUSSI AVEC DES PORTE-FEUX IMPORTANTS (5xD MAXI)
- REDUCCIÓN DE LAS VIBRACIONES, TAMBIÉN EN CASO DE GRAN VOLADIZO (HASTA 5xD)
- СОКРАЩАЕТ ВИБРАЦИИ, ДАЖЕ ПОВЫШЕННОЙ ДЛИНЕ ВЫСТУПАЮЩЕЙ ЧАСТИ(МАКСИМУМ 5xD)

- BROAD RANGE OF GEOMETRIES FOR BOTH TURNING AND THREADING
- AMPIA GAMMA DI GEOMETRIE PER TORNITURA E FILETTATURA
- BREITE PRODUKTPALETTE FÜR DREH- UND GEWINDEVORGÄNGE
- GRANDE GAMME DE GÉOMÉTRIES POUR LE TOURNAGE ET LE FILETAGE
- GAMA MUY RICA DE GEOMETRÍAS PARA TORNEADO Y ROSCADO
- ШИРОКАЯ ГАММА ГЕОМЕТРИЙ ДЛЯ ТОЧЕНИЯ И НАРЕЗАНИЯ РЕЗЬБЫ



- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

SELECTION GUIDE



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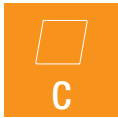
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	SCAC  CC□□ 127	SCLC  CC□□ 127	SCLC-N  CC□□ 128	DCLN  CN□□ 131	MCLN  CN□□ 131	MCKN  CN□□ 132	MCRN  CN□□ 132	PCLN  CN□□ 133	
	SDAC  DC□□ 135	SDJC  DC□□ 135	SDJC-N  DC□□ 136	SDNCN  DC□□ 136	DDJN  DN□□ 141	MDJN  DN□□ 141	PDJN  DN□□ 142		
	SSDCN  SC□□ 144	MSBN  SN□□ 145	MSDNN  SN□□ 145	MSKN  SN□□ 146	MSSN  SN□□ 146				
	STAC  TC□□ 149	STFC  TC□□ 149	STGC  TC□□ 150	DTGN  TN□□ 153	DTJN  TN□□ 153	MTJN  TN□□ 154			
	SVJB  VB□□ 158	SVBNN  VB□□ 158	SVJC  VC□□ 159	SVPC  VC□□ 159	SVVCN  VC□□ 160	DVJN  VN□□ 163	DVNN  VN□□ 163	MVJN  VN□□ 164	MVNN  VN□□ 164
	DWLN  WN□□ 167	MWLN  WN□□ 167	PWLN  WN□□ 168						

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^ASCLC CC□□ 128	^SSCLC CC□□ 129	^VSCLC CC□□ 129	^ESCLC CC□□ 130	^SSCZC CC□□ 130	^ADCLN CN□□ 133	^SMCLN CN□□ 134	^APCLN CN□□ 134
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^SSDQC DC□□ 137	^VSDQC DC□□ 137	^ASDUC DC□□ 138	^SSDUC DC□□ 138	^VSDUC DC□□ 139	^ESDUC DC□□ 139	^SSDZC DC□□ 140	^ADDUN DN□□ 142	^SMDUN DN□□ 143
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^SSSKC SC□□ 144	^SMSKN SN□□ 147
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^SSTUB TB□□ 148	^ASTFC TC□□ 150	^SSTFC TC□□ 151	^ESTFC TC□□ 151	^VSTLC TC□□ 152	^ADTFN TN□□ 154	^SMTUN TN□□ 155	^SSTUP TP□□ 156	^SCTUP TP□□ 157
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^SSVJC VC□□ 160	^SSVQC VC□□ 161	^SSVUC VC□□ 161	^SSVZC VC□□ 162	^SMVQN VN□□ 165	^SMVUN VN□□ 165
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^SSWUC WC□□ 166	^ADWLN WN□□ 168	^SMWLN WN□□ 169	^APWLN WN□□ 169
---	---	---	---

TURNING

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CAPTION LEGENDA / LEGENDE / LÉGENDE / CLAVE / УСЛОВНЫЕ ОБОЗНАЧЕНИЯ

EXTERNAL

- EXTERNAL HOLDERS
- UTENSILI PER LAVORAZIONE ESTERNA
- WERKZEUG FÜR AUSSENBEARBEITUNGEN
- OUTILS POUR USINAGE EXTÉRIEUR
- HERRAMIENTAS PARA MECANIZADO EXTERIOR
- ИНСТРУМЕНТ ДЛЯ ВНЕШНЕЙ ОБРАБОТКИ

D

- DOUBLE CLAMPING
- DOPPIO BLOCCAGGIO
- DOPPELKLEMME
- FERMETURE DOUBLE
- SUJECIÓN RÍGIDA
- ДВОЙНОЕ КРЕПЛЕНИЕ

M

- DOUBLE CLAMPING (CLAMP AND LOCK PIN)
- DOPPIO BLOCCAGGIO (STAFFA + PERNO ECCENTRICO)
- KLEMME UND SICHERUNGSTIFT
- FIXATION PAR BRIDE-COIN
- BRIDA CUÑA
- ДВОЙНОЕ КРЕПЛЕНИЕ(КРОНШТЕЙН И ЭКСЦЕНТРИК)

P

- LEVER LOCKING
- BLOCCAGGIO A LEVA
- HEBELVERSCHLUSS
- FIXATION PAR LEVIER
- SUJECIÓN POR EL AGUJERO
- КРЕПЛЕНИЕ РЫЧАЖКОМ

S

- SCREW CLAMPING
- BLOCCAGGIO A VITE
- SCHRAUBSPANNUNG
- FIXATION PAR VIS
- AMARRE POR TORNILLO
- КРЕПЛЕНИЕ ВИНТОМ

INTERNAL

- INTERNAL HOLDERS
- UTENSILI PER LAVORAZIONE INTERNA
- WERKZEUG FÜR INNENBEARBEITUNGEN
- OUTILS POUR USINAGE INTÉRIEUR
- HERRAMIENTAS PARA MECANIZADO INTERIOR
- ИНСТРУМЕНТ ДЛЯ ВНУТРЕННЕЙ ОБРАБОТКИ

C

- CLAMP-ON
- BLOCCAGGIO A STAFFA
- SPANNUNG DURCH KLEMME
- FIXATION PAR BRIDE
- SUJECIÓN POR CARA SUPERIOR
- КРЕПЛЕНИЕ КРОНШТЕЙНОМ

D

- DOUBLE CLAMPING
- DOPPIO BLOCCAGGIO
- DOPPELKLEMME
- FERMETURE DOUBLE
- SUJECIÓN RÍGIDA
- ДВОЙНОЕ КРЕПЛЕНИЕ

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S

- SCREW CLAMPING
- BLOCCAGGIO A VITE
- SCHRAUBSPANNUNG
- FIXATION PAR VIS
- AMARRE POR TORNILLO
- КРЕПЛЕНИЕ ВИНТОМ

max 3D

- OVERHANG
- SPORGENZA
- UEBERSTAND
- PORTE-À-FEUX
- VOLADIZO
- ВЫСТУП

max 5D

- OVERHANG
- SPORGENZA
- UEBERSTAND
- PORTE-À-FEUX
- VOLADIZO
- ВЫСТУП

max 7D

- OVERHANG
- SPORGENZA
- UEBERSTAND
- PORTE-À-FEUX
- VOLADIZO
- ВЫСТУП

COOLANT

- INSIDE COOLANT TOOL
- UTENSILE CON REFRIGERAZIONE INTERNA
- WERKZEUG MIT IK
- OUTIL AVEC TROUS D'HUILE
- HERRAMIENTA CON SUMINISTRO INTERNO DE REFRIGERANTE
- ИНСТРУМЕНТ С ВНУТРЕННИМ ОХЛАЖДЕНИЕМ

CARBIDE

- CARBIDE BODY WITH BRAZED STEEL HEAD
- CORPO IN METALLO DURO CON TESTA IN ACCIAIO (BRASATA)
- KÖRPER AUS WHM UND KOPF AUS STAHL (GELÖTET)
- CORPS EN CARBURE ET TÊTE EN ACIER (SOUDÉ)
- HERRAMIENTA EN METAL DURO CON CABEZA EN ACERO (SOLDADA)
- КОРПУС ИЗ ТВЕРДОГО СПЛАВА СО СТАЛЬНОЙ ГОЛОВКОЙ

VORTEX

- SPECIAL HEAD DESIGN TO IMPROVE CHIP EJECTION
- SPECIALE GEOMETRIA DELLA TESTA PER MIGLIORARE L'EVACUAZIONE TRUCIOLO
- SPEZIALGEOMETRIE DES KOPFES UM DIE SPANABFUHR ZU VERBESSERN
- GEOMETRIE PARTICULIÈRE DE LA TÊTE POUR AMÉLIORER L'ÉVACUATION DES COPEAUX
- GEOMETRIA ESPECIAL DE LA CABEZA PARA FAVORECER LA EXPULSIÓN DE VIRUTA
- СПЕЦИАЛЬНАЯ ФОРМА ГОЛОВКИ ДЛЯ БОЛЕЕ ЭФФЕКТИВНОГО УДАЛЕНИЯ СТРУЖКИ

SCAC

POSITIVE 7° with hole **CC**□□

CC□□	DESCRIPTION	STOCK		DIMENSIONS					S	T	W	L	F	L	S	T	W	L	
		R	L	H	B	L	F	l											
CC□□0602	NT-SCAC%/L 0808K 06	○	○	8	8	125	8.5	-	NT-ST010	NT-FT07									
	1010K 06	●	●	10	10	125	10.5	-	NT-ST010	NT-FT07									
	1212K 06	●	●	12	12	125	12.5	-	NT-ST010	NT-FT07									
CC□□09T3	NT-SCAC%/L 1212K 09	●	●	12	12	125	12.5	-	NT-ST030	NT-FT15									
	1616K 09	●	●	16	16	125	16.5	-	NT-ST030	NT-FT15									

SCLC

POSITIVE 7° with hole **CC**□□ NEW

CC□□	DESCRIPTION	STOCK		DIMENSIONS					S			T			W			L	F	L	S	T	W	L		
		R	L	H	B	L	F	l	S	T	W	L	F	l	S	T	W									
CC□□09T3	NT-SCLC%/L 2020K 09S	●	●	20	20	125	25	-	NT-SH011	NT-SR010	NT-WR035	NT-ST007	NT-FT15													
	2525M 09S	○	○	25	25	150	32	-	NT-SH011	NT-SR010	NT-WR035	NT-ST007	NT-FT15													
CC□□1204	NT-SCLC%/L 2020K 12S	●	●	20	20	125	25	-	NT-SH001	NT-SR001	NT-WR040	NT-ST007	NT-FT15													
	2525M 12S	●	●	25	25	150	32	-	NT-SH001	NT-SR001	NT-WR040	NT-ST007	NT-FT15													

carbide 19
PCBN 51
diamond 83
ceramic 101

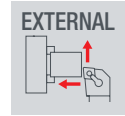
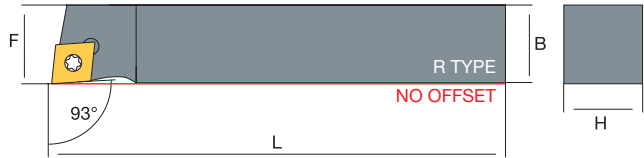
●, ○ = NEW ITEM

TURNING
 MICROMEGA
 MICROBORING
 THREADING
 GROOVING
 MILLING
 DRILLING
 SPARE PARTS
 INDEX

SCLC-N

POSITIVE 7° with hole

CC□□

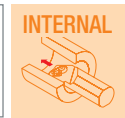
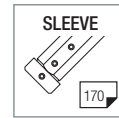
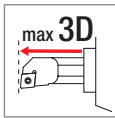
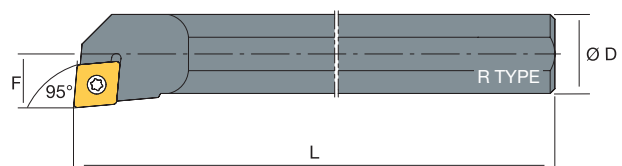
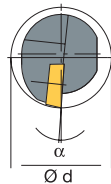


CC□□	DESCRIPTION	STOCK		DIMENSIONS							Screw	Tool					
		R	L	H	B	L	F	α									
CC□□0602	NT-SCLC ^{R/L} 0808K 06N	○	○	8	8	125	8	-	NT-ST010	NT-FT07							
	1010K 06N	●	●	10	10	125	10	-	NT-ST010	NT-FT07							
CC□□09T3	NT-SCLC ^{R/L} 1212K 09N	●	●	12	12	125	12	-	NT-ST030	NT-FT15							
	1616K 09N	●	●	16	16	125	16	-	NT-ST030	NT-FT15							

A^SSCLC

POSITIVE 7° with hole

CC□□



CC□□	DESCRIPTION	STOCK		DIMENSIONS							Screw	Tool					
		R	L	ØD	Ød	L	F	α									
CC□□0602	NT-A08H-SCLC ^{R/L} 06	●	●	8	10	100	5	13°	NT-ST006	NT-FT07							
	NT-A10K-SCLC ^{R/L} 06	●	●	10	12	125	6	12°	NT-ST010	NT-FT07							
	NT-A12M-SCLC ^{R/L} 06	●	●	12	14	150	7	9°	NT-ST010	NT-FT07							
	NT-A16Q-SCLC ^{R/L} 06	●	●	16	18	180	9	7°	NT-ST010	NT-FT07							
CC□□09T3	NT-A12M-SCLC ^{R/L} 09	●	●	12	14	150	7	13°	NT-ST025	NT-FT15							
	NT-A16Q-SCLC ^{R/L} 09	●	●	16	18	180	9	9°	NT-ST030	NT-FT15							
	NT-A20R-SCLC ^{R/L} 09	●	●	20	22	200	11	5°	NT-ST030	NT-FT15							

carbide 19 PCBN 51 diamond 83 ceramic 101

S SCLC

POSITIVE 7° with hole **CC**□□

CC□□	DESCRIPTION	STOCK		DIMENSIONS					S			SLEEVE		INTERNAL	
		R	L	ØD	Ød	L	F	α	170	170	170	170			
CC□□0602	NT-S08H-SCLC ^{R/L} 06	●	●	8	10	100	5	13°	-	-	-	NT-ST006	NT-FT07		
	NT-S10K-SCLC ^{R/L} 06	●	●	10	12	125	6	12°	-	-	-	NT-ST010	NT-FT07		
	NT-S12M-SCLC ^{R/L} 06	●	●	12	14	150	7	9°	-	-	-	NT-ST010	NT-FT07		
	NT-S16Q-SCLC ^{R/L} 06	●	●	16	18	180	9	7°	-	-	-	NT-ST010	NT-FT07		
CC□□09T3	NT-S12M-SCLC ^{R/L} 09	●	●	12	14	150	7	13°	-	-	-	NT-ST025	NT-FT15		
	NT-S16Q-SCLC ^{R/L} 09	●	●	16	18	180	9	9°	-	-	-	NT-ST030	NT-FT15		
	NT-S20R-SCLC ^{R/L} 09	●	●	20	22	200	11	5°	-	-	-	NT-ST030	NT-FT15		
CC□□1204	NT-S20R-SCLC ^{R/L} 12	●	●	20	25	200	13	8°	-	-	-	NT-ST050	NT-FT15		
	NT-S25R-SCLC ^{R/L} 12	●	●	25	32	200	17	8°	-	-	-	NT-ST050	NT-FT15		
	NT-S32S-SCLC ^{R/L} 12S	●	●	32	39	250	22	6°	NT-SH001	NT-SR001	NT-WR040	NT-ST050	NT-FT15		
	NT-S40T-SCLC ^{R/L} 12S	●	●	40	50	300	27	4°	NT-SH001	NT-SR001	NT-WR040	NT-ST050	NT-FT15		

V SCLC

POSITIVE 7° with hole **CC**□□

CC□□	DESCRIPTION	STOCK		DIMENSIONS					S		SLEEVE		INTERNAL	
		R	L	ØD	Ød	L	F	α	170	170	170	170		
CC□□0602	NT-V08H-SCLC ^{R/L} 06-10	●	●	8	10	100	5	13°	NT-ST006	NT-FT07				
	NT-V10K-SCLC ^{R/L} 06-12	●	●	10	12	125	6	12°	NT-ST010	NT-FT07				
	NT-V12M-SCLC ^{R/L} 06-14	●	●	12	14	150	7	9°	NT-ST010	NT-FT07				
CC□□09T3	NT-V12M-SCLC ^{R/L} 09-14	●	●	12	14	150	7	13°	NT-ST025	NT-FT15				
	NT-V16Q-SCLC ^{R/L} 09-18	●	●	16	18	180	9	9°	NT-ST030	NT-FT15				
	NT-V20R-SCLC ^{R/L} 09-22	●	●	20	22	200	11	5°	NT-ST030	NT-FT15				
	NT-V25S-SCLC ^{R/L} 09-27	●	●	25	27	250	14.5	5°	NT-ST030	NT-FT15				
CC□□1204	NT-V20R-SCLC ^{R/L} 12-25	●	●	20	25	200	13	8°	NT-ST050	NT-FT15				
	NT-V25S-SCLC ^{R/L} 12-32	●	●	25	32	250	17	8°	NT-ST050	NT-FT15				

carbide 19 PCBN 51 diamond 83 ceramic 101

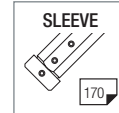
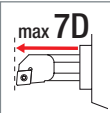
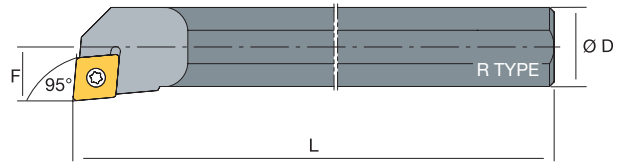
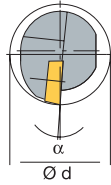
●, ○ = NEW ITEM

TURNING
MICROBORA
MICROBORING
THREADING
GROOVING
MILLING
DRILLING
SPARE PARTS
INDEX

E SCLC

POSITIVE 7°
with hole

CC □ □



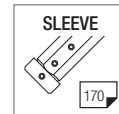
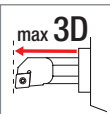
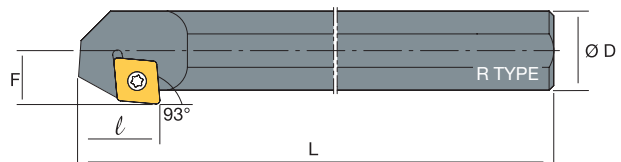
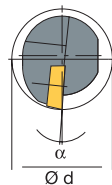
CC □ □	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	ØD	Ød	L	F	α							
CC □ □ 0602	NT-E08K-SCLC ^{R/L} 06	●	●	8	10	125	5	13°	NT-ST006	NT-FT07					
	NT-E10K-SCLC ^{R/L} 06	●	●	10	12	125	6	12°	NT-ST010	NT-FT07					
	NT-E12M-SCLC ^{R/L} 06	●	●	12	14	150	7	9°	NT-ST010	NT-FT07					
CC □ □ 09T3	NT-E12M-SCLC ^{R/L} 09	●	●	12	14	150	7	13°	NT-ST025	NT-FT15					
	NT-E16R-SCLC ^{R/L} 09	●	●	16	18	200	9	9°	NT-ST030	NT-FT15					
	NT-E20R-SCLC ^{R/L} 09	●	●	20	25	200	12.5	5°	NT-ST030	NT-FT15					

S SCZC

NEW

POSITIVE 7°
with hole

CC □ □



CC □ □	DESCRIPTION	STOCK		DIMENSIONS							Screw	Tool					
		R	L	ØD	Ød	L	F	α	l								
CC □ □ 0602	NT-S08H-SCZC ^{R/L} 06	●	●	8	12	100	6.5	13°	10	NT-ST006	NT-FT07						
	NT-S10K-SCZC ^{R/L} 06	●	●	10	14	125	7.5	12°	10	NT-ST010	NT-FT07						
	NT-S12M-SCZC ^{R/L} 06	●	●	12	16	150	8.5	10°	10	NT-ST010	NT-FT07						
CC □ □ 09T3	NT-S16Q-SCZC ^{R/L} 09	●	●	16	21	180	11.5	10°	16	NT-ST030	NT-FT15						
	NT-S20R-SCZC ^{R/L} 09	●	●	20	25	200	13.5	8°	18	NT-ST030	NT-FT15						
	NT-S25R-SCZC ^{R/L} 09	●	●	25	32	200	16	8°	18	NT-ST030	NT-FT15						

carbide

19

PCBN

51

diamond

83

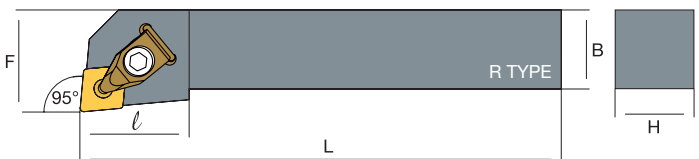
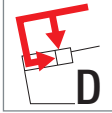
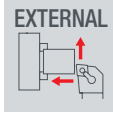
ceramic



101

●, ○ = NEW ITEM

DCLN


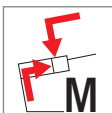
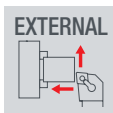
NEGATIVE with hole CN□□






CN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
CN□□1204	NT-DCLN [®] /L 2020K 12	●	●	20	20	125	25	37	NT-SH030	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	2525M 12	●	●	25	25	150	32	37	NT-SH030	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	3225P 12	●	●	32	25	170	32	37	NT-SH030	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	*NT-ST200 →  NT-WR025													

MCLN

NEGATIVE with hole CN□□

CN□□	DESCRIPTION	STOCK		DIMENSIONS									
		R	L	H	B	L	F	l					
CN□□1204	NT-MCLN [®] /L 2020K 12	●	●	20	20	125	25	34	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030
	2525M 12	●	●	25	25	150	32	34	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030
	3232P 12	●	●	32	32	170	40	43	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030
CN□□1606	NT-MCLN [®] /L 2525M 16	●	●	25	25	150	32	34	NT-SH055	NT-SP040	NT-CS010	NT-SC010	NT-WR030
	3232P 16	●	●	32	32	170	40	43	NT-SH055	NT-SP040	NT-CS010	NT-SC010	NT-WR030
CN□□1906	NT-MCLN [®] /L 3232P 19	○	○	32	32	170	40	43	NT-SH080	NT-SP050	NT-CS015	NT-SC070	NT-WR040
	4040S 19	○	○	40	40	250	50	40	NT-SH080	NT-SP050	NT-CS015	NT-SC070	NT-WR040

carbide
▶
20
PCBN
▶
52
diamond
▶
84
ceramic
▶
102

TURNING

MICROBORING

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

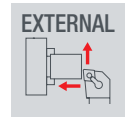
SPARE PARTS

INDEX

MCKN

NEGATIVE
with hole

CN□□

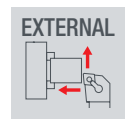
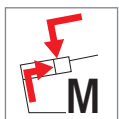


CN□□	DESCRIPTION	STOCK		DIMENSIONS						←		←		
		R	L	H	B	L	F	l						
CN□□1204	NT-MCKN [®] /L 2020K 12	●	●	20	20	125	25	32	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030	
	2525M 12	●	●	25	25	150	32	32	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030	
	3232P 12	●	●	32	32	170	40	37	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030	

MCRN

NEGATIVE
with hole

CN□□



CN□□	DESCRIPTION	STOCK		DIMENSIONS						←		←		
		R	L	H	B	L	F	l						
CN□□1204	NT-MCRN [®] /L 2020K 12	●	●	20	20	125	25	34	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030	
	2525M 12	●	●	25	25	150	32	34	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030	
	3232P 12	●	●	32	32	170	40	43	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030	

carbide ▶ 20

PCBN ▶ 52

diamond ▶ 84

ceramic ▶ 102

PCLN

NEGATIVE with hole **CN**□□

CN□□	DESCRIPTION	STOCK		DIMENSIONS						Icons				
		R	L	H	B	L	F	l						
CN□□1204	NT-PCLN [®] /L 2020K 12	●	●	20	20	125	25	26	NT-SH035	NT-SR020	NT-LL020	NT-SC025	NT-WR030	
	2525M 12	●	●	25	25	150	32	26	NT-SH035	NT-SR020	NT-LL020	NT-SC025	NT-WR030	

^ADCLN

NEGATIVE with hole **CN**□□

CN□□	DESCRIPTION	STOCK		DIMENSIONS					Icons					
		R	L	ØD	Ød	L	F	α						
CN□□1204	NT-A25R-DCLN [®] /L 12	●	●	25	32	200	17	14°	NT-SH035	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	NT-A32S-DCLN [®] /L 12	●	●	32	40	250	22	14°	NT-SH035	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	NT-A40T-DCLN [®] /L 12	●	●	40	50	300	27	12°	NT-SH035	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	*NT-ST200 → NT-WR025													

carbide 20
PCBN 52
diamond 84
ceramic 102

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

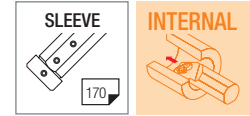
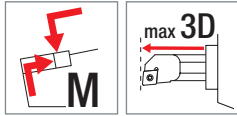
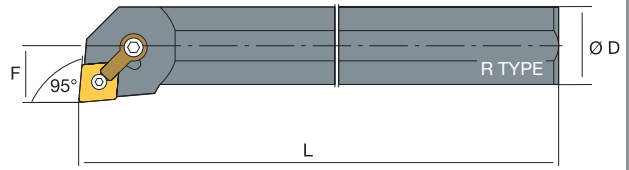
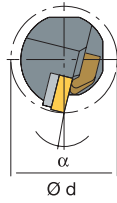
SPARE PARTS

INDEX

S MCLN

NEGATIVE
with hole

CN□□



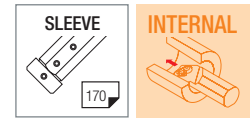
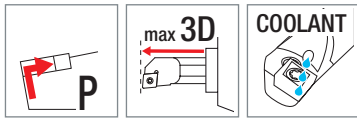
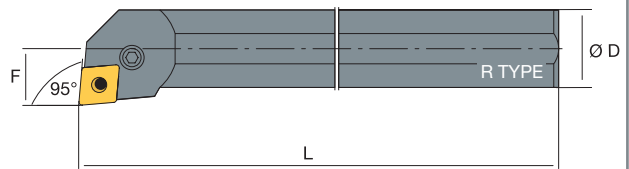
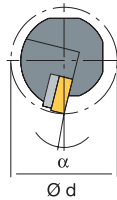
CN□□	DESCRIPTION	STOCK		DIMENSIONS					ACCESSORIES					
		R	L	ØD	Ød	L	F	α	Holder	Workpiece	Tool	Workpiece	Tool	
CN□□1204	NT-S20R-MCLN ^R /L 12	●	●	20	25	200	13	17°	-	NT-SP035	NT-WR025	NT-CS030	NT-SC030	NT-WR025
	NT-S25R-MCLN ^R /L 12	●	●	25	32	200	17	14°	-	NT-SP035	NT-WR025	NT-CS010	NT-SC008	NT-WR030
	NT-S32S-MCLN ^R /L 12	●	●	32	40	250	22	14°	NT-SH030	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
	NT-S40T-MCLN ^R /L 12	●	●	40	50	300	27	12°	NT-SH030	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
	NT-S50U-MCLN ^R /L 12	●	●	50	63	350	35	12°	NT-SH030	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
CN□□1606	NT-S40T-MCLN ^R /L 16	●	●	40	50	300	27	11°	NT-SH055	NT-SP040	NT-WR030	NT-CS010	NT-SC010	NT-WR030
	NT-S50U-MCLN ^R /L 16	●	●	50	63	350	35	12°	NT-SH055	NT-SP040	NT-WR030	NT-CS010	NT-SC010	NT-WR030
CN□□1906	NT-S50U-MCLN ^R /L 19	○	○	50	63	350	35	12°	NT-SH080	NT-SP050	NT-WR030	NT-CS015	NT-SC070	NT-WR030

A PCLN

NEW

NEGATIVE
with hole

CN□□



CN□□	DESCRIPTION	STOCK		DIMENSIONS					ACCESSORIES					
		R	L	ØD	Ød	L	F	α	Holder	Workpiece	Tool	Workpiece	Tool	
CN□□1204	NT-A25R-PCLN ^R /L 12	●	●	25	32	200	17	11°	-	NT-SR015	NT-LL015	NT-SC015	NT-WR025	
	NT-A32S-PCLN ^R /L 12	●	●	32	40	250	22	11°	NT-SH035	NT-SR020	NT-LL020	NT-SC025	NT-WR030	
	NT-A40T-PCLN ^R /L 12	●	●	40	50	300	27	10°	NT-SH035	NT-SR020	NT-LL020	NT-SC025	NT-WR030	

carbide

20

PCBN

52

diamond

84

ceramic

102

●, ○ = NEW ITEM

SDAC

POSITIVE 7° with hole **DC**□□

DC□□	DESCRIPTION	STOCK		DIMENSIONS						Screw	Tool					
		R	L	H	B	L	F	l								
DC□□0702	NT-SDAC [®] /L 0808K 07	○	○	8	8	125	8.5	-	NT-ST010	NT-FT07						
	1010K 07	●	●	10	10	125	10.5	-	NT-ST010	NT-FT07						
	1212K 07	●	●	12	12	125	12.5	-	NT-ST010	NT-FT07						
DC□□11T3	NT-SDAC [®] /L 1212K 11	●	●	12	12	125	12.5	-	NT-ST035	NT-FT15						
	1616K 11	●	●	16	16	125	16.5	-	NT-ST035	NT-FT15						

SDJC

POSITIVE 7° with hole **DC**□□

DC□□	DESCRIPTION	STOCK		DIMENSIONS						Screw			Tool					
		R	L	H	B	L	F	l	Screw	Tool	Tool	Screw	Tool					
DC□□11T3	NT-SDJC [®] /L 1616H 11	●	●	16	16	100	20	-	-	-	-	NT-ST035	NT-FT15					
	2020K 11	●	●	20	20	125	25	-	-	-	-	NT-ST035	NT-FT15					
	2525M 11	●	●	25	25	150	32	-	-	-	-	NT-ST035	NT-FT15					
	NT-SDJC [®] /L 2020K 11S	●	●	20	20	125	25	-	NT-SH007	NT-SR010	NT-WR035	NT-ST040	NT-FT15					
	2525M 11S	●	●	25	25	150	32	-	NT-SH007	NT-SR010	NT-WR035	NT-ST040	NT-FT15					

carbide ▶ 23
PCBN ▶ 55
diamond ▶ 85

TURNING

MICROBORA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

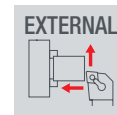
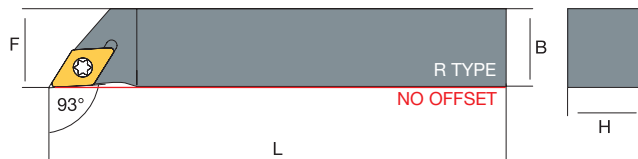
SPARE PARTS

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SDJC-N

POSITIVE 7°
with hole

DC□□



DC□□	DESCRIPTION	STOCK		DIMENSIONS												
		R	L	H	B	L	F	l								
DC□□0702	NT-SDJC ^{R/L} 0808K 07N	○	○	8	8	125	8	-	NT-ST010	NT-FT07						
	1010K 07N	●	●	10	10	125	10	-	NT-ST010	NT-FT07						
	1212K 07N	●	●	12	12	125	12	-	NT-ST010	NT-FT07						
DC□□11T3	NT-SDJC ^{R/L} 1212K 11N	●	●	12	12	125	12	-	NT-ST035	NT-FT15						
	1616K 11N	●	●	16	16	125	16	-	NT-ST035	NT-FT15						

SDNCN

POSITIVE 7°
with hole

DC□□



DC□□	DESCRIPTION	STOCK		DIMENSIONS														
		R	L	H	B	L	F	l										
DC□□0702	NT-SDNCN 0808H 07	○	○	8	8	100	4	-	-	-	-	NT-ST010	NT-FT07					
	1010H 07	○	○	10	10	100	5	-	-	-	-	NT-ST010	NT-FT07					
	1212H 11	●	●	12	12	100	6	-	-	-	-	NT-ST035	NT-FT15					
DC□□11T3	1616H 11	●	●	16	16	100	8	-	-	-	-	NT-ST035	NT-FT15					
	2020K 11	●	●	20	20	125	10	-	-	-	-	NT-ST035	NT-FT15					
	2525M 11	●	●	25	25	150	12.5	-	-	-	-	NT-ST035	NT-FT15					
	NT-SDNCN 2020K 11S	○	○	20	20	125	10	-	NT-SH007	NT-SR010	NT-WR035	NT-ST040	NT-FT15					
	2525M 11S	○	○	25	25	150	12.5	-	NT-SH007	NT-SR010	NT-WR035	NT-ST040	NT-FT15					

carbide

23

PCBN

55

diamond

85

S^SSDQC

POSITIVE 7° with hole **DC**□□

DC□□	DESCRIPTION	STOCK		DIMENSIONS				α	Screw	Holder				
		R	L	ØD	Ød	L	F							
DC□□0702	NT-S10M-SDQC ^{R/L} 07	●	●	10	13	150	7	10°	NT-ST010	NT-FT07				
	NT-S12M-SDQC ^{R/L} 07	●	●	12	16	150	9	8°	NT-ST010	NT-FT07				
	NT-S16Q-SDQC ^{R/L} 07	●	●	16	20	180	11	6°	NT-ST010	NT-FT07				
	NT-S20R-SDQC ^{R/L} 07	●	●	20	25	200	13	6°	NT-ST010	NT-FT07				
DC□□11T3	NT-S16Q-SDQC ^{R/L} 11	●	●	16	20	180	11	6°	NT-ST035	NT-FT15				
	NT-S20R-SDQC ^{R/L} 11	●	●	20	25	200	13	8°	NT-ST035	NT-FT15				
	NT-S25R-SDQC ^{R/L} 11	●	●	25	30	200	17	4°	NT-ST035	NT-FT15				
	NT-S32S-SDQC ^{R/L} 11	●	●	32	39	250	20	4°	NT-ST035	NT-FT15				

V^VSDQC

POSITIVE 7° with hole **DC**□□

DC□□	DESCRIPTION	STOCK		DIMENSIONS				α	Screw	Holder				
		R	L	ØD	Ød	L	F							
DC□□0702	NT-V10K-SDQC ^{R/L} 07-13	●	●	10	13	125	7	10°	NT-ST010	NT-FT07				
	NT-V12M-SDQC ^{R/L} 07-16	●	●	12	16	150	9	8°	NT-ST010	NT-FT07				
	NT-V16Q-SDQC ^{R/L} 07-20	●	●	16	20	180	11	6°	NT-ST010	NT-FT07				
	NT-V20R-SDQC ^{R/L} 07-25	●	●	20	25	200	13	5°	NT-ST010	NT-FT07				
DC□□11T3	NT-V16Q-SDQC ^{R/L} 11-20	●	●	16	20	180	11	7°	NT-ST035	NT-FT15				
	NT-V20R-SDQC ^{R/L} 11-25	●	●	20	25	200	13	8°	NT-ST035	NT-FT15				
	NT-V25S-SDQC ^{R/L} 11-30	●	●	25	30	250	17	4°	NT-ST035	NT-FT15				

carbide ▶ 23
PCBN ▶ 55
diamond ▶ 85

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

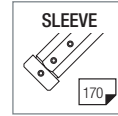
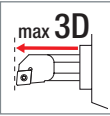
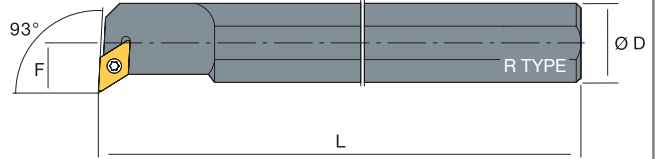
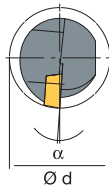
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A^SSDUC

POSITIVE 7° with hole

DC□□

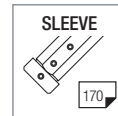
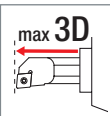
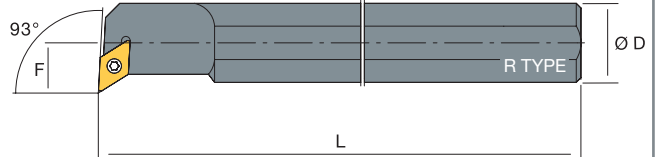
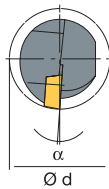


DC□□	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	ØD	Ød	L	F	α							
DC□□0702	NT-A10M-SDUC ^{R/L} 07	●	●	10	14	150	7	10°	NT-ST010	NT-FT07					
	NT-A12M-SDUC ^{R/L} 07	●	●	12	16	150	9	8°	NT-ST010	NT-FT07					
	NT-A16Q-SDUC ^{R/L} 07	●	●	16	20	180	11	6°	NT-ST010	NT-FT07					
	NT-A20R-SDUC ^{R/L} 07	●	●	20	25	200	13	5°	NT-ST010	NT-FT07					
DC□□11T3	NT-A16Q-SDUC ^{R/L} 11	●	●	16	23	180	11	7°	NT-ST035	NT-FT15					
	NT-A20R-SDUC ^{R/L} 11	●	●	20	27	200	13	8°	NT-ST035	NT-FT15					

S^SSDUC

POSITIVE 7° with hole

DC□□



DC□□	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	ØD	Ød	L	F	α							
DC□□0702	NT-S10M-SDUC ^{R/L} 07	●	●	10	14	150	7	10°	NT-ST010	NT-FT07					
	NT-S12M-SDUC ^{R/L} 07	●	●	12	16	150	9	8°	NT-ST010	NT-FT07					
	NT-S16Q-SDUC ^{R/L} 07	●	●	16	20	180	11	6°	NT-ST010	NT-FT07					
	NT-S20R-SDUC ^{R/L} 07	●	●	20	25	200	13	5°	NT-ST010	NT-FT07					
DC□□11T3	NT-S16Q-SDUC ^{R/L} 11	●	●	16	23	180	11	7°	NT-ST035	NT-FT15					
	NT-S20R-SDUC ^{R/L} 11	●	●	20	27	200	13	8°	NT-ST035	NT-FT15					
	NT-S25R-SDUC ^{R/L} 11	●	●	25	32	200	17	4°	NT-ST035	NT-FT15					
	NT-S32S-SDUC ^{R/L} 11	●	●	32	39	250	22	4°	NT-ST035	NT-FT15					
	NT-S40T-SDUC ^{R/L} 11	●	●	40	50	300	24	2°	NT-ST040	NT-FT15					

carbide

23

PCBN

55

diamond

85

VSDUC

POSITIVE 7° with hole **DC** □ □

DC □ □	DESCRIPTION	STOCK		DIMENSIONS											
		R	L	ØD	Ød	L	F	α							
DC □ □ 0702	NT-V10K-SDUC ^R /L 07-14	●	●	10	14	125	7	10°	NT-ST010	NT-FT07					
	NT-V12M-SDUC ^R /L 07-16	●	●	12	16	150	9	8°	NT-ST010	NT-FT07					
	NT-V16Q-SDUC ^R /L 07-20	●	●	16	20	180	11	6°	NT-ST010	NT-FT07					
	NT-V20R-SDUC ^R /L 07-25	●	●	20	25	200	13	5°	NT-ST010	NT-FT07					
DC □ □ 11T3	NT-V16Q-SDUC ^R /L 11-23	●	●	16	23	180	11	7°	NT-ST035	NT-FT15					
	NT-V20R-SDUC ^R /L 11-27	●	●	20	27	200	13	8°	NT-ST035	NT-FT15					
	NT-V25S-SDUC ^R /L 11-32	●	●	25	32	250	17	4°	NT-ST035	NT-FT15					

ESDUC

POSITIVE 7° with hole **DC** □ □

DC □ □	DESCRIPTION	STOCK		DIMENSIONS											
		R	L	ØD	Ød	L	F	α							
DC □ □ 0702	NT-E10K-SDUC ^R /L 07	●	●	10	14	125	7	10°	NT-ST010	NT-FT07					
	NT-E12M-SDUC ^R /L 07	●	●	12	16	150	9	8°	NT-ST010	NT-FT07					
DC □ □ 11T3	NT-E16R-SDUC ^R /L 11	●	●	16	23	200	11	6°	NT-ST035	NT-FT15					
	NT-E20R-SDUC ^R /L 11	●	●	20	27	200	13	5°	NT-ST035	NT-FT15					

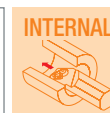
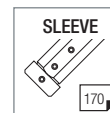
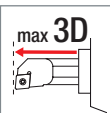
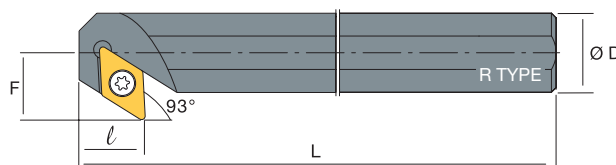
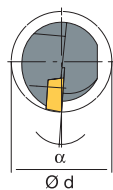
carbide
23
PCBN
55
diamond
85

TURNING
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S^SSDZC

POSITIVE 7°
with hole

DC□□



DC□□	DESCRIPTION	STOCK		DIMENSIONS												
		R	L	ØD	Ød	L	F	α	l							
DC□□0702	NT-S10M-SDZC ^R /L 07	●	●	10	14	150	8.5	10°	11	NT-ST010	NT-FT07					
	NT-S12M-SDZC ^R /L 07	●	●	12	17	150	10.5	9°	11	NT-ST010	NT-FT07					
	NT-S16Q-SDZC ^R /L 07	●	●	16	21	180	12.5	8°	11	NT-ST010	NT-FT07					
DC□□11T3	NT-S20R-SDZC ^R /L 11	●	●	20	27	200	15.5	8°	16	NT-ST035	NT-FT15					
	NT-S25R-SDZC ^R /L 11	○	○	25	33	200	18	6°	20	NT-ST035	NT-FT15					
	NT-S32S-SDZC ^R /L 11	○	○	32	39	250	21.5	4°	20	NT-ST035	NT-FT15					

carbide

23

PCBN

55

diamond

85

DDJN

NEGATIVE with hole **DN**□□

DN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
DN□□1104	NT-DDJN ^{R/L} 1616H 11	○	○	16	16	100	20	34	NT-SH007	NT-ST008*	NT-CS250	NT-SG250	NT-SC250	NT-TX15
	2020K 11	●	●	20	20	125	25	34	NT-SH007	NT-ST008*	NT-CS250	NT-SG250	NT-SC250	NT-TX15
	2525M 11	●	●	25	25	150	32	34	NT-SH007	NT-ST008*	NT-CS250	NT-SG250	NT-SC250	NT-TX15
DN□□1506*	NT-DDJN ^{R/L} 2020K 1506	●	●	20	20	125	25	42	NT-SH045	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	2525M 1506	●	●	25	25	150	32	40	NT-SH045	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	3225P 1506	●	●	32	25	170	32	40	NT-SH045	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	DN□□1504 → NT-SH025													
	*NT-ST008 → NT-WR020													
	*NT-ST200 → NT-WR025													

MDJN

NEGATIVE with hole **DN**□□

DN□□	DESCRIPTION	STOCK		DIMENSIONS									
		R	L	H	B	L	F	l					
DN□□1506*	NT-MDJN ^{R/L} 2020K 1506	●	●	20	20	125	25	34	NT-SH045	NT-SP025	NT-CS025	NT-SC010	NT-WR030
	2525M 1506	●	●	25	25	150	32	34	NT-SH045	NT-SP025	NT-CS025	NT-SC010	NT-WR030
	3232P 1506	●	●	32	32	170	40	43	NT-SH045	NT-SP025	NT-CS025	NT-SC010	NT-WR030
	DN□□1504 → NT-SH025												

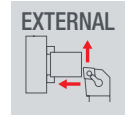
carbide 24
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diamond 86
ceramic 104

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PDJN

NEGATIVE
with hole

DN

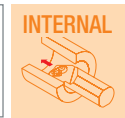
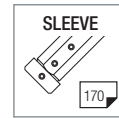
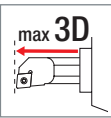
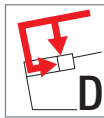
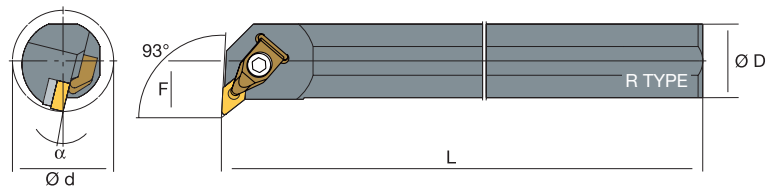


DN <input type="text"/> <input type="text"/>	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
DN <input type="text"/> 1506	NT-PDJN [®] /L 2525M 1506	●	●	25	25	150	32	36		NT-SH020	NT-SR020	NT-LL020	NT-SC020	NT-WR030

ADDUN

NEGATIVE
with hole

DN



DN <input type="text"/> <input type="text"/>	DESCRIPTION	STOCK		DIMENSIONS											
		R	L	ØD	Ød	L	F	α							
DN <input type="text"/> 1506	NT-A25R-DDUN [®] /L 1506	●	●	25	32	200	17	16°		NT-SH020	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	NT-A32S-DDUN [®] /L 1506	●	●	32	40	250	22	12°		NT-SH020	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	NT-A40T-DDUN [®] /L 1506	●	●	40	50	300	27	10°		NT-SH020	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	*NT-ST200 → NT-WR025														

carbide 24 PCBN 56 diamond 86 ceramic 104

SMDUN

NEGATIVE with hole

DN

SLEEVE

INTERNAL

DN 	DESCRIPTION	STOCK		DIMENSIONS					←		←		
		R	L	ØD	Ød	L	F	α					
DN 1506	NT-S32S-MDUN ^{R/L} 1506	●	●	32	40	250	22	17°	NT-SH045	NT-SP025	NT-CS025	NT-SC008	NT-WR030
	NT-S40T-MDUN ^{R/L} 1506	●	●	40	50	300	27	15°	NT-SH045	NT-SP025	NT-CS025	NT-SC010	NT-WR030
	NT-S50U-MDUN ^{R/L} 1506	●	●	50	63	350	35	12°	NT-SH045	NT-SP025	NT-CS025	NT-SC010	NT-WR030

carbide

24

PCBN

56

diamond

86

ceramic

104

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

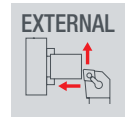
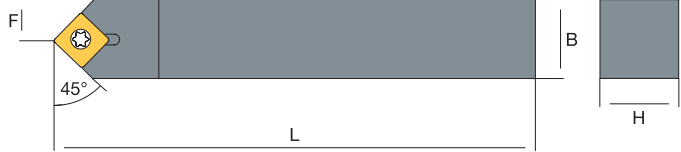
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SSDCN

NEW

POSITIVE 7°
with hole

SC□□



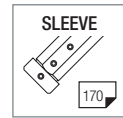
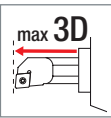
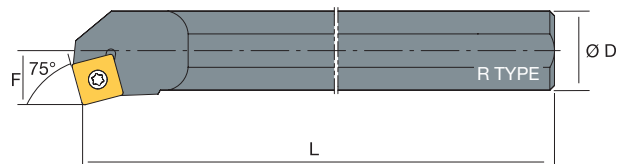
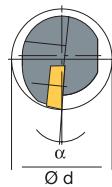
SC□□	DESCRIPTION	STOCK	DIMENSIONS							Screw	Tool				
			H	B	L	F	l								
SC□□09T3	NT-SSDCN 2020K 09	●	20	20	125	10	-	NT-ST020	NT-FT15						
	2525M 09	●	25	25	150	12.5	-	NT-ST020	NT-FT15						
SC□□1204	NT-SSDCN 2020K 12	●	20	20	125	10	-	NT-ST050	NT-FT15						
	2525M 12	●	25	25	150	12.5	-	NT-ST050	NT-FT15						

SSSKC

NEW

POSITIVE 7°
with hole

SC□□



SC□□	DESCRIPTION	STOCK		DIMENSIONS						Screw	Tool					
		R	L	ØD	Ød	L	F	α								
SC□□09T3	NT-S12M-SSKC ^{R/L} 09	●	●	12	16	150	8.5	12°	NT-ST020	NT-FT15						
	NT-S16Q-SSKC ^{R/L} 09	●	●	16	20	180	11	11°	NT-ST020	NT-FT15						
	NT-S20R-SSKC ^{R/L} 09	●	●	20	25	200	13	6°	NT-ST020	NT-FT15						
	NT-S25R-SSKC ^{R/L} 09	●	●	25	31	200	15	6°	NT-ST020	NT-FT15						
SC□□1204	NT-S25R-SSKC ^{R/L} 12	●	●	25	32	200	17	7°	NT-ST020	NT-FT15						
	NT-S32S-SSKC ^{R/L} 12	●	●	32	40	250	22	7°	NT-ST020	NT-FT15						

carbide 27

ceramic 108

●, ○ = NEW ITEM

MSBN

NEGATIVE with hole **SN**□□

SN□□	DESCRIPTION	STOCK		DIMENSIONS					←		←		
		R	L	H	B	L	F	l					
SN□□1204	NT-MSBN [®] /L 2020K 12	●	●	20	20	125	17	37	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
	2525M 12	●	●	25	25	150	22	37	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
	3232P 12	○	○	32	32	170	27	42	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
SN□□1906	NT-MSBN [®] /L 3232P 19	○	○	32	32	170	27	42	NT-SH090	NT-SP050	NT-CS015	NT-SC070	NT-WR040
	4040R 19	○	○	40	40	200	35	42	NT-SH090	NT-SP050	NT-CS015	NT-SC070	NT-WR040

MSDNN

NEGATIVE with hole **SN**□□

SN□□	DESCRIPTION	STOCK		DIMENSIONS					←		←		
		R	L	H	B	L	F	l					
SN□□1204	NT-MSDNN 2020K 12	●	●	20	20	125	10	35	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
	2525M 12	●	●	25	25	150	12.5	37	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
	3232P 12	○	○	32	32	170	16	43	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030

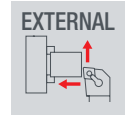
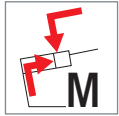
carbide 28 PCBN 60 ceramic 109

TURNING
MICROBORA
MICROBORING
THREADING
GROOVING
MILLING
DRILLING
SPARE PARTS
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MSKN

NEGATIVE
with hole

SN□□

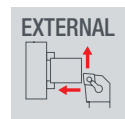
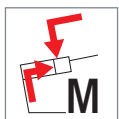
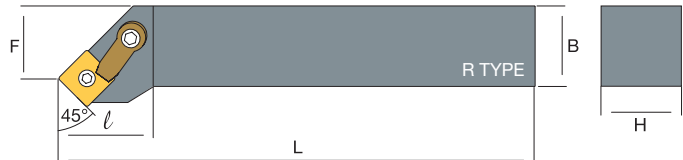


SN□□	DESCRIPTION	STOCK		DIMENSIONS					NT-SH070		NT-CS010		NT-WR030
		R	L	H	B	L	F	l	NT-SP010	NT-SC010	NT-SC010	NT-WR030	
SN□□1204	NT-MSKN [®] /L 2020K 12	●	●	20	20	125	25	37	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
	2525M 12	●	●	25	25	150	32	37	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
	3232P 12	○	○	32	32	170	40	42	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
SN□□1906	NT-MSKN [®] /L 4040R 19	○	○	40	40	200	50	42	NT-SH090	NT-SP050	NT-CS015	NT-SC070	NT-WR040

MSSN

NEGATIVE
with hole

SN□□



SN□□	DESCRIPTION	STOCK		DIMENSIONS					NT-SH070		NT-CS010		NT-WR030
		R	L	H	B	L	F	l	NT-SP010	NT-SC010	NT-SC010	NT-WR030	
SN□□1204	NT-MSSN [®] /L 2020K 12	●	●	20	20	125	25	37	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
	2525M 12	●	●	25	25	150	32	37	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
	3232P 12	○	○	32	32	170	40	42	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
SN□□1906	NT-MSSN [®] /L 3232P 19	○	○	32	32	170	40	42	NT-SH090	NT-SP050	NT-CS015	NT-SC070	NT-WR040
	4040R 19	○	○	40	40	200	40	42	NT-SH090	NT-SP050	NT-CS015	NT-SC070	NT-WR040

carbide 28

PCBN 60

ceramic 109

SMSKN

NEGATIVE with hole

SN □ □

NEW

SLEEVE

INTERNAL

SN □ □	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	ØD	Ød	L	F	α						
SN □ □ 1204	NT-S20R-MSKN ^R /L 12	●	●	20	25	200	13	17°	-	NT-SP035	NT-WR025	NT-CS030	NT-SC030	NT-WR025
	NT-S25R-MSKN ^R /L 12	●	●	25	32	200	17	14°	-	NT-SP035	NT-WR025	NT-CS010	NT-SC008	NT-WR030
	NT-S32S-MSKN ^R /L 12	●	●	32	40	250	22	14°	NT-SH070	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
	NT-S40T-MSKN ^R /L 12	●	●	40	50	300	27	15°	NT-SH070	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
	NT-S50U-MSKN ^R /L 12	●	●	50	63	350	35	12°	NT-SH070	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
SN □ □ 1906	NT-S50U-MSKN ^R /L 19	○	○	50	63	350	35	8°	NT-SH090	NT-SP050	NT-WR040	NT-CS015	NT-SC070	NT-WR040

carbide 28

PCBN 60

ceramic 109

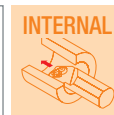
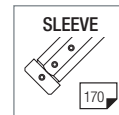
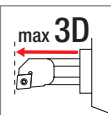
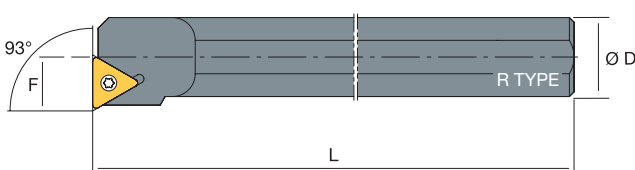
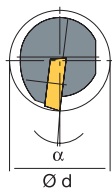
●, ○ = NEW ITEM

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

S^SSTUB

POSITIVE 5°
with hole

TB□□



TB□□	DESCRIPTION	STOCK		DIMENSIONS											
		R	L	ØD	Ød	L	F	α							
TB□□0601	NT-S08H-STUB [®] /L 06	●	●	8	10	100	4	12°	NT-ST003	NT-FT06					

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

STAC

POSITIVE 7° with hole

TC□□

NEW

TC□□	DESCRIPTION	STOCK		DIMENSIONS					S	T	L	F	l	S	T	L	F	l	
		R	L	H	B	L	F												
TC□□0902	NT-STAC ^{R/L} 0808H 09	○	○	8	8	100	8.5	-	NT-ST004	NT-FT7									
	1010H 09	○	○	10	10	100	10.5	-	NT-ST004	NT-FT7									
TC□□1102	NT-STAC ^{R/L} 1212H 11	●	●	12	12	100	12.5	-	NT-ST010	NT-FT7									
	1616H 11	●	●	16	16	100	16.5	-	NT-ST010	NT-FT7									

STFC

POSITIVE 7° with hole

TC□□

NEW

TC□□	DESCRIPTION	STOCK		DIMENSIONS					S	T	L	F	l	S	T	L	F	l	
		R	L	H	B	L	F												
TC□□0902	NT-STFC ^{R/L} 0808H 09	○	○	8	8	100	10	-	NT-ST004	NT-FT7									
	1010H 09	○	○	10	10	100	12	-	NT-ST004	NT-FT7									
TC□□1102	NT-STFC ^{R/L} 1212H 11	●	●	12	12	100	16	-	NT-ST010	NT-FT7									
	1616H 11	●	●	16	16	100	20	-	NT-ST010	NT-FT7									
TC□□16T3	NT-STFC ^{R/L} 2020K 16	●	●	20	20	125	25	-	NT-ST020	NT-FT15									
	2525M 16	●	●	25	25	150	32	-	NT-ST020	NT-FT15									

carbide

30

PCBN

63

diamond

87

●, ○ = NEW ITEM

TURNING

MICROBORA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

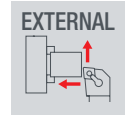
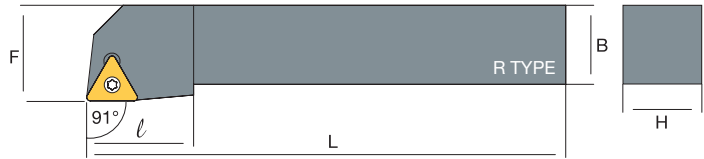
INDEX

STGC

NEW

POSITIVE 7°
with hole

TC□□

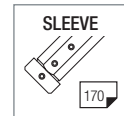
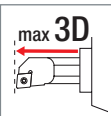
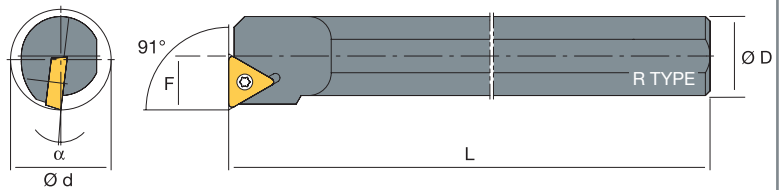


TC□□	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	H	B	L	F	l							
TC££0902	NT-STGC ^R /L 1212H 11	○	○	12	12	100	16	17	NT-ST010	NT-FT7					
	1616H 11	○	○	16	16	100	20	18	NT-ST010	NT-FT7					
TC££1102	NT-STGC ^R /L 2020K 16	●	●	20	20	125	25	22	NT-ST020	NT-FT15					
	2525M 16	●	●	25	25	150	32	25	NT-ST020	NT-FT15					

A⁺STFC

POSITIVE 7°
with hole

TC□□



TC□□	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	ØD	Ød	L	F	α							
TC□□1102	NT-A10K-STFC ^R /L 11	●	●	10	14	125	7	15°	NT-ST010	NT-FT07					
	NT-A12M-STFC ^R /L 11	●	●	12	14	150	7	10°	NT-ST010	NT-FT07					
	NT-A16Q-STFC ^R /L 11	●	●	16	18	180	9	8°	NT-ST010	NT-FT07					
	NT-A20R-STFC ^R /L 11	●	●	20	25	200	13	3°	NT-ST010	NT-FT07					

carbide ▶ 30

PCBN ▶ 63

diamond ▶ 87

●, ○ = NEW ITEM

S^SSTFC

POSITIVE 7° with hole **TC**□□

TC□□	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	ØD	Ød	L	F	α							
TC□□0902	NT-S08H-STFC ^{R/L} 09	●	●	8	12	100	6	12°	NT-ST004	NT-FT07					
	NT-S10K-STFC ^{R/L} 09	●	●	10	14	125	7	15°	NT-ST004	NT-FT07					
	NT-S12M-STFC ^{R/L} 09	●	●	12	16	150	9	10°	NT-ST004	NT-FT07					
TC□□1102	NT-S10K-STFC ^{R/L} 11	●	●	10	14	125	7	15°	NT-ST010	NT-FT07					
	NT-S12M-STFC ^{R/L} 11	●	●	12	14	150	7	10°	NT-ST010	NT-FT07					
	NT-S16Q-STFC ^{R/L} 11	●	●	16	18	180	9	8°	NT-ST010	NT-FT07					
	NT-S20R-STFC ^{R/L} 11	●	●	20	25	200	13	3°	NT-ST010	NT-FT07					
TC□□16T3	NT-S20R-STFC ^{R/L} 16	●	●	20	25	200	11.5	8°	NT-ST030	NT-FT15					
	NT-S25R-STFC ^{R/L} 16	●	●	25	32	200	17	6°	NT-ST030	NT-FT15					
	NT-S32S-STFC ^{R/L} 16	●	●	32	39	250	17.5	4°	NT-ST030	NT-FT15					

E^ESTFC

POSITIVE 7° with hole **TC**□□

TC□□	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	ØD	Ød	L	F	α							
TC□□1102	NT-E10K-STFC ^{R/L} 11	●	●	10	12	125	6	15°	NT-ST010	NT-FT07					
	NT-E12M-STFC ^{R/L} 11	●	●	12	14	150	7.5	10°	NT-ST010	NT-FT07					
	NT-E16R-STFC ^{R/L} 11	●	●	16	18	200	9.5	8°	NT-ST010	NT-FT07					
	NT-E20R-STFC ^{R/L} 11	●	●	20	22	200	11.5	3°	NT-ST010	NT-FT07					

carbide 30 PCBN 63 diamond 87

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

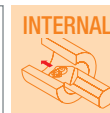
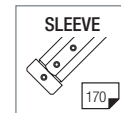
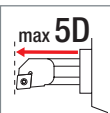
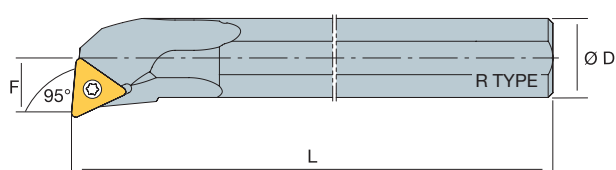
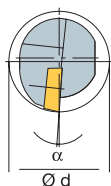
SPARE PARTS

INDEX

VSTLC

POSITIVE 7°
with hole

TC□□



TC□□	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool				
		R	L	ØD	Ød	L	F	α						
TC□□0902	NT-V08H-STLC ^{R/L} 09-10	●	●	8	10	100	6	12°	NT-ST004	NT-FT07				
	NT-V10K-STLC ^{R/L} 09-12	●	●	10	12	125	7	15°	NT-ST004	NT-FT07				
	NT-V12M-STLC ^{R/L} 09-14	●	●	12	14	150	7	10°	NT-ST004	NT-FT07				
TC□□1102	NT-V10K-STLC ^{R/L} 11-12	●	●	10	12	125	7	15°	NT-ST010	NT-FT07				
	NT-V12M-STLC ^{R/L} 11-14	●	●	12	14	150	7	10°	NT-ST010	NT-FT07				
	NT-V16Q-STLC ^{R/L} 11-18	●	●	16	18	180	9	8°	NT-ST010	NT-FT07				
	NT-V20R-STLC ^{R/L} 11-22	●	●	20	22	200	13	3°	NT-ST010	NT-FT07				
TC□□16T3	NT-V20R-STLC ^{R/L} 16-25	●	●	20	25	200	11.5	8°	NT-ST030	NT-FT15				
	NT-V25S-STFC ^{R/L} 16-32	●	●	25	32	250	17	6°	NT-ST030	NT-FT15				

carbide

30

PCBN

63

diamond

87

DTGN

NEGATIVE with hole **TN□□**

TN□□	DESCRIPTION	STOCK		DIMENSIONS						NT-SH006		NT-ST250			NT-CS250		NT-SG250		NT-SC250		NT-TX15	
		R	L	H	B	L	F	l														
TN□□1604	NT-DTGN [®] /L 2020K 16	●	●	20	20	125	25	32														
	2525M 16	●	●	25	25	150	32	32														

DTJN

NEGATIVE with hole **TN□□**

TN□□	DESCRIPTION	STOCK		DIMENSIONS						NT-SH006		NT-ST250			NT-CS250		NT-SG250		NT-SC250		NT-TX15	
		R	L	H	B	L	F	l														
TN□□1604	NT-DTJN [®] /L 2020K 16	●	●	20	20	125	25	32														
	2525M 16	●	●	25	25	150	32	32														

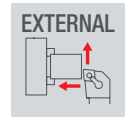
carbide
31
PCBN
64
diamond
88
ceramic
111

TURNING
 MICRONEGA
 MICROBORING
 THREADING
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MTJN

NEGATIVE
with hole

TN□□

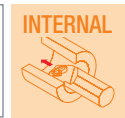
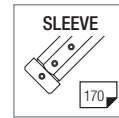
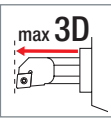
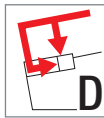
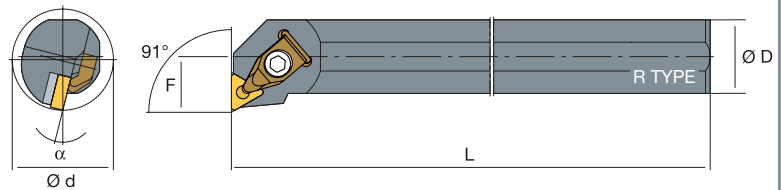


TN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
TN□□1604	NT-MTJN [®] /L 2020K 16	●	●	20	20	125	25	32	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
	2525M 16	●	●	25	25	150	32	32	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
	3232P 16	●	●	32	32	170	40	40	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
TN□□2204	NT-MTJN [®] /L 2525M 22	●	●	25	25	150	32	43	NT-SH008	NT-SP010	NT-WR030	NT-CS070	NT-SC070	NT-WR040
	3225P 22	●	●	32	25	170	40	43	NT-SH008	NT-SP010	NT-WR030	NT-CS070	NT-SC070	NT-WR040

A^DDTFN

NEGATIVE
with hole

TN□□



TN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	ØD	Ød	L	F	α						
TN□□1604	NT-A25R-DTFN [®] /L 16	●	●	25	32	200	17	13°	NT-SH006	NT-ST250	NT-CS250	NT-SG250	NT-SC250	NT-TX15
	NT-A32S-DTFN [®] /L 16	●	●	32	40	250	22	13°	NT-SH006	NT-ST250	NT-CS250	NT-SG250	NT-SC250	NT-TX15

carbide

31

PCBN

64

diamond

88

ceramic

111

SMTUN

NEGATIVE with hole

TN□□

TN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	ØD	Ød	L	F	α						
TN□□1604	NT-S20R-MTUN ^R /L 16	●	●	20	25	200	13	17°	-	NT-SP030	NT-WR020	NT-CS030	NT-SC030	NT-WR030
	NT-S25R-MTUN ^R /L 16	●	●	25	32	200	17	12°	-	NT-SP030	NT-WR020	NT-CS010	NT-SC008	NT-WR030
	NT-S32S-MTUN ^R /L 16	●	●	32	40	250	22	10°	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
	NT-S40T-MTUN ^R /L 16	●	●	40	50	300	27	10°	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
	NT-S50U-MTUN ^R /L 16	●	●	50	63	350	31	8°	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
TN□□2204	NT-S40T-MTUN ^R /L 22	○	○	40	50	300	27	15°	NT-SH008	NT-SP010	NT-WR030	NT-CS070	NT-SC070	NT-WR040
	NT-S50U-MTUN ^R /L 22	○	○	50	63	350	31	12°	NT-SH008	NT-SP010	NT-WR030	NT-CS070	NT-SC070	NT-WR040

carbide

31

PCBN

64

diamond

88

ceramic

111

TURNING

MICROBORING

MICROBORING

THREADING

GROOVING

MILLING

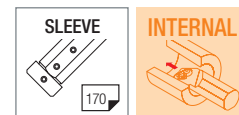
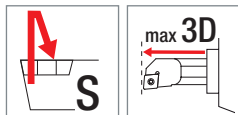
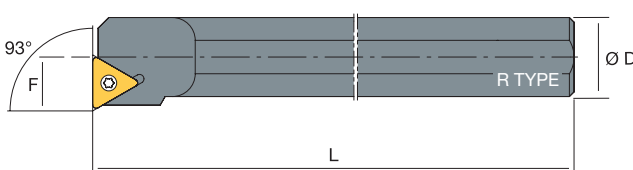
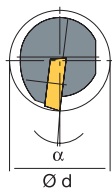
DRILLING

SPARE PARTS

INDEX

S^{STUP}POSITIVE 11°
with hole

TP□□



TP□□	DESCRIPTION	STOCK		DIMENSIONS											
		R	L	ØD	Ød	L	F	α							
TP□□0902	NT-S10K-STUP ^{R/L} 09	●	●	10	12	125	6	8°	NT-ST010	NT-FT07					
	NT-S12M-STUP ^{R/L} 09	●	●	12	14	150	7	5°	NT-ST010	NT-FT07					
TP□□1103	NT-S10K-STUP ^{R/L} 11	●	●	10	12	125	6	8°	NT-ST014	NT-FT10					
	NT-S12M-STUP ^{R/L} 11	●	●	12	14	150	7	7°	NT-ST014	NT-FT10					
	NT-S16Q-STUP ^{R/L} 11	●	●	16	18	180	9	4°	NT-ST015	NT-FT10					
	NT-S20R-STUP ^{R/L} 11	●	●	20	22	200	12.5	2°	NT-ST015	NT-FT10					

PCBN

67

diamond

89

SCTUP

**POSITIVE 11°
without hole**

TP

TP 	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	ØD	Ød	L	F	α						
TP 1103	NT-S12M-CTUP ^{R/L} 11	●	●	12	16	150	9	0°	-	-	-	NT-CS003		NT-WR025
	NT-S16Q-CTUP ^{R/L} 11	●	●	16	20	180	11	3°	-	-	-	NT-CS005	NT-SC005	NT-WR025
	NT-S20R-CTUP ^{R/L} 11	●	●	20	25	200	13	3°	-	-	-	NT-CS005	NT-SC005	NT-WR025
TP 1603	NT-S25R-CTUP ^{R/L} 16	●	●	25	32	200	17	3°	NT-SH002	NT-ST022	NT-FT06	NT-CS010	NT-SC008	NT-WR030
	NT-S32S-CTUP ^{R/L} 16	●	●	32	40	250	22	3°	NT-SH002	NT-ST022	NT-FT06	NT-CS010	NT-SC008	NT-WR030

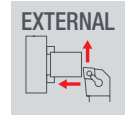
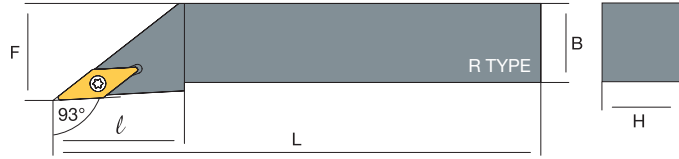
- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

ceramic
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SVJB

POSITIVE 5°
with hole

VB□□

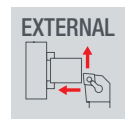


VB□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
VB□□1103	NT-SVJB ^{R/L} 1212K 11	●	●	12	12	125	12.5	22	-	-	-	NT-ST010	NT-FT07	
	1616K 11	●	●	16	16	125	16.5	22	-	-	-	NT-ST010	NT-FT07	
	2020K 11	●	●	20	20	125	25	26	-	-	-	NT-ST010	NT-FT07	
VB□□1604	NT-SVJB ^{R/L} 1616H 16	●	●	16	16	100	16.5	35	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	
	2020K 16	●	●	20	20	125	25	35	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	
	2525M 16	●	●	25	25	150	32	35	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	

SVVBN

POSITIVE 5°
with hole

VB□□



VB□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
VB□□1103	NT-SVVBN 2020K 11	●	●	20	20	125	10	-	-	-	-	NT-ST010	NT-FT07	
	2525M 11	●	●	25	25	150	12.5	-	-	-	-	NT-ST010	NT-FT07	
VB□□1604	NT-SVVBN 2020K 16	●	●	20	20	125	10	-	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	
	2525M 16	●	●	25	25	150	12.5	-	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	

carbide

33

PCBN



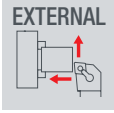
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diamond

90

SVJC

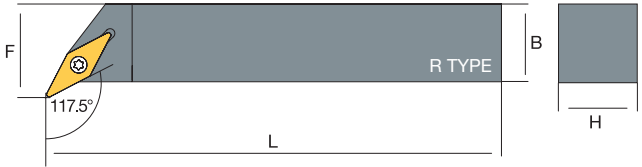

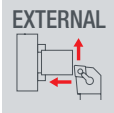
POSITIVE 7° with hole VC□□







VC□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
VC□□1103	NT-SVJC ^{R/L} 1010K 11	○	○	10	10	125	10.5	22	-	-	-	NT-ST010	NT-FT07	
	1212K 11	●	●	12	12	125	12.5	22	-	-	-	NT-ST010	NT-FT07	
	1616K 11	●	●	16	16	125	16.5	22	-	-	-	NT-ST010	NT-FT07	
	2020K 11	●	●	20	20	125	25	26	-	-	-	NT-ST010	NT-FT07	
VC□□1604	NT-SVJC ^{R/L} 1616H 16	●	●	16	16	100	16.5	35	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	
	2020K 16	●	●	20	20	125	25	35	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	
	2525M 16	●	●	25	25	150	32	35	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	

SVPC

POSITIVE 7° with hole VC□□

VC□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
VC□□1103	NT-SVPC ^{R/L} 1010H 11	○	○	10	10	100	14.5	-	-	-	-	NT-ST010	NT-FT07	
	1212H 11	●	●	12	12	100	16.5	-	-	-	-	NT-ST010	NT-FT07	
	1616H 11	●	●	16	16	100	20.5	-	-	-	-	NT-ST010	NT-FT07	
VC□□1604	NT-SVPC ^{R/L} 2020K 16	●	●	20	20	125	25	-	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	
	2525M 16	●	●	25	25	150	32	-	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	

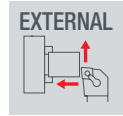
carbide
34
PCBN
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diamond
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SVVCN

POSITIVE 7°
with hole

VC□□

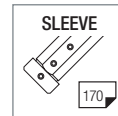
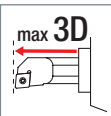
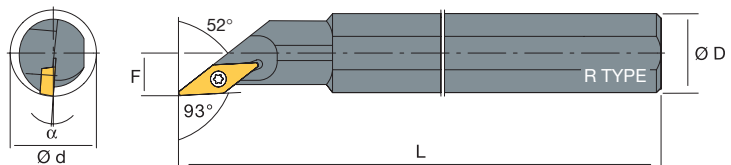


VC□□	DESCRIPTION	STOCK	DIMENSIONS							Accessories			
			H	B	L	F	l	Holder	Insert	Tool	Coating		
VC□□1103	NT-SVVCN 1010H 11	○	10	10	100	5	-	-	-	-	NT-ST010	NT-FT07	
	1212H 11	●	12	12	100	6	-	-	-	NT-ST010	NT-FT07		
	1616H 11	●	16	16	100	8	-	-	-	NT-ST010	NT-FT07		
VC□□1604	NT-SVVCN 2020K 16	●	20	20	125	10	-	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	
	2525M 16	●	25	25	150	12.5	-	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15	

^sSVJC

POSITIVE 7°
with hole

VC□□



VC□□	DESCRIPTION	STOCK		DIMENSIONS						Holder	Tool
		R	L	ØD	Ød	L	F	α			
VC□□1103	NT-S12M-SVJC ^{R/L} 11	●	●	12	14	150	7	7°	NT-ST010	NT-FT07	
	NT-S16Q-SVJC ^{R/L} 11	●	●	16	18	180	9	7°	NT-ST010	NT-FT07	
VC□□1604	NT-S16Q-SVJC ^{R/L} 16	●	●	16	18	180	9	7°	NT-ST030	NT-FT15	
	NT-S20R-SVJC ^{R/L} 16	●	●	20	21	200	10.5	6°	NT-ST030	NT-FT15	
	NT-S25R-SVJC ^{R/L} 16	●	●	25	27	200	13.5	6°	NT-ST030	NT-FT15	
	NT-S32S-SVJC ^{R/L} 16	●	●	32	34	250	17	4°	NT-ST040	NT-FT15	
	NT-S40T-SVJC ^{R/L} 16	○	○	40	44	300	22	4°	NT-ST040	NT-FT15	

carbide

34

PCBN

69

diamond

91

SVQC

POSITIVE 7° with hole **VC**□□

VC□□	DESCRIPTION	STOCK		DIMENSIONS				α	Screw	Holder				
		R	L	$\varnothing D$	$\varnothing d$	L	F							
VC□□1103	NT-S16Q-SVQC ^R /L 11	●	●	16	22	180	13	7°	NT-ST010	NT-FT07				
	NT-S20R-SVQC ^R /L 11	●	●	20	27	200	15	6°	NT-ST010	NT-FT07				
VC□□1604	NT-S20R-SVQC ^R /L 16	●	●	20	27	200	19	8°	NT-ST030	NT-FT15				
	NT-S25R-SVQC ^R /L 16	●	●	25	33	200	20.5	4°	NT-ST030	NT-FT15				
	NT-S32S-SVQC ^R /L 16	●	●	32	41	250	22.5	8°	NT-ST040	NT-FT15				
	NT-S40T-SVQC ^R /L 16	○	○	40	40	300	27	6°	NT-ST040	NT-FT15				

SVUC

POSITIVE 7° with hole **VC**□□

VC□□	DESCRIPTION	STOCK		DIMENSIONS				α	Screw	Holder				
		R	L	$\varnothing D$	$\varnothing d$	L	F							
VC□□1103	NT-S16Q-SVUC ^R /L 11	●	●	16	22	180	13	7°	NT-ST010	NT-FT07				
	NT-S20R-SVUC ^R /L 11	●	●	20	27	200	15	6°	NT-ST010	NT-FT07				
VC□□1604	NT-S20R-SVUC ^R /L 16	●	●	20	31	200	19	8°	NT-ST030	NT-FT15				
	NT-S25R-SVUC ^R /L 16	●	●	25	33	200	20.5	4°	NT-ST030	NT-FT15				
	NT-S32S-SVUC ^R /L 16	●	●	32	42	250	22.5	8°	NT-ST040	NT-FT15				
	NT-S40T-SVUC ^R /L 16	○	○	40	51	300	27	6°	NT-ST040	NT-FT15				

carbide 34
PCBN 69
diamond 91

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

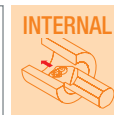
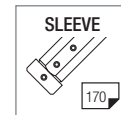
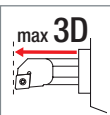
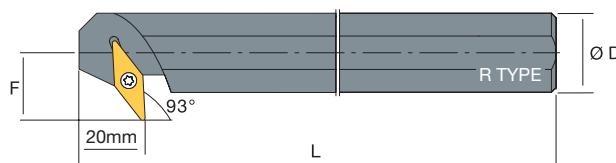
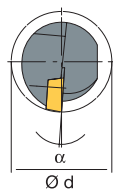
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S^SSVZC

POSITIVE 7°
with hole

VC□□



VC□□	DESCRIPTION	STOCK		DIMENSIONS											
		R	L	ØD	Ød	L	F	α							
VC□□1604	NT-S25R-SVZC ^{R/L} 16	●	●	25	35	200	20.5	7.5°	NT-ST030	NT-FT15					
	NT-S32S-SVZC ^{R/L} 16	○	○	32	40	250	22	7.5°	NT-ST040	NT-FT15					
	NT-S40T-SVZC ^{R/L} 16	○	○	40	50	300	27	7.5°	NT-ST040	NT-FT15					

carbide

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PCBN

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diamond

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TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

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DVJN

NEGATIVE with hole **VN**□□

VN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
VN□□1604	NT-DVJN%L 2020K 16	●	●	20	20	125	25	42	NT-SH075	NT-ST250*	NT-CS210	NT-SG200	NT-SC200	NT-TX20
	2525M 16	●	●	25	25	150	32	45	NT-SH075	NT-ST250*	NT-CS210	NT-SG200	NT-SC200	NT-TX20
	*NT-ST250 → NT-TX15													

DVVNN

NEGATIVE with hole **VN**□□

VN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
VN□□1604	NT-DVVNN 2020K 16	●	●	20	20	125	10	47	NT-SH075	NT-ST250*	NT-CS210	NT-SG200	NT-SC200	NT-TX20
	2525M 16	●	●	25	25	150	12.5	47	NT-SH075	NT-ST250*	NT-CS210	NT-SG200	NT-SC200	NT-TX20
	*NT-ST250 → NT-TX15													

carbide ▶ 35
PCBN ▶ 70
ceramic ▶ 114

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

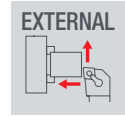
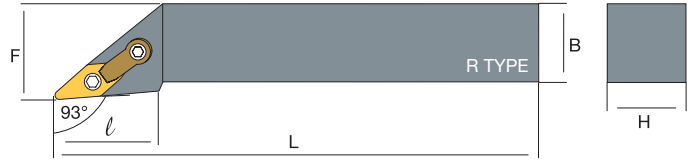
SPARE PARTS

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MVJN

NEGATIVE
with hole

VN□□

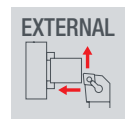
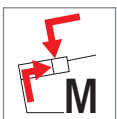
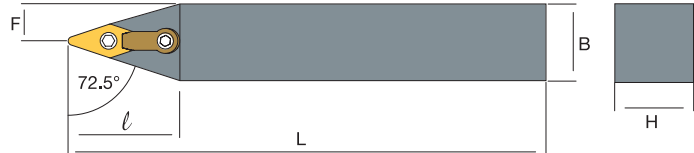


VN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
VN□□1604	NT-MVJN [®] /L 2020K 16	●	●	20	20	125	25	44	NT-SH075	NT-SP020	NT-WR020	NT-CS075	NT-SC010	NT-WR030
	2525M 16	●	●	25	25	150	32	44	NT-SH075	NT-SP020	NT-WR020	NT-CS075	NT-SC010	NT-WR030
	3232P 16	○	○	32	32	170	40	45	NT-SH075	NT-SP020	NT-WR020	NT-CS075	NT-SC010	NT-WR030

MVVNN

NEGATIVE
with hole

VN□□



VN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
VN□□1604	NT-MVVNN 2020K 16	●	●	20	20	125	10	44	NT-SH075	NT-SP020	NT-WR020	NT-CS075	NT-SC010	NT-WR030
	2525M 16	●	●	25	25	150	12.5	44	NT-SH075	NT-SP020	NT-WR020	NT-CS075	NT-SC010	NT-WR030
	3232P 16	○	○	32	32	170	16.0	44	NT-SH075	NT-SP020	NT-WR020	NT-CS075	NT-SC010	NT-WR030

carbide

35

PCBN

70

ceramic

114

SMVQN NEW

NEGATIVE with hole VN□□

VN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	ØD	Ød	L	F	α						
VN□□1604	NT-S25R-MVQN ^{R/L} 16	●	●	25	32	200	20	12°	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
	NT-S32S-MVQN ^{R/L} 16	●	●	32	42	250	23	17°	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
	NT-S40T-MVQN ^{R/L} 16	●	●	40	50	300	27	15°	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
	NT-S50U-MVQN ^{R/L} 16	○	○	50	63	350	33	12°	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030

SMVUN NEW

NEGATIVE with hole VN□□

VN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	ØD	Ød	L	F	α						
VN□□1604	NT-S25R-MVUN ^{R/L} 16	●	●	25	37	200	20	12°	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
	NT-S32S-MVUN ^{R/L} 16	●	●	32	40	250	22	12°	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
	NT-S40T-MVUN ^{R/L} 16	●	●	40	50	300	27	15°	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
	NT-S50U-MVUN ^{R/L} 16	○	○	50	63	350	32	12°	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030

carbide 35
PCBN 70
ceramic 114

●, ○ = NEW ITEM

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

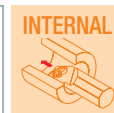
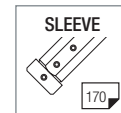
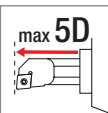
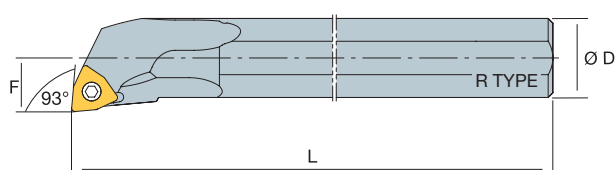
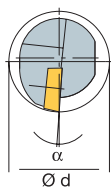
SPARE PARTS

INDEX

V⁺SWUC

POSITIVE 7°
with hole

WC



WC <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK		DIMENSIONS											
		R	L	ØD	Ød	L	F	α							
WC <input type="checkbox"/> 12T3	NT-V12M-SWUC ^{R/L} 12-14	●	●	12	14	150	7	13	NT-ST020	NT-FT15					
	NT-V16Q-SWUC ^{R/L} 12-18	●	●	16	18	180	9	9	NT-ST020	NT-FT15					
	NT-V20R-SWUC ^{R/L} 12-22	●	●	20	22	200	11	5	NT-ST020	NT-FT15					
	NT-V25S-SWUC ^{R/L} 12-27	●	●	25	27	250	14	5	NT-ST020	NT-FT15					

carbide

36

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

DWLN

NEGATIVE with hole **WN**□□

WN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
WN□□0604	NT-DWLN ^{R/L} 1616H 06	○	○	16	16	100	20	30	NT-SH003	NT-ST190	NT-CS250	NT-SG250	NT-SC250	NT-TX15
	2020K 06	●	●	20	20	125	25	34	NT-SH003	NT-ST190	NT-CS250	NT-SG250	NT-SC250	NT-TX15
	2525M 06	○	○	25	25	150	32	34	NT-SH003	NT-ST190	NT-CS250	NT-SG250	NT-SC250	NT-TX15
WN□□0804	NT-DWLN ^{R/L} 2020K 08	●	●	20	20	125	25	34	NT-SH010	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	2525M 08	●	●	25	25	150	32	34	NT-SH010	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	3225P 08	●	●	32	25	170	32	34	NT-SH010	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	*NT-ST200 → NT-WR025													

MWLN

NEGATIVE with hole **WN**□□

WN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	H	B	L	F	l						
WN□□0604	NT-MWLN ^{R/L} 2020K 06	○	○	20	20	125	25	32	NT-SH003	NT-SP020	NT-WR020	NT-CS009	NT-SC030	NT-WR025
	2525M 06	○	○	25	25	150	32	32	NT-SH003	NT-SP020	NT-WR020	NT-CS009	NT-SC030	NT-WR025
WN□□0804	NT-MWLN ^{R/L} 2020K 08	●	●	20	20	125	25	32	NT-SH010	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
	2525M 08	●	●	25	25	150	32	32	NT-SH010	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
	3232P 08	●	●	32	32	170	40	38	NT-SH010	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030

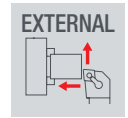
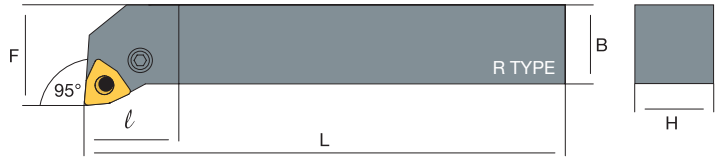
carbide
37
PCBN
72
diamond
92
ceramic
115

TURNING
 MICROMEGA
 MICROBORING
 THREADING
 GROOVING
 MILLING
 DRILLING
 SPARE PARTS
 INDEX

PWLN

NEGATIVE
with hole

WN

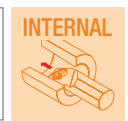
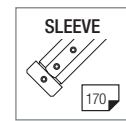
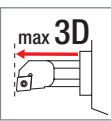
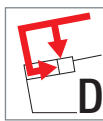
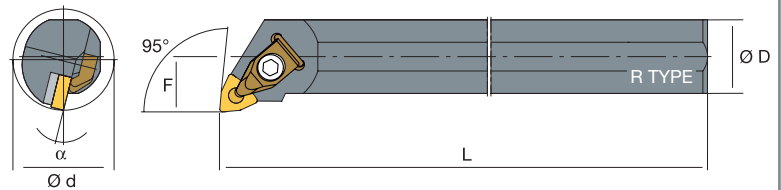


WN <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK		DIMENSIONS									
		R	L	H	B	L	F	l					
WN <input type="checkbox"/> 0804	NT-PWLN [®] /L 2020K 08	●	●	20	20	125	25	26	NT-SH015	NT-SR020	NT-LL020	NT-SC025	NT-WR030
	2525M 08	●	●	25	25	150	32	28	NT-SH015	NT-SR020	NT-LL020	NT-SC025	NT-WR030

A^DDWLN

NEGATIVE
with hole

WN



WN <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	ØD	Ød	L	F	α						
WN <input type="checkbox"/> 0804	NT-A25R-DWLN [®] /L 08	●	●	25	32	200	17	14°	NT-SH015	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	NT-A32S-DWLN [®] /L 08	●	●	32	40	250	22	14°	NT-SH015	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	NT-A40T-DWLN [®] /L 08	●	●	40	50	300	27	12°	NT-SH015	NT-ST200*	NT-CS200	NT-SG200	NT-SC200	NT-TX20
	*NT-ST200 → NT-WR025													

carbide

37

PCBN

72

diamond

92

ceramic

115

SMWLN

NEGATIVE with hole WN□□

WN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	ØD	Ød	L	F	α						
WN□□0604	NT-S16Q-MWLN ^{R/L} 06	○	○	16	22	180	11	18°	-	NT-SP030	NT-WR020	NT-CS030	NT-SC030	NT-WR025
WN□□0804	NT-S20R-MWLN ^{R/L} 08	●	●	20	25	200	13	17°	-	NT-SP035	NT-WR025	NT-CS030	NT-SC030	NT-WR025
	NT-S25R-MWLN ^{R/L} 08	●	●	25	32	200	17	14°	-	NT-SP035	NT-WR025	NT-CS010	NT-SC008	NT-WR030
	NT-S32S-MWLN ^{R/L} 08	●	●	32	40	250	22	14°	NT-SH010	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
	NT-S40T-MWLN ^{R/L} 08	●	●	40	50	300	27	12°	NT-SH010	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
	NT-S50U-MWLN ^{R/L} 08	●	●	50	63	350	35	12°	NT-SH010	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030

APWLN

NEW

NEGATIVE with hole WN□□

WN□□	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	ØD	Ød	L	F	α						
WN□□0804	NT-A25R-PWLN ^{R/L} 08	●	●	25	30	200	17	12°	-	NT-SR015	NT-LL015	NT-SC015	NT-WR025	
	NT-A32S-PWLN ^{R/L} 08	●	●	32	40	250	22	10°	NT-SH015	NT-SR020	NT-LL020	NT-SC025	NT-WR030	
	NT-A40T-PWLN ^{R/L} 08	●	●	40	48	300	27	8°	NT-SH015	NT-SR020	NT-LL020	NT-SC025	NT-WR030	

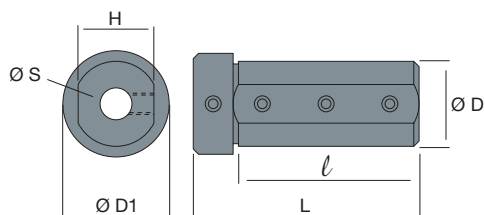
carbide 37
PCBN 72
diamond 92
ceramic 115

●, ○ = NEW ITEM

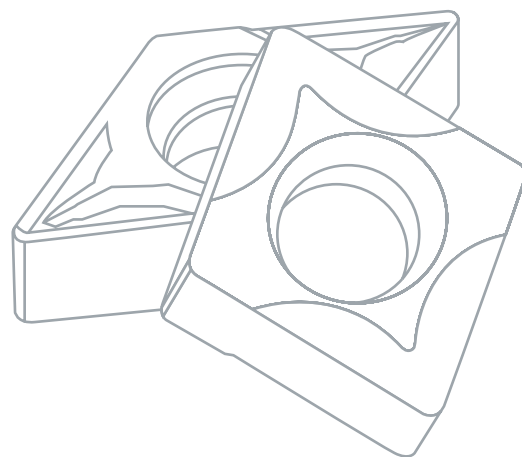
TURNING
MICROBORING
MICROBORING
THREADING
GROOVING
MILLING
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NT-SLB

NEW

SLEEVE
for boring bars

	DESCRIPTION	STOCK	DIMENSIONS											
			ØS	ØD	L	ℓ	D1	H						
NT-SLB	S03-D16-L62	★	3	16	62	55	19	14.5						
NT-SLB	S04-D16-L62	★	4	16	62	55	19	14.5						
	S04-D32-L85	★	4	32	85	70	38	29.5						
NT-SLB	S05-D32-L85	★	5	32	85	70	38	29.5						
NT-SLB	S06-D16-L62	★	6	16	62	55	19	14.5						
	S06-D20-L51	★	6	20	51	45	27	17.5						
	S06-D20-L67	★	6	20	67	60	27	17.5						
	S06-D25-L64	★	6	25	64	58	35	23.5						
	S06-D32-L85	★	6	32	85	70	38	29.5						
	S06-D40-L100	★	6	40	100	85	46	38						
NT-SLB	S08-D16-L62	★	8	16	62	55	19	14.5						
	S08-D20-L51	★	8	20	51	45	27	17.5						
	S08-D20-L67	★	8	20	67	60	27	17.5						
	S08-D25-L64	★	8	25	64	58	35	23.5						
	S08-D32-L85	★	8	32	85	70	38	29.5						
	S08-D40-L100	★	8	40	100	85	46	38						
	S08-D50-L100	★	8	50	100	85	58	48						
NT-SLB	S10-D16-L62	★	10	16	62	55	19	14.5						
	S10-D20-L51	★	10	20	51	45	27	17.5						
	S10-D20-L67	★	10	20	67	60	27	17.5						
	S10-D25-L64	★	10	25	64	58	35	23.5						
	S10-D32-L100	★	10	32	100	85	38	29.5						
	S10-D40-L100	★	10	40	100	85	46	38						
	S10-D50-L100	★	10	50	100	85	58	48						
NT-SLB	S12-D20-L51	★	12	20	51	45	27	17.5						
	S12-D20-L67	★	12	20	67	60	27	17.5						
	S12-D25-L64	★	12	25	64	58	35	23.5						
	S12-D32-L100	★	12	32	100	85	38	29.5						
	S12-D40-L100	★	12	40	100	85	46	38						
	S12-D50-L100	★	12	50	100	85	58	48						
NT-SLB	S16-D32-L100	★	16	32	100	85	38	29.5						
	S16-D40-L100	★	16	40	100	85	46	38						
	S16-D50-L100	★	16	50	100	85	58	48						
NT-SLB	S20-D50-L100	★	20	50	100	85	58	48						
NT-SLB	S25-D50-L100	★	25	50	100	85	58	48						



MICRONEGA /

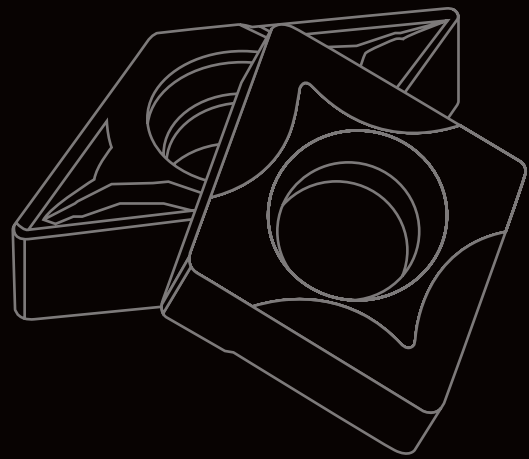
carbide /173

PCBN /179

diamond /187

holders /195

MICRONEGA / carbide



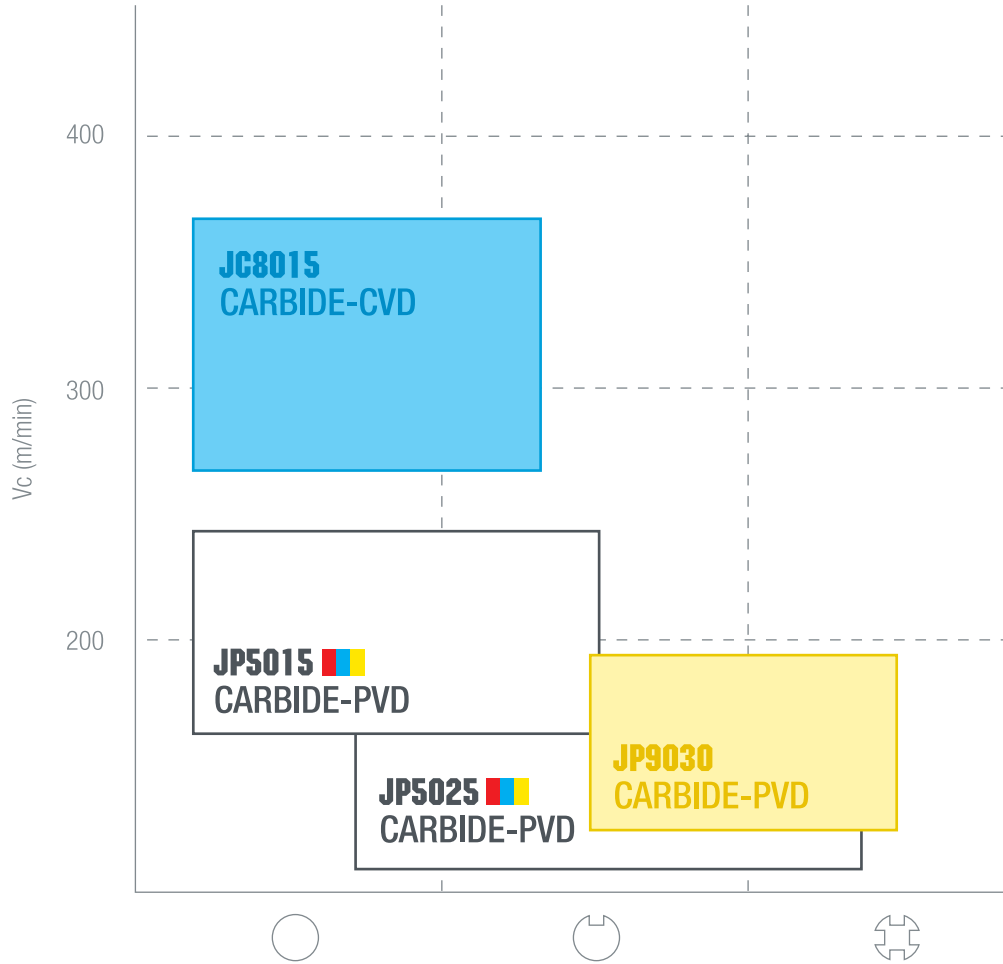
GRADES

- TURNING
- MICRONEGA
- MICROBORING
- THREADING
- GROOVING
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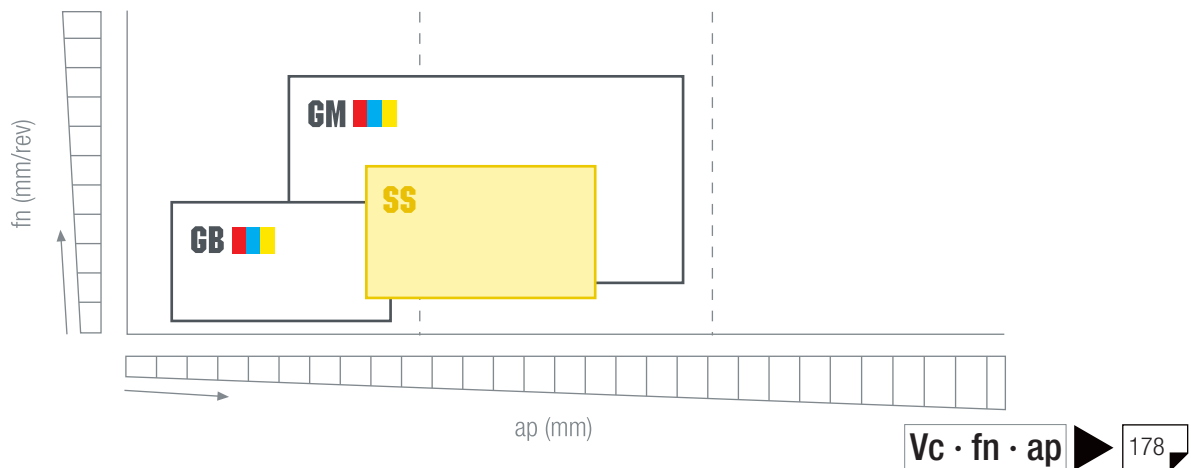
	ISO DIN 513																		
	K					P					M								
	○	↔	⊕			○	↔	⊕		○	↔	⊕							
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40				
CARBIDE CVD						JC8015													
CARBIDE PVD		JP5015				JP5015						JP5015							
			JP5025			JP5025						JP5025							
															JP9030				
CARBIDE UNCOATED																			
CERMET UNCOATED																			

RANGE ISO **K P M**

GRADES



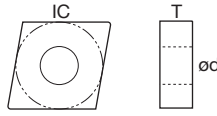
CHIPBREAKERS



- TURNING
- MICRONEGA**
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

**NEGATIVE
with hole**

CN □ □



MICRO CN □ □

IC 7,50
T 3,18
ød 3,60



TURNING

MICRONEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

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DESCRIPTION		R	CARBIDE-CVD				CARBIDE-PVD			CARBIDE	CERMET																	
			JC7010	JC8015	JC8025	JC9025	JP9030	JP5015	JP5025	JUG020	JU4015																	
GB	R TYPE 	4 EDGES	MICRO CN.R02-GB ^{R/L}	0.2						*																		
			CN.R04-GB ^{R/L}	0.4						●																		
GM		4 EDGES	MICRO CN.R02-GM	0.2						○																		
			CN.R04-GM	0.4	●			*	*	●																		
			CN.R08-GM	0.8							●																	
SS		POLISHED 4 EDGES	MICRO CN.R02-SS	0.2				●																				
			CN.R04-SS	0.4				●																				
		<table border="1"> <tr> <th>OLD name</th> <th>NEW name</th> </tr> <tr> <td>NC5110</td> <td>JP5015</td> </tr> <tr> <td>NC5130</td> <td>JP5025</td> </tr> <tr> <td>NC2130</td> <td>JP9030</td> </tr> <tr> <td>NC5220</td> <td>JC8015</td> </tr> </table>		OLD name	NEW name	NC5110	JP5015	NC5130	JP5025	NC2130	JP9030	NC5220	JC8015															
OLD name	NEW name																											
NC5110	JP5015																											
NC5130	JP5025																											
NC2130	JP9030																											
NC5220	JC8015																											

Vc · fn · ap



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NEGATIVE with hole

DN

MICRO	DN
IC	7,00
T	3,18
Od	3,60
HOLDERS	199

DESCRIPTION				CARBIDE-CVD				CARBIDE-PVD		CARBIDE	CERMET																	
				JC7010	JC8015	JC8025	JC9025	JP9030	JP5015	JP5025	JUG020	JU4015																
GB		MICRO 4 EDGES	DN.R02-GB ^{R/L}	0.2						*																		
			DN.R04-GB ^{R/L}	0.4							●																	
GM		MICRO 4 EDGES	DN.R02-GM	0.2							○																	
			DN.R04-GM	0.4		●			*	*	●																	
			DN.R08-GM	0.8								●																
SS		MICRO 4 EDGES	DN.R02-SS	0.2					●																			
			DN.R04-SS	0.4					●																			
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OLD name	NEW name																											
NC5110	JP5015																											
NC5130	JP5025																											
NC2130	JP9030																											
NC5220	JC8015																											

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CUTTING PARAMETERS

- TURNING
- MICRONEGA
- MICROBORING
- THREADING
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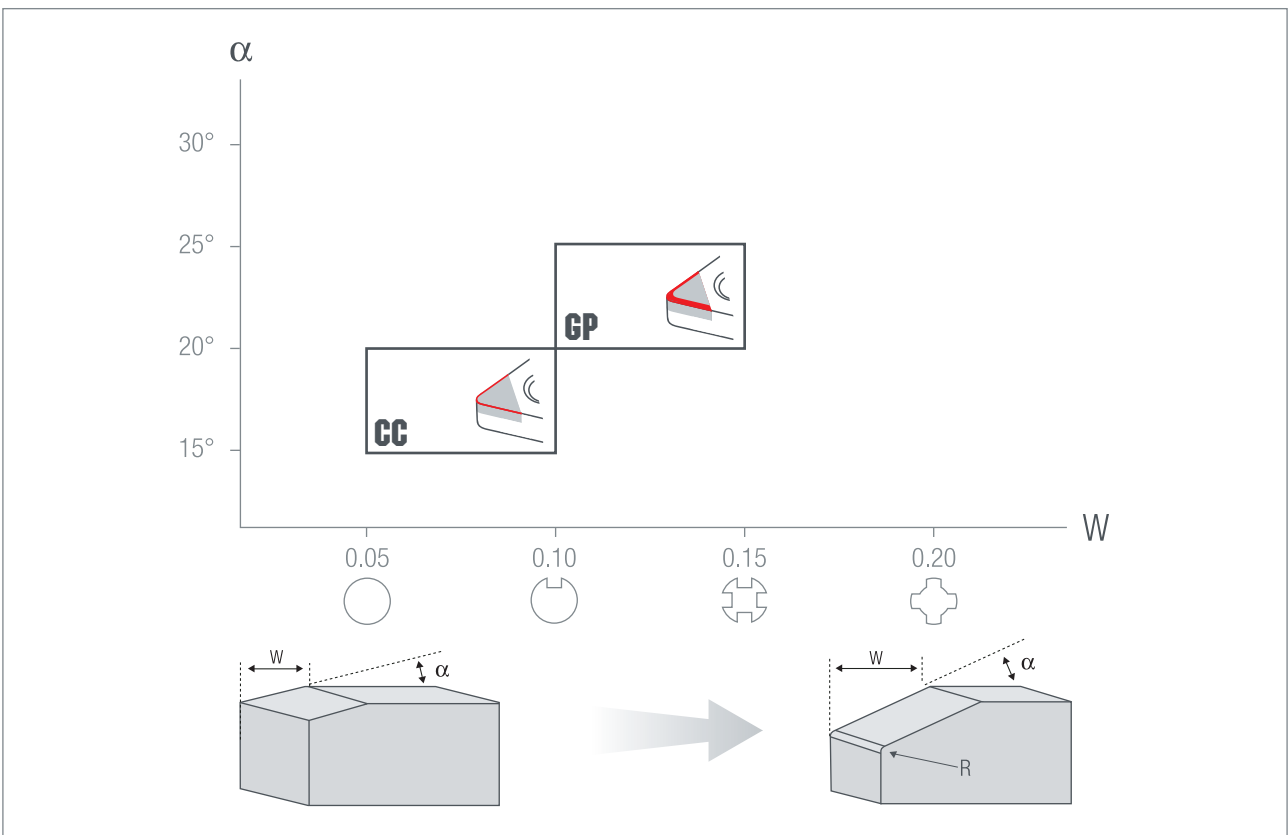
K	KG	GREY CAST IRON	M	MM	MARTENSITIC AND FERRITIC STAINLESS STEEL
		GHISA GRIGIA			ACCIAI INOSSIDABILI MARTENSITICI E FERRITICI
		GRAUGUSS			MARTENSITISCHE UND FERRITISCHE ROSTFREIE STÄHLE
		FONTE GRISE			ACIERS INOXYDABLES MARTENSITIQUES ET FERRITIQUES
		FUNDICIÓN GRIS			ACEROS INOXIDABLES AUSTENITICOS Y FERRITICOS
		ЧУГУН			МАРТЕНСИТНЫЕ И ФЕРРИТНЫЕ НЕРЖАВЕЮЩИЕ СТАЛИ
K	KN	NODULAR CAST IRON	M	MA	AUSTENITIC STAINLESS STEEL
		GHISA SFEROIDALE			ACCIAI INOSSIDABILI AUSTENITICI
		SPHÄROGUSS			AUSTENITISCHE ROSTFREIE STÄHLE
		FONTE NODULAIRE			ACIERS INOXYDABLES AUSTENITIQUES
		FUNDICIÓN NODULAR			ACEROS INOXIDABLES AUSTENITICOS
		ЧУГУН С ШАРОВИДНЫМ ГРАФИТОМ			АУСТЕНИТНЫЕ НЕРЖАВЕЮЩИЕ СТАЛИ
P	PL	LOW CARBON AND FREE CUTTING STEEL	N	NA	ALUMINIUM ALLOYS
		ACCIAI A BASSO TENORE DI CARBONIO ED AUTOMATICI			LEGHE DI ALLUMINIO
		KOHLENSTOFFARME STÄHLE			ALUMINIUMLEGIERUNGEN
		ACIERS BAS CARBONE ET POUR DÉCOLLETAGE			ALLIAGES D'ALUMINIUM
		ACEROS DE BAJO CARBONO			ALEACIONES DE ALUMINIO
		НИЗКОУГЛЕРОДИСТАЯ И АВТОМАТНАЯ СТАЛЬ			СПЛАВЫ АЛЮМИНИЯ
P	PM	MEDIUM CARBON STEEL	N	NH	ALUMINIUM ALLOYS AGED AND HARDENED
		ACCIAI A MEDIO TENORE DI CARBONIO			LEGHE DI ALLUMINIO TRATTATE ED INVECCHiate
		MITTELGEKOHLTE FLUSSSTÄHLE			GEALTERTE UND BEHANDELTE ALUMINIUMLEGIERUNGEN
		ACIERS MOYEN CARBONE			ALLIAGES D'ALUMINIUM TRAITÉES ET VIEILLIES
		ACEROS DE MEDIO CARBONO			ALEACIONES DE ALUMINIO TRATADAS Y ENVEJACIDAS
		СРЕДНЕУГЛЕРОДИСТАЯ СТАЛЬ			СПЛАВЫ АЛЮМИНИЯ ОБРАБОТАННЫЕ И СОСТАРЕННЫЕ
P	PH	HIGH CARBON STEEL	N	NB	BRASS
		ACCIAI AD ELEVATO TENORE DI CARBONIO			OTTONE
		KOHLENSTOFFFREICHE STÄHLE			MESSING
		ACIERS HAUT CARBONE			LAITON
		ACEROS DE ALTO CARBONO			LATÓN
		ВЫСОКОУГЛЕРОДИСТАЯ СТАЛЬ			ЛАТУНЬ
P	PA	ALLOY STEEL	N	NC	BRONZE AND ELECTROLYTIC COPPER
		ACCIAI LEGATI			BRONZO E RAME ELETTROLITICO
		LEGIERTE STÄHLE			ELEKTROLYTISCHES KUPFER UND BRONZE
		ACIERS ALLIÉS			BRONZE ET CUIVRE ÉLECTROLYTIQUE
		ACEROS ALEADOS			BRONZE Y COBRE ELECTROLÍTICO
		СРЕДНЕЛЕГИРОВАННАЯ СТАЛЬ			БРОНЗА И ЭЛЕКТРОЛИТИЧЕСКАЯ МЕДЬ

MATERIAL	CARBIDE-PVD			CVD	GB		GM		SS	
	JP5015	JP5025	JP9030	JC8015						
	Vc (m/min)				ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	KG	120~200	100~170		150~260	0.30~1.00	0.05~0.18	0.70~2.50	0.10~0.20	
	KN	100~170	80~150		100~220	0.30~1.00	0.05~0.18	0.70~2.50	0.10~0.20	
P	PL	120~200	100~180		250~350	0.30~1.00	0.04~0.15	0.70~2.50	0.08~0.20	
	PM	100~180	80~160		220~300	0.30~1.00	0.04~0.15	0.70~2.50	0.08~0.20	
	PH	100~160	80~140		200~280	0.30~1.00	0.04~0.15	0.70~2.50	0.08~0.20	
	PA	80~140	60~120		180~250	0.30~1.00	0.04~0.15	0.70~2.50	0.08~0.20	
M	MM	100~140	80~120	100~150		0.30~1.00	0.04~0.10	0.70~2.50	0.05~0.20	0.50~2.00
	MA	80~120	60~100	80~120		0.30~1.00	0.04~0.10	0.70~2.50	0.05~0.20	0.50~2.00
N	NA									
	NH									
	NB									
	NC									

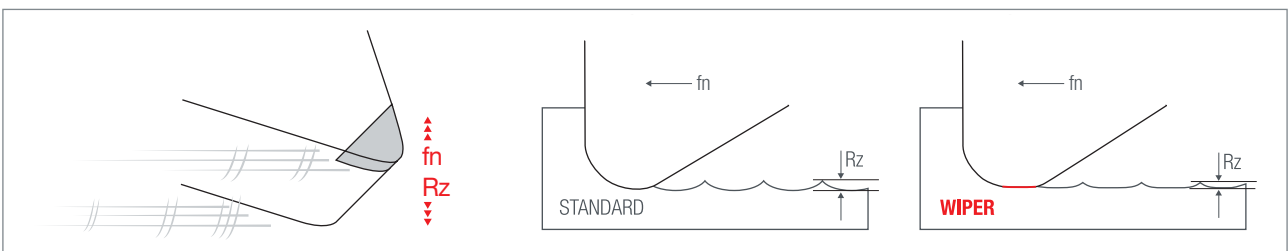
INSERT STYLE



EDGE PREPARATION



WIPER



TURNING

MICRONEGA

MICROBORING

THREADING

GROOVING

MILLING

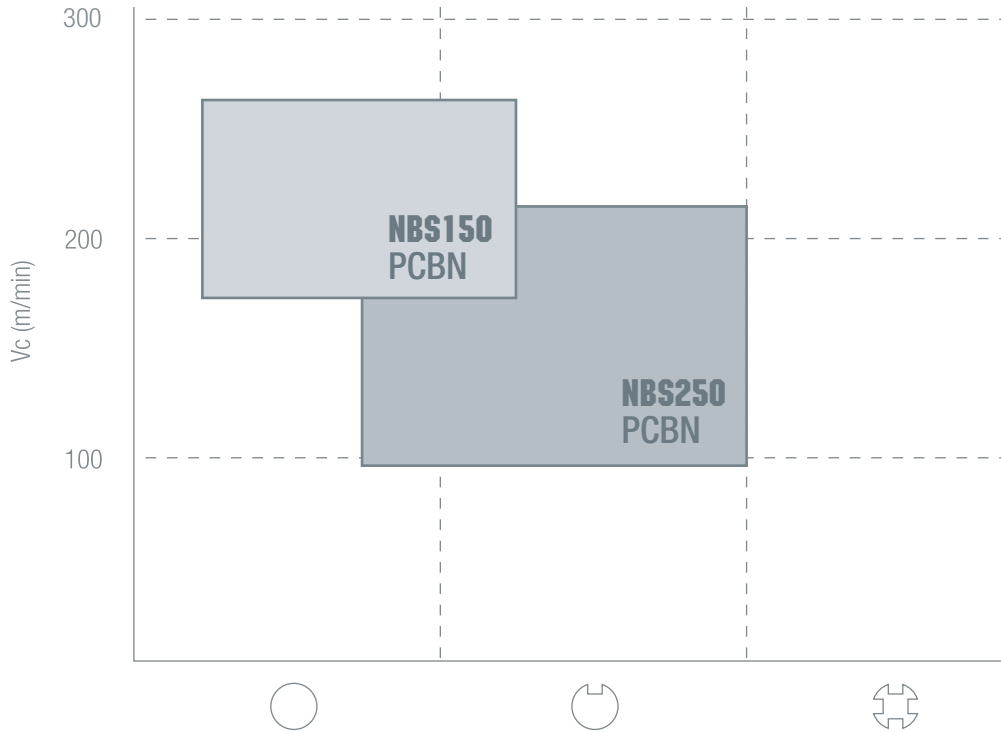
DRILLING

SPARE PARTS

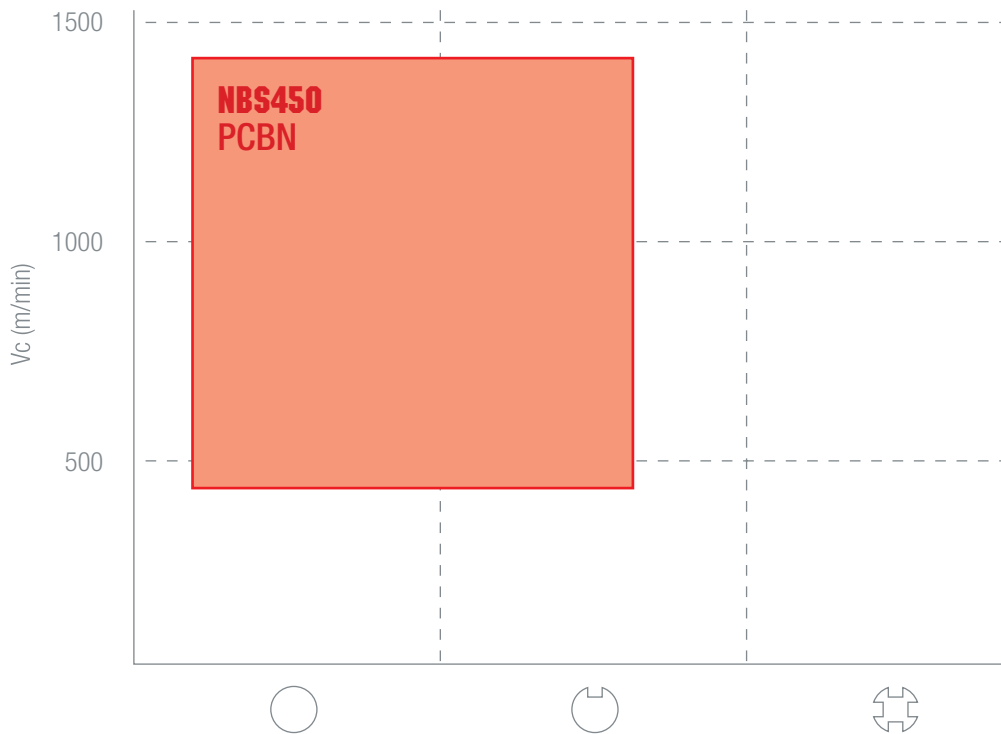
INDEX

- TURNING
- MICRONEGA**
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

RANGE ISO **H** PCBN-Vertical (NBS Series)



RANGE ISO **K** PCBN-Vertical & Solid (NBS Series)



Vc · fn · ap



186

NEGATIVE - VERTICAL
with hole

CN □ □

NEW

MICRO	CN □ □
IC	7,50
T	3,18
Ød	3,60
	197

DESCRIPTION		IC	e	PCBN-Vertical																
				NBS150	NBS250	NBS450														
CC	MICRO 4 EDGES			2.2	●															
				2.1	●															
				2.1	●															
GP	MICRO 4 EDGES			2.2		●	●													
				2.1		●	●													
				2.1		●	●													
WH WIPER	MICRO 4 EDGES			2.1	★															
				2.1	★															

●, ○ = NEW ITEM

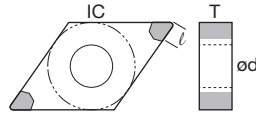
Vc · fn · ap 186

- TURNING
- MICRONEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

**NEGATIVE - VERTICAL
with hole**

NEW

DN □ □



MICRO	DN □ □
IC	7,00
T	3,18
Ød	3,60
HOLDERS	199

TURNING

MICRONEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

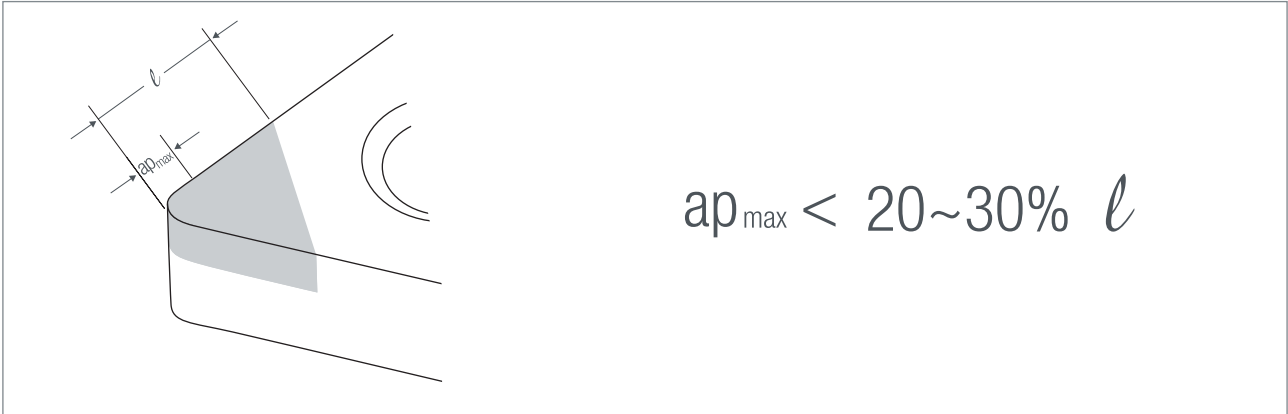
DESCRIPTION	IC	PCBN-Vertical													
		NBS150	NBS250	NBS450											
 MICRO DN.R02-4EV-CC DN.R04-4EV-CC DN.R08-4EV-CC		2.4	●												
		2.2	●												
		1.9	●												
 MICRO DN.R02-4EV-GP DN.R04-4EV-GP DN.R08-4EV-GP		2.4		●	●										
		2.2		●	●										
		1.9		●	●										
 MICRO DN.R04-4EV-WH DN.R08-4EV-WH		2.2	★												
		1.9	★												

●, ○ = NEW ITEM

Vc · fn · ap

186

CUTTING PARAMETERS



H HH	HARDENED STEEL
	ACCIAIO TEMPRATO
	GEHÄRTETER STAHL
	ACIER TREMPÉ
	ACERO TEMPLADO
H HC	ЗАКАЛЁННАЯ СТАЛЬ
	CASEHARDENED STEEL
	ACCIAIO CEMENTATO
	EINGESETZTER STAHL
	ACIER CEMENTÉ
H HB	ACERO CEMENTADO
	ЦЕМЕНТИРОВАННАЯ СТАЛЬ
	BEARING STEEL
	ACCIAIO PER CUSCINETTI
	STAHL FÜR LAGER
H HM	ACIER POUR ROULEMENTS
	ACERO PARA RODAMIENTOS
	СТАЛЬ ДЛЯ ПОДШИПНИКОВ
	HARD METAL (Co≥17%)
	METALLO DURO (Co≥17%)
	VHM (Co≥17%)
	CARBURE (Co≥17%)
	METAL DURO (Co≥17%)
	ТВЁРДЫЙ СПЛАВ (Co≥17%)

K KG	GREY CAST IRON
	GHISA GRIGIA
	GRAUGUSS
	FONTE GRISE
	FUNDICIÓN GRIS
K KN	ЧУГУН
	NODULAR CAST IRON
	GHISA SFEROIDALE
	SPHÄROGUSS
	FONTE NODULAIRE
K KW	FUNDICIÓN NODULAR
	ЧУГУН С ШАРОВИДНЫМ ГРАФИТОМ
	WHITE CAST IRON
	GHISA BIANCA
	WEISSGUSS
K KS	FONTE BLANCHE
	FUNDICIÓN BLANCA
	БЕЛЫЙ ЧУГУН
	SINTERED MATERIAL (FERROUS)
	MATERIALI SINTERIZZATI (FERROSI)
	SINTERMATERIALIEN (EISERNE)
	MATÉRIAUX FRITTÉS (FERREUX)
	MATERIALES SINTERIZADOS (BASE HIERRO)
	СПЕЧЁННЫЕ МАТЕРИАЛЫ (МЕТАЛЛ)

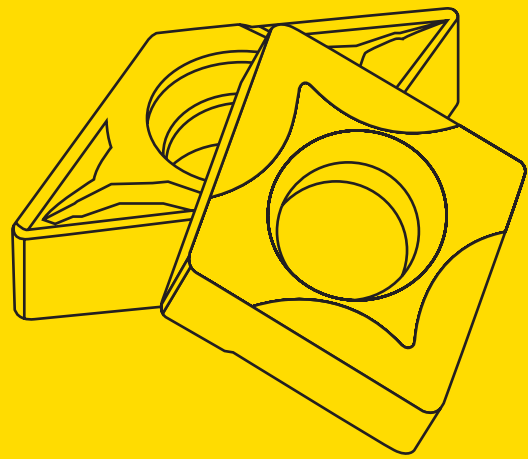
- TURNING
- MICRONEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

CUTTING PARAMETERS PCBN-Vertical (NBS Series)

MATERIAL	ap (mm)	fn (mm/rev)	CUTTING CONDITIONS		PCBN-Vertical				
					NBS150	NBS250	NBS450		
H	HH	0.05~0.25	0.05~0.20	○	☉	☉	★ 120~250	100~200	
				⊕	☉		★ 80~180	80~180	
	HC	0.05~0.25	0.08~0.25	○	☉	☉	★ 120~200	100~180	
				⊕	☉		★ 80~160	80~160	
	HB	0.05~0.25	0.05~0.20	○	☉	☉	★ 120~220	100~180	
				⊕	☉		★ 80~150	80~150	
K	KG	0.10~0.50	0.10~0.30	○	☉	☉			★ 400~1000
				⊕	☉				★ 400~800
	KN	0.10~0.30	0.05~0.20	○	☉	☉			★ 250~400
				⊕	☉				★ 150~300
	KW	0.10~0.30	0.10~0.30	○	☉	☉			★ 60~100
				⊕	☉				★ 50~80
KS	0.05~0.20	0.05~0.25	○	☉	☉	100~220			★ 160~250
			⊕	☉			60~180		★ 120~200

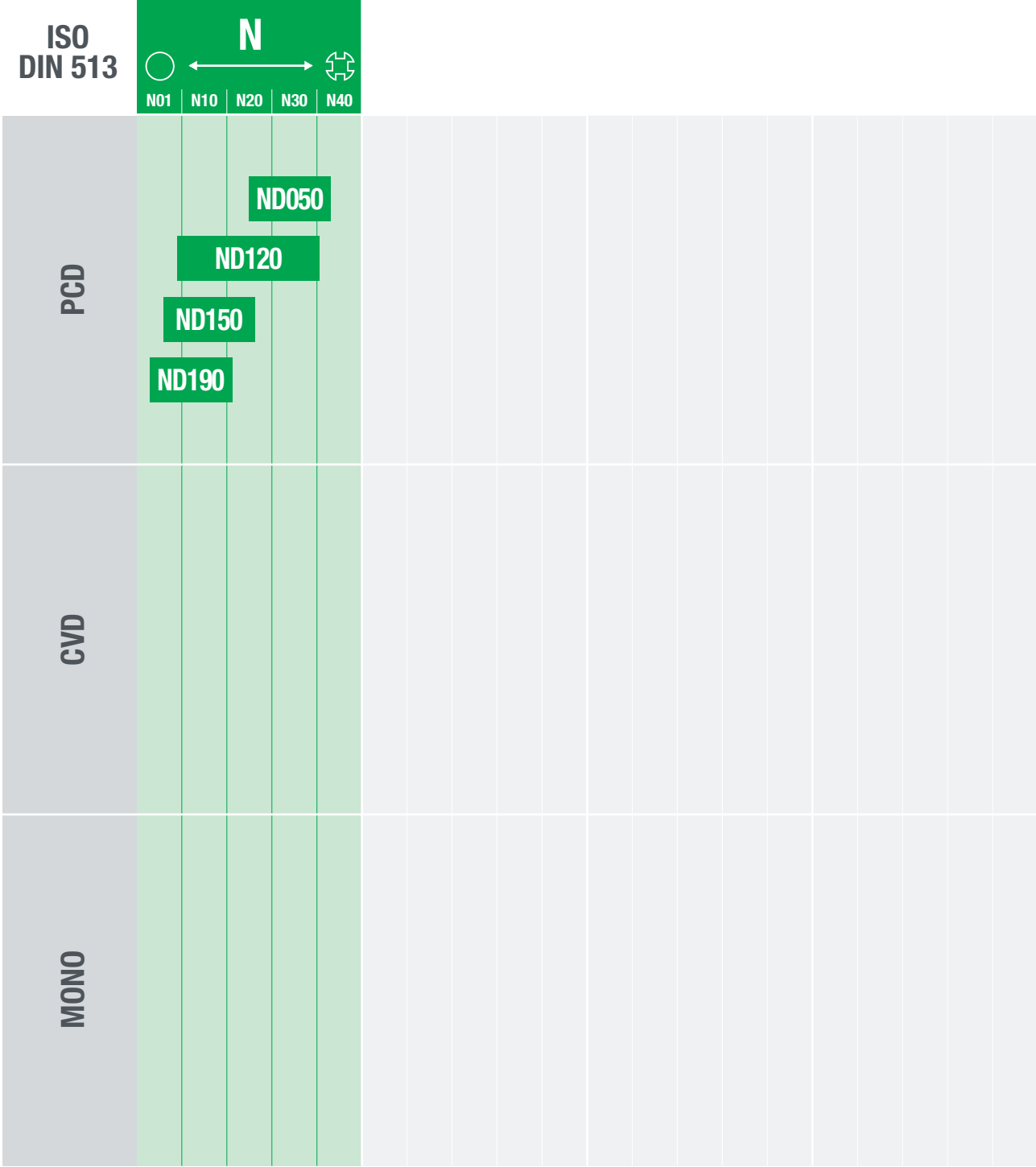
★ = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор

MICRONEGA / diamond

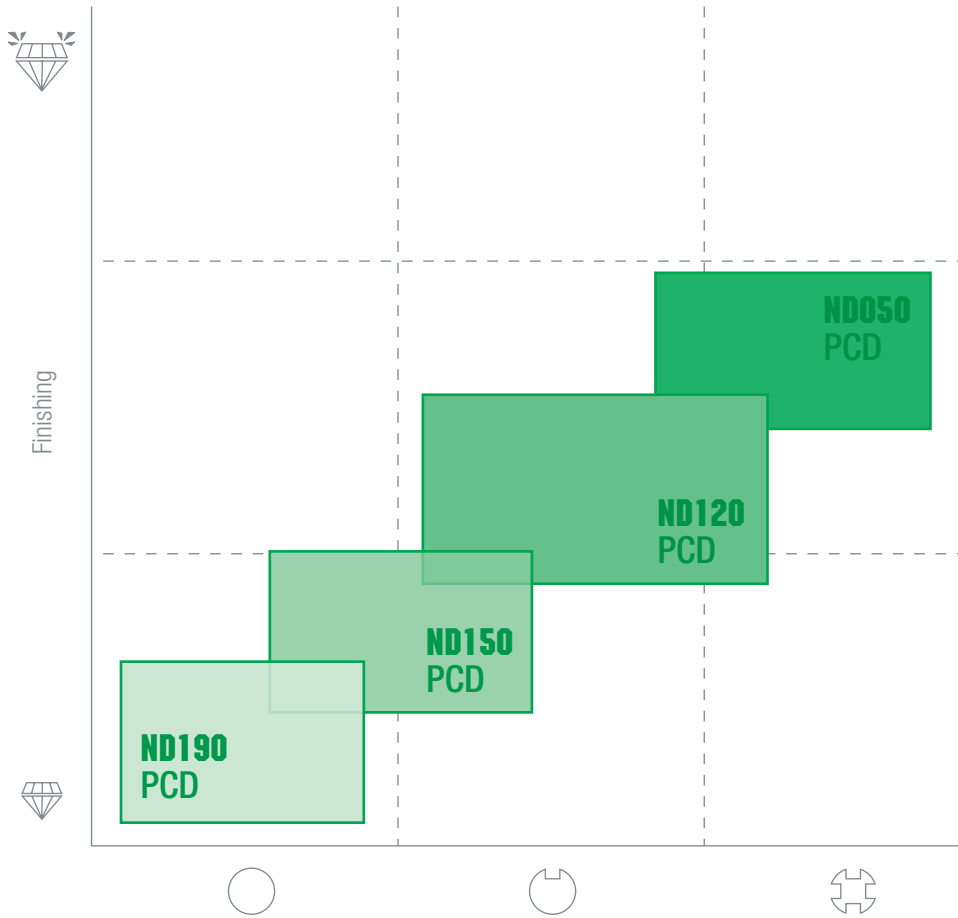


GRADES

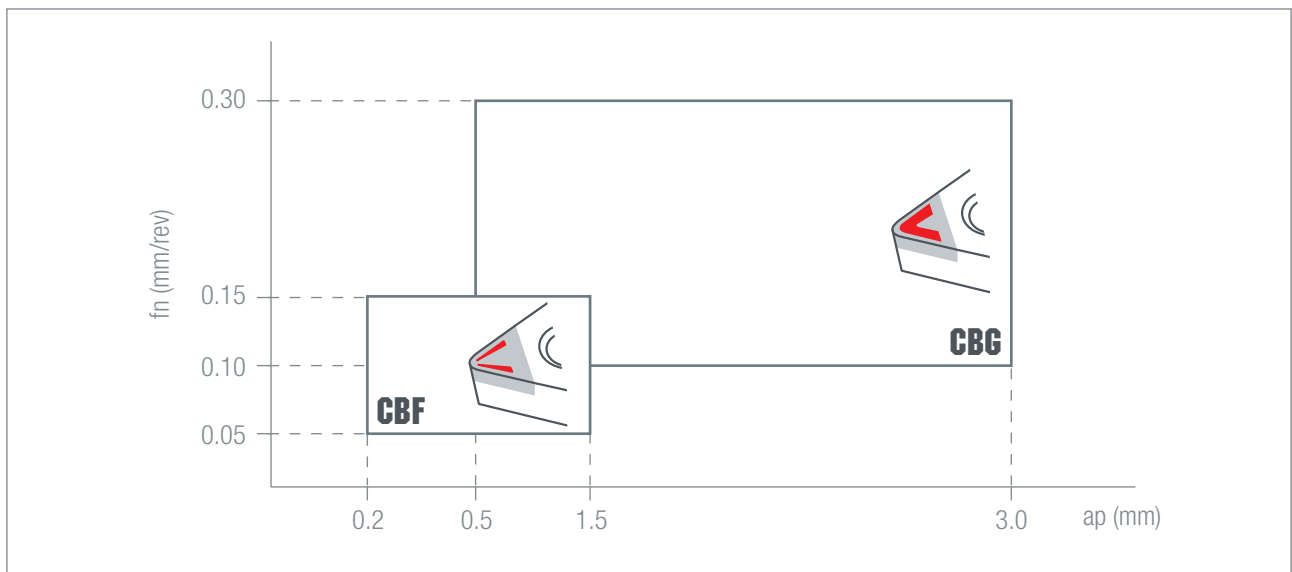
- TURNING
- MICRONEGA
- MICROBORING
- THREADING
- GROOVING
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- DRILLING
- SPARE PARTS
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RANGE ISO **N** DIAMOND



CHIPBREAKER APPLICATION



Vc · fn · ap ▶ 193

- TURNING
- MICRONEGA**
- MICROBORING
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TURNING

MICRONEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

NEGATIVE with hole NEW

CN □ □

80°

MICRO	CN □ □
IC	7,50
T	3,18
ød	3,60
HOLDERS	

	DESCRIPTION		l	PCD							
				ND050	ND120	ND150	ND190				
LARGE	MICRO CN.R02-LRG		3.3	★	●	★	★				
	CN.R04-LRG		3.3	★	●	★	★				
	CN.R08-LRG		3.2	★	●	★	★				
CHIPBREAKER	MICRO CN.R02-CBF		3.3		●						
	CN.R04-CBF		3.3		●						
	MICRO CN.R04-CBG		3.3		●						
	CN.R08-CBG		3.2		●						
		189									

●, ○ = NEW ITEM

Vc · fn · ap 193

**NEGATIVE
with hole**

DN □ □

NEW

MICRO	DN □ □
IC	7,00
T	3,18
Ød	3,60
HOLDERS	199

	DESCRIPTION	IC	T	PCD								
				ND050	ND120	ND150	ND190					
LARGE	 MICRO DN.R02-LRG DN.R04-LRG DN.R08-LRG		3.1	★	●	★	★					
			2.9	★	●	★	★					
			2.5	★	●	★	★					
CHIPBREAKER	 MICRO DN.R02-CBF DN.R04-CBF		3.1		●							
			2.9		●							
	 MICRO DN.R04-CBG DN.R08-CBG		2.9		●							
			2.5		●							

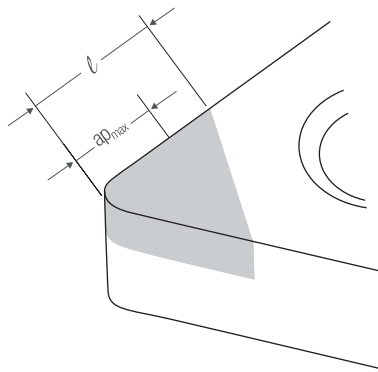
fn · ap 189

●, ○ = NEW ITEM

Vc · fn · ap 193

- TURNING
- MICRONEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
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- INDEX

CUTTING PARAMETERS



$$ap_{max} < 60 \sim 70\% l$$

N	NA	ALUMINUM ALLOYS
		LEGHE DI ALLUMINIO
		ALUMINIUMLEGIERUNGEN
		ALLIAGES D'ALUMINIUM
		ALEACIONES DE ALUMINIO
СПЛАВЫ АЛЮМИНИЯ		
N	NS	ALUMINUM ALLOYS (Si >15%)
		LEGHE DI ALLUMINIO (Si >15%)
		ALUMINIUMLEGIERUNGEN (Si >15%)
		ALLIAGES D'ALUMINIUM (Si >15%)
		ALEACIONES DE ALUMINIO (Si >15%)
СПЛАВЫ АЛЮМИНИЯ (Si >15%)		
N	NH	ALUMINUM ALLOYS AGED AND HARDENED
		LEGHE DI ALLUMINIO TRATTATE ED INVECCHiate
		GEALTERTE UND BEHANDELTE ALUMINIUMLEGIERUNGEN
		ALLIAGES D'ALUMINIUM TRAITÉES ET VIEILLIES
		ALEACIONES DE ALUMINIO TRATADAS Y ENVEJACIDAS
СПЛАВЫ АЛЮМИНИЯ ОБРАБОТАННЫЕ И СОСТАРЕННЫЕ		
N	NB	BRASS
		OTTONE
		MESSING
		LAITON
		LATÓN
ЛАТУНЬ		

N	NC	BRONZE AND ELECTROLYTIC COPPER
		BRONZO E RAME ELETTRolitICO
		ELEKTROLYTISCHES KUPFER UND BRONZE
		BRONZE ET CUIVRE ÉLECTROLYTIQUE
		BRONZE Y COBRE ELECTROLÍTICO
БРОНЗА И ЭЛЕКТРОЛИТИЧЕСКАЯ МЕДЬ		
N	NG	GRAPHITE
		GRAFITE
		GRAPHIT
		GRAPHITE
		GRAFITO
ГРАФИТ		
H	HM	HARD METAL (Co ≤16%)
		METALLO DURO (Co ≤16%)
		VHM (Co ≤16%)
		CARBURE (Co ≤16%)
		METAL DURO (Co ≤16%)
ТВЁРДЫЙ СПЛАВ (Co ≤16%)		
S	ST	TITANIUM ALLOYS
		LEGHE DI TITANIO
		TITAN LEGIERUNGEN
		ALLIAGES DE TITANE
		ALEACIONES DE TITANIO
СПЛАВЫ ТИТАНА		

CUTTING PARAMETERS

MATERIAL	ap (mm)	fn (mm/rev)	CUTTING CONDITIONS	PCD				
				ND050	ND120	ND150	ND190	
N	NA	0.10~1.00	0.08~0.25	○ ⊕	⦿	★ 600~2500		
		1.00~2.50	0.15~0.50	○ ⊕	⦿	★ 600~1600		
	NS	0.10~1.00	0.05~0.20	○ ⊕	⦿		500~1800	★ 500~1800
		1.00~2.50	0.08~0.35	○ ⊕	⦿		500~1200	★ 500~1200
	NH	0.10~1.00	0.05~0.20	○ ⊕	⦿		400~1000	★ 400~1000
		1.00~2.50	0.08~0.35	○ ⊕	⦿		400~800	★ 400~800
	NB	0.10~1.00	0.10~0.30	○ ⊕	⦿	★ 400~1200	400~1200	
		1.00~2.50	0.15~0.25	○ ⊕	⦿	★ 400~1000	400~1000	
	NC	0.10~1.00	0.10~0.30	○ ⊕	⦿	★ 300~800	300~800	
		1.00~2.50	0.15~0.25	○ ⊕	⦿	★ 300~500	300~500	
	NG	0.10~1.00	0.08~0.25	○ ⊕	⦿		★ 300~800	300~800
		1.00~2.50	0.15~0.50	○ ⊕	⦿		★ 300~600	300~600
H	HM	0.10~0.50	0.08~0.25	○	⦿		10~40	★ 10~40
S	ST	0.10~1.00	0.05~0.20	○ ⊕	⦿	★ 100~200	100~200	
		1.00~2.50	0.08~0.20	○ ⊕	⦿	★ 100~150	100~150	

★ = 1st choice / 1^a scelta / 1.Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор

- TURNING
- MICRONEGA
- MICROBORING
- THREADING
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- MILLING
- DRILLING
- SPARE PARTS
- INDEX

MICRO CN

NEGATIVE with hole CN□□

CN□□	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	H	B	L	F	l							
MICRO CN	NT-EX10H	MICRO-CN RH/LH	●	●	10	10	100	10	15	NT-ST400	NT-FT10				
	NT-EX12H	MICRO-CN RH/LH	●	●	12	12	100	12	15	NT-ST400	NT-FT10				
	NT-EX16K	MICRO-CN RH/LH	●	●	16	16	120	16	15	NT-ST400	NT-FT10				
	NT-EX20K	MICRO-CN RH/LH	●	●	20	20	120	20	15	NT-ST400	NT-FT10				
	NT-EX25M	MICRO-CN RH/LH	●	●	25	25	150	25	15	NT-ST400	NT-FT10				

A MICRO CN

NEGATIVE with hole CN□□

CN□□	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	ØD	Ød	L	F	α							
MICRO CN	NT-A08K	MICRO-CN RH/LH	●	●	8	10	125	5.5	21°	NT-ST400	NT-FT10				
	NT-A10K	MICRO-CN RH/LH	●	●	10	12	125	6	21°	NT-ST400	NT-FT10				
	NT-A12M	MICRO-CN RH/LH	●	●	12	14	150	7	19°	NT-ST400	NT-FT10				
	NT-A16R	MICRO-CN RH/LH	●	●	16	20	200	10	16°	NT-ST400	NT-FT10				
	NT-A20R	MICRO-CN RH/LH	●	●	20	24	200	12.5	16°	NT-ST400	NT-FT10				

carbide 176 PCBN 183 diamond 190

TURNING

MICRONEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

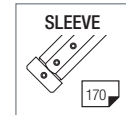
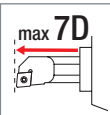
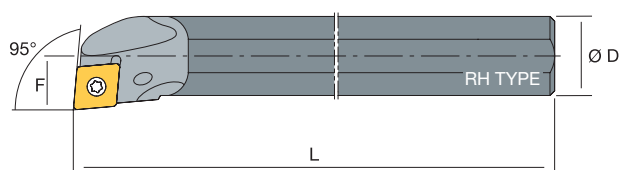
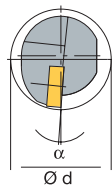
SPARE PARTS

INDEX

E MICRO CN

NEGATIVE
with hole

CN □ □



CN □ □	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	ØD	Ød	L	F	α							
MICRO CN	NT-E08K	MICRO-CN RH/LH	●	●	8	10	125	5.5	21°	NT-ST400	NT-FT10				
	NT-E10K	MICRO-CN RH/LH	●	●	10	12	125	6	21°	NT-ST400	NT-FT10				
	NT-E12M	MICRO-CN RH/LH	●	●	12	14	150	7	19°	NT-ST400	NT-FT10				
	NT-E16R	MICRO-CN RH/LH	●	●	16	20	200	10	16°	NT-ST400	NT-FT10				
	NT-E20R	MICRO-CN RH/LH	●	●	20	24	200	12.5	16°	NT-ST400	NT-FT10				

carbide

176

PCBN

183

diamond

190

MICRO DN

NEGATIVE with hole DN

DN <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	H	B	L	F	ℓ							
MICRO DN	NT-EX10H	MICRO-DN RH/LH	●	●	10	10	100	10	18	NT-ST400	NT-FT10				
	NT-EX12H	MICRO-DN RH/LH	●	●	12	12	100	12	18	NT-ST400	NT-FT10				
	NT-EX16K	MICRO-DN RH/LH	●	●	16	16	120	16	18	NT-ST400	NT-FT10				
	NT-EX20K	MICRO-DN RH/LH	●	●	20	20	120	20	18	NT-ST400	NT-FT10				
	NT-EX25M	MICRO-DN RH/LH	●	●	25	25	150	25	18	NT-ST400	NT-FT10				

A MICRO DN

NEGATIVE with hole DN

DN <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK		DIMENSIONS					Screw	Tool					
		R	L	ØD	Ød	L	F	α							
MICRO DN	NT-A10K	MICRO-DN RH/LH	●	●	10	15	125	9.3	19°	NT-ST400	NT-FT10				
	NT-A12M	MICRO-DN RH/LH	●	●	12	16	150	9	17°	NT-ST400	NT-FT10				
	NT-A16R	MICRO-DN RH/LH	●	●	16	20	200	11	17°	NT-ST400	NT-FT10				
	NT-A20R	MICRO-DN RH/LH	●	●	20	24	200	13	17°	NT-ST400	NT-FT10				

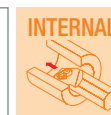
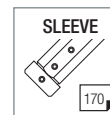
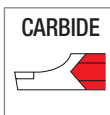
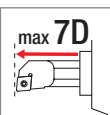
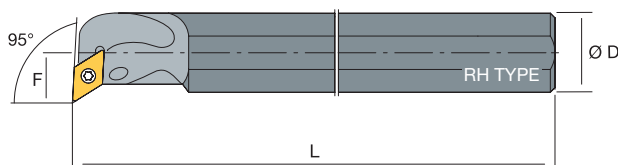
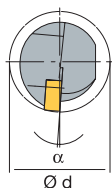
carbide 177 PCBN 184 diamond 191

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- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

E MICRO DN

NEGATIVE
with hole

DN



DN <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION		STOCK		DIMENSIONS											
			R	L	ØD	Ød	L	F	α							
MICRO DN	NT-E10K	MICRO-DN RH/LH	●	●	10	15	125	9.3	19°	NT-ST400	NT-FT10					
	NT-E12M	MICRO-DN RH/LH	●	●	12	16	150	9	17°	NT-ST400	NT-FT10					
	NT-E16R	MICRO-DN RH/LH	●	●	16	20	200	11	17°	NT-ST400	NT-FT10					
	NT-E20R	MICRO-DN RH/LH	●	●	20	24	200	13	17°	NT-ST400	NT-FT10					

carbide

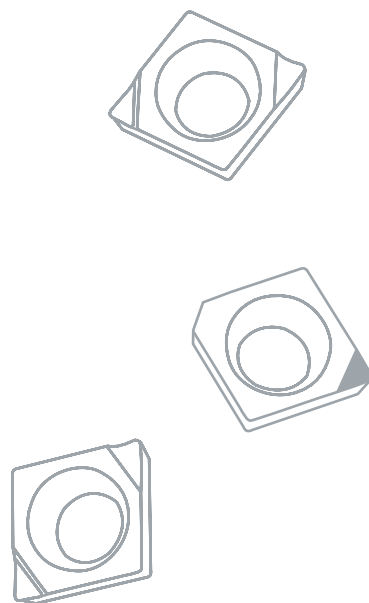
177

PCBN

184

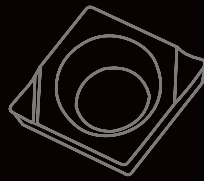
diamond

191



MICROBORING /

carbide /203
PCBN /209
diamond /217
holders /223



MICROBORING / carbide



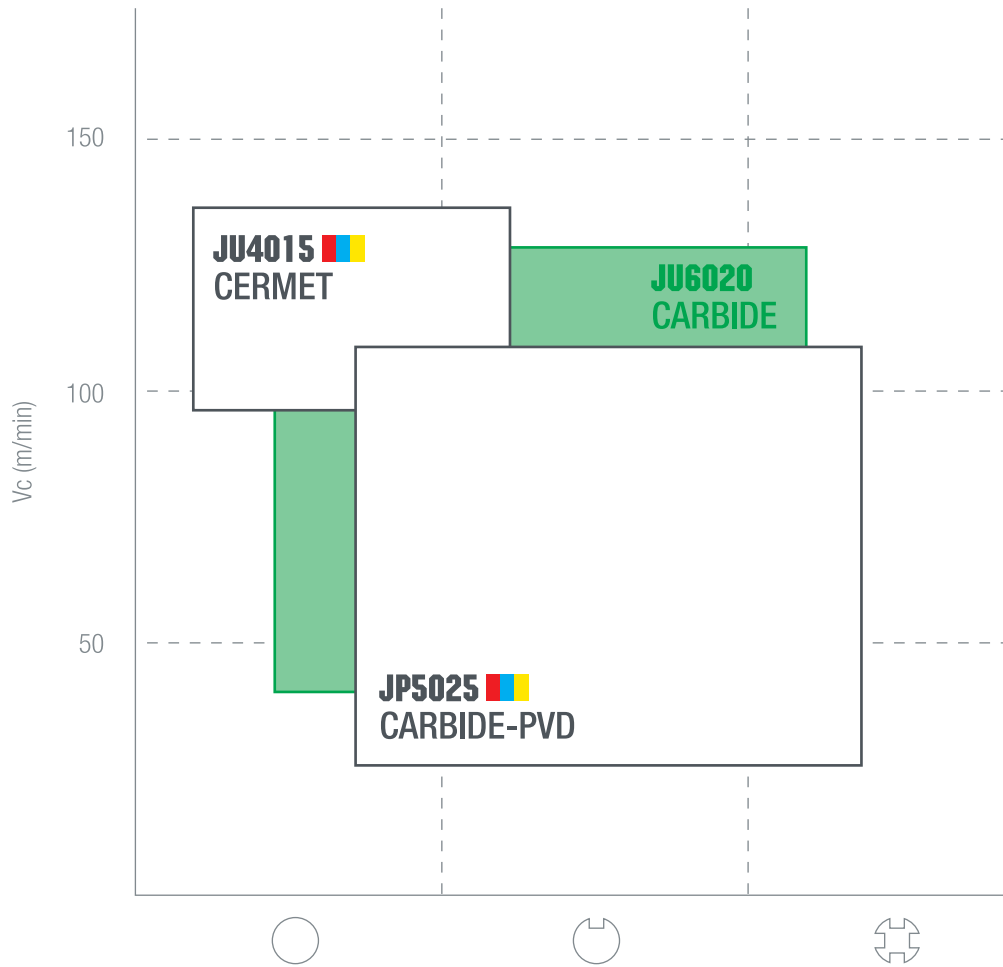
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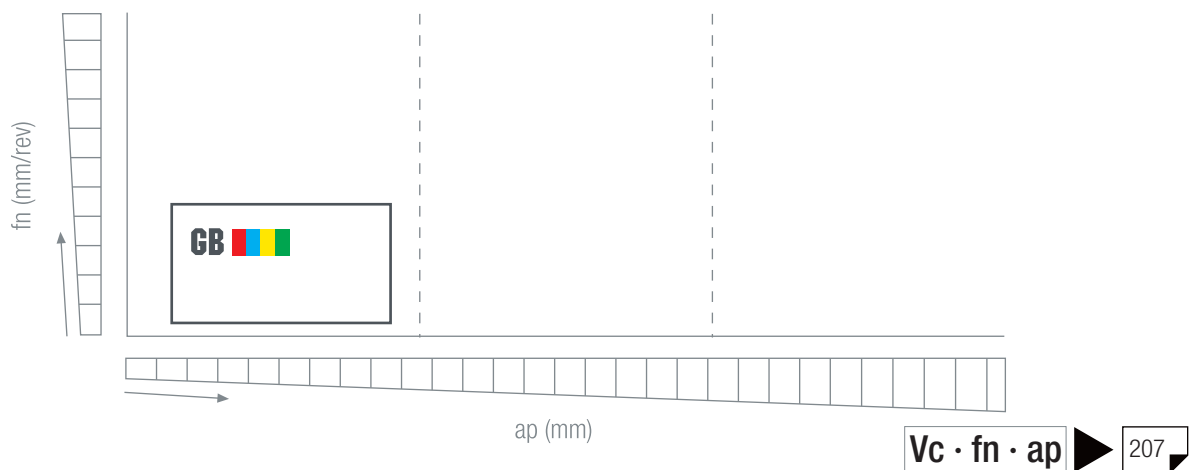
ISO DIN 513	K					P					M					N				
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40
CARBIDE CVD																				
CARBIDE PVD			JP5025					JP5025					JP5025							
CARBIDE UNCOATED																		JU6020		
CERMET UNCOATED	JU4015					JU4015					JU4015									

RANGE ISO **K** **P** **M** **N**

GRADES



CHIPBREAKERS



TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

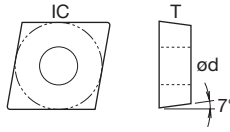
DRILLING

SPARE PARTS

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POSITIVE 7°
with hole

CC



MICRO CC

IC 3,50

T 1,40

Ød 1,90



TURNING

MICROMEGA

MICROBORING

THREADING

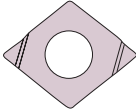

GROOVING

MILLING

DRILLING

SPARE PARTS

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DESCRIPTION	IC	CARBIDE-CVD				CARBIDE-PVD		CARBIDE	CERMET				
		JC7010	JC8015	JC8025	JC9025	JP9030	JP5015	JP5025	JUG020	JU4015			
 <p>MICRO CC.R01-GBL 0.1</p>							●						
	GB						●	●	○				
							●	●	○				
 <p>OLD name NEW name NC5130 JP5025</p>													

●, ○ = NEW ITEM

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CUTTING PARAMETERS

K	KG	GREY CAST IRON	M	MM	MARTENSITIC AND FERRITIC STAINLESS STEEL
		GHISA GRIGIA			ACCIAI INOSSIDABILI MARTENSITICI E FERRITICI
		GRAUGUSS			MARTENSITISCHE UND FERRITISCHE ROSTFREIE STÄHLE
		FONTE GRISE			ACIERS INOXYDABLES MARTENSITIQUES ET FERRITIQUES
		FUNDICIÓN GRIS			ACEROS INOXIDABLES AUSTENITICOS Y FERRITICOS
		ЧУГУН			МАРТЕНСИТНЫЕ И ФЕРРИТНЫЕ НЕРЖАВЕЮЩИЕ СТАЛИ
K	KN	NODULAR CAST IRON	M	MA	AUSTENITIC STAINLESS STEEL
		GHISA SFEROIDALE			ACCIAI INOSSIDABILI AUSTENITICI
		SPHÄROGUSS			AUSTENITISCHE ROSTFREIE STÄHLE
		FONTE NODULAIRE			ACIERS INOXYDABLES AUSTENITIQUES
		FUNDICIÓN NODULAR			ACEROS INOXIDABLES AUSTENITICOS
		ЧУГУН С ШАРОВИДНЫМ ГРАФИТОМ			АУСТЕНИТНЫЕ НЕРЖАВЕЮЩИЕ СТАЛИ
P	PL	LOW CARBON AND FREE CUTTING STEEL	N	NA	ALUMINUM ALLOYS
		ACCIAI A BASSO TENORE DI CARBONIO ED AUTOMATICI			LEGHE DI ALLUMINIO
		KOHLENSTOFFARME STÄHLE			ALUMINIUMLEGIERUNGEN
		ACIERS BAS CARBONE ET POUR DÉCOLLETAGE			ALLIAGES D'ALUMINIUM
		ACEROS DE BAJO CARBONO			ALEACIONES DE ALUMINIO
		НИЗКОУГЛЕРОДИСТАЯ И АВТОМАТНАЯ СТАЛЬ			СПЛАВЫ АЛЮМИНИЯ
P	PM	MEDIUM CARBON STEEL	N	NH	ALUMINUM ALLOYS AGED AND HARDENED
		ACCIAI A MEDIO TENORE DI CARBONIO			LEGHE DI ALLUMINIO TRATTATE ED INVECCHiate
		MITTELGEKOHLTE FLUSSTÄHLE			GEALTERTE UND BEHANDELTE ALUMINIUMLEGIERUNGEN
		ACIERS MOYEN CARBONE			ALLIAGES D'ALUMINIUM TRAITÉES ET VIEILLIES
		ACEROS DE MEDIO CARBONO			ALEACIONES DE ALUMINIO TRATADAS Y ENVEJACIDAS
		СРЕДНЕУГЛЕРОДИСТАЯ СТАЛЬ			СПЛАВЫ АЛЮМИНИЯ ОБРАБОТАННЫЕ И СОСТАРЕННЫЕ
P	PH	HIGH CARBON STEEL	N	NB	BRASS
		ACCIAI AD ELEVATO TENORE DI CARBONIO			OTTONE
		KOHLENSTOFFFREICHE STÄHLE			MESSING
		ACIERS HAUT CARBONE			LAITON
		ACEROS DE ALTO CARBONO			LATÓN
		ВЫСОКОУГЛЕРОДИСТАЯ СТАЛЬ			ЛАТУНЬ
P	PA	ALLOY STEEL	N	NC	BRONZE AND ELECTROLYTIC COPPER
		ACCIAI LEGATI			BRONZO E RAME ELETTROLITICO
		LEGIERTE STÄHLE			ELEKTROLYTISCHES KUPFER UND BRONZE
		ACIERS ALLIÉS			BRONZE ET CUIVRE ÉLECTROLYTIQUE
		ACEROS ALEADOS			BRONCE Y COBRE ELECTROLÍTICO
		СРЕДНЕЛЕГИРОВАННАЯ СТАЛЬ			БРОНЗА И ЭЛЕКТРОЛИТИЧЕСКАЯ МЕДЬ

MATERIAL	HM PVD	CERMET	CARBIDE	GB		
	JP5025	JU4015	JU6020			
	Vc (m/min)			ap (mm)	fn (mm/rev)	
K	KG	80~150	160~300	100~200	0.05~0.30	0.03~0.13
	KN	60~120	120~240	80~150	0.05~0.30	0.03~0.13
P	PL	80~150	160~300		0.05~0.30	0.03~0.13
	PM	60~120	120~240		0.05~0.30	0.03~0.13
	PH	50~100	100~200		0.05~0.30	0.03~0.13
	PA	40~100	80~200		0.05~0.30	0.03~0.13
M	MM	50~100	100~200		0.05~0.30	0.02~0.12
	MA	40~100	80~200		0.05~0.30	0.02~0.12
N	NA			200~300	0.05~0.50	0.03~0.15
	NH			150~250	0.05~0.50	0.03~0.15
	NB			100~200	0.05~0.50	0.03~0.15
	NC			100~200	0.05~0.50	0.03~0.15

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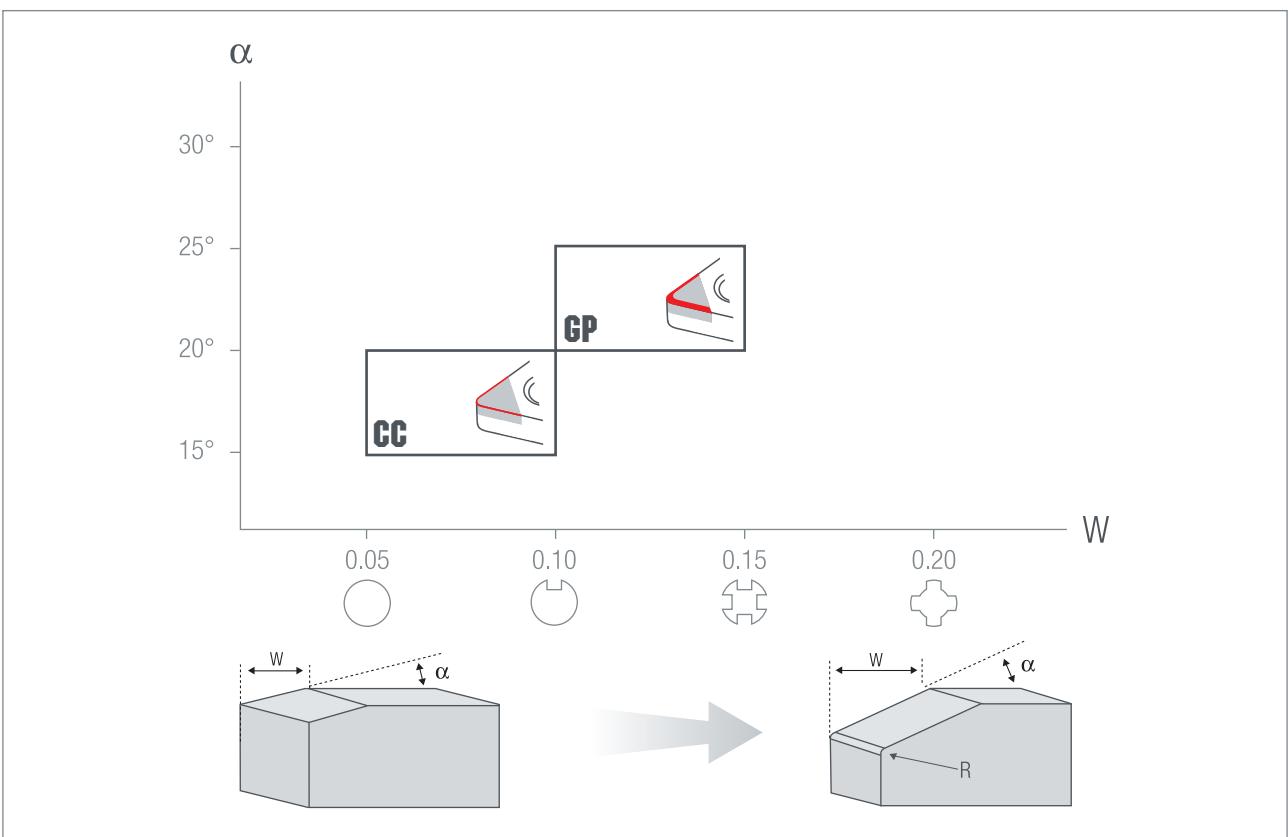
ISO DIN 513	H					K				
	H01	H10	H20	H30	H40	K01	K10	K20	K30	K40
PCBN-Carbide reinforced		NB150						NB450		
			NB250							
				NB350						
PCBN-Vertical & Solid (NBS Series)										

COATED

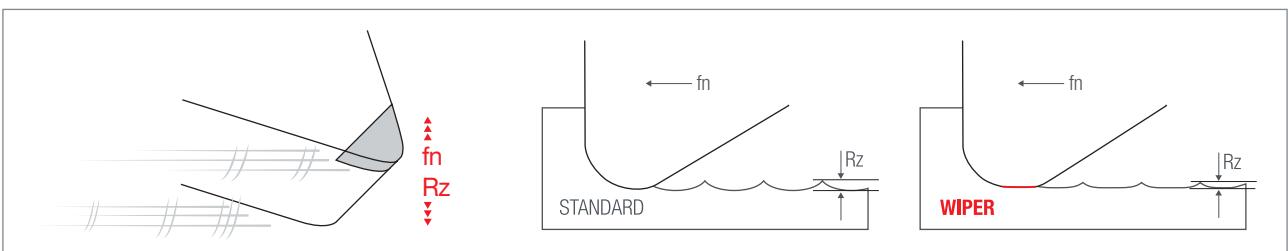
INSERT STYLE



EDGE PREPARATION



WIPER



TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

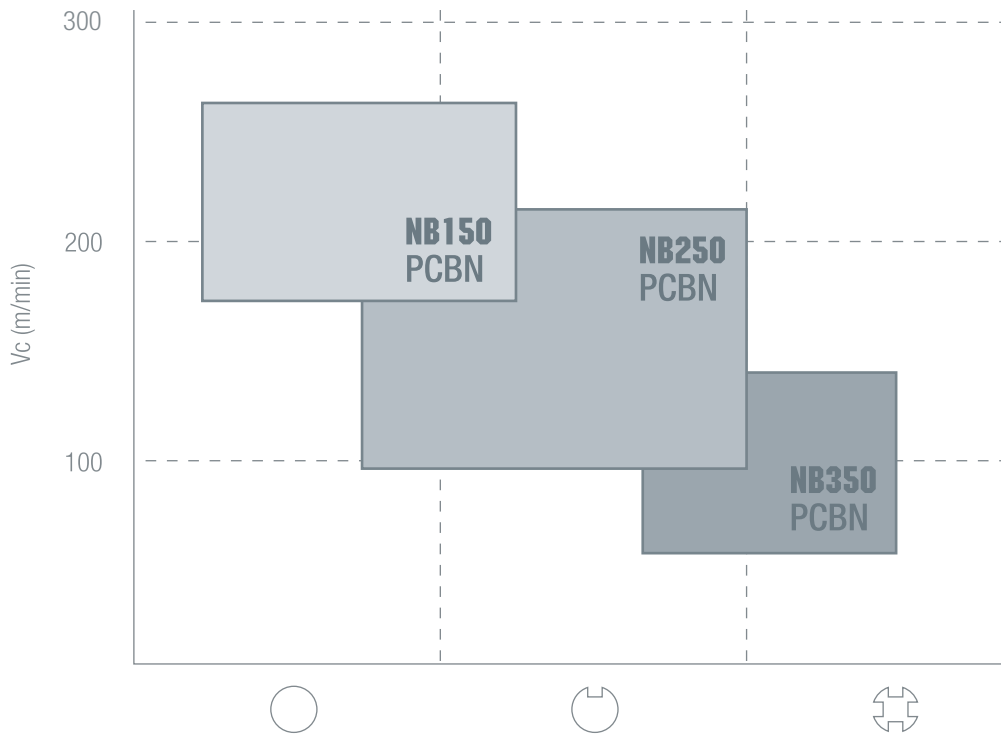
DRILLING

SPARE PARTS

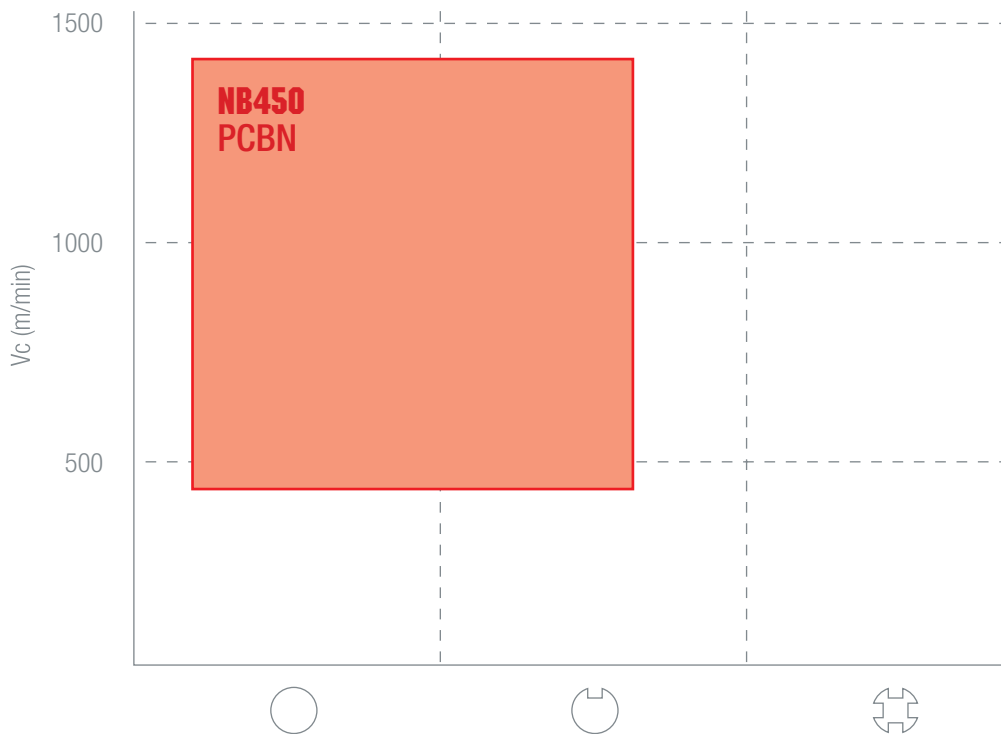
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RANGE ISO H PCBN-Carbide reinforced



RANGE ISO K PCBN-Carbide reinforced



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POSITIVE 7° with hole

CC

NEW

MICRO	CC
IC	3,50
T	1,40
Od	1,90
HOLDERS	225

DESCRIPTION		IC	T	PCBN-Carbide reinforced									
				NB150	NB250	NB350	NB450U						
CC	MICRO		1.5	CC.R01-1E-CC									
				CC.R02-1E-CC	★								
				CC.R04-1E-CC	★								
GP	MICRO		1.5	CC.R01-1E-GP									
				CC.R02-1E-GP	★	●	●	●*					
				CC.R04-1E-GP	★	●	●	●*					
WH WIPER	MICRO		1.5	CC.R02-1E-WH	★								
				CC.R04-1E-WH	★								
*NB450U = uncoated													

●, ○ = NEW ITEM

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TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

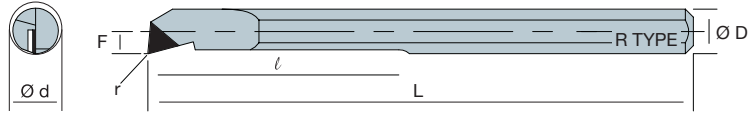
DRILLING

SPARE PARTS

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MINI-B

POSITIVE EDGE



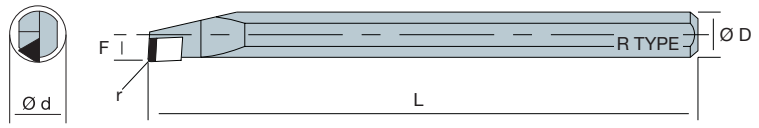
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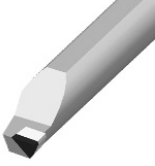
DESCRIPTION	DIMENSIONS							PCBN										
	ØD	Ød	r	L	F	l	R	L	NB150U									
	NT-MINI-B D3.0-L50-S2.8 ^{R/L}	2.8	3	0.05	50	1.4	20	■*										
	D3.0-L50-S3.0 ^{R/L}	3	3	0.10	50	1.5	20											
	D4.0-L60-S3.8 ^{R/L}	3.8	4	0.05	60	1.9	30	■*										
	D4.0-L60-S4.0 ^{R/L}	4	4	0.10	60	2.0	30											
	D5.0-L70-S4.8 ^{R/L}	4.8	5	0.05	70	2.4	40	■*										
	D5.0-L70-S5.0 ^{R/L}	5	5	0.10	70	2.5	40											
	D6.0-L70-S5.8 ^{R/L}	5.8	6	0.05	70	2.9	45	■*										
	D6.0-L70-S6.0 ^{R/L}	6	6	0.10	70	3.0	45											
	D7.0-L80-S6.8 ^{R/L}	6.8	7	0.05	80	3.4	50	■*										
D7.0-L80-S7.0 ^{R/L}	7	7	0.10	80	3.5	50												
*NB150U = uncoated																		

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MINI-BH

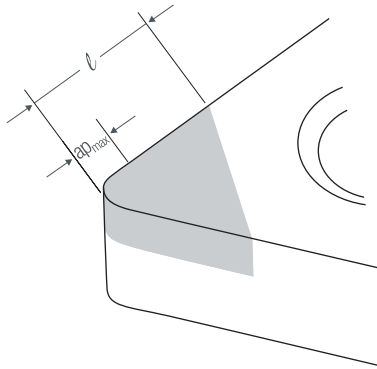
STRONG EDGE



DESCRIPTION	DIMENSIONS							PCBN										
	ØD	Ød	r	L	F	ℓ	R	L										
 NT-MINI-BH D3.5-L60-S3.0 R/L D4.5-L60-S4.0 R/L D5.5-L80-S5.0 R/L D6.5-L80-S6.0 R/L D7.5-L100-S7.0 R/L D8.5-L100-S8.0 R/L	3	3.5	0.20	60	1.85	-	●*											
	4	4.5	0.20	60	2.35	-	●*											
	5	5.5	0.20	80	2.85	-	●*											
	6	6.5	0.20	80	3.35	-	●*											
	7	7.5	0.20	100	3.85	-	○*											
	8	8.5	0.20	100	4.35	-	○*											
*NB250U = uncoated																		

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CUTTING PARAMETERS



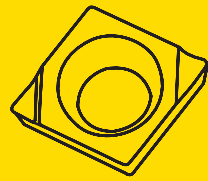
$$a_{p\max} < 20\sim30\% l$$

H	HH	HARDENED STEEL
		ACCIAIO TEMPRATO
H	HC	GEHÄRTETER STAHL
		ACIER TREMPÉ
		ACERO TEMPLADO
		ЗАКАЛЁННАЯ СТАЛЬ
		CASEHARDENED STEEL
		ACCIAIO CEMENTATO
		EINGESETZTER STAHL
		ACIER CEMENTÉ
ACERO CEMENTADO		
ЦЕМЕНТИРОВАННАЯ СТАЛЬ		

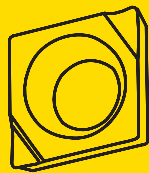
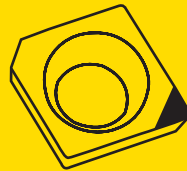
H	HB	BEARING STEEL
		ACCIAIO PER CUSCINETTI
H	HM	STAHL FÜR LAGER
		ACIER POUR ROULEMENTS
		ACERO PARA RODAMIENTOS
		СТАЛЬ ДЛЯ ПОДШИПНИКОВ
		HARD METAL (Co≥17%)
		METALLO DURO (Co≥17%)
		VHM (Co≥17%)
		CARBURE (Co≥17%)
METAL DURO (Co≥17%)		
ТВЁРДЫЙ СПЛАВ (Co≥17%)		

MATERIAL	ap (mm)	fn (mm/rev)	CUTTING CONDITIONS	PCBN-Carbide reinforced				
				NB150	NB250	NB350	NB450U	
H	HH	0.05~0.20	0.03~0.10	○ ○ ○	120~250	★ 100~200	100~180	
						80~180	★ 80~160	80~180
	HC	0.05~0.20	0.03~0.10	○ ○ ○		★ 100~180	100~160	
						80~160	★ 80~140	80~160
	HB	0.05~0.20	0.03~0.10	○ ○ ○	120~200	★ 100~180	100~160	
						80~150	★ 80~120	80~150
	HM	0.05~0.15	0.03~0.08	○ ○ ○				★ 10~40

★ = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^o elección / 1-й выбор

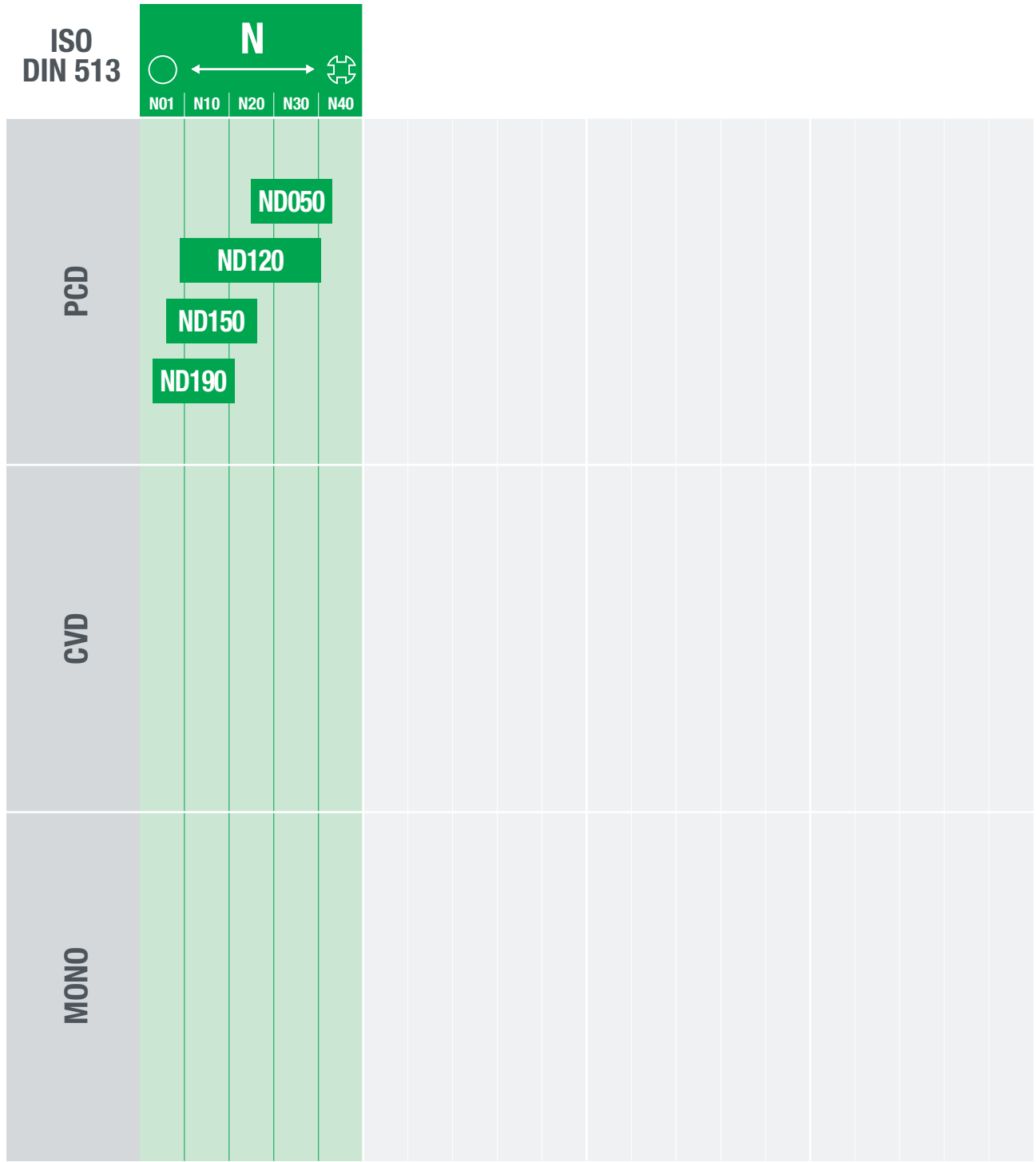


MICROBORING / diamond

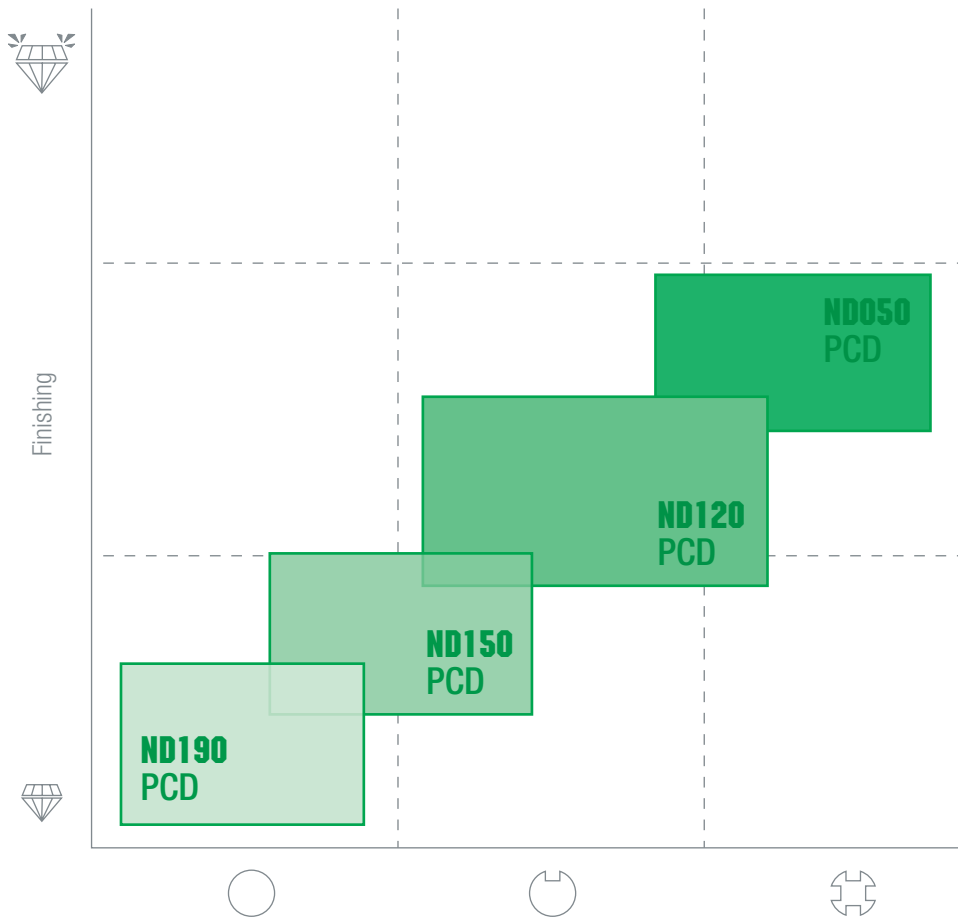


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RANGE ISO **N** DIAMOND



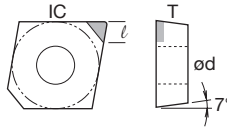
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**POSITIVE 7°
with hole**

NEW

CC □ □



MICRO CC □ □

IC 3,50
T 1,40
Ød 1,90



TURNING

MICROMEGA

MICROBORING

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GROOVING

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STANDARD	DESCRIPTION	IC	PCD										
			ND050	ND120	ND150	ND190							
	MICRO CC.R01	1.5											
	CC.R02	1.5	●	●		●							
	CC.R04	1.5	●	●		●							

●, ○ = NEW ITEM

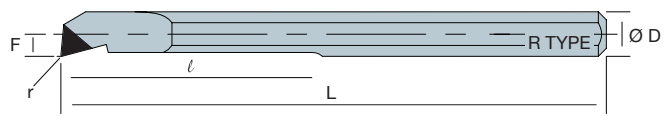
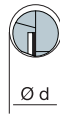
Vc · fn · ap



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MINI-B

POSITIVE EDGE



DESCRIPTION	DIMENSIONS							PCD									
	ØD	Ød	r	L	F	l	R	L	ND120								
	NT-MINI-B D3.0-L50-S2.8 ^{R/L}	2.8	3	0.05	50	1.4	20	■									
	D3.0-L50-S3.0 ^{R/L}	3	3	0.10	50	1.5	20										
	D4.0-L60-S3.8 ^{R/L}	3.8	4	0.05	60	1.9	30	■									
	D4.0-L60-S4.0 ^{R/L}	4	4	0.10	60	2.0	30										
	D5.0-L70-S4.8 ^{R/L}	4.8	5	0.05	70	2.4	40	■									
	D5.0-L70-S5.0 ^{R/L}	5	5	0.10	70	2.5	40										
	D6.0-L70-S5.8 ^{R/L}	5.8	6	0.05	70	2.9	45	■									
	D6.0-L70-S6.0 ^{R/L}	6	6	0.10	70	3.0	45										
	D7.0-L80-S6.8 ^{R/L}	6.8	7	0.05	80	3.4	50	■									
D7.0-L80-S7.0 ^{R/L}	7	7	0.10	80	3.5	50											

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N	NA	<ul style="list-style-type: none"> ALUMINUM ALLOYS LEGHE DI ALLUMINIO ALUMINIUMLEGIERUNGEN ALLIAGES D'ALUMINIUM ALEACIONES DE ALUMINIO СПЛАВЫ АЛЮМИНИЯ
	NS	<ul style="list-style-type: none"> ALUMINUM ALLOYS (Si >15%) LEGHE DI ALLUMINIO (Si >15%) ALUMINIUMLEGIERUNGEN (Si >15%) ALLIAGES D'ALUMINIUM (Si >15%) ALEACIONES DE ALUMINIO (Si >15%) СПЛАВЫ АЛЮМИНИЯ (Si >15%)
	NH	<ul style="list-style-type: none"> ALUMINUM ALLOYS AGED AND HARDENED LEGHE DI ALLUMINIO TRATTATE ED INVECCHiate GEALTERTE UND BEHANDELTE ALUMINIUMLEGIERUNGEN ALLIAGES D'ALUMINIUM TRAITÉES ET VIEILLIES ALEACIONES DE ALUMINIO TRATADAS Y ENVEJACIDAS СПЛАВЫ АЛЮМИНИЯ ОБРАБОТАННЫЕ И СОСТАРЕННЫЕ
	NB	<ul style="list-style-type: none"> BRASS OTTONE MESSING LAITON LATÓN ЛАТУНЬ

N	NC	<ul style="list-style-type: none"> BRONZE AND ELECTROLYTIC COPPER BRONZO E RAME ELETTROLITICO ELEKTROLYTISCHES KUPFER UND BRONZE BRONZE ET CUIVRE ÉLECTROLYTIQUE BRONZE Y COBRE ELECTROLÍTICO БРОНЗА И ЭЛЕКТРОЛИТИЧЕСКАЯ МЕДЬ
	NG	<ul style="list-style-type: none"> GRAPHITE GRAFITE GRAPHIT GRAPHITE GRAFITO ГРАФИТ
	HM	<ul style="list-style-type: none"> HARD METAL (Co≤16%) METALLO DURO (Co≤16%) VHM (Co≤16%) CARBURE (Co≤16%) METAL DURO (Co≤16%) ТВЕРДЫЙ СПЛАВ (Co≤16%)
	ST	<ul style="list-style-type: none"> TITANIUM ALLOYS LEGHE DI TITANIO TITAN LEGIERUNGEN ALLIAGES DE TITANE ALEACIONES DE TITANIO СПЛАВЫ ТИТАНА

MATERIAL	ap (mm)	fn (mm/rev)	CUTTING CONDITIONS	PCD				
				ND050	ND120	ND150	ND190	
N	NA	0.03~0.20	0.05~0.10	○ □	○	*	600~2500	
	NS	0.03~0.20	0.05~0.10	○ □	○		500~1800	*
	NH	0.03~0.20	0.05~0.10	○ □	○		400~1000	*
	NB	0.03~0.20	0.05~0.10	○ □	○		400~1200	
	NC	0.03~0.20	0.05~0.10	○ □	○		300~800	
	NG	0.03~0.20	0.05~0.10	○ □	○		300~800	
H	HM	0.03~0.20	0.05~0.10	○	○		10~40	*
S	ST	0.03~0.20	0.05~0.10	○ □	○		100~200	

* = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор

CAPTION LEGENDA / LEGENDE / LÉGENDE / CLAVE / УСЛОВНЫЕ ОБОЗНАЧЕНИЯ

TURNING

MICRONEGA

MICROBORING

THREADING

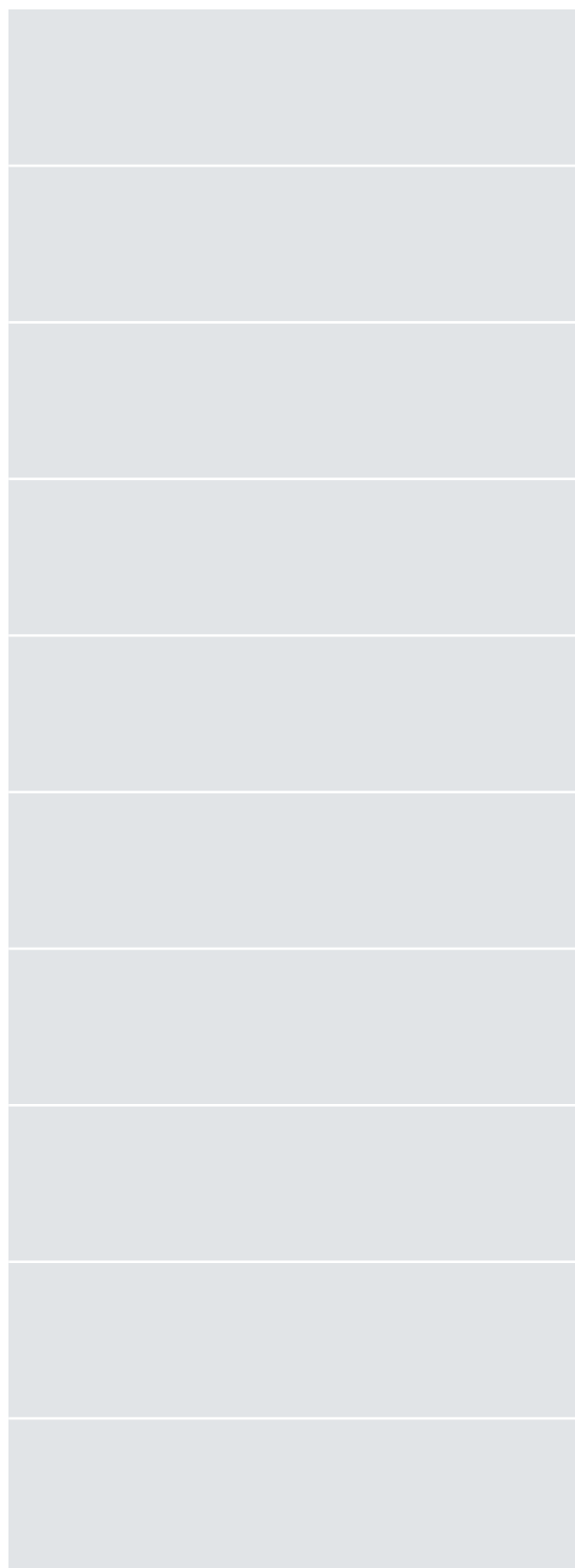
GROOVING

MILLING

DRILLING







SPARE PARTS

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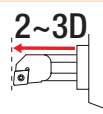
INTERNAL



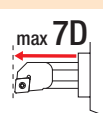
-  INTERNAL HOLDERS
-  UTENSILI PER LAVORAZIONE INTERNA
-  WERKZEUG FÜR INNENBEARBEITUNGEN
-  OUTILS POUR USINAGE INTÉRIEUR
-  HERRAMIENTAS PARA MECANIZADO INTERIOR
-  ИНСТРУМЕНТ ДЛЯ ВНУТРЕННЕЙ ОБРАБОТКИ



-  SCREW CLAMPING
-  BLOCCAGGIO A VITE
-  SCHRAUBSPANNUNG
-  FIXATION PAR VIS
-  AMARRE POR TORNILLO
-  КРЕПЛЕНИЕ ВИНТОМ









-  OVERHANG
-  SPORGENZA
-  UEBERSTAND
-  PORTE-À-FEUX
-  VOLADIZO
-  ВЫСТУП



-  OVERHANG
-  SPORGENZA
-  UEBERSTAND
-  PORTE-À-FEUX
-  VOLADIZO
-  ВЫСТУП









COOLANT

-  INSIDE COOLANT TOOL
-  UTENSILE CON REFRIGERAZIONE INTERNA
-  WERKZEUG MIT IK
-  OUTIL AVEC TROUS D'HUILE
-  HERRAMIENTA CON SUMINISTRO INTERNO DE REFRIGERANTE
-  ИНСТРУМЕНТ С ВНУТРЕННИМ ОХЛАЖДЕНИЕМ



CARBIDE

-  CARBIDE BODY WITH BRAZED STEEL HEAD
-  CORPO IN METALLO DURO CON TESTA IN ACCIAIO (BRASATA)
-  KÖRPER AUS VHM UND KOPF AUS STAHL (GELÖTET)
-  CORPS EN CARBURE ET TÊTE EN ACIER (SOUDÉ)
-  HERRAMIENTA EN METAL DURO CON CABEZA EN ACERO (SOLDADA)
-  КОРПУС ИЗ ТВЁРДОГО СПЛАВА СО СТАЛЬНОЙ ГОЛОВКОЙ

A MICRO CC

NEW

POSITIVE 7° with hole **CC** □ □

CC □ □	DESCRIPTION	STOCK	DIMENSIONS					SLEEVE	INTERNAL				
			ØD	Ød	L	F	l						
MICRO CC	NT-A12H-MICRO-CC RH	●	12	5	100	2.5	8	NT-ST002	NT-FT06				
	NT-A16H-MICRO-CC RH	●	16	5	100	2.5	12	NT-ST002	NT-FT06				

C MICRO CC

POSITIVE 7° with hole **CC** □ □

CC □ □	DESCRIPTION	STOCK	DIMENSIONS					SLEEVE	INTERNAL				
			ØD	Ød	L	F	α						
MICRO CC	NT-C04G-MICRO-CC RH	●	4	5	90	2.5	15°	NT-ST002	NT-FT06				
	NT-C05H-MICRO-CC RH	●	5	6	100	3	13°	NT-ST002	NT-FT06				

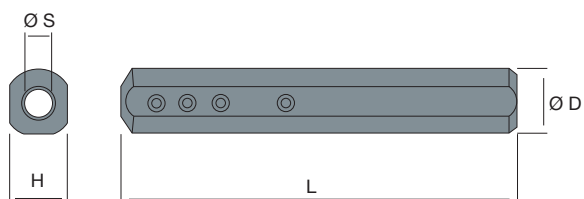
carbide 206 PCBN 213 diamond 220

●, ○ = NEW ITEM

TURNING
MICRONEGA
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MILLING
DRILLING
SPARE PARTS
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NT-SLV

SLEEVE
for boring bars



	DESCRIPTION	STOCK	DIMENSIONS										
			ØS	ØD	L	H							
MICRO CC	NT-SLV S3.0	●	3	16	100	14	NT-ST095	NT-WR020					
	NT-SLV S4.0	●	4	16	100	14	NT-ST095	NT-WR020					
	NT-SLV S5.0	●	5	16	100	14	NT-ST095	NT-WR020					
	NT-SLV S6.0	●	6	16	100	14	NT-ST095	NT-WR020					
	NT-SLV S7.0			7	16	100	14	NT-ST095	NT-WR020				
	NT-SLV S8.0			8	16	100	14	NT-ST095	NT-WR020				

carbide

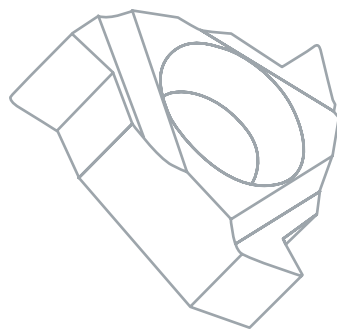
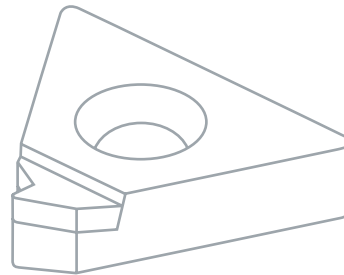
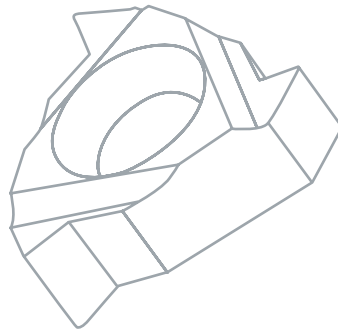
206

PCBN

213

diamond

220

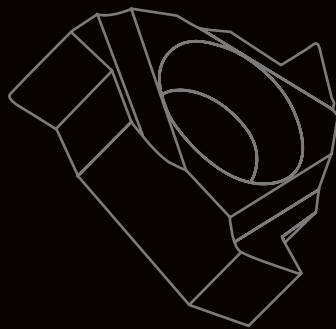
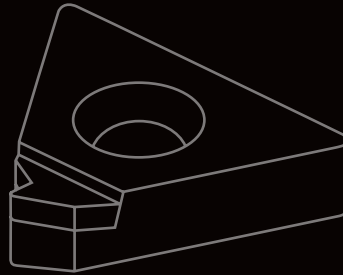


THREADING /

carbide /229
PCBN /235
diamond /241
holders /247



THREADING / carbide



GRADES

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	ISO DIN 513																		
	K					P					M								
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40				
CARBIDE CVD																			
CARBIDE PVD																			
CARBIDE UNCOATED																			
CERMET UNCOATED																			

JP5015

JP5025

JP5015

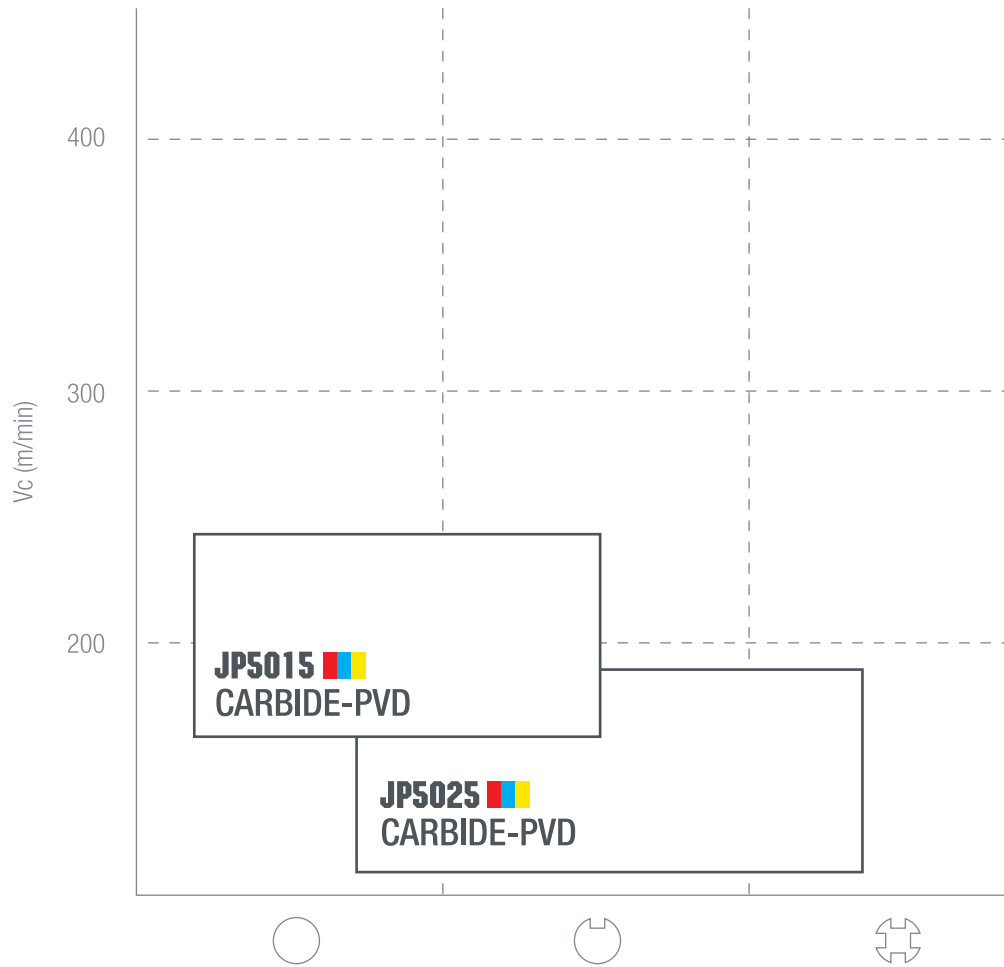
JP5025

JP5015

JP5025

RANGE ISO **K** **P** **M**

GRADES

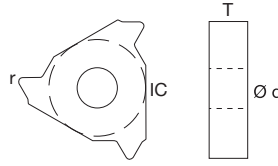
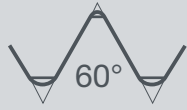


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16ER

NEW

EXTERNAL METRIC




	DESCRIPTION	DIMENSIONS						CARBIDE-PVD							
			r	IC	T	Ød	JP5015	JP5025							
	16ER 	100ISO-TPM	1.00	0.12	9.525	3.6	3.95	★	★						
		125ISO-TPM	1.25	0.15	9.525	3.6	3.95	★	★						
		150ISO-TPM	1.50	0.19	9.525	3.6	3.95	★	★						
		175ISO-TPM	1.75	0.22	9.525	3.6	3.95	★	★						
		200ISO-TPM	2.00	0.25	9.525	3.6	3.95	★	★						
		250ISO-TPM	2.50	0.33	9.525	3.6	3.95	★	★						
		300ISO-TPM	3.00	0.41	9.525	3.6	3.95	★	★						

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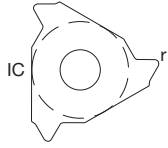
16IR

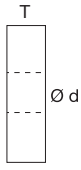
INTERNAL METRIC






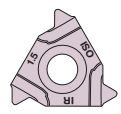
60°

NEW



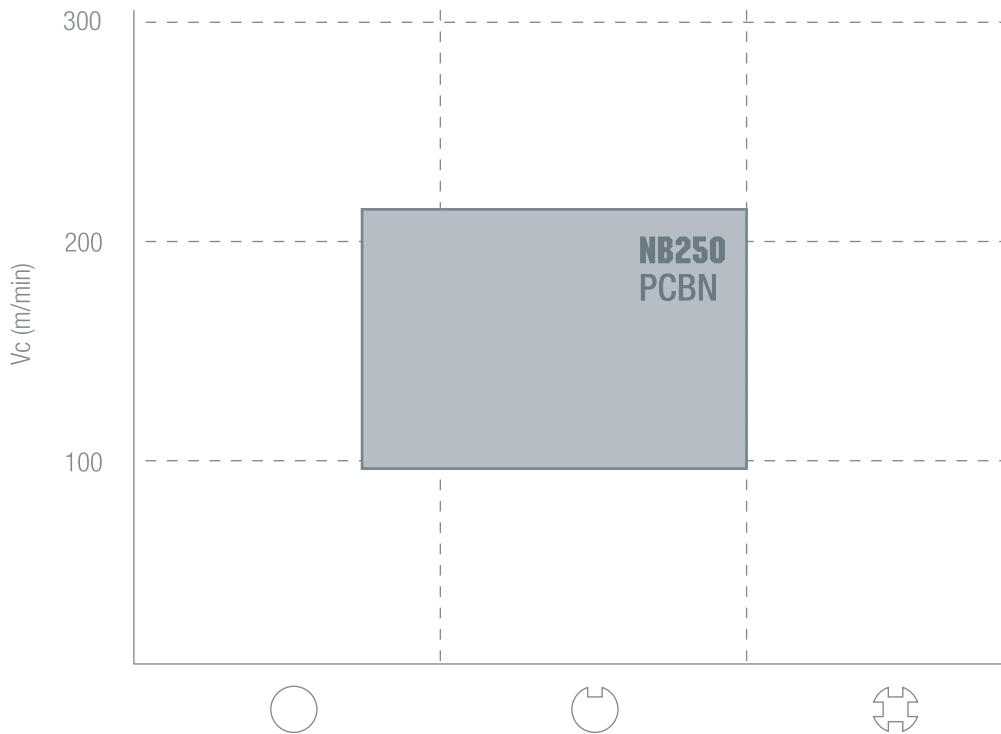




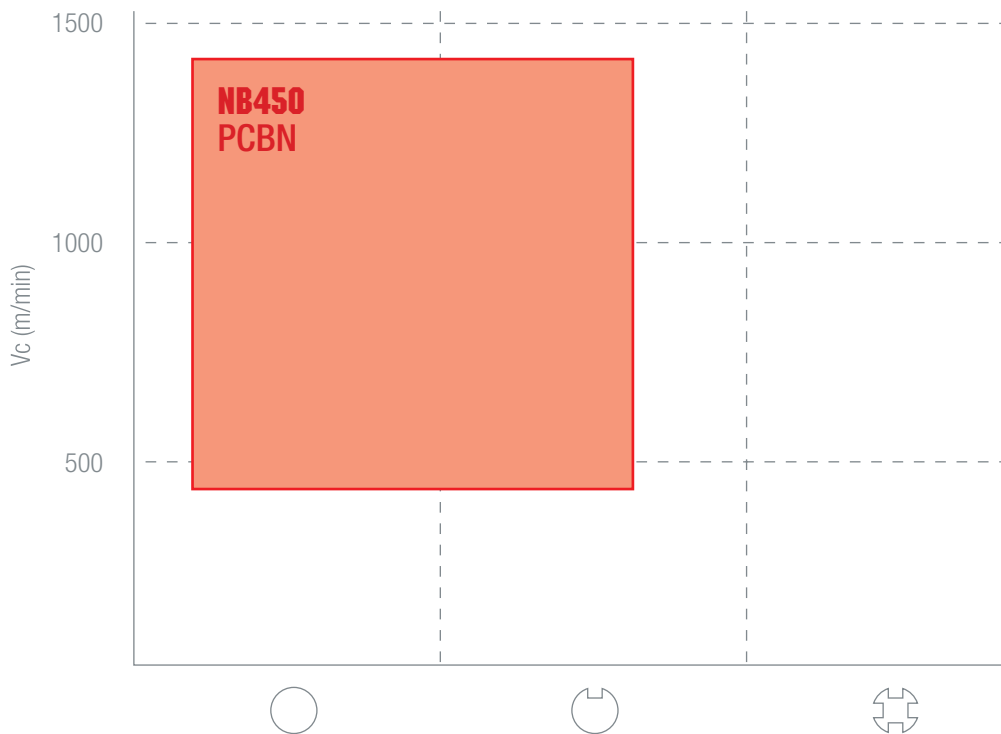
DESCRIPTION		DIMENSIONS						CARBIDE-PVD							
			r	IC	T	Ød	JP5015	JP5025							
 	16IR	100ISO-TPM	1.00	0.07	9.525	3.6	3.95	★	★						
		125ISO-TPM	1.25	0.08	9.525	3.6	3.95	★	★						
		150ISO-TPM	1.50	0.11	9.525	3.6	3.95	★	★						
		175ISO-TPM	1.75	0.12	9.525	3.6	3.95	★	★						
		200ISO-TPM	2.00	0.14	9.525	3.6	3.95	★	★						
		250ISO-TPM	2.50	0.17	9.525	3.6	3.95	★	★						
		300ISO-TPM	3.00	0.19	9.525	3.6	3.95	★	★						

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RANGE ISO H PCBN-Carbide reinforced



RANGE ISO K PCBN-Carbide reinforced

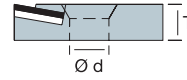
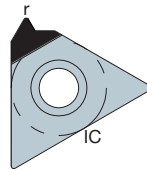
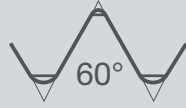


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16ER

EXTERNAL METRIC



TURNING

MICROMEGA

MICROBORING

THREADING

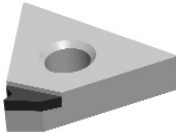
GROOVING

MILLING

DRILLING

SPARE PARTS

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DESCRIPTION	DIMENSIONS						PCBN							
		r	IC	T	Ød	NB250U	NB450U							
 <p>16ER</p>	100ISO	1.00	0.12	9.525	3.6	3.95	●	●						
	125ISO	1.25	0.15	9.525	3.6	3.95	○	○						
	150ISO	1.50	0.19	9.525	3.6	3.95	●	●						
	175ISO	1.75	0.22	9.525	3.6	3.95	○	○						
	200ISO	2.00	0.25	9.525	3.6	3.95	●	●						
	250ISO	2.50	0.33	9.525	3.6	3.95	○	○						
	300ISO	3.00	0.41	9.525	3.6	3.95	○	○						
<p>NB250U = uncoated NB450U = uncoated</p>														

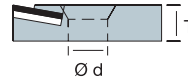
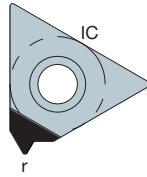
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16IR

INTERNAL METRIC



DESCRIPTION		DIMENSIONS						PCBN							
			r	IC	T	Ød	NB250U	NB450U							
	16IR	100ISO	1.00	0.07	9.525	3.6	3.95	○	○						
		125ISO	1.25	0.08	9.525	3.6	3.95	○	○						
		150ISO	1.50	0.11	9.525	3.6	3.95	○	○						
		175ISO	1.75	0.12	9.525	3.6	3.95	○	○						
		200ISO	2.00	0.14	9.525	3.6	3.95	○	○						
		250ISO	2.50	0.17	9.525	3.6	3.95	○	○						
		300ISO	3.00	0.19	9.525	3.6	3.95	○	○						
		NB250U = uncoated NB450U = uncoated													

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CUTTING PARAMETERS

H	HH	HARDENED STEEL
		ACCIAIO TEMPRATO
		GEHÄRTETER STAHL
		ACIER TREMPÉ
		ACERO TEMPLADO
H	HC	ЗАКАЛЁННАЯ СТАЛЬ
		CASEHARDENED STEEL
		ACCIAIO CEMENTATO
		EINGESETZTER STAHL
		ACIER CEMENTÉ
		ACERO CEMENTADO
		ЦЕМЕНТИРОВАННАЯ СТАЛЬ

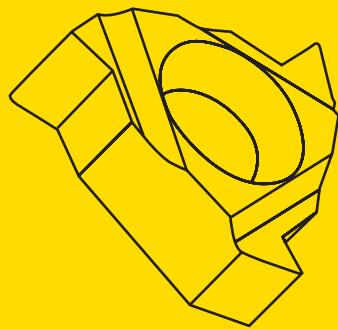
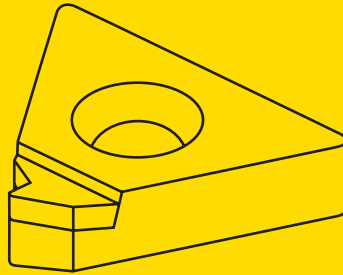
H	HB	BEARING STEEL
		ACCIAIO PER CUSCINETTI
		STAHL FÜR LAGER
		ACIER POUR ROULEMENTS
		ACERO PARA RODAMIENTOS
H	HM	СТАЛЬ ДЛЯ ПОДШИПНИКОВ
		HARD METAL (Co≥17%)
		METALLO DURO (Co≥17%)
		VHM (Co≥17%)
		CARBURE (Co≥17%)
		METAL DURO (Co≥17%)
		ТВЁРДЫЙ СПЛАВ (Co≥17%)

MATERIAL	ap (mm)	CUTTING CONDITIONS		PCBN		
				NB250U	NB450U	
H	HH	0.07 max			★ 100~180	
					80~150	★ 80~140
	HC	0.07 max			★ 100~150	
					80~130	★ 80~120
	HB	0.07 max			★ 100~150	
					80~130	★ 80~120
	HM	0.07 max				★ 10~40

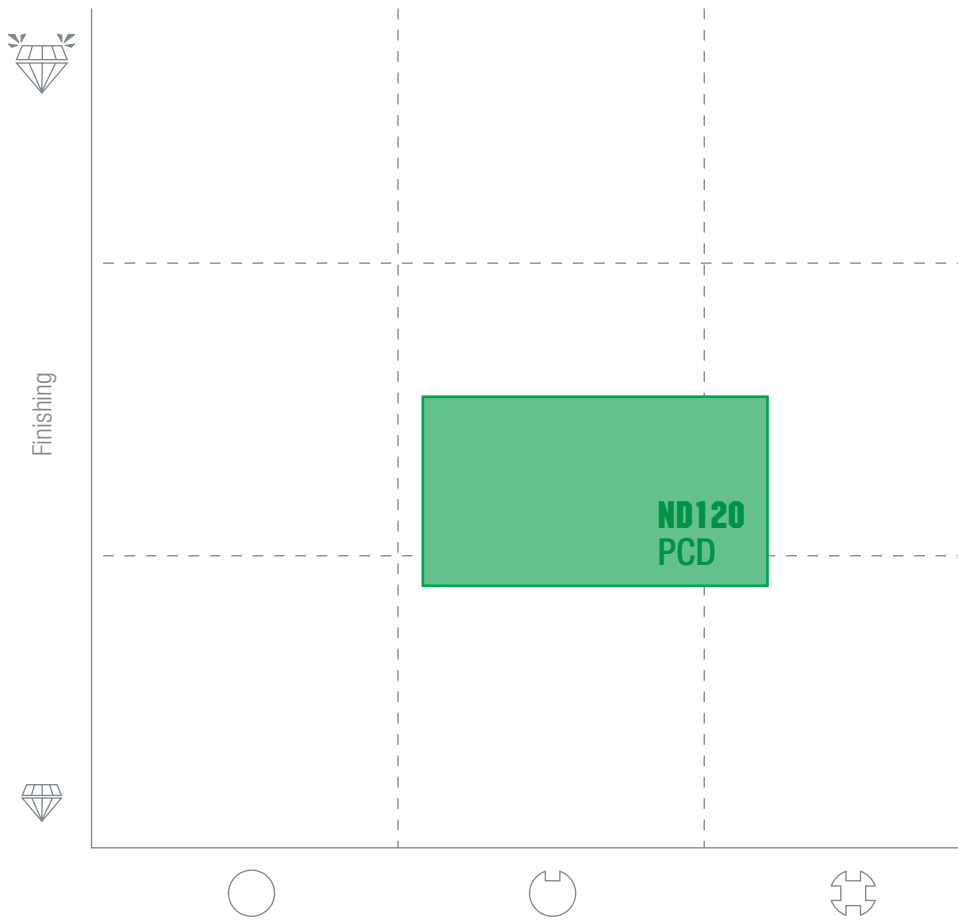
★ = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор



THREADING / diamond



RANGE ISO **N** DIAMOND

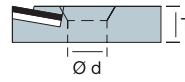
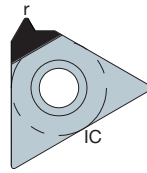


TURNING
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THREADING
GROOVING
MILLING
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16ER

EXTERNAL METRIC



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DESCRIPTION		DIMENSIONS						PCD										
			r	IC	T	Ød	ND120											
	16ER																	
	100ISO	1.00	0.12	9.525	3.6	3.95	●											
	125ISO	1.25	0.15	9.525	3.6	3.95	●											
	150ISO	1.50	0.19	9.525	3.6	3.95	●											
	175ISO	1.75	0.22	9.525	3.6	3.95	○											
	200ISO	2.00	0.25	9.525	3.6	3.95	●											
	250ISO	2.50	0.33	9.525	3.6	3.95	○											
300ISO	3.00	0.41	9.525	3.6	3.95	○												

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16IR

INTERNAL METRIC

DESCRIPTION		DIMENSIONS						PCD													
			r	IC	T	Ød	ND120														
	16IR																				
	100ISO	1.00	0.07	9.525	3.6	3.95	○														
	125ISO	1.25	0.08	9.525	3.6	3.95	○														
	150ISO	1.50	0.11	9.525	3.6	3.95	○														
	175ISO	1.75	0.12	9.525	3.6	3.95	○														
	200ISO	2.00	0.14	9.525	3.6	3.95	○														
	250ISO	2.50	0.17	9.525	3.6	3.95	○														
300ISO	3.00	0.19	9.525	3.6	3.95	○															

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CUTTING PARAMETERS

TURNING	MICROMEGA	N	NA	<ul style="list-style-type: none"> ALUMINUM ALLOYS LEGHE DI ALLUMINIO ALUMINIUMLEGIERUNGEN ALLIAGES D'ALUMINIUM ALEACIONES DE ALUMINIO СПЛАВЫ АЛЮМИНИЯ 	N	NC	<ul style="list-style-type: none"> BRONZE AND ELECTROLYTIC COPPER BRONZO E RAME ELETTROLITICO ELEKTROLYTISCHES KUPFER UND BRONZE BRONZE ET CUIVRE ÉLECTROLYTIQUE BRONZE Y COBRE ELECTROLÍTICO БРОНЗА И ЭЛЕКТРОЛИТИЧЕСКАЯ МЕДЬ 															
				MICROBORING			N	NS	<ul style="list-style-type: none"> ALUMINUM ALLOYS (Si >15%) LEGHE DI ALLUMINIO (Si >15%) ALUMINIUMLEGIERUNGEN (Si >15%) ALLIAGES D'ALUMINIUM (Si >15%) ALEACIONES DE ALUMINIO (Si >15%) СПЛАВЫ АЛЮМИНИЯ (Si >15%) 	N	NG	<ul style="list-style-type: none"> GRAPHITE GRAFITE GRAPHIT GRAPHITE GRAFITO ГРАФИТ 										
									THREADING			N	NH	<ul style="list-style-type: none"> ALUMINUM ALLOYS AGED AND HARDENED LEGHE DI ALLUMINIO TRATTATE ED INVECCHiate GEALTERTE UND BEHANDELTE ALUMINIUMLEGIERUNGEN ALLIAGES D'ALUMINIUM TRAITÉES ET VIEILLIES ALEACIONES DE ALUMINIO TRATADAS Y ENVEJACIDAS СПЛАВЫ АЛЮМИНИЯ ОБРАБОТАННЫЕ И СОСТАРЕННЫЕ 	H	HM	<ul style="list-style-type: none"> HARD METAL (Co≤16%) METALLO DURO (Co≤16%) VHM (Co≤16%) CARBURE (Co≤16%) METAL DURO (Co≤16%) ТВЕРДЫЙ СПЛАВ (Co≤16%) 					
														GROOVING			N	NB	<ul style="list-style-type: none"> BRASS OTTONE MESSING LAITON LATÓN ЛАТУНЬ 	S	ST	<ul style="list-style-type: none"> TITANIUM ALLOYS LEGHE DI TITANIO TITAN LEGIERUNGEN ALLIAGES DE TITANE ALEACIONES DE TITANIO СПЛАВЫ ТИТАНА

MATERIAL	ap (mm)	CUTTING CONDITIONS	PCD		
			ND120		
N	NA	0.07 max	○ ⊕	滴	600~2500
	NS	0.07 max	○ ⊕	滴	500~1800
	NH	0.07 max	○ ⊕	滴	400~1000
	NB	0.07 max	○ ⊕	滴	400~1200
	NC	0.07 max	○ ⊕	滴	300~800
	NG	0.07 max	○ ⊕	滴	300~800
H	HM	0.07 max	○	滴	10~40
S	ST	0.07 max	○ ⊕	滴	100~200

CAPTION LEGENDA / LEGENDE / LÉGENDE / CLAVE / УСЛОВНЫЕ ОБОЗНАЧЕНИЯ

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING







MILLING

DRILLING







SPARE PARTS

INDEX







EXTERNAL

-  EXTERNAL HOLDERS
-  UTENSILI PER LAVORAZIONE ESTERNA
-  WERKZEUG FÜR AUSSENBEARBEITUNGEN
-  OUTILS POUR USINAGE EXTÉRIEUR
-  HERRAMIENTAS PARA MECANIZADO EXTERIOR
-  ИНСТРУМЕНТ ДЛЯ ВНЕШНЕЙ ОБРАБОТКИ









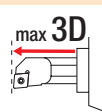
-  SCREW CLAMPING
-  BLOCCAGGIO A VITE
-  SCHRAUBSPANNUNG
-  FIXATION PAR VIS
-  AMARRE POR TORNILLO
-  КРЕПЛЕНИЕ ВИНТОМ

INTERNAL

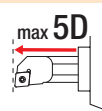
-  INTERNAL HOLDERS
-  UTENSILI PER LAVORAZIONE INTERNA
-  WERKZEUG FÜR INNENBEARBEITUNGEN
-  OUTILS POUR USINAGE INTÉRIEUR
-  HERRAMIENTAS PARA MECANIZADO INTERIOR
-  ИНСТРУМЕНТ ДЛЯ ВНУТРЕННЕЙ ОБРАБОТКИ



-  SCREW CLAMPING
-  BLOCCAGGIO A VITE
-  SCHRAUBSPANNUNG
-  FIXATION PAR VIS
-  AMARRE POR TORNILLO
-  КРЕПЛЕНИЕ ВИНТОМ









-  OVERHANG
-  SPORGENZA
-  UEBERSTAND
-  PORTE-À-FLEX
-  VOLADIZO
-  ВЫСТУП









-  OVERHANG
-  SPORGENZA
-  UEBERSTAND
-  PORTE-À-FLEX
-  VOLADIZO
-  ВЫСТУП



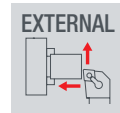
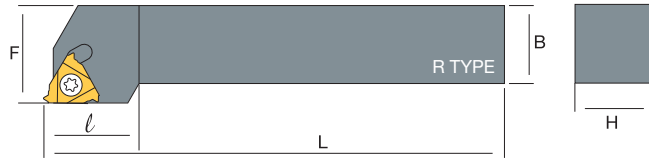
-  INSIDE COOLANT TOOL
-  UTENSILE CON REFRIGERAZIONE INTERNA
-  WERKZEUG MIT IK
-  OUTIL AVEC TROUS D'HUILE
-  HERRAMIENTA CON SUMINISTRO INTERNO DE REFRIGERANTE
-  ИНСТРУМЕНТ С ВНУТРЕННИМ ОХЛАЖДЕНИЕМ



-  SPECIAL HEAD DESIGN TO IMPROVE CHIP EJECTION
-  SPECIALE GEOMETRIA DELLA TESTA PER MIGLIORARE L'EVACUAZIONE TRUCIOLO
-  SPEZIALGEOMETRIE DES KOPFES UM DIE SPANABFUHR ZU VERBESSERN
-  GÉOMÉTRIE PARTICULIÈRE DE LA TÊTE POUR AMÉLIORER L'ÉVACUATION DES COPEAUX
-  GEOMETRIA ESPECIAL DE LA CABEZA PARA FAVORECER LA EXPULSIÓN DE VIRUTA
-  СПЕЦИАЛЬНАЯ ФОРМА ГОЛОВКИ ДЛЯ БОЛЕЕ ЭФФЕКТИВНОГО УДАЛЕНИЯ СТРУЖКИ

SER / SEL

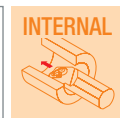
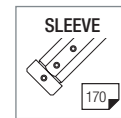
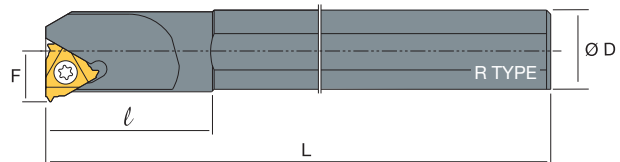
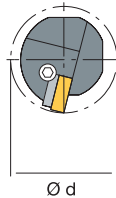
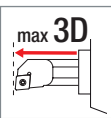
16E



	DESCRIPTION	STOCK		DIMENSIONS					R					
		R	L	H	B	L	F	l	NT-SH060	NT-ST080	NT-WR025	NT-ST040	NT-FT15	
16ER	NT-SER	1212H	16	■	12	12	100	16	20	NT-SH060	NT-ST080	NT-WR025	NT-ST040	NT-FT15
		1212H	16N	●	12	12	100	12	20	NT-SH060	NT-ST080	NT-WR025	NT-ST040	NT-FT15
		1616H	16	●	16	16	100	20	22	NT-SH060	NT-ST080	NT-WR025	NT-ST040	NT-FT15
		2020K	16	●	20	20	125	25	32	NT-SH060	NT-ST080	NT-WR025	NT-ST040	NT-FT15
		2525M	16	●	25	25	150	32	25	NT-SH060	NT-ST080	NT-WR025	NT-ST040	NT-FT15
16EL	NT-SEL	1212H	16N	○	12	12	100	12	20	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15
		1616H	16	○	16	16	100	20	22	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15
		2020K	16	●	20	20	125	25	32	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15
		2525M	16	●	25	25	150	32	25	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15

SIR / SIL

11I 16I



	DESCRIPTION	STOCK		DIMENSIONS					R					
		R	L	ØD	Ød	L	F	l	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15	
11IR	NT-SIR	1012	11	●	12	10	150	5.2	27	-	-	-	NT-ST090	NT-FT08
		1216	11	●	16	13	150	6.3	25	-	-	-	NT-ST090	NT-FT08
		1516	11	●	16	15	150	7.5	30	-	-	-	NT-ST090	NT-FT08
16IR	NT-SIR	2016	16	●	16	20	150	10	35	-	-	-	NT-ST030	NT-FT15
		2420S	16	●	20	24	180	12	35	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15
		3025S	16	●	25	30	200	15	35	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15
		3732S	16	●	32	37	250	18.5	35	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15
16IL	NT-SIL	2016	16	●	16	20	150	10	35	-	-	-	NT-ST030	NT-FT15
		2420S	16	●	20	24	180	12	35	NT-SH060	NT-ST080	NT-WR025	NT-ST040	NT-FT15
		3025S	16	●	25	30	200	15	35	NT-SH060	NT-ST080	NT-WR025	NT-ST040	NT-FT15
		3732S	16	●	32	37	250	18.5	35	NT-SH060	NT-ST080	NT-WR025	NT-ST040	NT-FT15

carbide 232

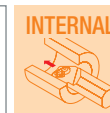
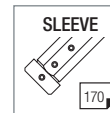
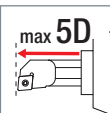
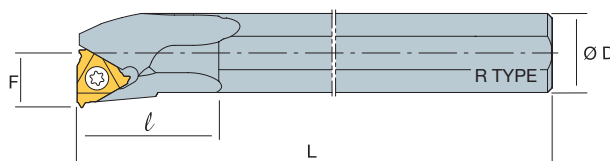
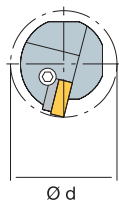
PCBN 238

diamond 244

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MICROBORA
MICROBORING
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V SIR

11I □ 16I □



	DESCRIPTION	STOCK		DIMENSIONS										
		R	L	ØD	Ød	L	F	l						
11IR	NT-V10M-SIR11-12	●		10	12	150	5.2	28	-	-	-	NT-ST090	NT-FT08	
	NT-V16M-SIR11-13	●		16	13	150	6.3	25	-	-	-	NT-ST090	NT-FT08	
	NT-V16M-SIR11-15	●		16	15	150	7.5	30	-	-	-	NT-ST090	NT-FT08	
16IR	NT-V16M-SIR16-20	●		16	20	150	10	35	-	-	-	NT-ST030	NT-FT15	
	NT-V20Q-SIR16-24	●		20	24	180	12	35	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15	
	NT-V25R-SIR16-30	●		25	30	200	15	35	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15	
	NT-V32S-SIR16-37	●		32	37	250	18.5	35	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15	

carbide

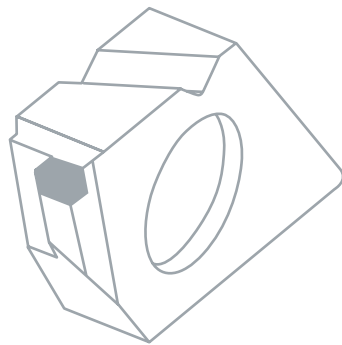
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PCBN

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diamond

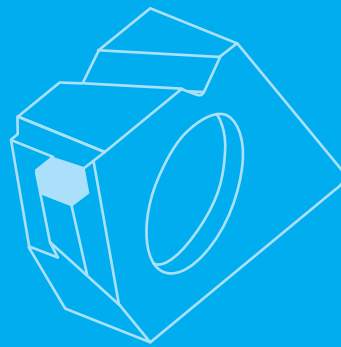
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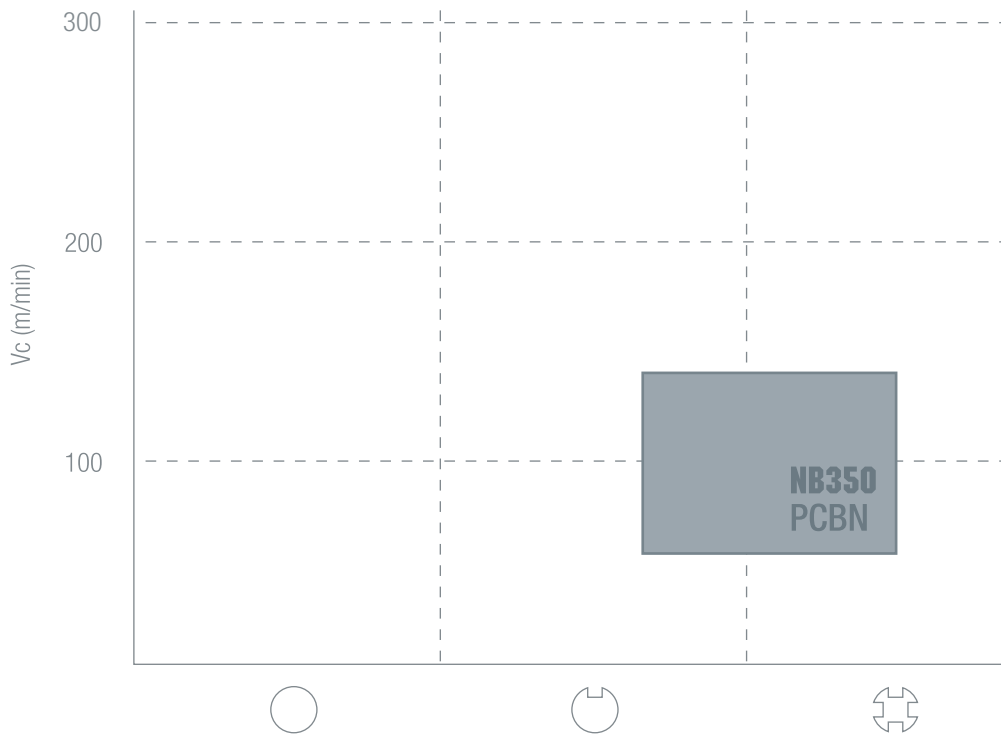
GROOVING /

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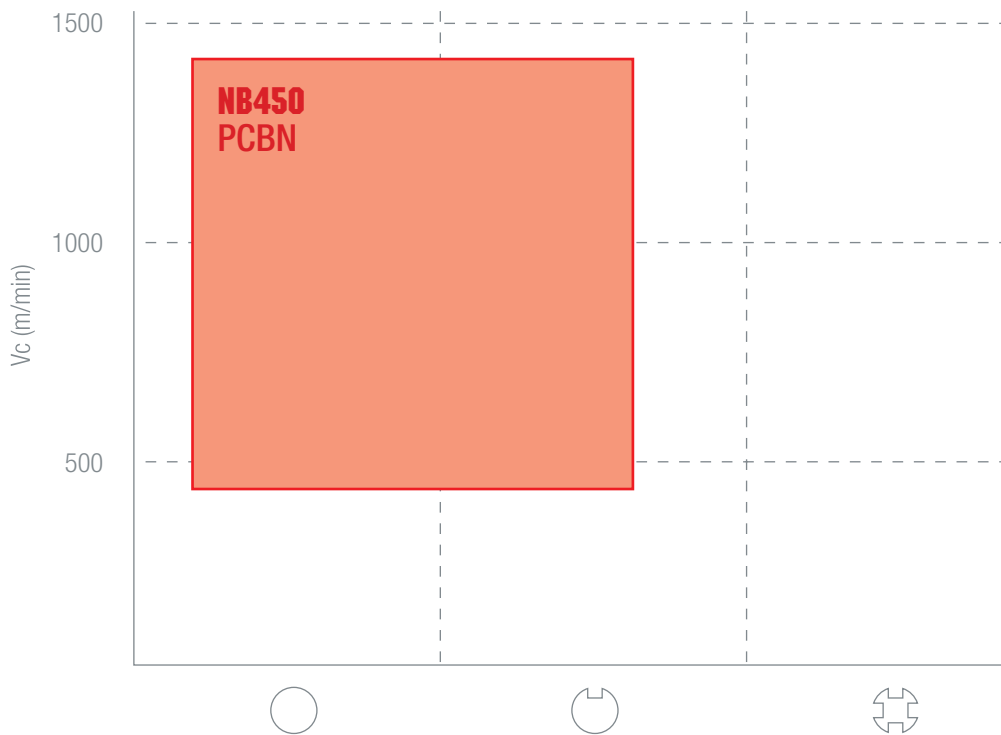
GROOVING / PCBN



RANGE ISO H PCBN-Carbide reinforced



RANGE ISO K PCBN-Carbide reinforced

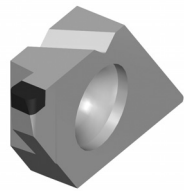
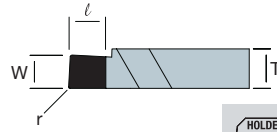
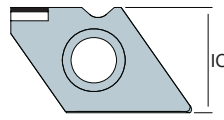


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- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING**
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

BGF

FLAT



DESCRIPTION

DIMENSIONS

PCBN-Carbide reinforced

NB350 **NB450U**

W ±0.05 l r IC T

R L R L

BGF R/L	W ±0.05	l	r	IC	T	PCBN-Carbide reinforced			
						NB350 R	NB350 L	NB450U R	NB450U L
100-010	1.00	1.8	0.10	12.70	4.76	●	●	○	○
120-010	1.20	1.8	0.10	12.70	4.76	●	○	○	○
140-010	1.40	1.8	0.10	12.70	4.76	●	○	○	○
150-010	1.50	2.6	0.10	12.70	4.76	●	●	○	○
170-010	1.70	2.6	0.10	12.70	4.76	○	○	○	○
185-010	1.85	2.6	0.10	12.70	4.76	○	○	○	○
195-010	1.95	2.6	0.10	12.70	4.76	●	○	○	○
200-010	2.00	3.0	0.10	12.70	4.76	●	○	○	○
200-020	2.00	3.0	0.20	12.70	4.76	●	●	○	○
225-020	2.25	3.0	0.20	12.70	4.76	○	○	○	○
230-020	2.30	3.0	0.20	12.70	4.76	○	○	○	○
250-020	2.50	3.5	0.20	12.70	4.76	●	●	○	○
275-020	2.75	3.5	0.20	12.70	4.76	○	○	○	○
280-020	2.80	3.5	0.20	12.70	4.76	○	○	○	○
300-020	3.00	4.5	0.20	12.70	4.76	●	●	●	●
330-020	3.30	4.5	0.20	12.70	4.76	○	○	○	○
350-020	3.50	4.5	0.20	12.70	4.76	●	●	○	○
400-020	4.00	4.5	0.20	12.70	4.76	●	●	○	○

NB450U = uncoated

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TURNING

MICRONEGA

MICROBORING

THREADING

GROOVING

MILLING

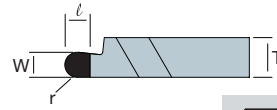
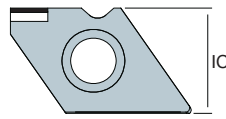
DRILLING

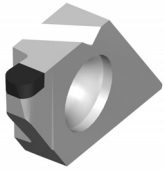
SPARE PARTS

INDEX

BGF

FULL RADIUS



DESCRIPTION		DIMENSIONS					PCBN-Carbide reinforced								
		W ±0.05	l	r	IC	T	NB350		NB450U						
							R	L	R	L					
	BGF R/L	100-050FR	1.00	1.8	0.50	12.70	4.76	○	○	○	○				
		150-075FR	1.50	2.6	0.75	12.70	4.76	○	●	○	○				
		200-100FR	2.00	3.0	1.00	12.70	4.76	●	○	○	○				
		250-125FR	2.50	3.5	1.25	12.70	4.76	○	○	○	○				
		300-150FR	3.00	4.5	1.50	12.70	4.76	●	○	○	○				
		350-175FR	3.50	4.5	1.75	12.70	4.76	○	○	○	○				
		400-200FR	4.00	4.5	2.00	12.70	4.76	●	○	○	○				
NB450U = uncoated															

Vc · fn

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TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

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CUTTING PARAMETERS

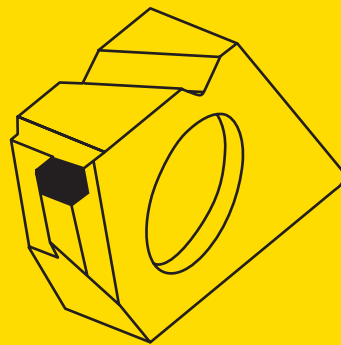
H	HH	HARDENED STEEL
		ACCIAIO TEMPRATO
		GEHÄRTETER STAHL
		ACIER TREMPÉ
		ACERO TEMPLADO
		ЗАКАЛЁННАЯ СТАЛЬ
H	HC	CASEHARDENED STEEL
		ACCIAIO CEMENTATO
		EINGESETZTER STAHL
		ACIER CEMENTÉ
		ACERO CEMENTADO
		ЦЕМЕНТИРОВАННАЯ СТАЛЬ

H	HB	BEARING STEEL
		ACCIAIO PER CUSCINETTI
		STAHL FÜR LAGER
		ACIER POUR ROULEMENTS
		ACERO PARA RODAMIENTOS
		СТАЛЬ ДЛЯ ПОДШИПНИКОВ

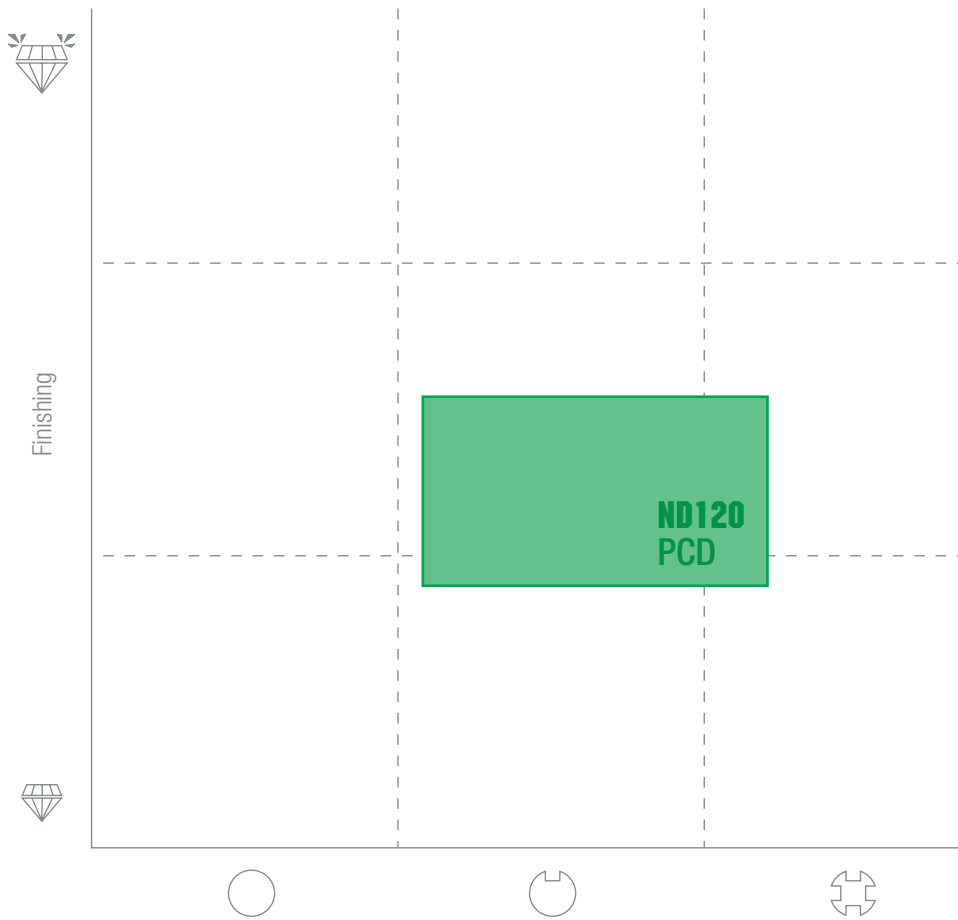
MATERIAL	W (mm)	fn (mm/rev)	CUTTING CONDITIONS		PCBN		
					NB350	NB450U	
H	HH	1.00~2.00	0.05~0.12	○	☹ ☹	*	
		2.00~3.00	0.05~0.15			80~150	
		3.00~4.00	0.08~0.15			*	
		1.00~2.00	0.05~0.12	⊕	☹	60~120	*
		2.00~3.00	0.05~0.15			60~120	80~150
		3.00~4.00	0.08~0.15			60~120	80~150
	HC	1.00~2.00	0.05~0.12	○	☹ ☹	*	
		2.00~3.00	0.05~0.15			80~140	
		3.00~4.00	0.08~0.15			*	
		1.00~2.00	0.05~0.12	⊕	☹	60~100	*
		2.00~3.00	0.05~0.15			60~100	80~140
		3.00~4.00	0.08~0.15			60~100	80~140
HB	1.00~2.00	0.05~0.12	○	☹ ☹	*		
	2.00~3.00	0.05~0.15			80~120		
	3.00~4.00	0.08~0.15			*		
	1.00~2.00	0.05~0.12	⊕	☹	60~100	*	
	2.00~3.00	0.05~0.15			60~100	80~120	
	3.00~4.00	0.08~0.15			60~100	80~120	

* = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор

GROOVING / diamond



RANGE ISO **N** DIAMOND

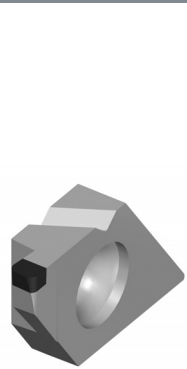
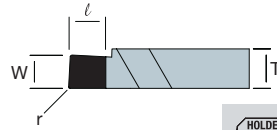
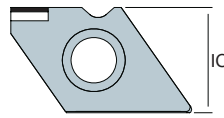


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MICROMEGA
MICROBORING
THREADING
GROOVING
MILLING
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SPARE PARTS
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BGF

FLAT



BGF R/L

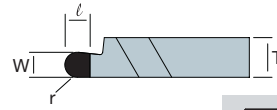
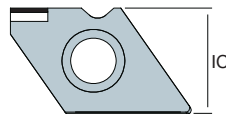
DESCRIPTION	DIMENSIONS						PCD	
	W ±0.05	l	r	IC	T	R	L	
100-010	1.00	1.8	0.10	12.70	4.76	○		
120-010	1.20	1.8	0.10	12.70	4.76	○		
140-010	1.40	1.8	0.10	12.70	4.76	○		
150-010	1.50	2.6	0.10	12.70	4.76	○		
170-010	1.70	2.6	0.10	12.70	4.76	○		
185-010	1.85	2.6	0.10	12.70	4.76	○		
195-010	1.95	2.6	0.10	12.70	4.76	○		
200-010	2.00	3.0	0.10	12.70	4.76	○		
200-020	2.00	3.0	0.20	12.70	4.76	●		
225-020	2.25	3.0	0.20	12.70	4.76	○		
230-020	2.30	3.0	0.20	12.70	4.76	○		
250-020	2.50	3.5	0.20	12.70	4.76	○		
275-020	2.75	3.5	0.20	12.70	4.76	○		
280-020	2.80	3.5	0.20	12.70	4.76	○		
300-020	3.00	4.5	0.20	12.70	4.76	●		
330-020	3.30	4.5	0.20	12.70	4.76	○		
350-020	3.50	4.5	0.20	12.70	4.76	○		
400-020	4.00	4.5	0.20	12.70	4.76	○		

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BGF

FULL RADIUS



DESCRIPTION		DIMENSIONS					PCD							
		W ±0.05	l	r	IC	T	ND120							
							R	L						
	BGF R/L	100-050FR	1.00	1.8	0.50	12.70	4.76	○						
		150-075FR	1.50	2.6	0.75	12.70	4.76	○						
		200-100FR	2.00	3.0	1.00	12.70	4.76	○						
		250-125FR	2.50	3.5	1.25	12.70	4.76	○						
		300-150FR	3.00	4.5	1.50	12.70	4.76	●						
		350-175FR	3.50	4.5	1.75	12.70	4.76	○						
		400-200FR	4.00	4.5	2.00	12.70	4.76	○						

Vc · fn

264

CUTTING PARAMETERS

N	NA	ALUMINUM ALLOYS
		LEGHE DI ALLUMINIO
		ALUMINIUMLEGIERUNGEN
		ALLIAGES D'ALUMINIUM
		ALEACIONES DE ALUMINIO
		СПЛАВЫ АЛЮМИНИЯ
N	NS	ALUMINUM ALLOYS (Si >15%)
		LEGHE DI ALLUMINIO (Si >15%)
		ALUMINIUMLEGIERUNGEN (Si >15%)
		ALLIAGES D'ALUMINIUM (Si >15%)
		ALEACIONES DE ALUMINIO (Si >15%)
		СПЛАВЫ АЛЮМИНИЯ (Si >15%)

N	NB	BRASS
		OTTONE
		MESSING
		LAITON
		LATÓN
		ЛАТУНЬ
N	NG	GRAPHITE
		GRAFITE
		GRAPHIT
		GRAPHITE
		GRAFITO
		ГРАФИТ

MATERIAL	W (mm)	fn (mm/rev)	CUTTING CONDITIONS			PCD
						ND120
N	NA	1.00~2.00	0.05~0.12			600~2500
		2.00~3.00	0.05~0.15			600~2500
		3.00~4.00	0.08~0.15			600~2500
	NS	1.00~2.00	0.05~0.12			500~1500
		2.00~3.00	0.05~0.15			500~1500
		3.00~4.00	0.08~0.15			500~1500
	NB	1.00~2.00	0.05~0.12			400~1200
		2.00~3.00	0.05~0.15			400~1200
		3.00~4.00	0.08~0.15			400~1200
NG	1.00~2.00	0.05~0.12			300~800	
	2.00~3.00	0.05~0.15			300~800	
	3.00~4.00	0.08~0.15			300~800	

★ = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор

TURNING

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BGF-HLD

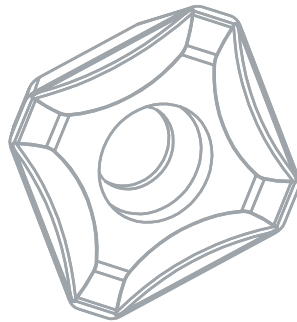
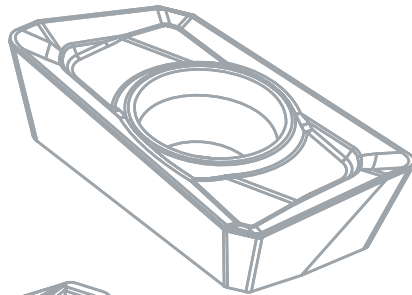
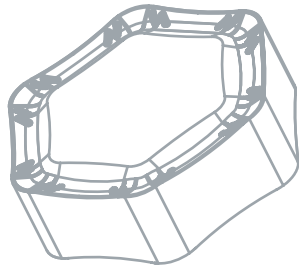
double clamp **BGFR/L**

BGFR/L	DESCRIPTION	STOCK		DIMENSIONS											
		R	L	H	B	L	F	l							
BGFR/L	BGF-HLD	1616^{R/L}	●	○	16	16	150	30	44.5	NT-ST300	NT-FT15	NT-CS300 ^{R/L}	NT-SC300	NT-WR040	
		2020^{R/L}	●	●	20	20	150	30	44.5	NT-ST300	NT-FT15	NT-CS300 ^{R/L}	NT-SC300	NT-WR040	
		2525^{R/L}	●	●	25	25	150	30	44.5	NT-ST300	NT-FT15	NT-CS300 ^{R/L}	NT-SC300	NT-WR040	
		3232^{R/L}	○	●	32	32	170	40	44.5	NT-ST300	NT-FT15	NT-CS300 ^{R/L}	NT-SC300	NT-WR040	

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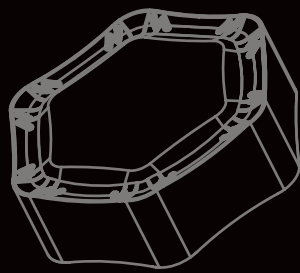
PCBN 256

diamond 262

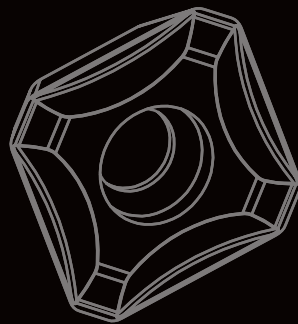
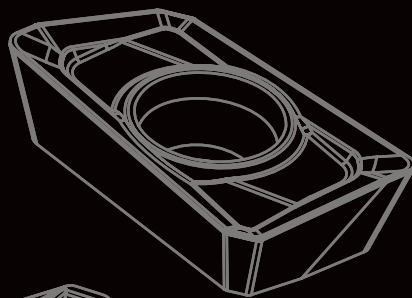


MILLING /

carbide /271
PCBN /297
diamond /307
ceramic /315
holders /323



MILLING / carbide



ISO 1832

S	E	E	T	13	T3	AG	S	N	-	TE	JP	55	30
1	2	3	4	5	6	7	8	9		10	11	12	13

1		5
A		10 11 16
H		09
L		13
O		05 06
R		05 07 08 10 12 16
S		12 13
W		08

2	CLEARANCE ANGLE
C	7°
D	15°
E	20°
F	25°
N	0°
P	11°

3	TOLERANCE [mm]	
E	±0.025	±0.025
G	±0.025	±0.13
K	±0.05 ~ ±0.13	±0.025
M	±0.05 ~ ±0.13	±0.13

4	SHAPE
T	
W	
X	NIKKO NORM





6	THICKNESS [mm]
01	1.59
02	2.38
03	3.18
35	3.50
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94

7	RADIUS [mm]
...	
MO	metric
AF	45° 25°
AG	45° 30°
AN	45° 0°
PD	90° 15°

8	
E	
F	
S	
T	

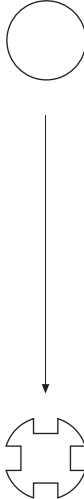
9	DIRECTION
L	
N	NEUTRAL
R	

S E E T 13 T3AG S N - TE JP 55 30

10	CHIPBREAKERS
SC	LOW CUTTING FORCE
GL ^K	
GP	GENERAL MACHINING
GG ^K	
TE	REINFORCED EDGE
GH ^K	
WU	WIPER EDGE
WK ^K	
AL	ISO N

11	COATING TECHNOLOGY
JC	CVD
JD	DLC
JP	PVD
JU	UNCOATED

12	INSERT MATERIAL
35~39	CARBIDE ISO S
45~49	CERMET
55~59	CARBIDE UNIVERSAL
65~69	CARBIDE ISO N
75~79	CARBIDE ISO K
85~89	CARBIDE ISO P
95~99	CARBIDE ISO M

13	ISO CLASSIFICATION
05	
10	
15	
20	
25	
30	
35	
40	
45	

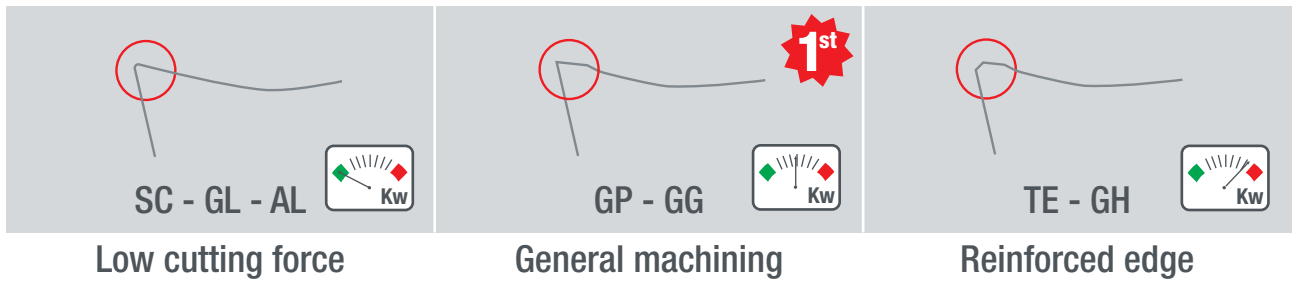
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GRADES

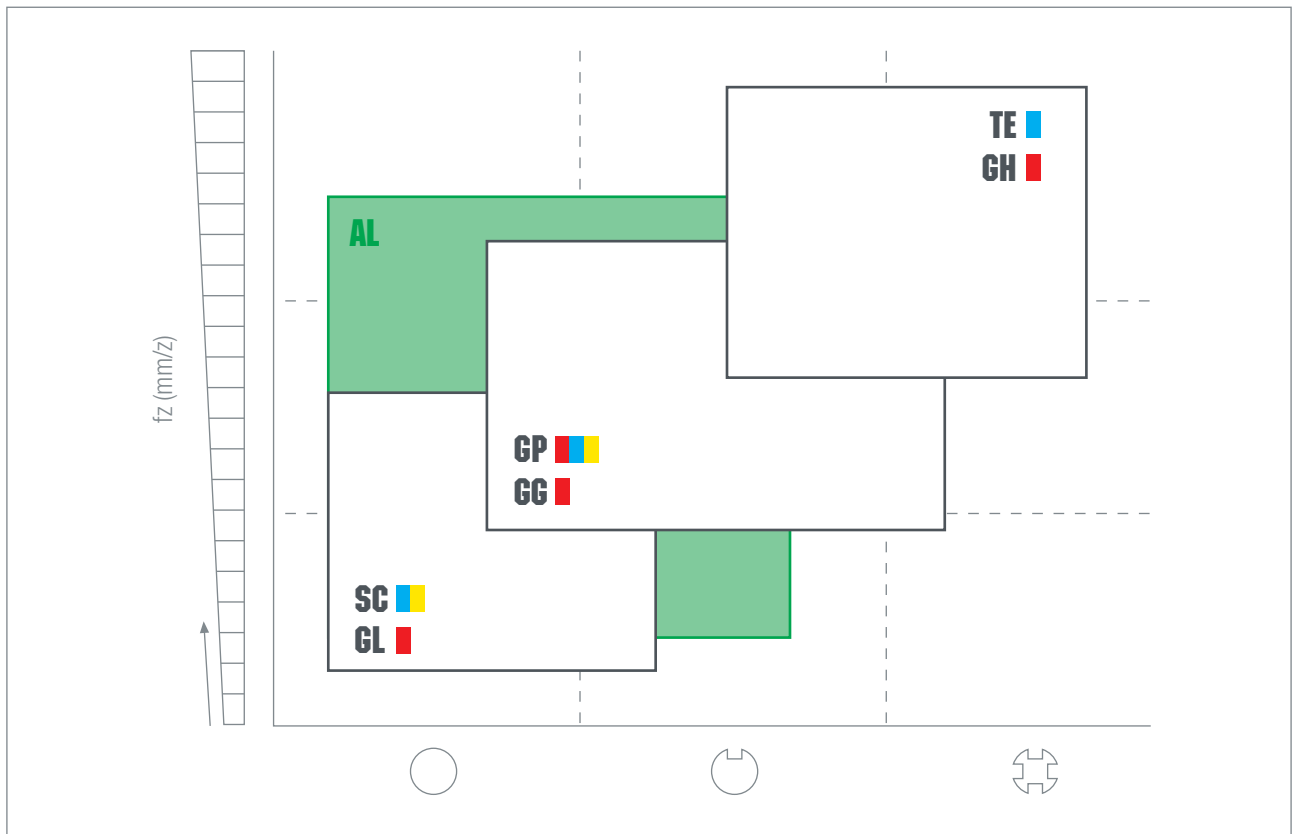
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ISO DIN 513	K					P					M					N				
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40
CARBIDE CVD	JC7515					JC8525					JC9530									
CARBIDE PVD	JP7525					JP5520 JP5530					JP5520 JP5530									
CARBIDE UNCOATED																JU6520				
CERMET UNCOATED	JU4525					JU4525					JU4525									

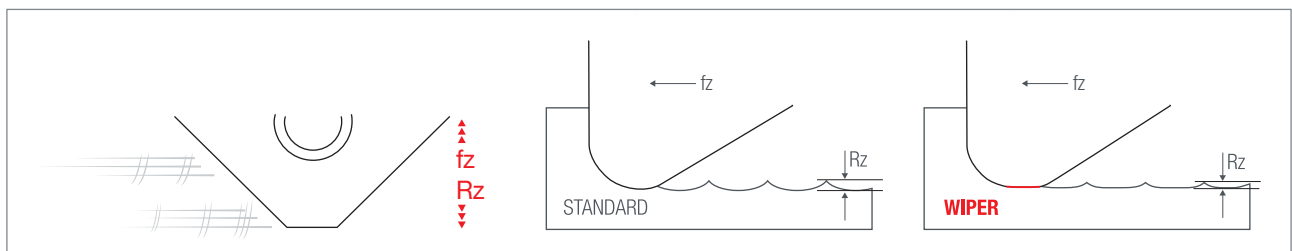
EDGE STYLE



CUTTING EDGE APPLICATION



WIPER



TURNING

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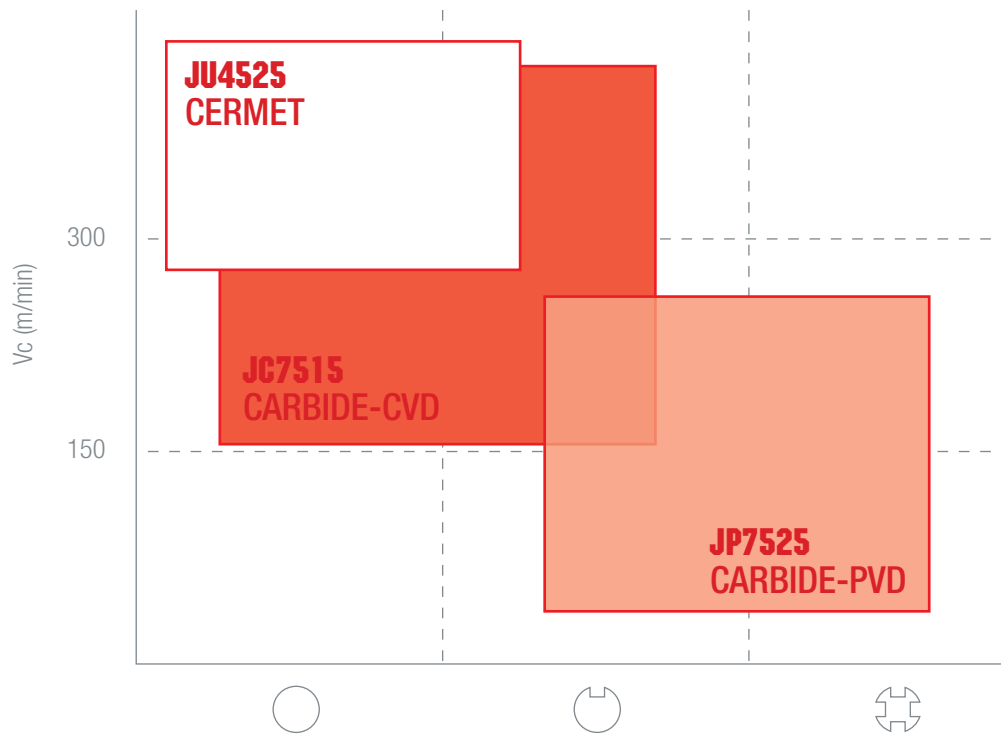
DRILLING

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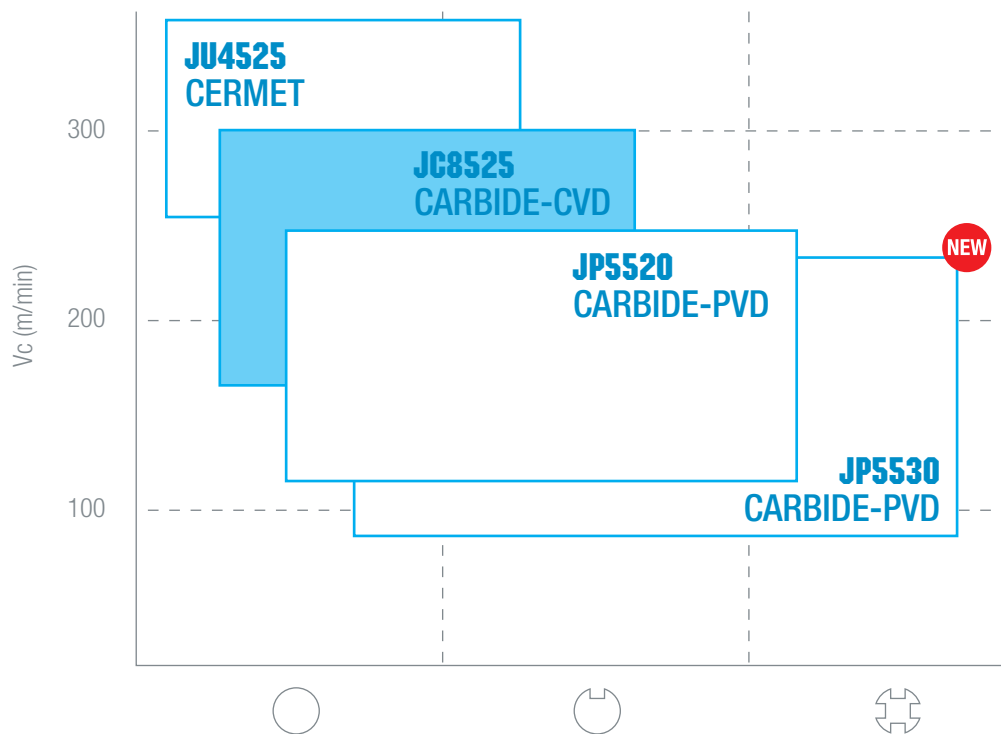
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RANGE ISO K

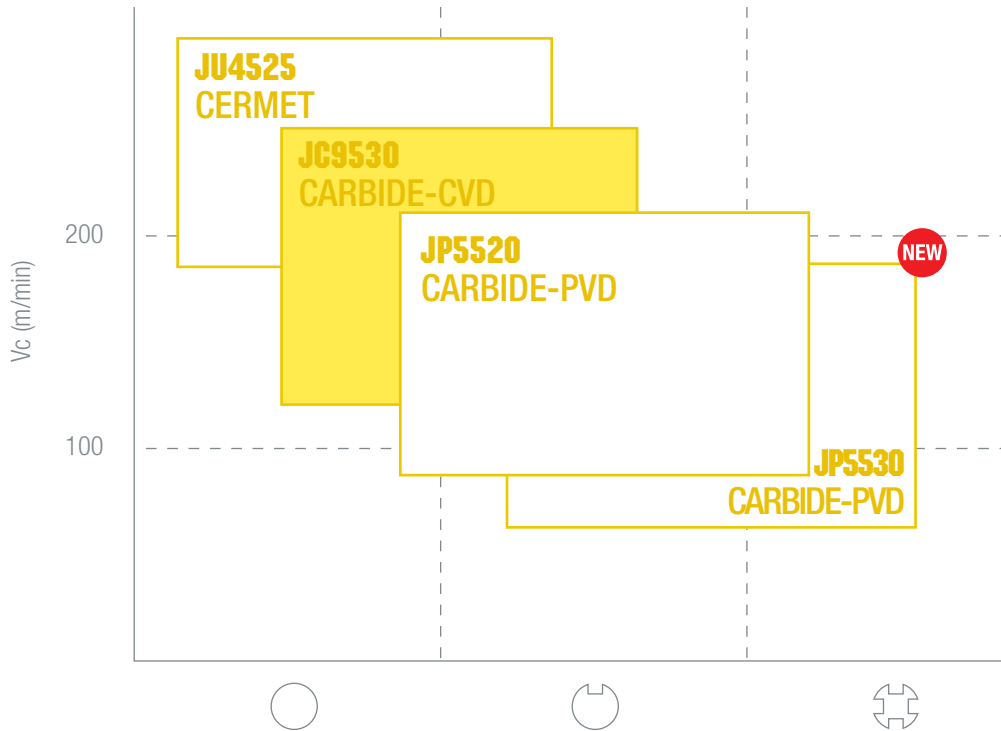


RANGE ISO P

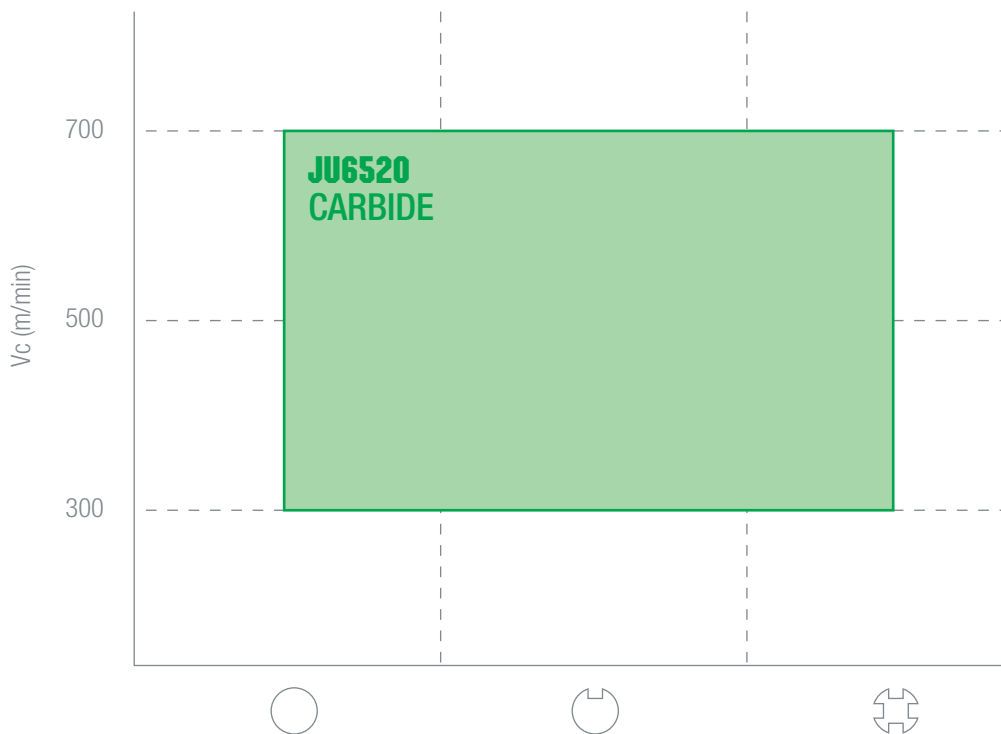


$V_c \cdot f_n \cdot a_p$ 294

RANGE ISO **M**





















RANGE ISO **N**



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CHIPBREAKERS SELECTION

	AP□□	APKT-ISO	HN□□	LN□□	OD□□	OF□□
PM SC	281 				285 	
Edge Length	11 16				06	
PMK GP	281 	282 		284 	285 	286 
Edge Length	11 16	10 16		13	06	05
P TE	281 	282 		284 	285 	
Edge Length	11 16	10 16		13	06	
K GL			283 			
Edge Length			09			
K GG			283 			
Edge Length			09			
K GH			283 			
Edge Length			09			
PMK Wiper (WK, WU)			283 		285 	
Edge Length			09		06	
N AL	281 				285 	
Edge Length	11 16				06	

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CHIPBREAKERS SELECTION

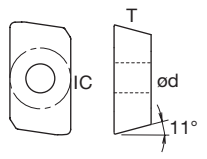
	RC□□	RD□□	RP□□	SE□□	SN□□	WN□□
P M SC	287	288	290	291		
Edge Length	10 12	10 12 16	10 12	12 13		
P M K GP		288	290	291	292	293
Edge Length		10 12 16	10 12	12 13	12	08
P TE		288	290	291		
Edge Length		05 07 10 12 16	10 12	13		
K GL						
Edge Length						
K GG				291		
Edge Length				13		
K GH				291		
Edge Length				13		
P M K Wiper (WK, WU)				291		
Edge Length				13		
N AL				291		
Edge Length				12 13		




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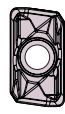
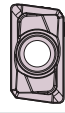


POSITIVE 11° with hole

AP





AP 	1135 	1604
IC	6,35	9,525
T	3,50	4,76
Ød	2,80	4,50
		

DESCRIPTION			CARBIDE-PVD		CARBIDE-CVD		CARBIDE	CERMET						
			JP5520	JP5530	JP7525	JC7515	JC8525	JC9530	JU6520	JU4525				
SC		APMT 113508ER-SC	★	★										
		160408ER-SC	★	★										
GP		APMT 113508ER-GP	●	●	●				★					
		160408ER-GP	●	●	●				★					
TE		APMT 113508ER-TE	●	●	●									
		160408ER-TE	●	●	●									
AL		POLISHED APKT 113504FR-AL							●					
		113508FR-AL							●					
		160408FR-AL							●					

●, ○ = NEW ITEM

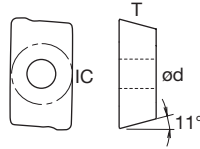
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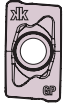

POSITIVE 11°
with hole

NEW

APKT ISO  90°



APKT	1003□□	1604□□
IC	6,72	9,525
T	3,18	4,76
Ød	2,80	4,40
HOLDERS		

DESCRIPTION		CARBIDE-PVD		CARBIDE-CVD		CARBIDE	CERMET							
		JP5520	JP5530	JP7525	JC7515	JC8525	JC9530	JU6520	JU4525					
GP		APKT 1003PDER-GP	★			★								
		1604PDER-GP	★			★								
TE		APKT 1003PDSR-TE	★			★								
		1604PDSR-TE	★			★								

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NEGATIVE
without hole

HN □ □

NEW

HN □ □	0905 □ □
IC	16,20
T	5,56
Ød	-
HOLDERS	

DESCRIPTION		CARBIDE-PVD		CARBIDE-CVD		CARBIDE	CERMET										
		JP5520	JP5530	JP7525	JC7515	JC8525	JC9530	JJ6520	JJ4525								
GL		HNEX	090510-GL	●	●												
			090520-GL	●	●												
GG		HNEX	090520-GG	●	●												
GH		HNEX	090516-GH	●	●												
			090530-GH	●	●												
WK WIPER		HNEX	090502-WK	●	●												

●, ○ = NEW ITEM

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TURNING

MICRONEGA

MICROBORING

THREADING

GROOVING


MILLING

DRILLING

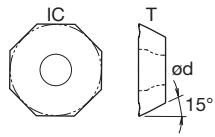
SPARE PARTS

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**POSITIVE 15°
with hole**

OD 

NEW




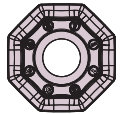
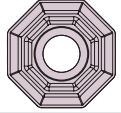
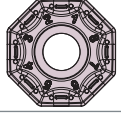
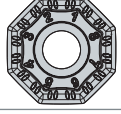
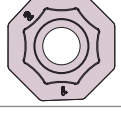
OD□□ 0605□□

IC 15,875

T 5,56

Ød 5,56

 332

DESCRIPTION	CARBIDE-PVD		CARBIDE-CVD		CARBIDE	CERMET									
	JP5520	JP5530	JP7525	JC7515	JC8525	JC9530	JU6520	JU4525							
SC 	ODKT 060508-SC	●	●												
GP 	ODKT 060508-GP	●	●	●											
TE 	ODKT 060508-TE	●	●												
AL 	ODKT 060508-AL	POLISHED					●								
WU WIPER 	ODKW 060508-WU	●	●	★				★							

●, ○ = NEW ITEM

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TURNING

MICRONEGA

MICROBORING

THREADING

GROOVING

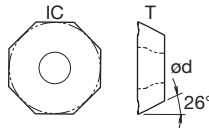
MILLING

DRILLING

SPARE PARTS

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**POSITIVE 26°
with hole**



OF□□ 05T3□□

IC 12,70
T 3,97
Ød 4,40



TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

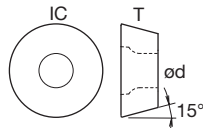
SPARE PARTS

INDEX

DESCRIPTION	CARBIDE-PVD		CARBIDE-CVD		CARBIDE	CERMET								
	JP5520	JP5530	JP7525	JC7515	JC8525	JC9530	JJ6520	JJ4525						
GP OFKT 05T305-GP	●	★			★									

Vc · fn · ap 294

**POSITIVE 15°
with hole**




	RD	0501	0702	0803	1003/T3	1204	1604
IC	5,00	7,00	8,00	10,00	12,00	16,00	
T	1,51	2,38	3,18	3,18 / 3,97	4,76	4,76	
Ød	2,20	2,80	2,94	3,80 / 4,40	4,40	5,00	
HOLDERS	334	334	-	334	335	335	

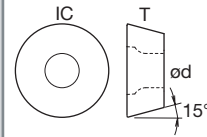
DESCRIPTION	CARBIDE-PVD		CARBIDE-CVD		CARBIDE	CERMET								
	JP5520	JP5530	JP7525	JC7515	JC8525	JC9530	JU6520	JU4525						
 SC	RDET 1003M0-SC	●	●											
	10T3M0-SC	○	○											
	1204M0-SC	●	●											
	1604M0-SC	●	●											
 GP	RDET 1003M0-GP	●	●											
	10T3M0-GP	●	○											
	1204M0-GP	●	●											
	1604M0-GP	●	●											
 RDMT	1204M0-GP	○	○											
	1604M0-GP	○	○											
 RDEW	0501M0-TES	●	●						★					
	0702M0-TES	●							●					
 RDEW	0702M0-TE	●	●						★					
	0803M0-TE	★												
	1003M0-TE	●	●						★					
	10T3M0-TE	●	●											
	1204M0-TE	●	●						★					
	1604M0-TE	●	●						★					
RDMW 1604M0-TE	●	●												





●, ○ = NEW ITEM

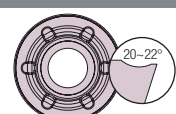
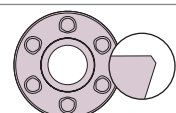
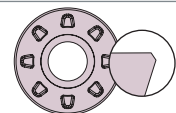
Vc · fn · ap ▶ 294

POSITIVE 15° with hole - DOT type

RD 



	RD <input type="checkbox"/>	12T3 <input type="checkbox"/>	1204 <input type="checkbox"/>	1605 <input type="checkbox"/>
IC	12,00	12,00	16,00	
T	3,97	4,76	5,56	
Ød	4,40	4,40	5,50	
HOLDERS				

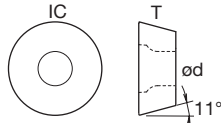
DESCRIPTION	CARBIDE-PVD		CARBIDE-CVD		CARBIDE	CERMET								
	JP5520	JP5530	JP7525	JC7515	JC8525	JC9530	JJ6520	JJ4525						
SC (D6) 	RDET	1204M0-SC-D6	■											
TE (D6) 	RDEW	1204M0-TE-D6	●	●										
		1605M0-TE-D6	■	■										
TE (D8) 	RDMW	1204M0-TE-D6	●											
	RDEW	12T3M0-TE-D8	●	○										
		1204M0-TE-D8	●	●										
	RDMW	1204M0-TE-D8	●	●										
		1605M0-TE-D8	○	○										

●, ○ = NEW ITEM

Vc · fn · ap  294 

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

**POSITIVE 11°
with hole**



RP□□	1003□□	1204□□
IC	10,00	12,00
T	3,18	4,76
Ød	4,40	4,40
HOLDERS		

DESCRIPTION	CARBIDE-PVD		CARBIDE-CVD		CARBIDE	CERMET						
	JP5520	JP5530	JP7525	JC7515	JC8525	JC9530	JJ6520	JJ4525				
SC RPET 1003M0-SC 1204M0-SC	○	○										
	●	●										
GP RPET 1204M0-GP RPMT 1204M0-GP	●	●										
	●	●										
TE RPEW 1003M0-TE 1204M0-TE RPMW 1003M0-TE 1204M0-TE	○	○										
	●	●										
	○	○										
	●	●										

●, ○ = NEW ITEM

Vc · fn · ap

294

POSITIVE 20° with hole

SE

SE	1204	13T3
IC	12,70	13,40
T	4,76	3,97
Ød	5,50	4,40
HOLDERS	-	337

DESCRIPTION			CARBIDE-PVD		CARBIDE-CVD			CARBIDE	CERMET					
			JP5520	JP5530	JP7525	JC7515	JC8525	JC9530	JU6520	JU4525				
SC		SEET 1204AFEN-SC	●					★	●					
		13T3AGEN-SC	●	●										
GP		SEET 1204AFEN-GP		★			★							
		13T3AGEN-GP	●	●			★	★	●					
TE		SEET 13T3AGSN-TE	●	●										
GG		SEET 13T3AGSN-GG			●									
GH		SEET 13T3AGSN-GH			★									
AL		SEET 1204AFFN-AL						●						
		13T3AGFN-AL						●						
WU WIPER		SEET 13T3-WU	★	★	★				★					

●, ○ = NEW ITEM

Vc · fn · ap

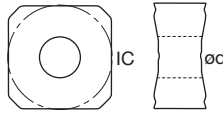
294

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

**NEGATIVE
with hole**

NEW

SN □ □



SN □ □ 1205 □ □

IC 12,70

T 5,75

ød 6,00



TURNING

MICRONEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

DESCRIPTION	CARBIDE-PVD		CARBIDE-CVD		CARBIDE	CERMET									
	JP5520	JP5530	JP7525	JC7515	JC8525	JC9530	JJ6520	JJ4525							
<p>GP</p> <p>SNGX 1205ANEN-GP</p>		★			★										

NEGATIVE with hole

WN □ □

NEW

WN □ □	0806 □ □
IC	12,70
T	6,40
Ød	4,40
HOLDERS	

DESCRIPTION		CARBIDE-PVD		CARBIDE-CVD		CARBIDE	CERMET													
		JP5520	JP5530	JP7525	JC7515	JC8525	JC9530	JJ6520	JJ4525											
GP		WNGX	080608ER-GP		★															


- TURNING
- MICRONEGA
- MICROBORING
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CUTTING PARAMETERS Vc (m/min)


K	KG	GREY CAST IRON	M	MM	MARTENSITIC AND FERRITIC STAINLESS STEEL
		GHISA GRIGIA			ACCIAI INOSSIDABILI MARTENSITICI E FERRITICI
		GRAUGUSS			MARTENSITISCHE UND FERRITISCHE ROSTFREIE STÄHLE
		FONTE GRISE			ACIERS INOXYDABLES MARTENSITIQUES ET FERRITIQUES
		FUNDICIÓN GRIS			ACEROS INOXIDABLES AUSTENITICOS Y FERRITICOS
		ЧУГУН			МАРТЕНСИТНЫЕ И ФЕРРИТНЫЕ НЕРЖАВЕЮЩИЕ СТАЛИ
K	KN	NODULAR CAST IRON	M	MA	AUSTENITIC STAINLESS STEEL
		GHISA SFEROIDALE			ACCIAI INOSSIDABILI AUSTENITICI
		SPHÄROGUSS			AUSTENITISCHE ROSTFREIE STÄHLE
		FONTE NODULAIRE			ACIERS INOXYDABLES AUSTENITIQUES
		FUNDICIÓN NODULAR			ACEROS INOXIDABLES AUSTENITICOS
		ЧУГУН С ШАРОВИДНЫМ ГРАФИТОМ			АУСТЕНИТНЫЕ НЕРЖАВЕЮЩИЕ СТАЛИ
P	PL	LOW CARBON AND FREE CUTTING STEEL	N	NA	ALUMINIUM ALLOYS
		ACCIAI A BASSO TENORE DI CARBONIO ED AUTOMATICI			LEGHE DI ALLUMINIO
		KOHLENSTOFFARME STÄHLE			ALUMINIUMLEGIERUNGEN
		ACIERS BAS CARBONE ET POUR DÉCOLLETAGE			ALLIAGES D'ALUMINIUM
		ACEROS DE BAJO CARBONO			ALEACIONES DE ALUMINIO
		НИЗКОУГЛЕРОДИСТАЯ И АВТОМАТНАЯ СТАЛЬ			СПЛАВЫ АЛЮМИНИЯ
P	PM	MEDIUM CARBON STEEL	N	NH	ALUMINIUM ALLOYS AGED AND HARDENED
		ACCIAI A MEDIO TENORE DI CARBONIO			LEGHE DI ALLUMINIO TRATTATE ED INVECCHiate
		MITTELGEKOHLTE FLUSSSTÄHLE			GEALTERTE UND BEHANDELTE ALUMINIUMLEGIERUNGEN
		ACIERS MOYEN CARBONE			ALLIAGES D'ALUMINIUM TRAITÉES ET VIEILLIES
		ACEROS DE MEDIO CARBONO			ALEACIONES DE ALUMINIO TRATADAS Y ENVEJACIDAS
		СРЕДНЕУГЛЕРОДИСТАЯ СТАЛЬ			СПЛАВЫ АЛЮМИНИЯ ОБРАБОТАННЫЕ И СОСТАРЕННЫЕ
P	PH	HIGH CARBON STEEL	N	NB	BRASS
		ACCIAI AD ELEVATO TENORE DI CARBONIO			OTTONE
		KOHLENSTOFFREICHE STÄHLE			MESSING
		ACIERS HAUT CARBONE			LAITON
		ACEROS DE ALTO CARBONO			LATÓN
		ВЫСОКОУГЛЕРОДИСТАЯ СТАЛЬ			ЛАТУНЬ
P	PA	ALLOY STEEL	N	NC	BRONZE AND ELECTROLYTIC COPPER
		ACCIAI LEGATI			BRONZO E RAME ELETTRolitICO
		LEGIERTE STÄHLE			ELEKTROLYTISCHES KUPFER UND BRONZE
		ACIERS ALLIÉS			BRONZE ET CUIVRE ÉLECTROLYTIQUE
		ACEROS ALEADOS			BRONCE Y COBRE ELECTROLÍTICO
		СРЕДНЕЛЕГИРОВАННАЯ СТАЛЬ			БРОНЗА И ЭЛЕКТРОЛИТИЧЕСКАЯ МЕДЬ


MATERIAL	CARBIDE-CVD			CARBIDE-PVD			CARBIDE	CERMET
	JC7515	JC8525	JC9530	JP7525	JP5520	JP5530	JU6520	JU4525
K	KG	220~350		120~250				250~380
	KN	180~280		100~200				200~300
P	PL		220~300		160~250	140~220		250~350
	PM		220~300		160~250	140~220		250~350
	PH		200~280		140~220	120~200		220~300
	PA		180~250		100~180	80~160		200~280
M	MM		160~280		120~200	100~180		180~300
	MA		140~260		100~180	80~150		160~280
N	NA						400~1000	
	NH						300~800	
	NB						300~600	
	NC						200~500	

CUTTING PARAMETERS a_p (mm) & f_z (mm/z)

AP □ □ 		1003... - 1135...	1604...			
		a_p (mm)	f_z (mm/z)	a_p (mm)	f_z (mm/z)	
K	GP	0.50~5.00	0.10~0.24	0.50~8.00	0.12~0.28	
	TE	1.00~5.00	0.12~0.26	1.00~8.00	0.14~0.30	
P	SC	0.50~5.00	0.06~0.15	0.50~8.00	0.08~0.20	
	GP	0.50~5.00	0.06~0.18	0.50~8.00	0.08~0.23	
M	TE	1.00~5.00	0.08~0.22	1.00~8.00	0.10~0.25	
	SC	0.50~5.00	0.05~0.14	0.50~8.00	0.06~0.18	
N	GP	0.50~5.00	0.06~0.16	0.50~8.00	0.08~0.20	
	AL	0.50~5.00	0.08~0.30	0.50~8.00	0.10~0.35	


Cermet JU4525 fz-20%

HN □ □ 		0905...				
		a_p (mm)	f_z (mm/z)			
K	GL	0.50~6.00	0.10~0.25			
	GG	0.50~6.00	0.15~0.35			
	GH	1.00~6.00	0.20~0.45			
	WK	0.30~1.00	0.20~0.40			

OF □ □ 		05T3...	0605...			
OD □ □						
		a_p (mm)	f_z (mm/z)	a_p (mm)	f_z (mm/z)	
K	GP			0.50~3.50	0.15~0.38	
	SC			0.50~3.50	0.08~0.25	
P	GP	0.50~2.50	0.10~0.30	0.50~3.50	0.10~0.35	
	TE			1.00~3.50	0.15~0.40	
M	SC			0.50~3.50	0.06~0.22	
	GP	0.50~2.50	0.08~0.22	0.50~3.50	0.08~0.25	
N	AL			0.50~3.50	0.10~0.35	


- TURNING
- MICRONEGA
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CUTTING PARAMETERS a_p (mm) & f_z (mm/z)

R□□□ 	0501...	0702... - 0803...	1003... - 10T3...	12T3... - 1204...	1604... - 1605...
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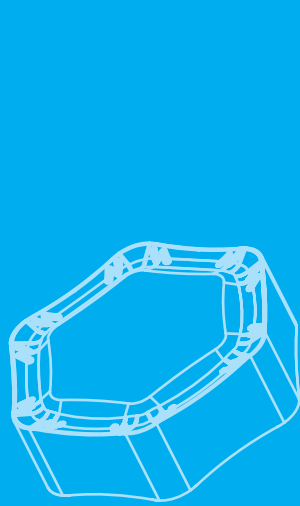
		a_p (mm)	f_z (mm/z)	a_p (mm)	f_z (mm/z)	a_p (mm)	f_z (mm/z)	a_p (mm)	f_z (mm/z)	a_p (mm)	f_z (mm/z)
P	SC					0.50~5.00	0.10~0.40	0.50~6.00	0.15~0.50	0.50~8.00	0.20~0.70
	GP	0.50~2.00	0.05~0.35	0.50~3.00	0.10~0.40	0.50~5.00	0.10~0.50	0.50~6.00	0.20~0.60	1.00~8.00	0.25~0.80
	TE			0.50~3.00	0.10~0.45	1.00~5.00	0.15~0.60	1.00~6.00	0.20~0.70	1.00~8.00	0.30~1.00
M	SC					0.50~5.00	0.10~0.40	0.50~6.00	0.15~0.50	0.50~8.00	0.20~0.70
	GP	0.50~2.00	0.05~0.30	0.50~3.00	0.10~0.35	0.50~5.00	0.10~0.50	0.50~6.00	0.20~0.60	1.00~8.00	0.25~0.80

Cermet JU4525 fz-20%

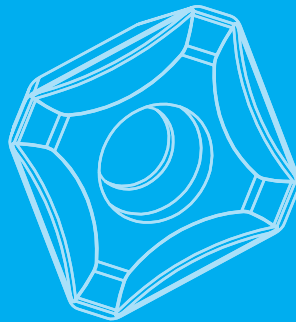
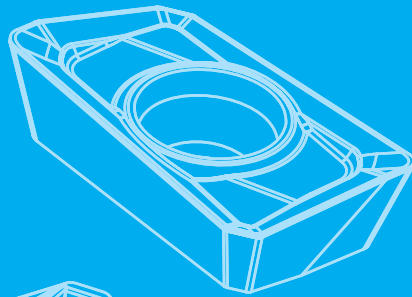
SE□□ 	1204...	13T3...			
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		a_p (mm)	f_z (mm/z)	a_p (mm)	f_z (mm/z)
K	GG			0.50~4.50	0.10~0.35
	GH			1.00~4.50	0.15~0.40
P	SC	0.50~4.50	0.08~0.22	0.50~4.50	0.08~0.25
	GP	0.50~4.50	0.10~0.20	0.50~4.50	0.10~0.35
	TE			1.00~4.50	0.15~0.40
M	SC	0.50~4.50	0.06~0.20	0.50~4.50	0.06~0.22
	GP	0.50~4.50	0.08~0.22	0.50~4.50	0.08~0.25
N	AL	0.50~4.50	0.10~0.35	0.50~4.50	0.10~0.35

Cermet JU4525 fz-20%



MILLING / PCBN



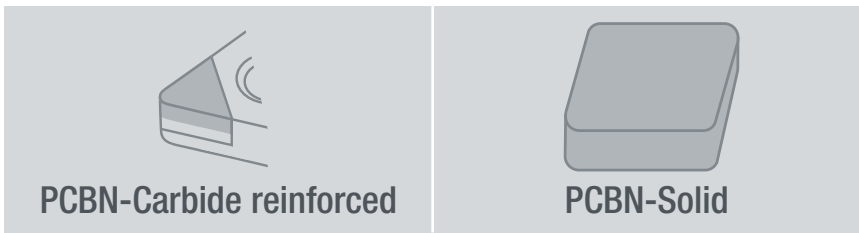
GRADES

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING**
- DRILLING
- SPARE PARTS
- INDEX

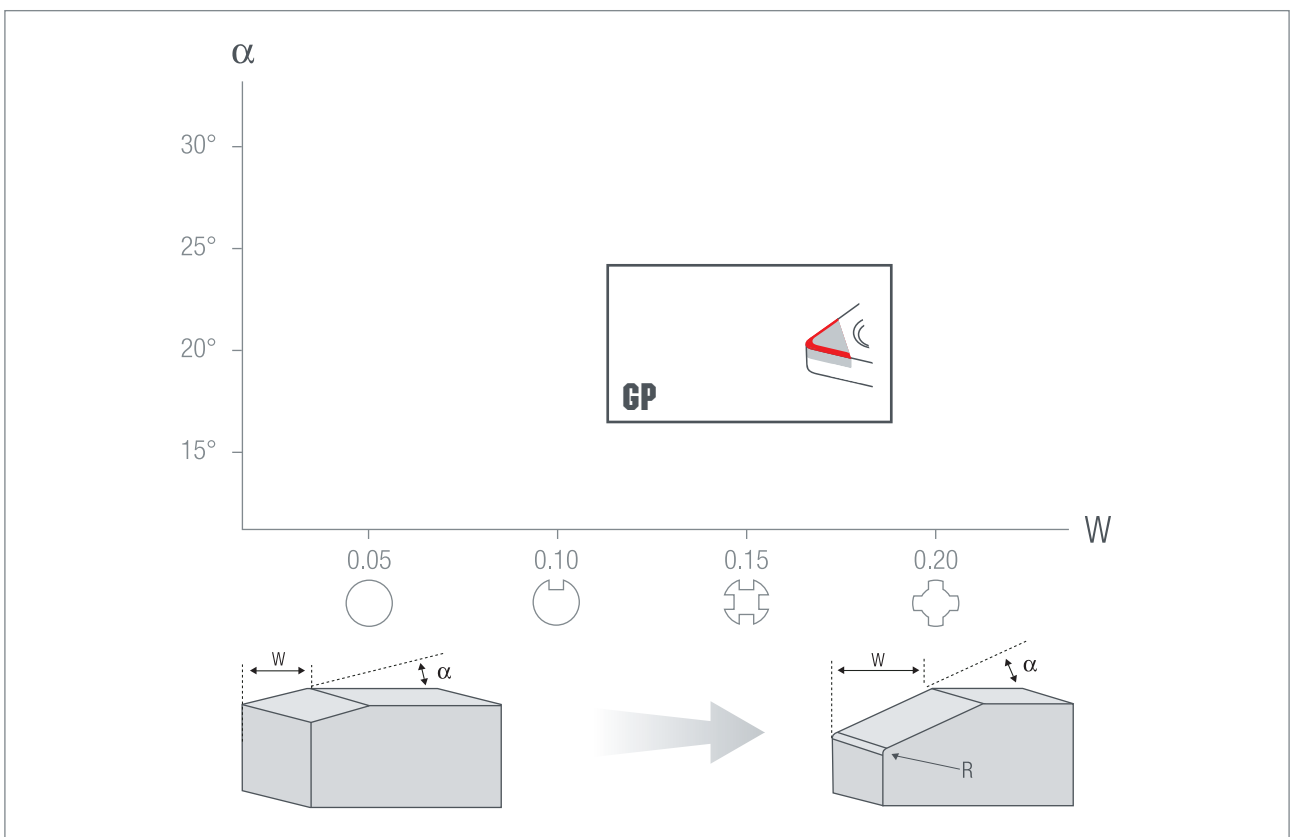
ISO DIN 513	H					K					S					
	H01	H10	H20	H30	H40	K01	K10	K20	K30	K40	S01	S10	S20	S30	S40	
PCBN-Carbide reinforced																
						NB400						NB440				
PCBN-Vertical & Solid (NBS Series)																
											NBS3030					
											NBS9000					

COATED

INSERT STYLE



EDGE PREPARATION



TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

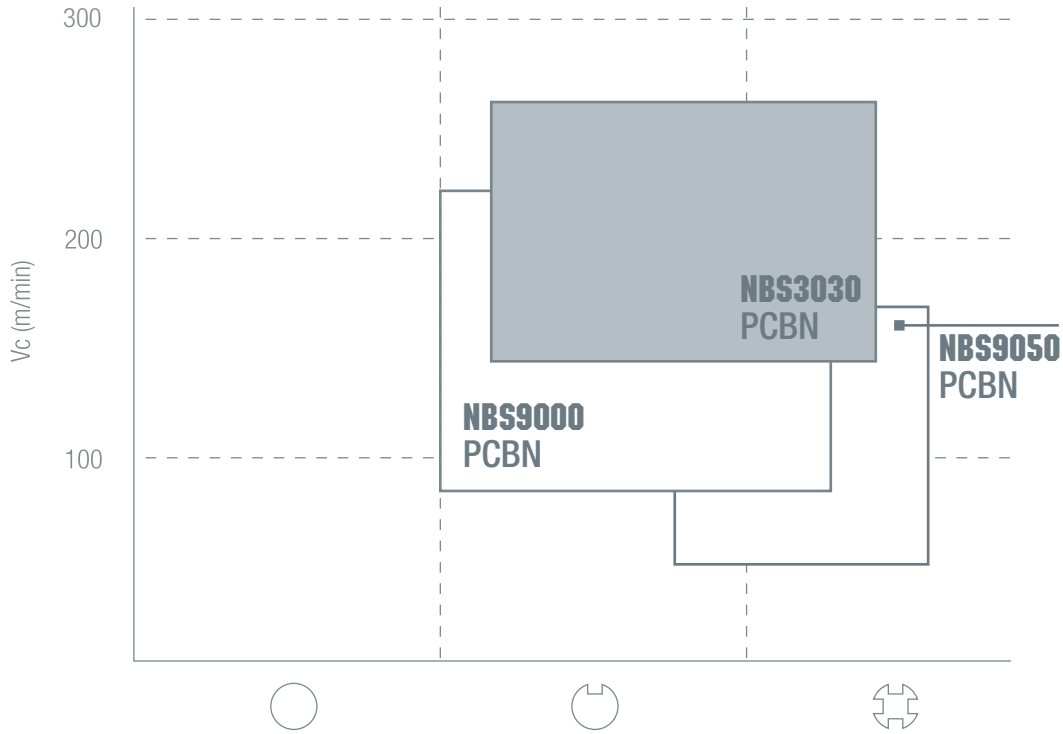
DRILLING

SPARE PARTS

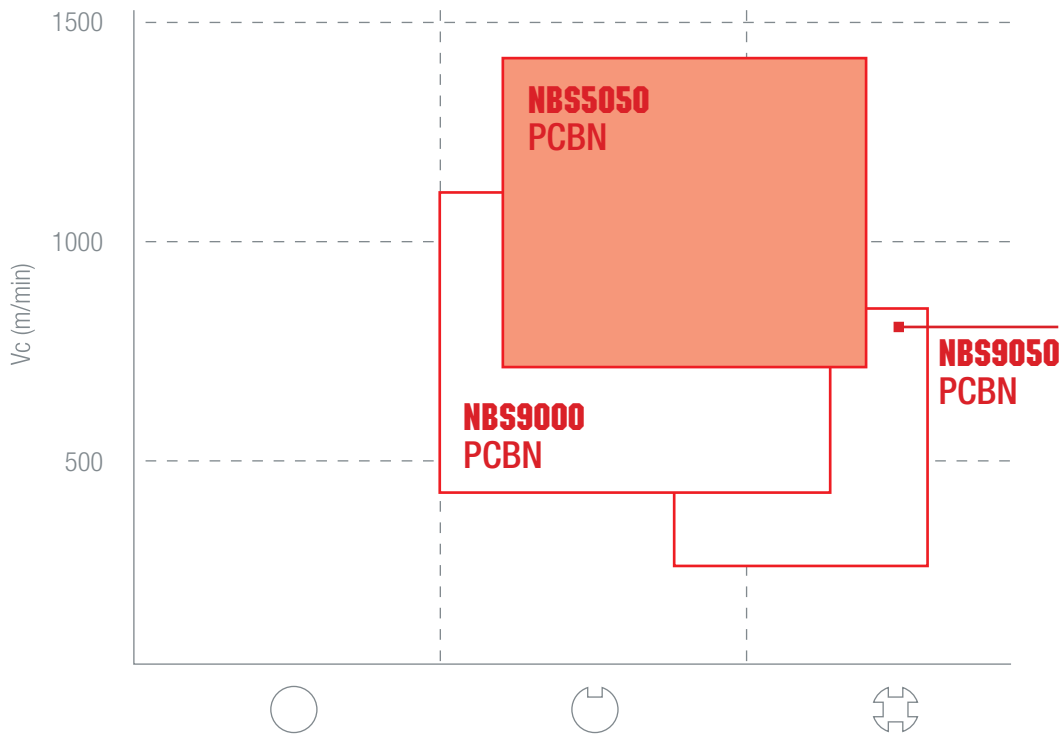
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- TURNING
- MICROMEGA
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- MILLING**
- DRILLING
- SPARE PARTS
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Range ISO **H** PCBN-Solid (NBS Series)

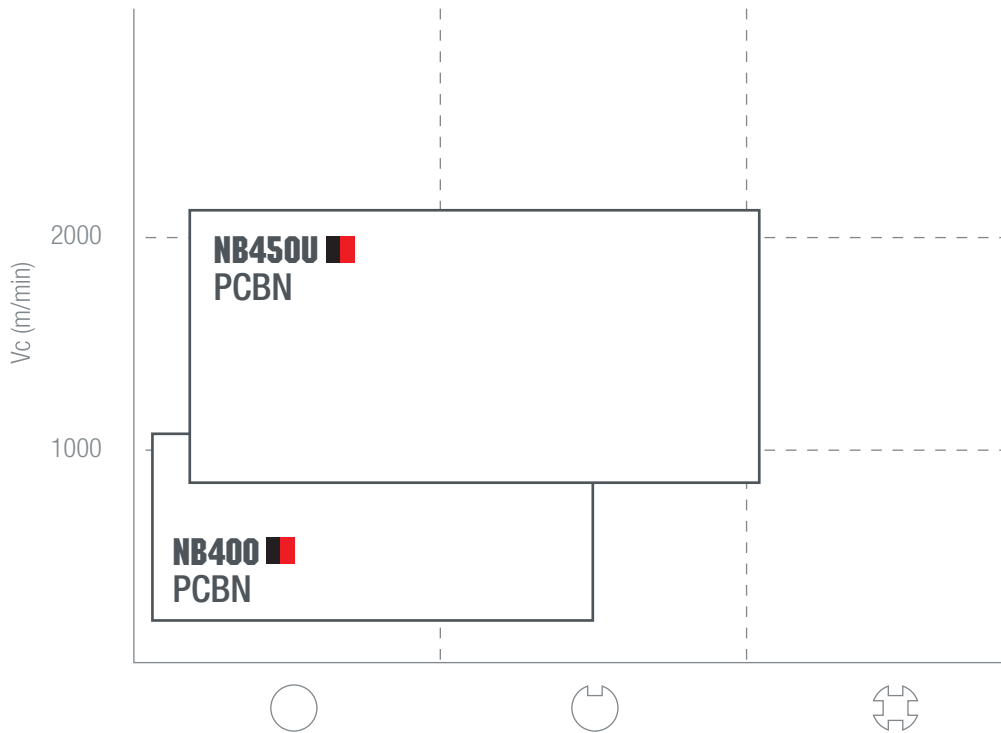


Range ISO **K** PCBN-Solid (NBS Series)



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Range ISO **H** **K** PCBN-Carbide reinforced

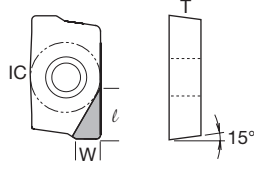


- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING**
- DRILLING
- SPARE PARTS
- INDEX


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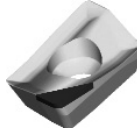
POSITIVE 15° with hole

BD  



BD□□	07	11	17
IC	4,60	6,70	9,60
T	2,60	3,80	4,90
W	1,70	2,40	3,00

 **NIKKO SUPPLEMENT 2014**

DESCRIPTION		l	PCBN-Carbide reinforced														
			NB350	NB400	NB450	NB440U											
	BD07 R04S	3.5			●												
	R08S	3.5			○												
	BD11 R04S	5.0			●												
	R08S	5.0			●												
	BD17 R04S	6.0			○												
	R08S	6.0			●												
NB440U = uncoated																	

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

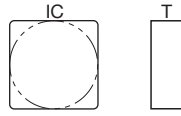
DRILLING





SPARE PARTS


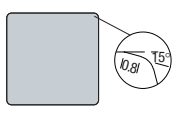
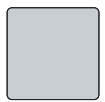
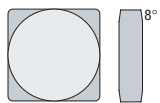
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**NEGATIVE - SOLID
without hole**

SN □ □ 



SN □ □	0903 □ □	0904 □ □	1204 □ □
IC	9,525	9,525	12,70
T	3,18	4,76	4,76
Ød	-	-	-
			
			338

	DESCRIPTION		PCBN-Solid											
			NBS3030	NBS5050	NBS9000	NBS9050	NBS9090							
EN-GP	 SNEN 0903EN-GP	S02020		●										
		0904EN-GP	S02020		●									
GP		SNEN 120412-GP	S02020	○	●	●								
		SNGN 090408-GP	S02020			○								
		090412-GP	S02020			●								
		090416-GP	S02020			○								
		SNGN 120408-GP	S02020			○	○							
		120412-GP	S02020			●	●							
		120416-GP	S02020			○	○							
WK WIPER	 SNEX 120412-WK	S02020		●										


●, ○ = NEW ITEM

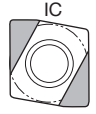
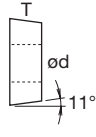
Vc · fn · ap 



306 


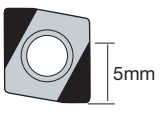
- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

POSITIVE 11° with hole

XP □ □ 

XP□□	0802□□
IC	7,94
T	2,38
Ød	3,60
	

DESCRIPTION			PCBN-Carbide reinforced												
			NB350	NB400	NB450U	NB440U									
	XPGW 080204-2E-GP	S01520		○	●*	■*									
	080208-2E-GP	S01520		●	●*	■*									
*NB440U = uncoated *NB450U = uncoated															

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

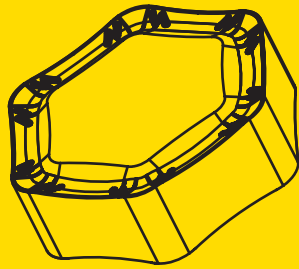
Vc · fn · ap  306 

CUTTING PARAMETERS

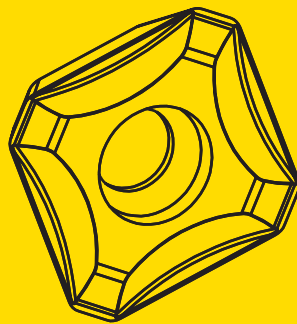
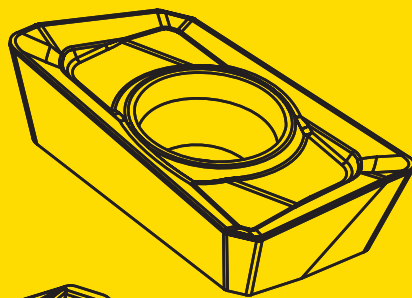
H	HH	HARDENED STEEL	K	KG	GREY CAST IRON
		ACCIAIO TEMPRATO			GHISA GRIGIA
		GEHÄRTETER STAHL			GRAUGUSS
		ACIER TREMPÉ			FONTE GRISE
		ACERO TEMPLADO			FUNDICIÓN GRIS
ЗАКАЛЁННАЯ СТАЛЬ	ЧУГУН				
H	HC	CASEHARDENED STEEL	K	KN	NODULAR CAST IRON
		ACCIAIO CEMENTATO			GHISA SFEROIDALE
		EINGESETZTER STAHL			SPHÄROGUSS
		ACIER CEMENTÉ			FONTE NODULAIRE
		ACERO CEMENTADO			FUNDICIÓN NODULAR
ЦЕМЕНТИРОВАННАЯ СТАЛЬ	ЧУГУН С ШАРОВИДНЫМ ГРАФИТОМ				
H	HB	BEARING STEEL	K	KW	WHITE CAST IRON
		ACCIAIO PER CUSCINETTI			GHISA BIANCA
		STAHL FÜR LAGER			WEISSGUSS
		ACIER POUR ROULEMENTS			FONTE BLANCHE
		ACERO PARA RODAMIENTOS			FUNDICIÓN BLANCA
СТАЛЬ ДЛЯ ПОДШИПНИКОВ	БЕЛЫЙ ЧУГУН				
H	HM	HARD METAL (Co≥17%)	K	KS	SINTERED MATERIAL (FERROUS)
		METALLO DURO (Co≥17%)			MATERIALI SINTERIZZATI (FERROSI)
		VHM (Co≥17%)			SINTERMATERIALIEN (EISERNE)
		CARBURE (Co≥17%)			MATÉRIAUX FRITTÉS (FERREUX)
		METAL DURO (Co≥17%)			MATERIALES SINTERIZADOS (BASE HIERRO)
ТВЁРДЫЙ СПЛАВ (Co≥17%)	СПЕЧЁННЫЕ МАТЕРИАЛЫ (МЕТАЛЛ)				

MATERIAL	ap (mm)	fz (mm/z)	CUTTING CONDITIONS	PCBN-Solid				PCBN-Carbide reinforced		
				NBS3030	NBS5050	NBS9000	NBS9050	NB400	NB450U	
H	HH	C.R.	0.05~0.30	0.03~0.15					100~300	★
		SOLID	0.50~2.00	0.05~0.23		150~400	★	150~400		100~300
	HC	C.R.	0.05~0.30	0.05~0.18					150~300	★
		SOLID	0.10~0.30	0.03~0.15					300~500	★
HB	C.R.	0.10~0.30	0.03~0.15					300~500	★	
	SOLID	0.50~2.00	0.04~0.20		250~400	★	250~400		300~500	
KG	C.R.	0.10~0.50	0.10~0.30					800~2000	★	
	SOLID	1.00~4.00	0.15~0.40		600~1800	★	600~1800		800~2000	
K	KN	C.R.	0.10~0.30	0.03~0.15				★	150~250	
		SOLID	0.10~0.30	0.05~0.18				★	150~300	
	KW	C.R.	0.10~0.30	0.05~0.18					★	150~300
		SOLID	1.00~3.00	0.15~0.30		100~250	★	100~250		★
KS	C.R.	0.10~0.50	0.05~0.15					★	200~300	
	SOLID	0.50~2.00	0.08~0.20		150~250	★	150~250		★	

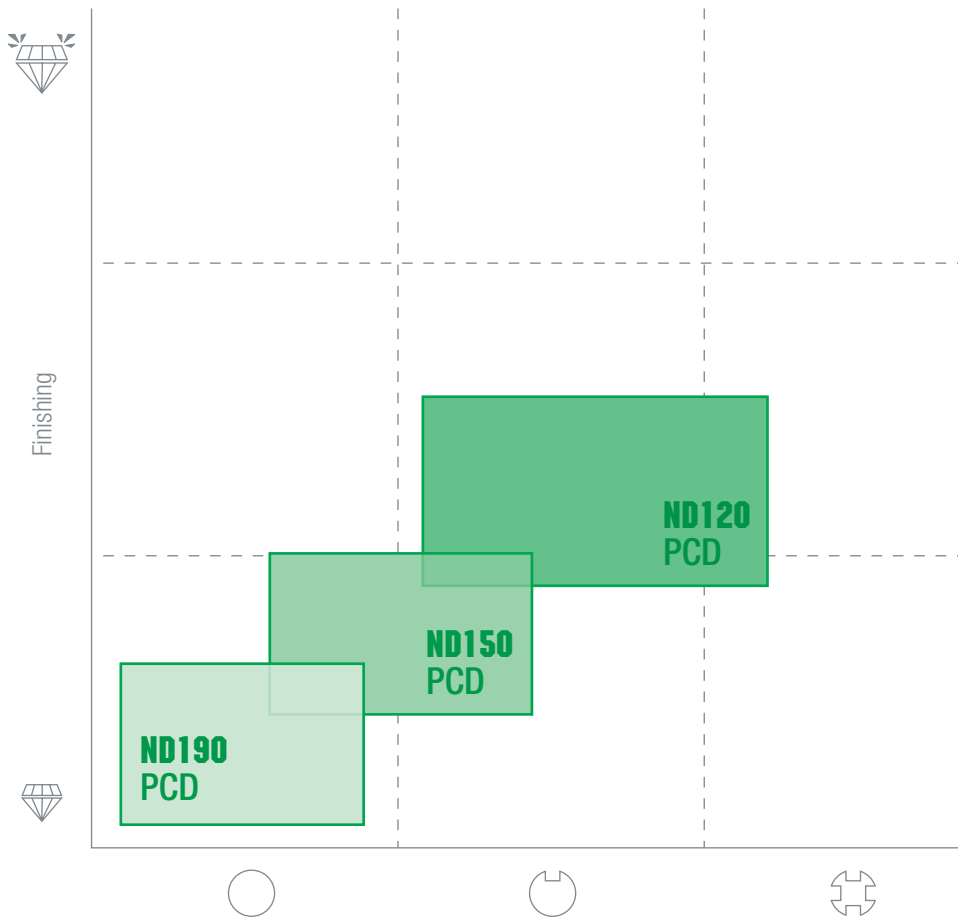
★ = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор



MILLING / diamond





RANGE ISO **N** DIAMOND

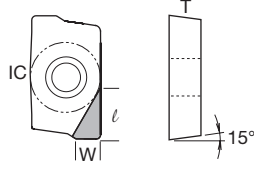


- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING**
- DRILLING
- SPARE PARTS
- INDEX


Vc · fn · ap ▶ 313


POSITIVE 15° with hole

BD  



BD□□	07	11	17
IC	4,60	6,70	9,60
T	2,60	3,80	4,90
W	1,70	2,40	3,00

 **NIKKO SUPPLEMENT 2014**

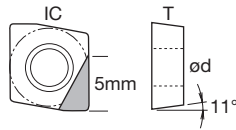
DESCRIPTION		l	PCD											
			ND120	ND150	ND190									
	BD07	R02F	3.5	○										
		R04F	3.5	●										
		R08F	3.5	●										
	BD11	R02F	5.0	●										
		R04F	5.0	●										
		R08F	5.0	●										
	BD17	R02F	6.0	○										
		R04F	6.0	●										
		R08F	6.0	●										

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
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- DRILLING
- SPARE PARTS
- INDEX

Vc · fn · ap  313 

**POSITIVE 11°
with hole**








XP □ □ 



XP □ □ 0802 □ □

IC 7,94
T 2,38
Ød 3,60

 339

DESCRIPTION		PCD														
		ND120	ND150	ND190												
  XPGT 0802FC-1E		●	●	○												
 XPGT 080204F-1E		●	●	○												
080208F-1E		●	●	○												

Vc · fn · ap  313

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
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- MILLING**
- DRILLING
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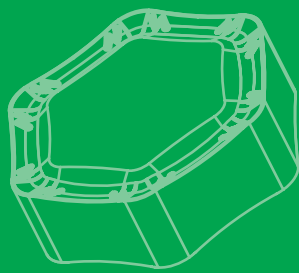
CUTTING PARAMETERS

N	NA	ALUMINUM ALLOYS
		LEGHE DI ALLUMINIO
		ALUMINIUMLEGIERUNGEN
		ALLIAGES D'ALUMINIUM
		ALEACIONES DE ALUMINIO
		СПЛАВЫ АЛЮМИНИЯ
N	NS	ALUMINUM ALLOYS (Si >15%)
		LEGHE DI ALLUMINIO (Si >15%)
		ALUMINIUMLEGIERUNGEN (Si >15%)
		ALLIAGES D'ALUMINIUM (Si >15%)
		ALEACIONES DE ALUMINIO (Si >15%)
		СПЛАВЫ АЛЮМИНИЯ (Si >15%)
N	NH	ALUMINUM ALLOYS AGED AND HARDENED
		LEGHE DI ALLUMINIO TRATTATE ED INVECCHiate
		GEALTERTE UND BEHANDELTE ALUMINIUMLEGIERUNGEN
		ALLIAGES D'ALUMINIUM TRAITÉES ET VIEILLIES
		ALEACIONES DE ALUMINIO TRATADAS Y ENVEJACIDAS
		СПЛАВЫ АЛЮМИНИЯ ОБРАБОТАННЫЕ И СОСТАРЕННЫЕ

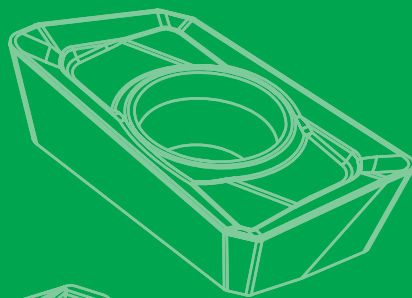
N	NB	BRASS
		OTTONE
		MESSING
		LAITON
		LATÓN
		ЛАТУНЬ
N	NC	BRONZE AND ELECTROLYTIC COPPER
		BRONZO E RAME ELETTROLITICO
		ELEKTROLYTISCHES KUPFER UND BRONZE
		BRONZE ET CUIVRE ÉLECTROLYTIQUE
		BRONCE Y COBRE ELECTROLÍTICO
		БРОНЗА И ЭЛЕКТРОЛИТИЧЕСКАЯ МЕДЬ
N	NG	GRAPHITE
		GRAFITE
		GRAPHIT
		GRAPHITE
		GRAFITO
		ГРАФИТ

MATERIAL	ap (mm)	fz (mm/z)	CUTTING CONDITIONS	PCD			
				ND120	ND150	ND190	
N	NA	0.20~0.50	0.05~0.18		★ 1000~3000		
		0.50~3.00	0.10~0.30		★ 500~1000		
	NS	0.20~0.50	0.05~0.18			★ 600~1000	600~1000
		0.50~3.00	0.10~0.30			★ 400~800	400~800
	NH	0.20~0.50	0.05~0.18			★ 500~800	500~800
		0.50~3.00	0.10~0.30			★ 300~700	300~700
	NB	0.20~0.50	0.05~0.18		★ 500~800		
		0.50~3.00	0.10~0.30		★ 300~700		
	NC	0.20~0.50	0.08~0.20		★ 400~600		
		0.50~3.00	0.15~0.30		★ 200~500		
	NG	0.20~0.50	0.10~0.25		★ 300~500		300~500
		0.50~3.00	0.12~0.28		★ 200~400		200~400

★ = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор



MILLING / ceramic

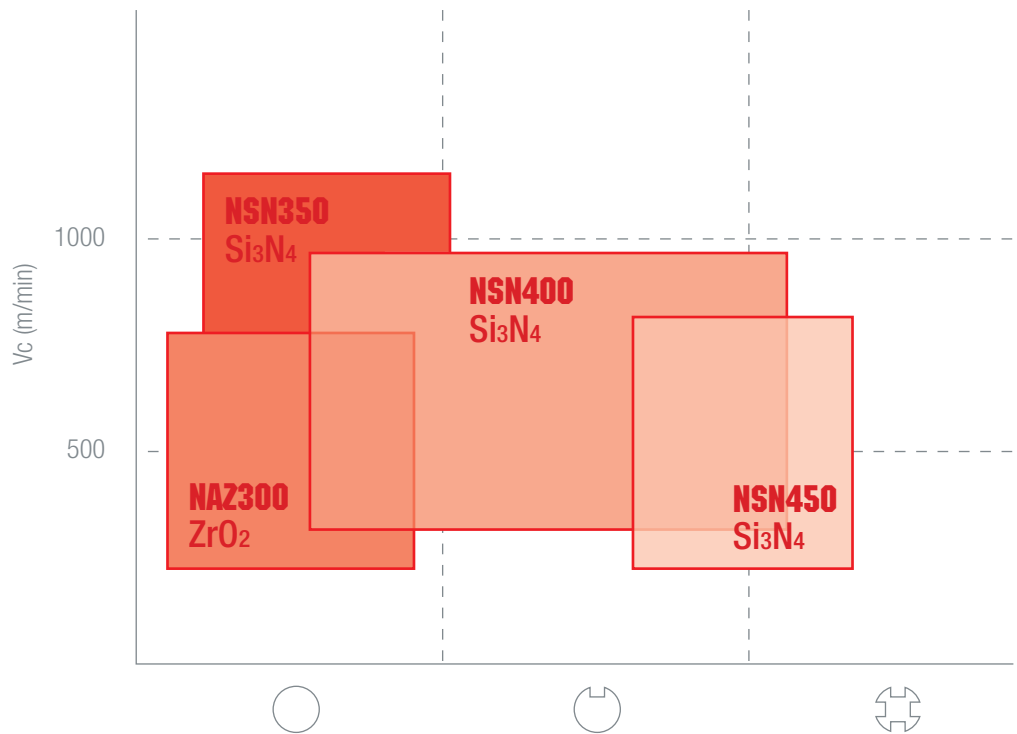


GRADES

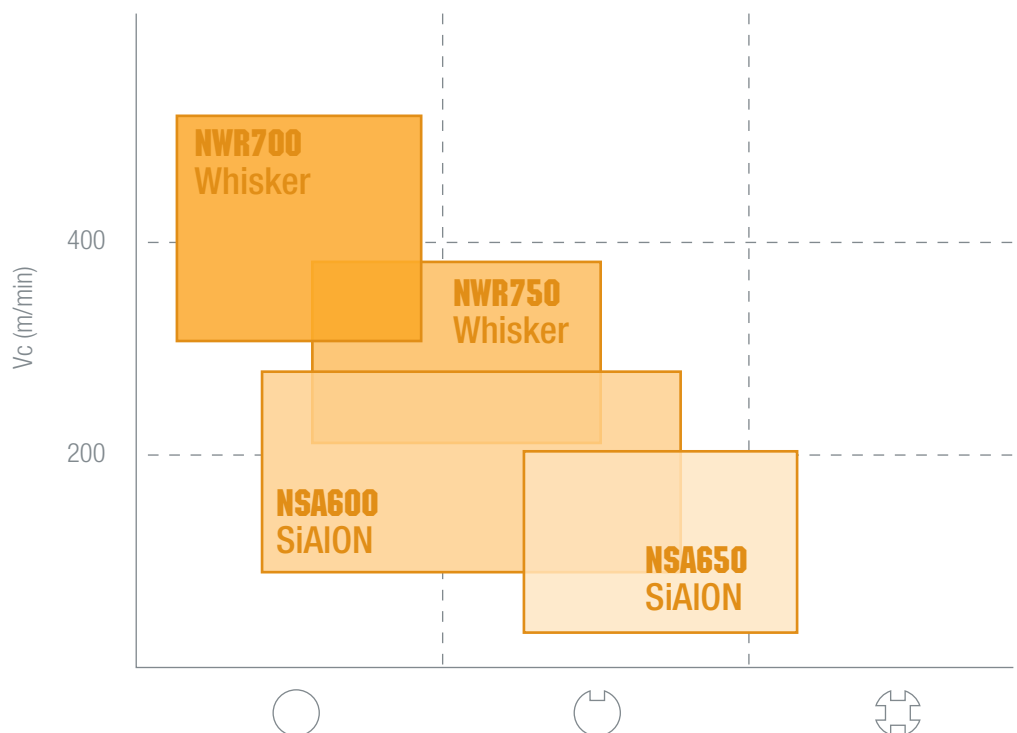
ISO DIN 513	H					K					S				
	H01	H10	H20	H30	H40	K01	K10	K20	K30	K40	S01	S10	S20	S30	S40
Al ₂ O ₃															
Al ₂ O ₃ PVD															
ZrO ₂						NAZ300									
Si ₃ N ₄						NSN350	NSN400	NSN450							
SiAlON											NSA600	NSA650			
Whisker											NWR700	NWR750			

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
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RANGE ISO **K** CERAMIC



RANGE ISO **S** CERAMIC



$V_c \cdot f_n \cdot a_p$ 322

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING**
- DRILLING
- SPARE PARTS
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NEGATIVE
without hole

HN □ □

NEW

HN □ □	0905 □ □
IC	16,2
T	5,56
Ød	-
HOLDERS	

GP	DESCRIPTION		Al ₂ O ₃			ZrO ₂	Si ₃ N ₄		SiAlON		Whisker	
			NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700
GP	 HNEN 090520-GP <hr/> 090530-GP	T02020						●				
		T02020						●				

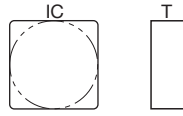
●, ○ = NEW ITEM

Vc · fn · ap

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
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- INDEX

NEGATIVE
without hole

SN 



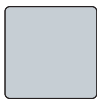
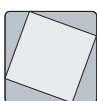

SN 0904 1204

IC 9,525 12,70

T 4,76 4,76

Ød - -

HOLDERS   338 

DESCRIPTION	IC	Al ₂ O ₃	ZrO ₂	Si ₃ N ₄	SiAlON	Whisker	Al ₂ O ₃		ZrO ₂		Si ₃ N ₄		SiAlON		Whisker		
							NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600	NSA650	NWR700	NWR750
GP 	SNGN	090408-GP	T02020								●						
		090412-GP	T02020						●			●					
		120408-GP	T02020									●		○	○		
		120412-GP	T02020									●	●	○	○		
		120416-GP	T02020									○		○	○		
SNMN 120416-GP	T02020										●						
GS  CHIPBREAKER	SNGX	120412-GS	S02020								●						
	WK WIPER 	SNCN	0904-WK	T02020								●					
SNCN		1204-WK	T02020								●						

●, ○ = NEW ITEM

Vc · fn · ap 

322 

NEGATIVE with hole

SP

NEW

SP 	1205
IC	11,67
IC1	11,33
T	5,50

DESCRIPTION			Al ₂ O ₃	ZrO ₂	Si ₃ N ₄			SiAlON		Whisker		
					NAC150	NAC200	NAC250	NAZ300	NSN350	NSN400	NSN450	NSA600
GP		SPHX 1205PCTR-GP	T02020									
					●	●						

●, ○ = NEW ITEM

Vc · fn · ap 322

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING**
- DRILLING
- SPARE PARTS
- INDEX

CUTTING PARAMETERS

H	HH	HARDENED STEEL	K	KG	GREY CAST IRON
		ACCIAIO TEMPRATO			GHISA GRIGIA
		GEHÄRTETER STAHL			GRAUGUSS
		ACIER TREMPÉ			FONTE GRISE
		ACERO TEMPLADO			FUNDICIÓN GRIS
		ЗАКАЛЁННАЯ СТАЛЬ			ЧУГУН
H	HC	CASEHARDENED STEEL	K	KN	NODULAR CAST IRON
		ACCIAIO CEMENTATO			GHISA SFEROIDALE
		EINGESETZTER STAHL			SPHÄROGUSS
		ACIER CEMENTÉ			FONTE NODULAIRE
		ACERO CEMENTADO			FUNDICIÓN NODULAR
		ЦЕМЕНТИРОВАННАЯ СТАЛЬ			ЧУГУН С ШАРОВИДНЫМ ГРАФИТОМ
H	HB	BEARING STEEL	S	SA	SUPER ALLOYS (Ni BASED)
		ACCIAIO PER CUSCINETTI			SUPERLEGHE (BASE Ni)
		STAHL FÜR LAGER			SONDERLEGIERUNGEN (Ni BASIS)
		ACIER POUR ROUEMENTS			SUPERALLIAGES (BASE Ni)
		ACERO PARA RODAMIENTOS			SUPERALEACIONES (BASE Ni)
		СТАЛЬ ДЛЯ ПОДШИПНИКОВ			СУПЕРСПЛАВЫ (НА ОСНОВЕ Ni)

MATERIAL	ap (mm)	fz (mm/z)	CUTTING CONDITIONS	ZrO ₂	Si ₃ N ₄		SiAlON		Whisker			
				NAZ300	NSN350	NSM400	NSM450	NSA600	NSA650	NWR700	NWR750	
K	KG	0.50~1.00	0.05~0.20	☹ ☹	600~800	800~1400	★ 800~1200	600~1000				
		1.00~4.00	0.05~0.20	☹ ☹		600~1200	★ 600~1000	500~800				
K	KN	0.50~1.00	0.05~0.15	☹ ☹			500~800		★ 500~800			
		1.00~4.00	0.05~0.15	☹ ☹			400~700		★ 400~700			
S	SA	0.50~1.50	0.05~0.15	☹ ☹					★ 50~150	50~150		
		1.50~3.00	0.05~0.10	☹ ☹							★ 150~300	150~250

★ = 1st choice / 1^a scelta / 1. Wahl / 1^{er} choix / 1^{ra} elección / 1-й выбор

SELECTION GUIDE



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P M

NT-RD

 RD□□1003 334
P M

NT-RD

 RD□□1204 335
P M

NT-RD

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P M

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

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CAPTION LEGENDA / LEGENDE / LÉGENDE / CLAVE / УСЛОВНЫЕ ОБОЗНАЧЕНИЯ

TURNING

MICROMEGA

MICROBORING

THREADING

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SPARE PARTS

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- MATERIALI LAVORABILI
- ZU BEARBEITENDEN MATERIALIEN
- MATIÈRES USINABLES
- MATERIALES MECANIZABLES
- ОБРАБАТЫВАЕМЫЕ МАТЕРИАЛЫ

ADJUSTABLE



- AXIAL MICRO COMPENSATION
- MICROREGISTRAZIONE ASSIALE
- AXIALE MICROEINSTELLUNG
- MICRO-RÉGISTRATION AXIALE
- MICRO AJUSTE AXIAL
- АКСИАЛЬНАЯ МИКРОУСТРОЙКА

ALU
BODY

- ALUMINIUM BODY
- CORPO IN ALLUMINIO
- ALUMINIUM KÖRPER
- CORPS EN ALUMINIUM
- PLATO EN ALUMINIO
- АЛЮМИНИЕВЫЙ КОРПУС

STEEL
BODY

- STEEL BODY
- CORPO IN ACCIAIO
- STAHL KÖRPER
- CORPS EN ACIER
- PLATO EN ACERO
- СТАЛЬНОЙ КОРПУС

SIDE MILLING



- SHOULDERING 90°
- SPALLAMENTO 90°
- ECKFRÄSEN 90°
- ÉPAULEMENT 90°
- ESCUADRADO 90°
- фрезерование по периферии 90°

FACE MILLING



- FACE MILLING 43°
- SPIANATURA 43°
- PLANDREHEN 43°
- SURFAÇAGE 43°
- PLANEADO 43°
- торцовое фрезерование 43°

FACE MILLING



- FACE MILLING 45°
- SPIANATURA 45°
- PLANDREHEN 45°
- SURFAÇAGE 45°
- PLANEADO 45°
- торцовое фрезерование 45°

FACE MILLING



- FACE MILLING 60°
- SPIANATURA 60°
- PLANDREHEN 60°
- SURFAÇAGE 60°
- PLANEADO 60°
- торцовое фрезерование 60°

FACE MILLING



- FACE MILLING 75°
- SPIANATURA 75°
- PLANDREHEN 75°
- SURFAÇAGE 75°
- PLANEADO 75°
- торцовое фрезерование 75°

COPY MILLING

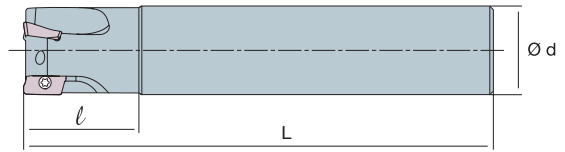
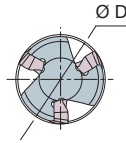


- COPY MILLING
- COPIATURA
- KONTURFRÄSEN
- COPIAGE
- FRESADO DE PERFILES
- объемное контурное фрезерование

NT-AP

POSITIVE 11°
with hole

AP



SIDE MILLING

90°

AP <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK	DIMENSIONS											
			ØD	Z	Ød	L	l							
AP <input type="checkbox"/> <input type="checkbox"/> 1135	NT-AP11	D016-S16-Z2	●	16	2	16	100	28	NT-ST018	NT-FT08				
		D016-S16-Z2-L150	●	16	2	16	150	28	NT-ST018	NT-FT08				
		D020-S20-Z3	●	20	3	20	110	28	NT-ST018	NT-FT08				
		D020-S20-Z3-L200	●	20	3	20	200	28	NT-ST018	NT-FT08				
		D025-S25-Z3	●	25	3	25	120	35	NT-ST018	NT-FT08				
		D025-S25-Z4	●	25	4	25	120	35	NT-ST018	NT-FT08				
		D032-S32-Z4	●	32	4	32	130	35	NT-ST018	NT-FT08				
		D032-S32-Z5	●	32	5	32	130	35	NT-ST018	NT-FT08				
AP <input type="checkbox"/> <input type="checkbox"/> 1604	NT-AP16	D025-S25-Z2	●	25	2	25	120	40	NT-ST019	NT-FT15				
		D032-S32-Z3	●	32	3	32	130	45	NT-ST017	NT-FT15				
		D040-S32-Z4	●	40	4	32	150	40	NT-ST017	NT-FT15				

carbide 281

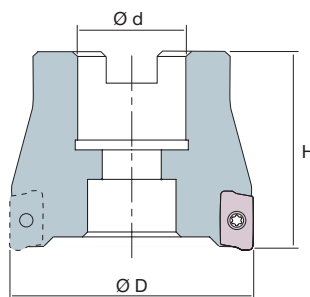
●, ○ = NEW ITEM

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

NT-AP

POSITIVE 11°
with hole

AP□□



SIDE MILLING

90°

AP□□	DESCRIPTION	STOCK	DIMENSIONS				Screw	Key					
			ØD	Z	Ød	H							
AP□□1135	NT-AP11	D040-F16-Z5	●	40	5	16	40	NT-ST018	NT-FT08				
		D050-F22-Z5	●	50	5	22	40	NT-ST018	NT-FT08				
		D050-F22-Z7	●	50	7	22	40	NT-ST018	NT-FT08				
AP□□1604	NT-AP16	D040-F16-Z4	●	40	4	16	40	NT-ST017	NT-FT15				
		D050-F22-Z4	●	50	4	22	50	NT-ST017	NT-FT15				
		D050-F22-Z5	●	50	5	22	50	NT-ST017	NT-FT15				
		D063-F22-Z5	●	63	5	22	50	NT-ST017	NT-FT15				
		D063-F22-Z6	●	63	6	22	50	NT-ST017	NT-FT15				
		D080-F27-Z6	●	80	6	27	50	NT-ST017	NT-FT15				
		D080-F27-Z8	●	80	8	27	50	NT-ST017	NT-FT15				
		D100-F32-Z8	●	100	8	32	50	NT-ST017	NT-FT15				

carbide

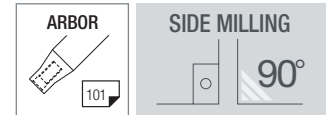
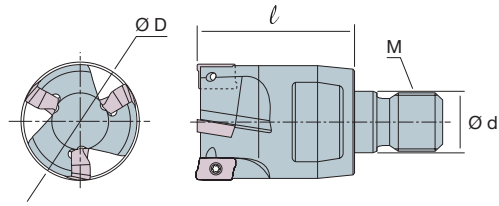
281

●, ○ = NEW ITEM

NT-AP

POSITIVE 11°
with hole

AP



AP <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK	DIMENSIONS											
			ØD	Z	Ød	M	l							
AP <input type="checkbox"/> <input type="checkbox"/> 1135	NT-AP11	D016-M08-Z2	●	16	2	8.5	8	25	NT-ST018	NT-FT08				
		D020-M10-Z2	●	20	2	10.5	10	30	NT-ST018	NT-FT08				
		D020-M10-Z3	●	20	3	10.5	10	30	NT-ST018	NT-FT08				
		D025-M12-Z3	●	25	3	12.5	12	35	NT-ST018	NT-FT08				
		D025-M12-Z4	●	25	4	12.5	12	35	NT-ST018	NT-FT08				
		D032-M16-Z4	●	32	4	17	16	43	NT-ST018	NT-FT08				
		D032-M16-Z5	●	32	5	17	16	43	NT-ST018	NT-FT08				

carbide 281

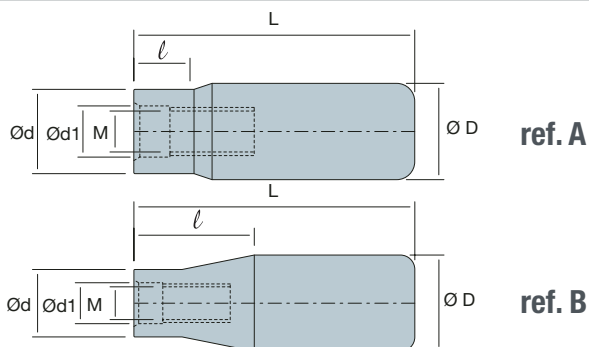
●, ○ = NEW ITEM

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

NT-ARB

NEW

ARBOR
for modular cutters



	DESCRIPTION	STOCK	DIMENSIONS							SHAPE				
			ØD	M	Ød	Ød ₁	L	ℓ						
NT-AP ³²⁹	NT-ARB D12-M06-120	●	12	6	11	6.5	120	10	ref. A					
	D16-M06-150T	●	16	6	11	6.5	150	40	ref. B					
NT-RD ³³⁶	D16-M06-200T	●	16	6	11	6.5	200	40	ref. B					
	D16-M08-150	●	16	8	15	8.5	150	10	ref. A					
	D16-M08-200	●	16	8	15	8.5	200	10	ref. A					
	D20-M08-200T	●	20	8	14	8.5	200	50	ref. B					
	D20-M08-250T	●	20	8	14	8.5	250	50	ref. B					
	D20-M10-150	●	20	10	18	10.5	150	12	ref. A					
	D20-M10-250	●	20	10	18	10.5	250	12	ref. A					
	D25-M10-200T	●	25	10	18	10.5	200	60	ref. B					
	D25-M10-250T	●	25	10	18	10.5	250	60	ref. B					
	D25-M12-200	●	25	12	23	12.5	200	15	ref. A					
	D25-M12-300	●	25	12	23	12.5	300	15	ref. A					
	D32-M12-250T	●	32	12	23	12.5	250	70	ref. B					
	D32-M12-350T	●	32	12	23	12.5	350	70	ref. B					
	D32-M16-200	●	32	16	30	17	200	18	ref. A					
	D32-M16-350	●	32	16	30	17	350	18	ref. A					

●, ○ = NEW ITEM

NT-HN

NEGATIVE
without hole

HN

FACE MILLING

60°

P M K
N S H

NEW

HN <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK	DIMENSIONS									
			ØD	Z	Ød	H						
HN <input type="checkbox"/> <input type="checkbox"/> 0905	NT-HN09 D063-F22-Z8	★	63	8	22	40						
	D080-F27-Z10	★	80	10	27	50						
	D100-F32-Z12	★	100	12	32	50						
	D125-F40-Z18	★	125	18	40	63						
	D160-F40-Z24	★	160	24	40	63						
	D200-F60-Z30	★	200	30	60	63						

carbide 283

ceramic 319

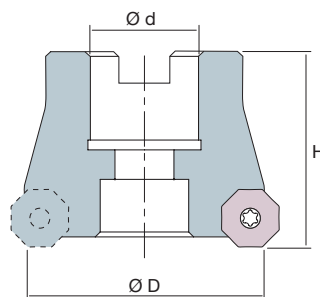
- TURNING
- MICRONEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

NT-OD

NEW

POSITIVE 15°
with hole

OD



OD <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK	DIMENSIONS										
			ØD	Z	Ød	H							
OD <input type="checkbox"/> 0605	NT-OD06 D050-F22-Z4	★	50	4	22	40							
	D063-F22-Z5	★	63	5	22	40							
	D080-F27-Z6	★	80	6	27	50							
	D100-F32-Z7	★	100	7	32	50							
	D125-F40-Z8	★	125	8	40	63							
	D160-F40-Z10	★	160	10	40	63							

carbide

285

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

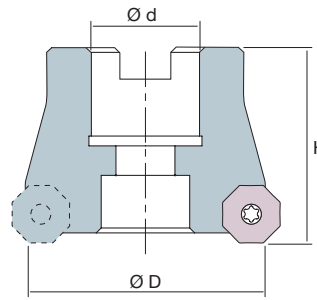
SPARE PARTS

INDEX

NT-OF

POSITIVE 26°
with hole

OF□□



OF□□	DESCRIPTION	STOCK	DIMENSIONS				Screw	Tool				
			ØD	Z	Ød	H						
OF□□05T3	NT-OF05 D050-F22-Z5	●	50	5	22	40	NT-ST024	NT-FT15				
	D063-F22-Z6	●	63	6	22	40	NT-ST024	NT-FT15				
	D080-F27-Z7	●	80	7	27	50	NT-ST024	NT-FT15				
	D100-F32-Z8	●	100	8	32	50	NT-ST024	NT-FT15				

carbide 286

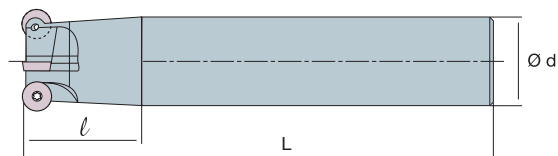
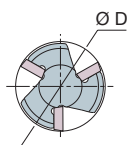
●, ○ = NEW ITEM

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING**
- DRILLING
- SPARE PARTS
- INDEX

NT-RD

POSITIVE 15°
with hole

RD□□



RD□□	DESCRIPTION	STOCK	DIMENSIONS										
			ØD	Z	Ød	L	ℓ						
RD□□0501	NT-RD05	D009-S08-Z2-L100	●	9	2	8	100	12	-	-	-	NT-ST026	NT-FT06
		D010-S10-Z2-L100	●	10	2	10	100	18	-	-	-	NT-ST026	NT-FT06
		D011-S10-Z2-L100	●	11	2	10	100	15	-	-	-	NT-ST009	NT-FT06
		D012-S12-Z3-L100	●	12	3	12	100	22	-	-	-	NT-ST009	NT-FT06
		D013-S12-Z3-L100	●	13	3	12	100	18	-	-	-	NT-ST009	NT-FT06
		D016-S16-Z4-L150	●	16	4	16	150	30	-	-	-	NT-ST009	NT-FT06
		D017-S16-Z4-L150	●	17	4	16	150	20	-	-	-	NT-ST009	NT-FT06
RD□□0702	NT-RD07	D016-S16-Z2-L150	●	16	2	16	150	25	-	-	-	NT-ST011	NT-FT09
		D017-S16-Z2-L150	●	17	2	16	150	20	-	-	-	NT-ST011	NT-FT09
		D020-S20-Z3-L150	●	20	3	20	150	35	-	-	-	NT-ST011	NT-FT09
		D021-S20-Z3-L150	●	21	3	20	150	25	-	-	-	NT-ST011	NT-FT09
		D025-S25-Z5-L150	●	25	5	25	150	40	-	-	-	NT-ST011	NT-FT09
		D026-S25-Z5-L150	●	26	5	25	150	25	-	-	-	NT-ST011	NT-FT09
		D035-S32-Z6-L150	●	35	6	32	150	30	-	-	-	NT-ST011	NT-FT09
RD□□1003	NT-RD10	D020-S20-Z2-L150	●	20	2	20	150	40	-	-	-	NT-ST012	NT-FT15
		D021-S20-Z2-L150	●	21	2	20	150	25	-	-	-	NT-ST012	NT-FT15
		D025-S25-Z3-L150	●	25	3	25	150	40	-	-	-	NT-ST012	NT-FT15
		D026-S25-Z3-L150	●	26	3	25	150	25	-	-	-	NT-ST012	NT-FT15
		D030-S25-Z3-L150	●	30	3	25	150	25	-	-	-	NT-ST013	NT-FT15
		D032-S32-Z3-L150	●	32	3	32	150	40	NT-CS013	NT-ST013	NT-FT15	NT-ST013	NT-FT15
		D035-S32-Z4-L150	●	35	4	32	150	35	NT-CS013	NT-ST013	NT-FT15	NT-ST013	NT-FT15

carbide

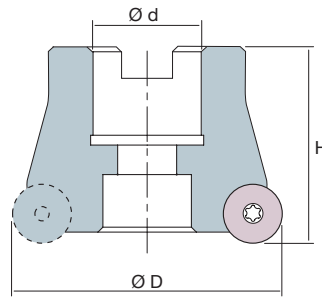
288

●, ○ = NEW ITEM

NT-RD

POSITIVE 15°
with hole

RD□□



RD□□	DESCRIPTION	STOCK	DIMENSIONS								
			ØD	Z	Ød	H					
RD□□1003	NT-RD10 D042-F16-Z5	●	42	5	16	40	NT-CS013	NT-ST013	NT-FT15	NT-ST013	NT-FT15
	D052-F22-Z6	●	52	6	22	40	NT-CS013	NT-ST013	NT-FT15	NT-ST013	NT-FT15
RD□□1204	NT-RD12 D050-F22-Z4	●	50	4	22	50	NT-CS013	NT-ST013	NT-FT15	NT-ST017	NT-FT15
	D050-F22-Z5	●	50	5	22	50	NT-CS013	NT-ST013	NT-FT15	NT-ST019	NT-FT15
	D063-F22-Z5	●	63	5	22	50	NT-CS013	NT-ST013	NT-FT15	NT-ST017	NT-FT15
	D063-F22-Z6	●	63	6	22	50	NT-CS013	NT-ST013	NT-FT15	NT-ST017	NT-FT15
	D066-F22-Z6	●	66	6	22	50	NT-CS013	NT-ST013	NT-FT15	NT-ST017	NT-FT15
	D080-F27-Z6	●	80	6	27	50	NT-CS013	NT-ST013	NT-FT15	NT-ST017	NT-FT15
	NT-RD16 D063-F22-Z5	●	63	5	22	50	NT-CS021	NT-ST021	NT-DT20	NT-ST023	NT-DT20
D066-F22-Z5	●	66	5	22	50	NT-CS021	NT-ST021	NT-DT20	NT-ST023	NT-DT20	
D080-F27-Z5	●	80	5	27	50	NT-CS021	NT-ST021	NT-DT20	NT-ST023	NT-DT20	
D100-F32-Z6	●	100	6	32	50	NT-CS021	NT-ST021	NT-DT20	NT-ST023	NT-DT20	

carbide 288

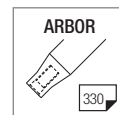
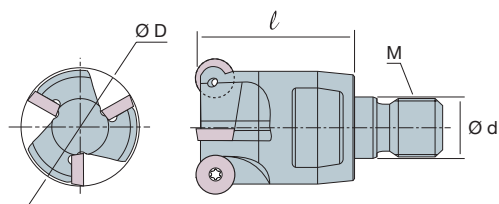
●, ○ = NEW ITEM

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

NT-RD

POSITIVE 15°
with hole

RD□□



RD□□	DESCRIPTION	STOCK	DIMENSIONS										
			ØD	Z	Ød	M	l						
RD□□0501	NT-RD05	D012-M06-Z2	●	12	2	6.5	6	18	-	-	-	NT-ST009	NT-FT06
		D012-M06-Z3	●	12	3	6.5	6	18	-	-	-	NT-ST009	NT-FT06
		D013-M06-Z2	●	13	2	6.5	6	18	-	-	-	NT-ST009	NT-FT06
		D013-M06-Z3	●	13	3	6.5	6	18	-	-	-	NT-ST009	NT-FT06
		D016-M08-Z4	●	16	4	8.5	8	23	-	-	-	NT-ST009	NT-FT06
		D017-M08-Z4	●	17	4	8.5	8	23	-	-	-	NT-ST009	NT-FT06
RD□□0702	NT-RD07	D016-M08-Z2	●	16	2	8.5	8	23	-	-	-	NT-ST011	NT-FT09
		D016-M08-Z3	●	16	3	8.5	8	23	-	-	-	NT-ST011	NT-FT09
		D017-M08-Z2	●	17	2	8.5	8	23	-	-	-	NT-ST011	NT-FT09
		D017-M08-Z3	●	17	3	8.5	8	23	-	-	-	NT-ST011	NT-FT09
		D020-M10-Z3	●	20	3	10.5	10	30	-	-	-	NT-ST011	NT-FT09
		D021-M10-Z2	●	21	2	10.5	10	30	-	-	-	NT-ST011	NT-FT09
		D021-M10-Z3	●	21	3	10.5	10	30	-	-	-	NT-ST011	NT-FT09
		D025-M12-Z4	●	25	4	12.5	12	35	-	-	-	NT-ST011	NT-FT09
		D025-M12-Z5	●	25	5	12.5	12	35	-	-	-	NT-ST011	NT-FT09
		D026-M12-Z4	●	26	4	12.5	12	35	-	-	-	NT-ST011	NT-FT09
		D026-M12-Z5	●	26	5	12.5	12	35	-	-	-	NT-ST011	NT-FT09
		D035-M16-Z5	●	35	5	17	16	43	-	-	-	NT-ST011	NT-FT09
D035-M16-Z6	●	35	6	17	16	43	-	-	-	NT-ST011	NT-FT09		
RD□□1003	NT-RD10	D020-M10-Z2	●	20	2	10.5	10	30	-	-	-	NT-ST012	NT-FT15
		D021-M10-Z2	●	21	2	10.5	10	30	-	-	-	NT-ST012	NT-FT15
		D025-M12-Z3	●	25	3	12.5	12	35	-	-	-	NT-ST012	NT-FT15
		D026-M12-Z3	●	26	3	12.5	12	35	-	-	-	NT-ST012	NT-FT15
		D030-M12-Z3	●	30	3	12.5	12	35	-	-	-	NT-ST013	NT-FT15
		D032-M16-Z3	●	32	3	17	16	43	NT-CS013	NT-ST013	NT-FT15	NT-ST013	NT-FT15
		D035-M16-Z3	●	35	3	17	16	43	NT-CS013	NT-ST013	NT-FT15	NT-ST013	NT-FT15
		D035-M16-Z4	●	35	4	17	16	43	NT-CS013	NT-ST013	NT-FT15	NT-ST013	NT-FT15

carbide

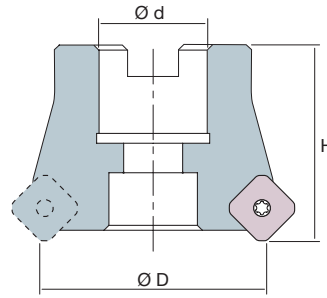
288

●, ○ = NEW ITEM

NT-SE

POSITIVE 20°
with hole

SE□□



SE□□	DESCRIPTION	STOCK	DIMENSIONS									
			ØD	Z	Ød	H						
SE□□13T3	NT-SE13	D050-F22-Z4	●	50	4	22	40	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D050-F22-Z5	●	50	5	22	40	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D063-F22-Z5	●	63	5	22	50	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D063-F22-Z6	●	63	6	22	50	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D080-F27-Z6	●	80	6	27	50	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D080-F27-Z8	●	80	8	27	50	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D100-F32-Z7	●	100	7	32	50	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D100-F32-Z10	●	100	10	32	50	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D125-F40-Z8	●	125	8	40	63	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D125-F40-Z12	●	125	12	40	63	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D160-F40-Z10	●	160	10	40	63	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D160-F40-Z16	○	160	16	40	63	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D200-F60-Z12	●	200	12	60	63	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15
		D200-F60-Z20	○	200	20	60	63	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FT15

carbide 291

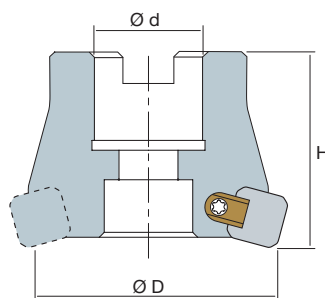
●, ○ = NEW ITEM

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

NT-SN

NEGATIVE
without hole

SN□□



FACE MILLING



SN□□	DESCRIPTION	STOCK	DIMENSIONS									
			ØD	Z	Ød	H						
SN□□1204	NT-SN12-75° D050-F22-Z5	●	50	5	22	40	NT-WD070	NT-SC060	NT-WR030			
	D063-F22-Z6	●	63	6	22	40	NT-WD070	NT-SC060	NT-WR030			
	D080-F27-Z8	●	80	8	27	50	NT-WD070	NT-SC060	NT-WR030			
	D100-F32-Z10	●	100	10	32	50	NT-WD070	NT-SC060	NT-WR030			
	D125-F40-Z12	●	125	12	40	63	NT-WD070	NT-SC060	NT-WR030			

PCBN

304

ceramic

320

NT-XP-AL

POSITIVE 11°
with hole

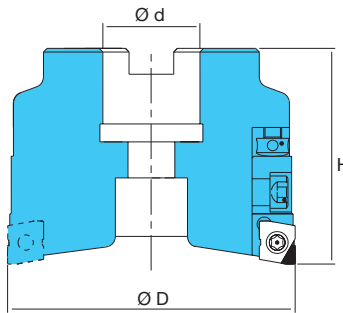
XP

ADJUSTABLE



ALU
BODY

P M K
N S H



SIDE MILLING

90°

XP <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK	DIMENSIONS									
			ØD	Z	Ød	H						
XP <input type="checkbox"/> <input type="checkbox"/> 0802	NT-XP08 D063-F22-Z5-AL	●	63	5	22	50	NT-CRD-XP08	NT-CW040	NT-WR040	NT-AD040	NT-ST075	NT-FT09
	D080-F27-Z7-AL	●	80	7	27	60	NT-CRD-XP08	NT-CW040	NT-WR040	NT-AD040	NT-ST075	NT-FT09
	D100-F32-Z8-AL	●	100	8	32	50	NT-CRD-XP08	NT-CW040	NT-WR040	NT-AD040	NT-ST075	NT-FT09
	D125-F40-Z10-AL	●	125	10	40	63	NT-CRD-XP08	NT-CW040	NT-WR040	NT-AD040	NT-ST075	NT-FT09

TURNING

MICROMEGA

MICROBORING

THREADING

GROOVING

MILLING

DRILLING

SPARE PARTS

INDEX

diamond

312

NT-XP-ST

POSITIVE 11°
with hole

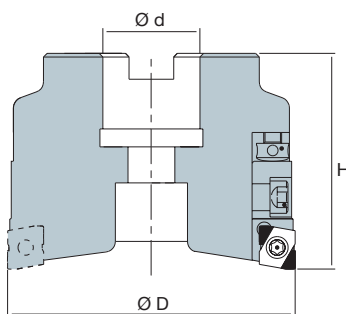
XP

ADJUSTABLE



STEEL
BODY

P M K
N S H



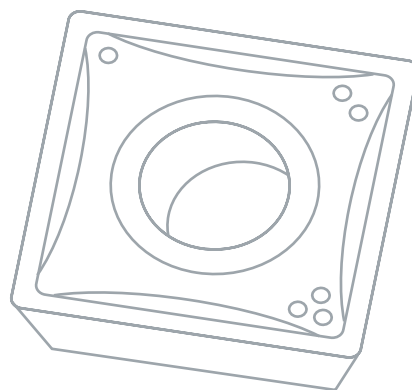
SIDE MILLING

90°

XP <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK	DIMENSIONS									
			ØD	Z	Ød	H						
XP <input type="checkbox"/> <input type="checkbox"/> 0802	NT-XP08 D050-F16-Z5-ST	●	50	5	16	50	NT-CRD-XP08	NT-CW040	NT-WR040	NT-AD040	NT-ST075	NT-FT09
	D063-F22-Z6-ST	●	63	6	22	50	NT-CRD-XP08	NT-CW040	NT-WR040	NT-AD040	NT-ST075	NT-FT09
	D080-F27-Z7-ST	●	80	7	27	60	NT-CRD-XP08	NT-CW040	NT-WR040	NT-AD040	NT-ST075	NT-FT09
	D100-F32-Z8-ST	●	100	8	32	50	NT-CRD-XP08	NT-CW040	NT-WR040	NT-AD040	NT-ST075	NT-FT09

PCBN

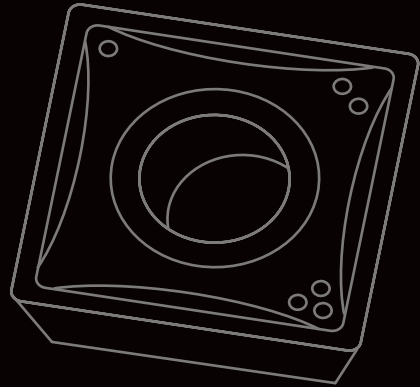
305



DRILLING /

carbide /343
holders /347

DRILLING / carbide



GRADES

- TURNING
- MICROMEGA
- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX

	ISO DIN 513																			
	K					P					M									
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40					
CARBIDE CVD																				
CARBIDE PVD																				
CARBIDE UNCOATED																				
CERMET UNCOATED																				

JP7525


JP5520
JP5530

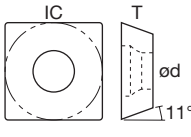
JP5520
JP5530

**POSITIVE 11°
with hole**


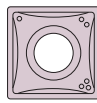
SP □ □

NEW

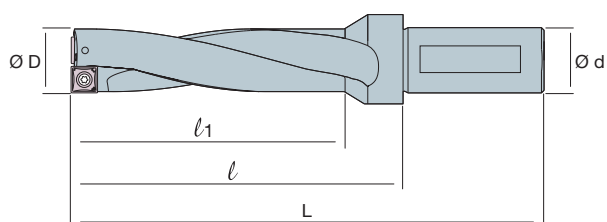






	SP□□	0502□□	0602□□	07T3□□	0904□□	1104□□	1405□□
IC	5,56	6,00	7,94	9,80	11,50	14,30	
T	2,38	2,38	3,97	4,30	4,76	5,56	
Ød	2,50	2,80	2,80	4,10	4,40	5,50	
HOLDERS	348	348	348	348	349	349	

DESCRIPTION		CARBIDE-PVD														
		JP5520	JP5530	JP7525												
 	SPMX	050204-GP	★	★	★											
		060204-GP	★	★	★											
		07T308-GP	★	★	★											
		090408-GP	★	★	★											
		110408-GP	★	★	★											
		140512-GP	★	★	★											

- TURNING
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- MICROBORING
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NT-DRS**NEW****2xD****SP** □ □


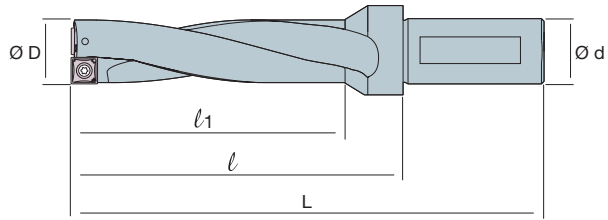
SP □ □	DESCRIPTION	STOCK	DIMENSIONS					 				
			ØD	Ød	L	l	l ₁					
SPMX0502	NT-DRS-2D D12.50-S20-05	★	12.5	20	94	44	26	NT-ST059	NT-FT06			
	D13.00-S20-05	★	13	20	94	44	26	NT-ST059	NT-FT06			
	D13.50-S20-05	★	13.5	20	96	46	28	NT-ST059	NT-FT06			
	D14.00-S20-05	★	14	20	96	46	28	NT-ST059	NT-FT06			
	D14.50-S20-05	★	14.5	20	99	49	30	NT-ST059	NT-FT06			
	D15.00-S20-05	★	15	20	99	49	30	NT-ST059	NT-FT06			
SPMX0602	NT-DRS-2D D15.50-S25-06	★	15.5	25	108	52	32	NT-ST061	NT-FT06			
	D16.00-S25-06	★	16	25	108	52	32	NT-ST061	NT-FT06			
	D16.50-S25-06	★	16.5	25	110	54	34	NT-ST061	NT-FT06			
	D17.00-S25-06	★	17	25	110	54	34	NT-ST061	NT-FT06			
	D17.50-S25-06	★	17.5	25	113	57	36	NT-ST061	NT-FT06			
	D18.00-S25-06	★	18	25	113	57	36	NT-ST061	NT-FT06			
	D18.50-S25-06	★	18.5	25	115	59	38	NT-ST061	NT-FT06			
	D19.00-S25-06	★	19	25	115	59	38	NT-ST061	NT-FT06			
	D19.50-S25-06	★	19.5	25	119	63	40	NT-ST061	NT-FT06			
	D20.00-S25-06	★	20	25	119	63	40	NT-ST061	NT-FT06			
	D20.50-S25-06	★	20.5	25	121	65	42	NT-ST061	NT-FT06			
	D21.00-S25-06	★	21	25	121	65	42	NT-ST061	NT-FT06			
D21.50-S25-06	★	21.5	25	123	67	44	NT-ST061	NT-FT06				
SPMX07T3	NT-DRS-2D D22.00-S25-07	★	22	25	123	67	44	NT-ST062	NT-FT07			
	D22.50-S32-07	★	22.5	32	131	71	46	NT-ST062	NT-FT07			
	D23.00-S32-07	★	23	32	131	71	46	NT-ST062	NT-FT07			
	D23.50-S32-07	★	23.5	32	134	74	48	NT-ST062	NT-FT07			
	D24.00-S32-07	★	24	32	134	74	48	NT-ST062	NT-FT07			
	D24.50-S32-07	★	24.5	32	137	77	50	NT-ST062	NT-FT07			
	D25.00-S32-07	★	25	32	137	77	50	NT-ST062	NT-FT07			
	D25.50-S32-07	★	25.5	32	139	79	52	NT-ST062	NT-FT07			
	D26.00-S32-07	★	26	32	139	79	52	NT-ST062	NT-FT07			
	D26.50-S32-07	★	26.5	32	141	81	54	NT-ST062	NT-FT07			
	D27.00-S32-07	★	27	32	141	81	54	NT-ST062	NT-FT07			
	D27.50-S32-07	★	27.5	32	144	84	56	NT-ST062	NT-FT07			
SPMX0904	NT-DRS-2D D28.00-S32-09	★	28	32	144	84	56	NT-ST063	NT-FT15			
	D28.50-S32-09	★	28.5	32	146	86	58	NT-ST063	NT-FT15			
	D29.00-S32-09	★	29	32	146	86	58	NT-ST063	NT-FT15			
	D29.50-S32-09	★	29.5	32	151	91	60	NT-ST063	NT-FT15			
	D30.00-S32-09	★	30	32	151	91	60	NT-ST063	NT-FT15			
	D31.00-S32-09	★	31	32	154	94	62	NT-ST063	NT-FT15			
	D32.00-S32-09	★	32	32	156	96	64	NT-ST063	NT-FT15			
D33.00-S32-09	★	33	32	159	99	66	NT-ST063	NT-FT15				




carbide

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NT-DRS NEW

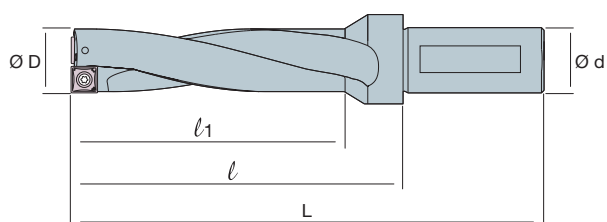
2xD **SP**






SP <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK	DIMENSIONS										
			ØD	Ød	L	l	l1						
SPMX1104	NT-DRS-2D D34.00-S32-11	★	34	32	161	101	68	NT-ST064	NT-FT15				
	D34.00-S40-11	★	34	40	171	101	68	NT-ST064	NT-FT15				
	D35.00-S32-11	★	35	32	164	104	70	NT-ST064	NT-FT15				
	D35.00-S40-11	★	35	40	174	104	70	NT-ST064	NT-FT15				
	D36.00-S32-11	★	36	32	167	107	72	NT-ST064	NT-FT15				
	D36.00-S40-11	★	36	40	177	107	72	NT-ST064	NT-FT15				
	D37.00-S32-11	★	37	32	170	110	74	NT-ST064	NT-FT15				
	D37.00-S40-11	★	37	40	180	110	74	NT-ST064	NT-FT15				
	D38.00-S32-11	★	38	32	173	113	76	NT-ST064	NT-FT15				
	D38.00-S40-11	★	38	40	183	113	76	NT-ST064	NT-FT15				
	D39.00-S32-11	★	39	32	175	115	78	NT-ST064	NT-FT15				
	D39.00-S40-11	★	39	40	185	115	78	NT-ST064	NT-FT15				
	D40.00-S32-11	★	40	32	178	118	80	NT-ST064	NT-FT15				
	D40.00-S40-11	★	40	40	188	118	80	NT-ST064	NT-FT15				
D41.00-S32-11	★	41	32	181	121	82	NT-ST064	NT-FT15					
D41.00-S40-11	★	41	40	191	121	82	NT-ST064	NT-FT15					
SPMX1405	NT-DRS-2D D42.00-S40-14	★	42	40	193	123	84	NT-ST066	NT-DT20				
	D43.00-S40-14	★	43	40	196	126	86	NT-ST066	NT-DT20				
	D44.00-S40-14	★	44	40	198	128	88	NT-ST066	NT-DT20				
	D45.00-S40-14	★	45	40	202	132	90	NT-ST066	NT-DT20				
	D46.00-S40-14	★	46	40	205	135	92	NT-ST066	NT-DT20				
	D47.00-S40-14	★	47	40	207	137	94	NT-ST066	NT-DT20				
	D48.00-S40-14	★	48	40	210	140	96	NT-ST066	NT-DT20				
	D49.00-S40-14	★	49	40	212	142	98	NT-ST066	NT-DT20				
	D50.00-S40-14	★	50	40	215	145	100	NT-ST066	NT-DT20				

carbide  345

- TURNING
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NT-DRS**NEW****3xD****SP** □ □


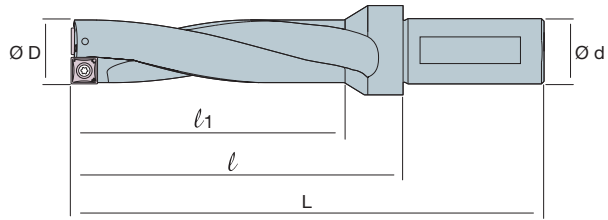
SP □ □	DESCRIPTION	STOCK	DIMENSIONS						 				
			ØD	Ød	L	l	l ₁						
SPMX0502	NT-DRS-3D D12.50-S20-05	★	12.5	20	107	57	39	NT-ST059	NT-FT06				
	D13.00-S20-05	★	13	20	107	57	39	NT-ST059	NT-FT06				
	D13.50-S20-05	★	13.5	20	110	60	42	NT-ST059	NT-FT06				
	D14.00-S20-05	★	14	20	110	60	42	NT-ST059	NT-FT06				
	D14.50-S20-05	★	14.5	20	114	64	45	NT-ST059	NT-FT06				
	D15.00-S20-05	★	15	20	114	64	45	NT-ST059	NT-FT06				
SPMX0602	NT-DRS-3D D15.50-S25-06	★	15.5	25	124	68	48	NT-ST061	NT-FT06				
	D16.00-S25-06	★	16	25	124	68	48	NT-ST061	NT-FT06				
	D16.50-S25-06	★	16.5	25	127	71	51	NT-ST061	NT-FT06				
	D17.00-S25-06	★	17	25	127	71	51	NT-ST061	NT-FT06				
	D17.50-S25-06	★	17.5	25	131	75	54	NT-ST061	NT-FT06				
	D18.00-S25-06	★	18	25	131	75	54	NT-ST061	NT-FT06				
	D18.50-S25-06	★	18.5	25	134	78	57	NT-ST061	NT-FT06				
	D19.00-S25-06	★	19	25	134	78	57	NT-ST061	NT-FT06				
	D19.50-S25-06	★	19.5	25	139	83	60	NT-ST061	NT-FT06				
	D20.00-S25-06	★	20	25	139	83	60	NT-ST061	NT-FT06				
	D20.50-S25-06	★	20.5	25	142	86	63	NT-ST061	NT-FT06				
	D21.00-S25-06	★	21	25	142	86	63	NT-ST061	NT-FT06				
D21.50-S25-06	★	21.5	25	145	89	66	NT-ST061	NT-FT06					
SPMX07T3	NT-DRS-3D D22.00-S25-07	★	22	25	145	89	66	NT-ST062	NT-FT07				
	D22.50-S32-07	★	22.5	32	154	94	69	NT-ST062	NT-FT07				
	D23.00-S32-07	★	23	32	154	94	69	NT-ST062	NT-FT07				
	D23.50-S32-07	★	23.5	32	158	98	72	NT-ST062	NT-FT07				
	D24.00-S32-07	★	24	32	158	98	72	NT-ST062	NT-FT07				
	D24.50-S32-07	★	24.5	32	162	102	75	NT-ST062	NT-FT07				
	D25.00-S32-07	★	25	32	162	102	75	NT-ST062	NT-FT07				
	D25.50-S32-07	★	25.5	32	165	105	78	NT-ST062	NT-FT07				
	D26.00-S32-07	★	26	32	165	105	78	NT-ST062	NT-FT07				
	D26.50-S32-07	★	26.5	32	168	108	81	NT-ST062	NT-FT07				
	D27.00-S32-07	★	27	32	168	108	81	NT-ST062	NT-FT07				
	D27.50-S32-07	★	27.5	32	172	112	84	NT-ST062	NT-FT07				
SPMX0904	NT-DRS-3D D28.00-S32-09	★	28	32	172	112	84	NT-ST063	NT-FT15				
	D28.50-S32-09	★	28.5	32	175	115	87	NT-ST063	NT-FT15				
	D29.00-S32-09	★	29	32	175	115	87	NT-ST063	NT-FT15				
	D29.50-S32-09	★	29.5	32	181	121	90	NT-ST063	NT-FT15				
	D30.00-S32-09	★	30	32	181	121	90	NT-ST063	NT-FT15				
	D31.00-S32-09	★	31	32	185	125	93	NT-ST063	NT-FT15				
	D32.00-S32-09	★	32	32	188	128	96	NT-ST063	NT-FT15				
D33.00-S32-09	★	33	32	192	132	99	NT-ST063	NT-FT15					

carbide

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NT-DRS NEW

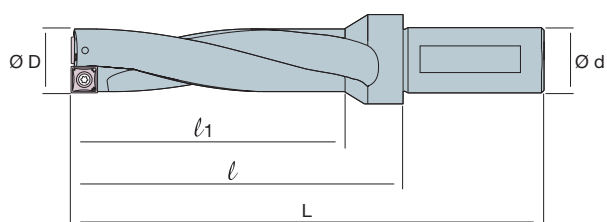
3xD **SP**

SP <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK	DIMENSIONS					ØD	Ød	L	l	l1	Screw	Holder	Screwdriver				
			ØD	Ød	L	l	l1												
SPMX1104	NT-DRS-3D D34.00-S32-11	★	34	32	195	135	102	NT-ST064	NT-FT15										
	D34.00-S40-11	★	34	40	205	135	102	NT-ST064	NT-FT15										
	D35.00-S32-11	★	35	32	199	139	105	NT-ST064	NT-FT15										
	D35.00-S40-11	★	35	40	209	139	105	NT-ST064	NT-FT15										
	D36.00-S32-11	★	36	32	203	143	108	NT-ST064	NT-FT15										
	D36.00-S40-11	★	36	40	213	143	108	NT-ST064	NT-FT15										
	D37.00-S32-11	★	37	32	207	147	111	NT-ST064	NT-FT15										
	D37.00-S40-11	★	37	40	217	147	111	NT-ST064	NT-FT15										
	D38.00-S32-11	★	38	32	211	151	114	NT-ST064	NT-FT15										
	D38.00-S40-11	★	38	40	221	151	114	NT-ST064	NT-FT15										
	D39.00-S32-11	★	39	32	214	154	117	NT-ST064	NT-FT15										
	D39.00-S40-11	★	39	40	224	154	117	NT-ST064	NT-FT15										
	D40.00-S32-11	★	40	32	218	158	120	NT-ST064	NT-FT15										
	D40.00-S40-11	★	40	40	228	158	120	NT-ST064	NT-FT15										
D41.00-S32-11	★	41	32	222	162	123	NT-ST064	NT-FT15											
D41.00-S40-11	★	41	40	232	162	123	NT-ST064	NT-FT15											
SPMX1405	NT-DRS-3D D42.00-S40-14	★	42	40	235	165	126	NT-ST066	NT-DT20										
	D43.00-S40-14	★	43	40	239	169	129	NT-ST066	NT-DT20										
	D44.00-S40-14	★	44	40	242	172	132	NT-ST066	NT-DT20										
	D45.00-S40-14	★	45	40	247	177	135	NT-ST066	NT-DT20										
	D46.00-S40-14	★	46	40	251	181	138	NT-ST066	NT-DT20										
	D47.00-S40-14	★	47	40	254	184	141	NT-ST066	NT-DT20										
	D48.00-S40-14	★	48	40	258	188	144	NT-ST066	NT-DT20										
	D49.00-S40-14	★	49	40	261	191	147	NT-ST066	NT-DT20										
	D50.00-S40-14	★	50	40	265	195	150	NT-ST066	NT-DT20										

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NT-DRS**NEW****4xD****SP** 


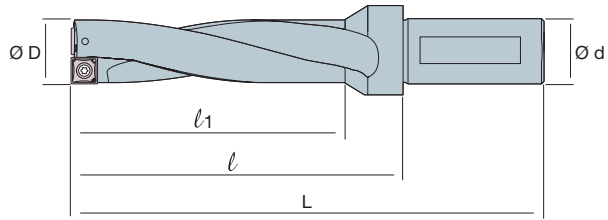
SP <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK	DIMENSIONS									
			ØD	Ød	L	l	l1					
SPMX0502	NT-DRS-4D D12.50-S20-05	★	12.5	20	120	70	52	NT-ST059	NT-FT06			
	D13.00-S20-05	★	13	20	120	70	52	NT-ST059	NT-FT06			
	D13.50-S20-05	★	13.5	20	124	74	56	NT-ST059	NT-FT06			
	D14.00-S20-05	★	14	20	124	74	56	NT-ST059	NT-FT06			
	D14.50-S20-05	★	14.5	20	129	79	60	NT-ST059	NT-FT06			
	D15.00-S20-05	★	15	20	129	79	60	NT-ST059	NT-FT06			
SPMX0602	NT-DRS-4D D15.50-S25-06	★	15.5	25	140	84	64	NT-ST061	NT-FT06			
	D16.00-S25-06	★	16	25	140	84	64	NT-ST061	NT-FT06			
	D16.50-S25-06	★	16.5	25	144	88	68	NT-ST061	NT-FT06			
	D17.00-S25-06	★	17	25	144	88	68	NT-ST061	NT-FT06			
	D17.50-S25-06	★	17.5	25	149	93	72	NT-ST061	NT-FT06			
	D18.00-S25-06	★	18	25	149	93	72	NT-ST061	NT-FT06			
	D18.50-S25-06	★	18.5	25	153	97	76	NT-ST061	NT-FT06			
	D19.00-S25-06	★	19	25	153	97	76	NT-ST061	NT-FT06			
	D19.50-S25-06	★	19.5	25	159	103	80	NT-ST061	NT-FT06			
	D20.00-S25-06	★	20	25	159	103	80	NT-ST061	NT-FT06			
	D20.50-S25-06	★	20.5	25	163	107	84	NT-ST061	NT-FT06			
	D21.00-S25-06	★	21	25	163	107	84	NT-ST061	NT-FT06			
D21.50-S25-06	★	21.5	25	167	111	88	NT-ST061	NT-FT06				
SPMX07T3	NT-DRS-4D D22.00-S25-07	★	22	25	167	111	88	NT-ST062	NT-FT07			
	D22.50-S32-07	★	22.5	32	177	117	92	NT-ST062	NT-FT07			
	D23.00-S32-07	★	23	32	177	117	92	NT-ST062	NT-FT07			
	D23.50-S32-07	★	23.5	32	182	122	96	NT-ST062	NT-FT07			
	D24.00-S32-07	★	24	32	182	122	96	NT-ST062	NT-FT07			
	D24.50-S32-07	★	24.5	32	187	127	100	NT-ST062	NT-FT07			
	D25.00-S32-07	★	25	32	187	127	100	NT-ST062	NT-FT07			
	D25.50-S32-07	★	25.5	32	191	131	104	NT-ST062	NT-FT07			
	D26.00-S32-07	★	26	32	191	131	104	NT-ST062	NT-FT07			
	D26.50-S32-07	★	26.5	32	195	135	108	NT-ST062	NT-FT07			
	D27.00-S32-07	★	27	32	195	135	108	NT-ST062	NT-FT07			
	D27.50-S32-07	★	27.5	32	200	140	112	NT-ST062	NT-FT07			
SPMX0904	NT-DRS-4D D28.00-S32-09	★	28	32	200	140	112	NT-ST063	NT-FT15			
	D28.50-S32-09	★	28.5	32	204	144	116	NT-ST063	NT-FT15			
	D29.00-S32-09	★	29	32	204	144	116	NT-ST063	NT-FT15			
	D29.50-S32-09	★	29.5	32	211	151	120	NT-ST063	NT-FT15			
	D30.00-S32-09	★	30	32	211	151	120	NT-ST063	NT-FT15			
	D31.00-S32-09	★	31	32	216	156	124	NT-ST063	NT-FT15			
	D32.00-S32-09	★	32	32	220	160	128	NT-ST063	NT-FT15			
D33.00-S32-09	★	33	32	225	165	132	NT-ST063	NT-FT15				




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NT-DRS NEW

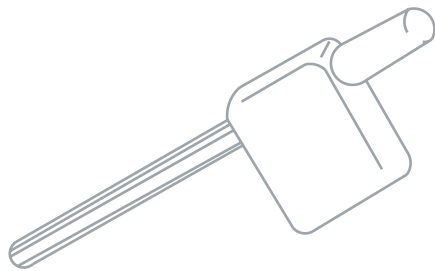
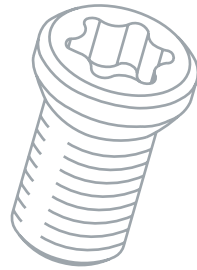
4xD **SP**







SP <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION	STOCK	DIMENSIONS										
			ØD	Ød	L	l	l1						
SPMX1104	NT-DRS-4D D34.00-S32-11	★	34	32	229	169	136	NT-ST064	NT-FT15				
	D34.00-S40-11	★	34	40	239	169	136	NT-ST064	NT-FT15				
	D35.00-S32-11	★	35	32	234	174	140	NT-ST064	NT-FT15				
	D35.00-S40-11	★	35	40	244	174	140	NT-ST064	NT-FT15				
	D36.00-S32-11	★	36	32	239	179	144	NT-ST064	NT-FT15				
	D36.00-S40-11	★	36	40	249	179	144	NT-ST064	NT-FT15				
	D37.00-S32-11	★	37	32	244	184	148	NT-ST064	NT-FT15				
	D37.00-S40-11	★	37	40	254	184	148	NT-ST064	NT-FT15				
	D38.00-S32-11	★	38	32	249	189	152	NT-ST064	NT-FT15				
	D38.00-S40-11	★	38	40	259	189	152	NT-ST064	NT-FT15				
	D39.00-S32-11	★	39	32	253	193	156	NT-ST064	NT-FT15				
	D39.00-S40-11	★	39	40	263	193	156	NT-ST064	NT-FT15				
	D40.00-S32-11	★	40	32	258	198	160	NT-ST064	NT-FT15				
	D40.00-S40-11	★	40	40	268	198	160	NT-ST064	NT-FT15				
D41.00-S32-11	★	41	32	263	203	164	NT-ST064	NT-FT15					
D41.00-S40-11	★	41	40	273	203	164	NT-ST064	NT-FT15					
SPMX1405	NT-DRS-4D D42.00-S40-14	★	42	40	277	207	168	NT-ST066	NT-DT20				
	D43.00-S40-14	★	43	40	282	212	172	NT-ST066	NT-DT20				
	D44.00-S40-14	★	44	40	286	216	176	NT-ST066	NT-DT20				
	D45.00-S40-14	★	45	40	292	222	180	NT-ST066	NT-DT20				
	D46.00-S40-14	★	46	40	297	227	184	NT-ST066	NT-DT20				
	D47.00-S40-14	★	47	40	301	231	188	NT-ST066	NT-DT20				
	D48.00-S40-14	★	48	40	306	236	192	NT-ST066	NT-DT20				
	D49.00-S40-14	★	49	40	310	240	196	NT-ST066	NT-DT20				
	D50.00-S40-14	★	50	40	315	245	200	NT-ST066	NT-DT20				

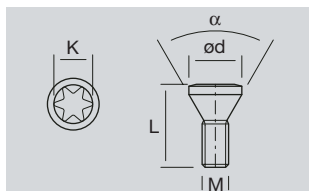
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- MICROBORING
- THREADING
- GROOVING
- MILLING
- DRILLING
- SPARE PARTS
- INDEX



SPARE PARTS /

-  INSERTS CLAMPING SCREWS
-  VITI PER SERRAGGIO INSERTI
-  WENDEPLATTENSCHRAUBEN
-  VIS DE SERRAGE PLAQUETTE
-  TORNILLOS DE FIJACIÓN PLACAS
-  ВИНТЫ ДЛЯ КРЕПЛЕНИЯ ПЛАСТИН



DESCRIPTION	Ød	M	L	α	K torx ☆	TORQUE (Nm)
NT-ST002	2.60	M1.6 x 0.35	3.30	60°	T6	0.50
NT-ST003	2.70	M2 x 0.4	4.20	60°	T6	0.50
NT-ST004	3.10	M2.2 x 0.45	4.90	60°	T7	0.80
NT-ST006	3.10	M2.5 x 0.45	5.00	60°	T7	0.80
NT-ST007	6.80	M4 x 0.5	13.80	60°	T15	3.50
NT-ST009	2.70	M2 x 0.4	3.60	60°	T6	0.50
NT-ST010	3.50	M2.5 x 0.45	6.00	60°	T7	0.80
NT-ST011	3.50	M2.5 x 0.45	5.60	60°	T9	1.20
NT-ST012	5.30	M3.5 x 0.6	6.90	60°	T15	3.50
NT-ST013	5.30	M3.5 x 0.6	9.00	60°	T15	3.50
NT-ST014	4.30	M3 x 0.5	5.80	90°	T10	1.40
NT-ST015	4.30	M3 x 0.5	6.80	90°	T10	1.40
NT-ST017	5.50	M4 x 0.7	10.70	60°	T15	3.50
NT-ST018	3.50	M2.5 x 0.45	6.00	60°	T8	1.20
NT-ST019	5.50	M4 x 0.7	8.50	60°	T15	3.50
NT-ST020	5.50	M4 x 0.7	9.00	60°	T15	3.50
NT-ST021	7.00	M5 x 0.8	11.00	60°	T20	4.50
NT-ST023	6.80	M4.5 x 0.75	11.00	60°	T20	4.50
NT-ST024	5.70	M4 x 0.7	11.00	50°	T15	3.50
NT-ST025	5.50	M3.5 x 0.6	7.30	60°	T15	3.50
NT-ST026	2.70	M2 x 0.4	3.30	60°	T6	0.50
NT-ST030	5.50	M3.5 x 0.6	9.00	60°	T15	3.50
NT-ST035	5.10	M3.5 x 0.6	8.80	60°	T15	3.50
NT-ST040	5.50	M3.5 x 0.6	11.50	60°	T15	3.50
NT-ST050	5.50	M4 x 0.5	11.50	60°	T15	3.50
NT-ST059	2.80	M2 x 0.4	4.30	60°	T6	0.50
NT-ST061	3.00	M2.2 x 0.45	5.50	60°	T6	0.50
NT-ST062	3.50	M2.5 x 0.45	6.50	60°	T7	0.80
NT-ST063	5.50	M3.5 x 0.6	8.00	60°	T15	3.50
NT-ST064	5.50	M4 x 0.7	10.00	60°	T15	3.50
NT-ST066	6.40	M5 x 0.8	10.80	43°	T20	4.50
NT-ST075	4.20	M3 x 0.5	7.00	60°	T9	1.20
NT-ST090	4.50	M2.5 x 0.45	7.70	60°	T8	1.20
NT-ST300	6.80	M5 x 0.8	12.00	60°	T20	4.50
NT-ST400	4.30	M3 x 0.5	7.00	60°	T10	1.40

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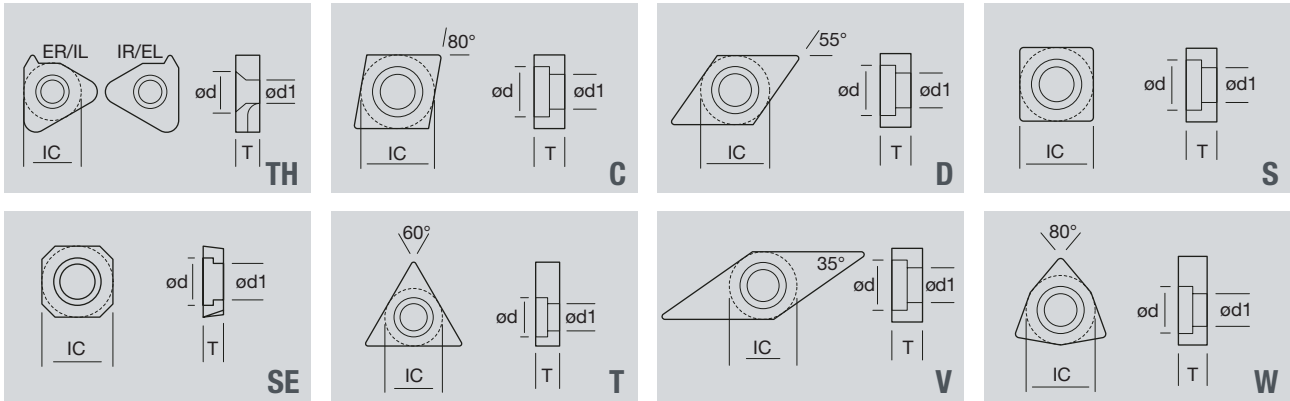
MILLING

DRILLING







SPARE PARTS

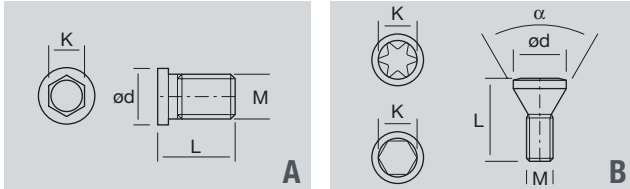
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-  SHIM
-  SOTTOPLACCHETTA
-  UNTERLEGPLATTE
-  SOU PLAQUETTE
-  PLACA BASE
-  ПОДЛОЖКА



DESCRIPTION	IC	T	Ød	Ød1	INSERT	DRAWING
NT-SH001	11.40	3.90	8.40	6.70	CC□□12	ref. C
NT-SH002	8.00	3.20	5.00	2.40	TP□□16	ref. T
NT-SH003	9.20	3.20	6.60	5.80	WN□□06	ref. W
NT-SH004	10.70	3.00	6.80	5.20	SE□□13	ref. SE
NT-SH005	9.30	3.20	6.60	5.80	TN□□16	ref. T
NT-SH006	9.10	3.20	6.60	4.50	TN□□16	ref. T
NT-SH007	8.50	3.20	6.60	5.20	DC□□11, DN□□11	ref. D
NT-SH008	12.00	4.80	8.00	7.30	TN□□22	ref. T
NT-SH010	12.20	4.80	8.00	7.30	WN□□08	ref. W
NT-SH011	8.50	3.20	6.60	5.20	CC□□09	ref. C
NT-SH015	11.80	3.20	8.40	6.70	WN□□08	ref. W
NT-SH020	12.50	3.20	8.40	6.70	DN□□1506	ref. D
NT-SH025	12.30	6.40	8.00	7.30	DN□□1504	ref. D
NT-SH030	12.40	4.80	8.00	7.30	CN□□12	ref. C
NT-SH035	12.50	3.20	8.40	6.70	CN□□12	ref. C
NT-SH045	12.30	4.80	8.00	7.30	DN□□1506	ref. D
NT-SH050	8.20	3.20	6.60	5.40	VB□□16, VC□□16	ref. W
NT-SH055	15.50	4.80	10.80	9.70	CN□□16	ref. C
NT-SH060	9.50	3.20	6.00	4.20	16ER/16IL	ref. TH
NT-SH065	9.50	3.20	6.00	4.20	16IR/16EL	ref. TH
NT-SH070	12.30	4.80	8.00	7.30	SN□□12	ref. S
NT-SH075	9.20	3.20	6.60	5.80	VN□□16	ref. V
NT-SH080	18.70	4.80	13.10	11.20	CN□□19	ref. C
NT-SH090	18.70	4.80	13.10	11.20	SN□□19	ref. S

-  SHIM SCREW
-  VITI PER SERRAGGIO SOTTOPLACCHETTA
-  SCHRAUBEN FÜR UNTERLEGPLATTE
-  VIS POUR SERRAGE SOU PLAQUETTE
-  TORNILLOS DE FIJACIÓN PLACAS BASE
-  ВИНТЫ ДЛЯ КРЕПЛЕНИЯ ПОДЛОЖКИ



DESCRIPTION	Ød	M	L	α	K		DRAWING
					hexa 	torx 	
NT-SR001	7.80	M6 x 0.75	9.00	-	4	-	ref. A
NT-SR002	6.30	M5 x 0.75	6.00	-	3.5	-	ref. A
NT-SR010	6.30	M5 x 0.75	8.60	-	3.5	-	ref. A
NT-ST008	6.00	M3 x 0.5	8.00	90°	2	-	ref. B
NT-ST022	3.00	M2 x 0.4	5.00	60°	-	T6	ref. B
NT-ST080	5.50	M3 x 0.5	8.90	180°	2.5	-	ref. B
NT-ST190	6.30	M4 x 0.7	8.00	90°	-	T15	ref. B
NT-ST200	7.90	M4 x 0.7	10.00	90°	2.5	-	ref. B
NT-ST250	6.30	M4 x 0.7	8.00	90°	-	T15	ref. B

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GROOVING

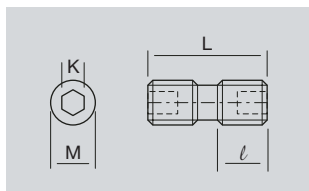
MILLING


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SPARE PARTS

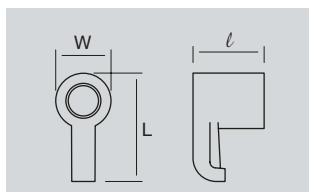
INDEX

-  CLAMP SCREW (M-STYLE CLAMPING)
-  VITI PER SERRAGGIO STAFFE (BLOCCAGGIO M)
-  SCHRAUBE FÜR SPANNPRATZE (M HALTER)
-  VIS POUR BRIDE (SERRAGE M)
-  TORNILLOS PARA FIJACIÓN POR CUÑA
-  ВИНТЫ ДЛЯ КРЕПЛЕНИЯ ХОМУТА (КРЕПЁЖ М)









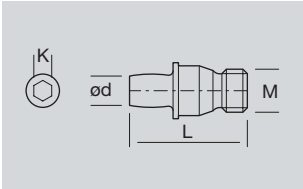
DESCRIPTION	M	L	l	K		
				hexa 		
NT-SC008	M6 x 1	24.00	8.50	3		
NT-SC010	M6 x 1	30.00	11.50	3		
NT-SC030	M5 x 0.8	18.00	5.50	2.5		
NT-SC070	M8 x 1	30.00	13.00	4		

-  CLAMPS (M-STYLE CLAMPING)
-  STAFFE (BLOCCAGGIO M)
-  PRATZEN (M HALTER)
-  BRIDE (SERRAGE M)
-  CUÑAS (FIJACIÓN M)
-  ХОМУТЫ(КРЕПЁЖ М)



DESCRIPTION	W	L	l			
NT-CS009	7.75	14.90	10.95			
NT-CS010	9.40	18.20	13.50			
NT-CS015	10.80	22.25	17.40			
NT-CS025	9.40	21.45	13.70			
NT-CS030	7.90	16.90	7.90			
NT-CS070	10.70	19.35	16.75			
NT-CS075	9.40	24.45	13.70			

-  ECCENTRIC LOCK PIN (M-STYLE CLAMPING)
-  PERNI ECCENTRICI (BLOCCAGGIO M)
-  EXZENTRISCHE STIFTE (M HALTER)
-  GOUPILLE EXCENTRIQUE POUR SERRRAGE M
-  PERNOS DE CERRADURA (PARA FIJACIÓN M)
-  Штифт эксцентрический (крепёж M)



DESCRIPTION	M	L	<i>l</i>	K hexa 		
NT-SP010	M6.3 x 1	17.70	5.00	3		
NT-SP020	M5 x 0.8	14.00	3.70	2		
NT-SP025	M6.3 x 1	19.20	5.00	3		
NT-SP030	M5 x 0.8	11.00	3.70	2		
NT-SP035	M5 x 0.8	11.00	5.02	2.5		
NT-SP040	M8 x 1	21.80	6.20	3		
NT-SP050	M10 x 1	21.80	7.80	4		

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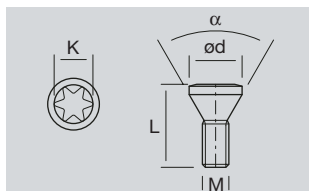
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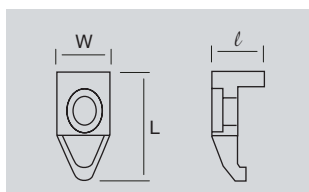
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-  CLAMP SCREWS (D-STYLE CLAMPING)
-  VITI PER SERRAGGIO STAFFE (BLOCCAGGIO D)
-  SCHRAUBEN FÜR SPANNPRATZEN (D HALTER)
-  VIS POUR BRIDE (SERRAGE D)
-  TORNILLOS PARA FIJACIÓN BRIDAS (FIJACIÓN D)
-  ДЛЯ КРЕПЛЕНИЯ ХОМУТА (КРЕПЁЖ D)









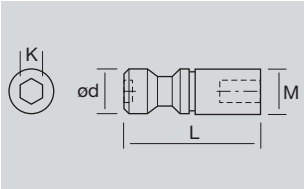
DESCRIPTION	Ød	M	L	K		
NT-SC200	9.70	M6 x 1	24.00	T20		
NT-SC250	6.80	M4 x 0.7	18.80	T15		


-  CLAMPS (D-STYLE CLAMPING)
-  STAFFE (BLOCCAGGIO D)
-  PRATZEN (D HALTER)
-  BRIDE (SERRAGE D)
-  CUÑAS (FIJACIÓN D)
-  ХОМУТЫ(КРЕПЁЖ D)









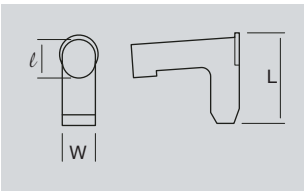
DESCRIPTION	W	L	l			
NT-CS200	13.00	26.00	11.00			
NT-CS210	12.10	29.00	11.00			
NT-CS250	11.00	21.00	10.00			

-  LEVER LOCKING SCREWS (P-STYLE CLAMPING)
-  VITI PER SERRAGGIO LEVE (BLOCCAGGIO P)
-  KNIEHEBELSCHRAUBEN (P HALTER)
-  VIS POUR LEVIER (SERRAGE P)
-  TORNILLOS PARA APRETAR LAS PALANCAS (FIJACIÓN P)
-  ВИНТЫ ДЛЯ КРЕПЛЕНИЯ РЫЧАЖКА(КРЕПЕЖ P)



DESCRIPTION	Ød	M	L	K		
				hexa 		
NT-SC020	8.00	M8 x 1	23.50	3		
NT-SC025	8.00	M8 x 1	21.00	3		

-  LEVERS (P-STYLE CLAMPING)
-  LEVE (BLOCCAGGIO P)
-  KNIEHEBEL (P HALTER)
-  LEVIER (SERRAGE P)
-  PALANCAS (FIJACIÓN P)
-  РЫЧАЖКИ(КРЕПЕЖ P)



DESCRIPTION	W	L	l			
NT-LL015	4.75	13.60	4.45			
NT-LL020	4.60	14.50	5.00			

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DESCRIPTION		
16ER□□□ISO	■ THREADING carbide	232
16ER□□□ISO	■ THREADING diamond	244
16ER□□□ISO	■ THREADING PCBN	238
16IR□□□ISO	■ THREADING carbide	233
16IR□□□ISO	■ THREADING diamond	245
16IR□□□ISO	■ THREADING PCBN	239
APKT□□□□□FR-AL	■ MILLING carbide	281
APKT□□□□□PDER-GP	■ MILLING carbide	282
APKT□□□□□PDER-TE	■ MILLING carbide	282
APMT□□□□□ER-GP	■ MILLING carbide	281
APMT□□□□□ER-SC	■ MILLING carbide	281
APMT□□□□□ER-TE	■ MILLING carbide	281
BD□□.R□□F	■ MILLING diamond	311
BD□□.R□□S	■ MILLING PCBN	303
BGF-HLD □□□□R/L	■ GROOVING holders	267
BGFR/L □□□-□□□	■ GROOVING diamond	262
BGFR/L □□□-□□□	■ GROOVING PCBN	256
BGFR/L □□□-□□□FR	■ GROOVING diamond	263
BGFR/L □□□-□□□FR	■ GROOVING PCBN	257
CCGT□□□□□□	■ TURNING diamond	83
CCGT□□□□□□-LRG	■ TURNING diamond	83
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TNGA□□□□□-GP	TURNING ceramic	111
TNGA□□□□□-GS	TURNING ceramic	111
TNGA□□□□□-LRG	TURNING diamond	88
TNGG□□□□□-NMN	TURNING carbide	32
TNGM□□□□□	TURNING diamond	88
TNGM□□□□□-LRG	TURNING diamond	88
TNGN□□□□□-CC	TURNING ceramic	112
TNGN□□□□□-GP	TURNING ceramic	112
TNGN□□□□□-GP	TURNING PCBN	66
TNMA□□□□□	TURNING carbide	31
TNMG□□□□□-NFM	TURNING carbide	32
TNMG□□□□□-NFP	TURNING carbide	31
TNMG□□□□□-NMK	TURNING carbide	31
TNMG□□□□□-NMM	TURNING carbide	32
TNMG□□□□□-NMP	TURNING carbide	31
TNMG□□□□□-NRK	TURNING carbide	31
TNMG□□□□□-NRP	TURNING carbide	31
TNMG□□□□□-NSP	TURNING carbide	31
TNMG□□□□□-NUP	TURNING carbide	31
TNMG□□□□□R/L-NMU	TURNING carbide	32
TPGN□□□□□-CC	TURNING ceramic	113
TPGN□□□□□-GP	TURNING ceramic	113
TPGT□□□□□	TURNING diamond	89
TPGW□□□□□	TURNING diamond	89
TPGW□□□□□-3E-CC	TURNING PCBN	67
TPGW□□□□□-3E-GP	TURNING PCBN	67
TPGW□□□□□-3E-HI	TURNING PCBN	67
TPGX□□□□□-CBF	TURNING diamond	89
TPGX□□□□□-CBG	TURNING diamond	89
VBG□□□□□	TURNING diamond	90
VBG□□□□□-LRG	TURNING diamond	90
VBGW□□□□□	TURNING diamond	90
VBGW□□□□□-2E-CC	TURNING PCBN	68
VBGW□□□□□-2E-GP	TURNING PCBN	68
VBGW□□□□□-2E-GS	TURNING PCBN	68
VBGW□□□□□-2E-HI	TURNING PCBN	68
VBGW□□□□□-LRG	TURNING diamond	90
VBGX□□□□□-CBF	TURNING diamond	90
VBGX□□□□□-CBG	TURNING diamond	90
VBMT□□□□□-PMU	TURNING carbide	33
VCGT□□□□□	TURNING diamond	93
VCGT□□□□□-LRG	TURNING diamond	93
VCGW□□□□□	TURNING diamond	93
VCGW□□□□□-2E-CC	TURNING PCBN	69
VCGW□□□□□-2E-GP	TURNING PCBN	69

DESCRIPTION		
VCGW□□□□□-LRG	TURNING diamond	93
VCGW□□□□□R/L-1S	TURNING diamond	90
VCGX□□□□□-CBF	TURNING diamond	93
VCGX□□□□□-CBG	TURNING diamond	93
VCGX□□□□□-PMN	TURNING carbide	34
VCMT□□□□□-PMU	TURNING carbide	34
VNGA□□□□□-2E-CC	TURNING PCBN	70
VNGA□□□□□-2E-GP	TURNING PCBN	70
VNGA□□□□□-2E-HI	TURNING PCBN	70
VNGA□□□□□-4EV-CC	TURNING PCBN	71
VNGA□□□□□-4EV-GP	TURNING PCBN	71
VNGA□□□□□-4EV-HI	TURNING PCBN	71
VNGA□□□□□-CC	TURNING ceramic	114
VNGA□□□□□-GP	TURNING ceramic	114
VNGA□□□□□-GS	TURNING ceramic	114
VNMG□□□□□-NMN	TURNING carbide	35
VNMG□□□□□-NFM	TURNING carbide	35
VNMG□□□□□-NFP	TURNING carbide	35
VNMG□□□□□-NMK	TURNING carbide	35
VNMG□□□□□-NMM	TURNING carbide	35
VNMG□□□□□-NMP	TURNING carbide	35
VNMG□□□□□-NRK	TURNING carbide	35
VNMG□□□□□-NSP	TURNING carbide	35
VNMG□□□□□-NUP	TURNING carbide	35
WCMT□□□□□-PMU	TURNING carbide	36
WNGA□□□□□	TURNING diamond	92
WNGA□□□□□-3E-CC	TURNING PCBN	72
WNGA□□□□□-3E-GP	TURNING PCBN	72
WNGA□□□□□-3E-HI	TURNING PCBN	72
WNGA□□□□□-6EV-CC	TURNING PCBN	73
WNGA□□□□□-6EV-GP	TURNING PCBN	73
WNGA□□□□□-6EV-HI	TURNING PCBN	73
WNGA□□□□□-CC	TURNING ceramic	115
WNGA□□□□□-GP	TURNING ceramic	115
WNGA□□□□□-LRG	TURNING diamond	92
WNGG□□□□□-NMN	TURNING carbide	38
WNGM□□□□□	TURNING diamond	92
WNGM□□□□□-LRG	TURNING diamond	92
WNGX□□□□□ER-GP	MILLING carbide	293
WNMA□□□□□	TURNING carbide	37
WNMG□□□□□-NFM	TURNING carbide	38
WNMG□□□□□-NFP	TURNING carbide	37
WNMG□□□□□-NMK	TURNING carbide	37
WNMG□□□□□-NMM	TURNING carbide	38
WNMG□□□□□-NMP	TURNING carbide	37
WNMG□□□□□-NRK	TURNING carbide	37
WNMG□□□□□-NRP	TURNING carbide	37
WNMG□□□□□-NSP	TURNING carbide	37
WNMG□□□□□-NTP	TURNING carbide	37
WNMG□□□□□-NUP	TURNING carbide	37
XPGT□□□□□F-1E	MILLING diamond	312
XPGT□□□□□FC-1E	MILLING diamond	312
XPGW□□□□□-2E-GP	MILLING PCBN	305

WARNING

read carefully before using our products

- Tools may shatter if broken. The wearing of eye protection is strongly advised in the vicinity of the working area.
- The correct using condition and handling of our tools is essential to secure maximum useful life and hazard free operation.
- Cutting tools have sharp edges and care must be taken when handling to avoid cuts/lacerations to unprotected hands.
- Safety gloves must be worn when handling and clamping the tools. Make yourself sure that, once the tool is clamped on the machine, gloves are not entangled in the cutting edges. Never get close to or touch rotating or moving tools.
- Tools may hurt the user's feet when falling off. Safety shoes should be put on at all time.
- While fitting the tool to machine spindles and/or sleeves, care should be taken to avoid subjecting them to shock or impact.
- Check that workpieces are properly seated and securely held in the chuck before switching on the machine power.
- Do not use a tool whose cutting edges are worn-out or chipped severely.
- Grinding operations may produce potentially hazardous dust particles or vapour. Adequate ventilation equipment should be provided.

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