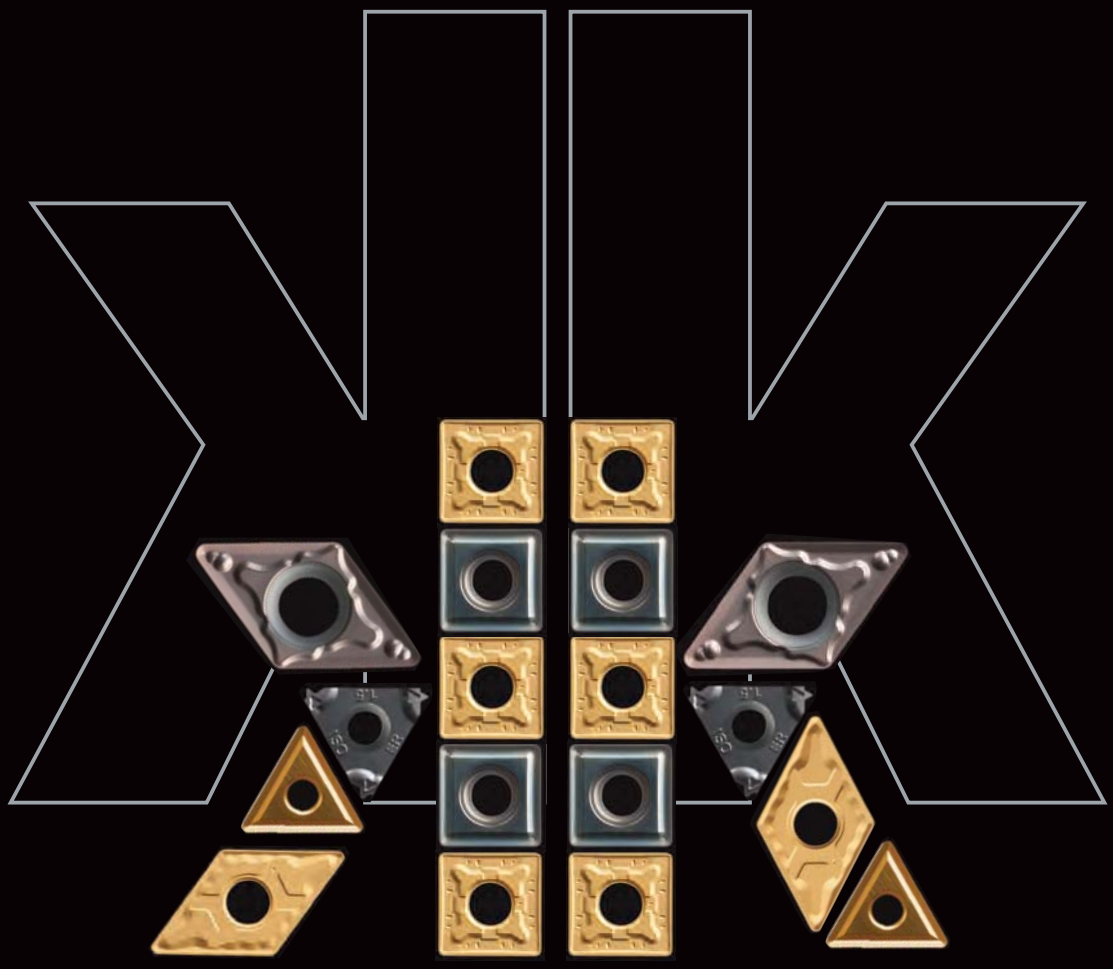
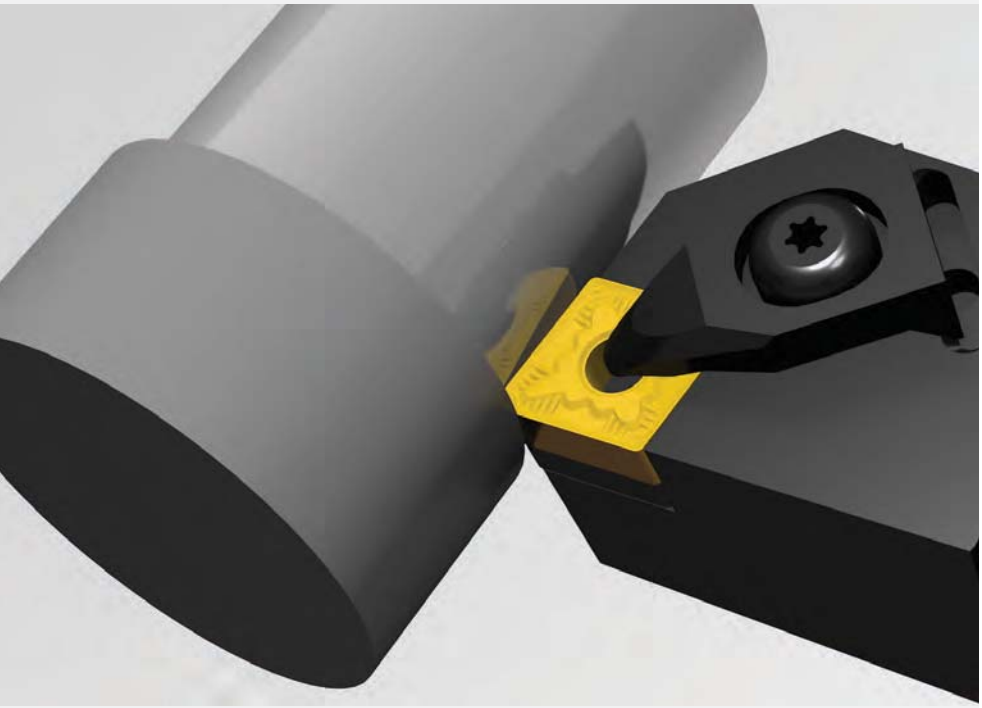
nikkoTOOLS



UPDATE **2019**

UPDATE 2019

INDEX

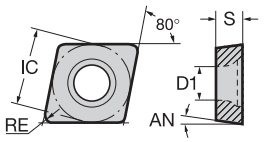


TURNING

TURNING Carbide

CC

CARBIDE
Positive



2 edges

Size	IC	S	D1	AN
MICRO CC	3.50	1.40	1.90	7°
0602□□	6.35	2.38	2.80	7°
09T3□□	9.525	3.97	4.40	7°
1204□□	12.70	4.76	5.50	7°

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
	HC-CVD							HC-PVD			HW		HT	
P			200 380	180 360	140 300			80 220	60 180				200 380	200 400
M						150 280	120 240	80 160	60 120				160 280	160 300
K	180 380	150 300							80 170				200 400	200 420
N										600 2200	600 2000	500 1500		
S								40 80						
H														

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut		

FINISHING

GB P M N

MICROBORING, ground chipbreaker

			a_p ▸	f_n ▸	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
MICRO	CC.R01-GBL	RE 0.1	0.05	0.02									○					
	CC.R02-GBL	RE 0.2	0.05 0.03	**0.20** **0.05**	0.35 0.07								●			●	○	
	CC.R04-GBL	RE 0.4	0.05 0.04	**0.20** **0.06**	0.35 0.08								●			●	○	

PPF P M

ground chipbreaker, picture: right-hand

			a_p ▸	f_n ▸	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
CCET	060202^{R}/$_{L}$-PPF	RE 0.2	0.10 0.04	**0.40** **0.07**	0.70 0.10								●				●	
	060204^{R}/$_{L}$-PPF	RE 0.4	0.10 0.04	**0.40** **0.08**	0.70 0.12								●				●	
CCET	09T302^{R}/$_{L}$-PPF	RE 0.2	0.10 0.04	**0.50** **0.08**	0.90 0.12								●				●	
	09T304^{R}/$_{L}$-PPF	RE 0.4	0.10 0.04	**0.50** **0.09**	0.90 0.14								●				●	

PFU P M S

sharp edge

			a_p ▸	f_n ▸	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
CCMT	060202-PFU	RE 0.2	0.20 0.04	**0.80** **0.08**	1.40 0.12				●	●		●	●	●			●	○
	060204-PFU	RE 0.4	0.20 0.05	**0.80** **0.11**	1.40 0.17			●	●	●		●	●	●			●	●
CCMT	09T302-PFU	RE 0.2	0.30 0.05	**1.00** **0.10**	1.70 0.15				●	●		●	●	●			●	○
	09T304-PFU	RE 0.4	0.30 0.06	**1.00** **0.14**	1.70 0.22			●	●	●		●	●	●			●	●
	09T308-PFU	RE 0.8	0.30 0.08	**1.00** **0.16**	1.70 0.24				●	●		●	●	●			●	○

MEDIUM

PPM P M

ground chipbreaker, picture: right-hand

			a_p ▸	f_n ▸	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
CCET	09T304^{R}/$_{L}$-PPM	RE 0.4	0.50 0.04	**1.50** **0.07**	2.50 0.10								●				●	

PMU P M K

general purpose

			a_p ▸	f_n ▸	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
CCMT	060202-PMU	RE 0.2	0.50 0.05	**1.50** **0.10**	2.50 0.15				○	●		●					●	○
	060204-PMU	RE 0.4	0.50 0.06	**1.50** **0.13**	2.50 0.20	●			●	●	●	●		●			●	●
	060208-PMU	RE 0.8	0.50 0.08	**1.50** **0.16**	2.50 0.24	●			○	●		●					●	
CCMT	09T302-PMU	RE 0.2	0.60 0.06	**1.80** **0.13**	3.00 0.20				●	●		●					●	○
	09T304-PMU	RE 0.4	0.60 0.07	**1.80** **0.16**	3.00 0.25	●			●	●	●	●		●			●	●
	09T308-PMU	RE 0.8	0.60 0.08	**1.80** **0.19**	3.00 0.30	●	●		●	●	●	●		●			●	○
CCMT	120404-PMU	RE 0.4	0.80 0.08	**2.20** **0.17**	3.60 0.26	●			●	●		●						
	120408-PMU	RE 0.8	0.80 0.10	**2.20** **0.22**	3.60 0.32	●	○		●	●		●						
	120412-PMU	RE 1.2	0.80 0.12	**2.20** **0.24**	3.60 0.36	●			○	○		○						

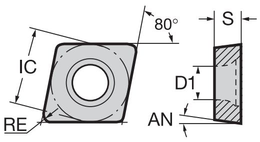
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 86

HOLDERS INTERNAL p. 89

CC

CARBIDE
Positive



2 edges

Size	IC	S	D1	AN
MICRO CC	3.50	1.40	1.90	7°
0602□□	6.35	2.38	2.80	7°
09T3□□	9.525	3.97	4.40	7°
1204□□	12.70	4.76	5.50	7°

ISO513	JC7010 (HC-CVD)	JC7020 (HC-CVD)	JC8005 (HC-CVD)	JC8015 (HC-CVD)	JC8025 (HC-CVD)	JC9010 (HC-CVD)	JC9025 (HC-CVD)	JP5015 (HC-PVD)	JP5025 (HC-PVD)	JP6010 (HC-PVD)	JU6010 (HW)	JU6020 (HW)	JU4015 (HT)	JP4020 (HT)
P			200 380	180 360	140 300			80 220	60 180				200 380	200 400
M						150 280	120 240	80 160	60 120				160 280	160 300
K	180 380	150 300							80 170				200 400	200 420
N										600 2200	600 2000	500 1500		
S								40 80						
H														

GRADE APPLICATION AREA	
	Stable machining, continuous cut
main application	General machining, light interruption
applicable	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +

	Type	Designation	RE					JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
MEDIUM – PMN N	CCGX	060202-PMN	RE 0.2	a_p	0.30	**1.50**	2.70											●			
				f_n	0.05	**0.10**	0.15														
		060204-PMN	RE 0.4	a_p	0.30	**1.50**	2.70										●	●	●		
				f_n	0.06	**0.13**	0.20														
		060208-PMN	RE 0.8	a_p	0.30	**1.50**	2.70										○	○	●		
				f_n	0.08	**0.16**	0.24														
	CCGX	09T302-PMN	RE 0.2	a_p	0.50	**2.00**	3.50										○	●			
				f_n	0.06	**0.11**	0.16														
		09T304-PMN	RE 0.4	a_p	0.50	**2.00**	3.50										●	●	●		
				f_n	0.08	**0.16**	0.24														
		09T308-PMN	RE 0.8	a_p	0.50	**2.00**	3.50										○	○	●		
				f_n	0.10	**0.20**	0.30														
	CCGX	120402-PMN	RE 0.2	a_p	0.50	**3.00**	5.50										○	●			
				f_n	0.08	**0.14**	0.20														
		120404-PMN	RE 0.4	a_p	0.50	**3.00**	5.50										○	●	●		
				f_n	0.10	**0.20**	0.30														
		120408-PMN	RE 0.8	a_p	0.50	**3.00**	5.50										○	●	●		
				f_n	0.15	**0.25**	0.35														
ROUGHING – PRU P K	CCMT	09T304-PRU	RE 0.4	a_p	1.50	**2.50**	3.50	●				●									
				f_n	0.10	**0.19**	0.28														
		09T308-PRU	RE 0.8	a_p	1.50	**2.50**	3.50	●				●									
				f_n	0.12	**0.22**	0.32														
	CCMT	120408-PRU	RE 0.8	a_p	1.50	**3.00**	4.50	●				●									
				f_n	0.14	**0.26**	0.38														
		120412-PRU	RE 1.2	a_p	1.50	**3.00**	4.50	●				●									
				f_n	0.16	**0.28**	0.40														


polished surface


reinforced edge

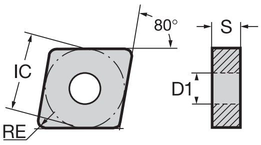
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 86
HOLDERS INTERNAL p. 91

TURNING
THREADING
GROOVING
MILLING
DRILLING
ACCESSORIES

CN

CARBIDE
Negative

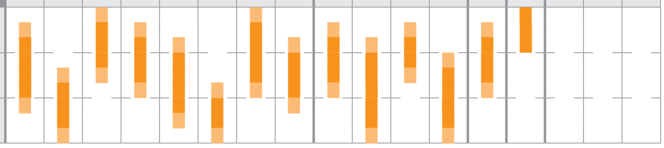


4 edges

Size	IC	S	D1
MICRO CN	7.50	3.18	3.60
0903□□	9.525	3.18	3.81
1204□□	12.70	4.76	5.16
1606□□	15.87	6.35	6.35
1906□□	19.05	6.35	7.94

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD				HW	HT
P			200 380	180 360	140 300	100 240			80 220	60 180				200 380
M							150 280	120 240	80 160	60 120	100 220	80 200		160 280
K	180 380	150 300								80 170				200 400
N													500 1500	
S									40 80					
H														

GRADE APPLICATION AREA		Hardness	Toughness
GRADE APPLICATION AREA	Stable machining, continuous cut	+	–
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut	–	+



FINISHING

GB P M

MICRONEGA, picture: right-hand

NSP P


NFM M


MEDIUM

GM P M

MICRONEGA

SS M

MICRONEGA, polished surface

NMP P

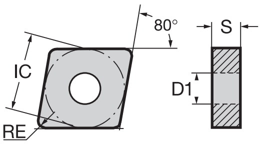

Geometry	Type	Designation	RE					JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
GB	MICRO	CN.R04-GB R/L	RE 0.4	a_p▸ f_n▸	0.20 0.05	**0.50** **0.10**	0.80 0.15									▽					
NSP	CNMG	090304-NSP	RE 0.4	a_p▸ f_n▸	0.30 0.06	**0.70** **0.12**	1.10 0.18				●	●									●
NSP		090308-NSP	RE 0.8	a_p▸ f_n▸	0.30 0.08	**0.70** **0.16**	1.10 0.24				●	●									●
NSP	CNMG	120404-NSP	RE 0.4	a_p▸ f_n▸	0.40 0.08	**1.20** **0.15**	2.00 0.22			●	●	●									●
NSP		120408-NSP	RE 0.8	a_p▸ f_n▸	0.40 0.10	**1.20** **0.22**	2.00 0.34			●	●	●									●
NFM	CNMG	120404-NFM	RE 0.4	a_p▸ f_n▸	0.40 0.08	**1.20** **0.14**	2.00 0.20											●			
NFM		120408-NFM	RE 0.8	a_p▸ f_n▸	0.40 0.10	**1.20** **0.20**	2.00 0.30											●			
GM	MICRO	CN.R04-GM	RE 0.4	a_p▸ f_n▸	0.80 0.08	**1.60** **0.15**	2.40 0.22				○						●				▲
GM		CN.R08-GM	RE 0.8	a_p▸ f_n▸	0.80 0.10	**1.60** **0.17**	2.40 0.24										▽				
SS	MICRO	CN.R02-SS	RE 0.2	a_p▸ f_n▸	0.40 0.06	**1.20** **0.11**	2.00 0.16												●		
SS		CN.R04-SS	RE 0.4	a_p▸ f_n▸	0.40 0.08	**1.20** **0.14**	2.00 0.20												●		▲
NMP	CNMG	120404-NMP	RE 0.4	a_p▸ f_n▸	1.50 0.12	**2.50** **0.20**	3.50 0.28				●	●									
NMP		120408-NMP	RE 0.8	a_p▸ f_n▸	1.50 0.16	**2.50** **0.25**	3.50 0.34				●	●									▽
NMP		120412-NMP	RE 1.2	a_p▸ f_n▸	1.50 0.20	**2.50** **0.30**	3.50 0.40				●	●									
NMP		120416-NMP	RE 1.6	a_p▸ f_n▸	1.50 0.25	**2.50** **0.35**	3.50 0.45				●	●									
NMP	CNMG	160608-NMP	RE 0.8	a_p▸ f_n▸	3.00 0.20	**4.50** **0.30**	6.00 0.40				●	●									
NMP		160612-NMP	RE 1.2	a_p▸ f_n▸	3.00 0.25	**4.50** **0.35**	6.00 0.45				●	●									
NMP		160616-NMP	RE 1.6	a_p▸ f_n▸	3.00 0.30	**4.50** **0.40**	6.00 0.50				●	●									

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

HOLDERS EXTERNAL p. 96
HOLDERS INTERNAL p. 102

CN

CARBIDE
Negative



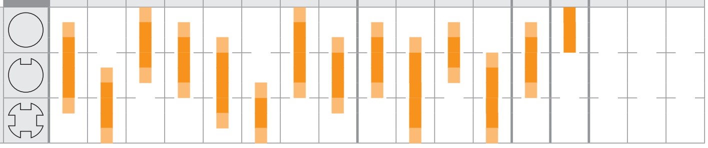
4 edges

Size	IC	S	D1
MICRO CN	7.50	3.18	3.60
0903□□	9.525	3.18	3.81
1204□□	12.70	4.76	5.16
1606□□	15.87	6.35	6.35
1906□□	19.05	6.35	7.94

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD				HW	HT
P			200 380	180 360	140 300	100 240			80 220	60 180				200 380
M							150 280	120 240	80 160	60 120	100 220	80 200		160 280
K	180 380	150 300								80 170				200 400
N													500 1500	
S									40 80					
H														

GRADE APPLICATION AREA	Stable machining, continuous cut
main application	General machining, light interruption
applicable	Unstable machining, interrupted cut

Hardness + / – ; Toughness – / +



MEDIUM

NMP P

NUP P M

NMU P

picture: right-hand

NMM M

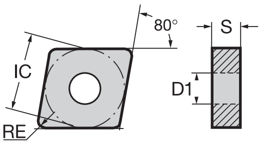
Chipbreaker	Type	Designation	RE		min	rec.	max	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
NMP	CNMG	190612-NMP	RE 1.2	a_p / f_n	4.00 / 0.30	**6.00** / **0.40**	8.00 / 0.50				●	●									
		190616-NMP	RE 1.6	a_p / f_n	4.00 / 0.32	**6.00** / **0.45**	8.00 / 0.58				○	○									
NUP	CNMG	090304-NUP	RE 0.4	a_p / f_n	0.70 / 0.08	**1.50** / **0.15**	2.30 / 0.22				●	●									●
		090308-NUP	RE 0.8	a_p / f_n	0.70 / 0.12	**1.50** / **0.20**	2.30 / 0.28				●	●									●
	CNMG	120404-NUP	RE 0.4	a_p / f_n	1.00 / 0.10	**2.50** / **0.20**	4.00 / 0.30			●	●	●			●						●
		120408-NUP	RE 0.8	a_p / f_n	1.00 / 0.15	**2.50** / **0.25**	4.00 / 0.35			●	●	●			●						●
		120412-NUP	RE 1.2	a_p / f_n	1.00 / 0.18	**2.50** / **0.30**	4.00 / 0.42			●	●	●			●						
		120416-NUP	RE 1.6	a_p / f_n	1.00 / 0.20	**2.50** / **0.35**	4.00 / 0.50			●	●	○									
	CNMG	160608-NUP	RE 0.8	a_p / f_n	2.00 / 0.18	**4.50** / **0.30**	7.00 / 0.42			●	○	○									
		160612-NUP	RE 1.2	a_p / f_n	2.00 / 0.22	**4.50** / **0.35**	7.00 / 0.48			●	●	●									
	CNMG	190608-NUP	RE 0.8	a_p / f_n	3.00 / 0.22	**6.00** / **0.35**	9.00 / 0.48				○	○									
		190612-NUP	RE 1.2	a_p / f_n	3.00 / 0.25	**6.00** / **0.40**	9.00 / 0.55				○	○									
		190616-NUP	RE 1.6	a_p / f_n	3.00 / 0.30	**6.00** / **0.45**	9.00 / 0.60				○	○									
NMU	CNMG	120408R/L-NMU	RE 0.8	a_p / f_n	1.00 / 0.20	**2.50** / **0.30**	4.00 / 0.40					○									
NMM	CNMG	090304-NMM	RE 0.4	a_p / f_n	0.70 / 0.13	**1.50** / **0.20**	2.30 / 0.27								●				●		
		090308-NMM	RE 0.8	a_p / f_n	0.70 / 0.18	**1.50** / **0.25**	2.30 / 0.32								●				●		
	CNMG	120404-NMM	RE 0.4	a_p / f_n	1.00 / 0.15	**2.50** / **0.25**	4.00 / 0.35							●	●			○	●		▽
		120408-NMM	RE 0.8	a_p / f_n	1.00 / 0.20	**2.50** / **0.30**	4.00 / 0.40							●	●			●	●		▽
		120412-NMM	RE 1.2	a_p / f_n	1.00 / 0.25	**2.50** / **0.35**	4.00 / 0.45							●	●			●	●		
		120416-NMM	RE 1.6	a_p / f_n	1.00 / 0.30	**2.50** / **0.40**	4.00 / 0.50								○				○		
	CNMG	160608-NMM	RE 0.8	a_p / f_n	2.00 / 0.25	**4.50** / **0.35**	7.00 / 0.45								●				○		
		160612-NMM	RE 1.2	a_p / f_n	2.00 / 0.30	**4.50** / **0.40**	7.00 / 0.50								●			▽	●		
		160616-NMM	RE 1.6	a_p / f_n	2.00 / 0.35	**4.50** / **0.45**	7.00 / 0.55								●			▽	●		

● stock standard, ○ non-standard stock, ▽ stock exhaustion

HOLDERS EXTERNAL p. 97
HOLDERS INTERNAL p. 104

CN

CARBIDE Negative



4 edges

Size	IC	S	D1
MICRO CN	7.50	3.18	3.60
0903□□	9.525	3.18	3.81
1204□□	12.70	4.76	5.16
1606□□	15.87	6.35	6.35
1906□□	19.05	6.35	7.94

ISO513	JC7010 (HC-CVD)	JC7020 (HC-CVD)	JC8005 (HC-CVD)	JC8015 (HC-CVD)	JC8025 (HC-CVD)	JC8035 (HC-CVD)	JC9010 (HC-CVD)	JC9025 (HC-CVD)	JP5015 (HC-PVD)	JP5025 (HC-PVD)	JP9015 (HC-PVD)	JP9030 (HC-PVD)	JU6020 (HW)	JU4015 (HT)
P			200 380	180 360	140 300	100 240			80 220	60 180				200 380
M							150 280	120 240	80 160	60 120	100 220	80 200		160 280
K	180 380	150 300								80 170				200 400
N													500 1500	
S									40 80					
H														

GRADE APPLICATION AREA	
main application	Stable machining, continuous cut
applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +

MEDIUM

NMM M

NMK K

NWU P K

wiper edge

NMN N

polished surface

ROUGHING

NRP P

Chipbreaker	Type	Code	RE		a_p / f_n			JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
NMM (MEDIUM)	CNMG	190612-NMM	RE 1.2	a_p ▸ / f_n ▸	3.00 / 0.35	**6.00** / **0.45**	9.00 / 0.55								○				○		
		190616-NMM	RE 1.6	a_p ▸ / f_n ▸	3.00 / 0.40	**6.00** / **0.50**	9.00 / 0.60								●				○		
NMK (MEDIUM)	CNMG	120404-NMK	RE 0.4	a_p ▸ / f_n ▸	0.50 / 0.10	**2.00** / **0.20**	3.50 / 0.30	●	○												
		120408-NMK	RE 0.8	a_p ▸ / f_n ▸	0.50 / 0.15	**2.00** / **0.25**	3.50 / 0.35	●	●												
		120412-NMK	RE 1.2	a_p ▸ / f_n ▸	0.50 / 0.20	**2.00** / **0.30**	3.50 / 0.40	●	●												
		120416-NMK	RE 1.6	a_p ▸ / f_n ▸	0.50 / 0.25	**2.00** / **0.35**	3.50 / 0.45	●	○												
	CNMG	160608-NMK	RE 0.8	a_p ▸ / f_n ▸	2.00 / 0.25	**4.00** / **0.35**	6.00 / 0.45	●	○												
		160612-NMK	RE 1.2	a_p ▸ / f_n ▸	2.00 / 0.30	**4.00** / **0.40**	6.00 / 0.50	●	○												
		160616-NMK	RE 1.6	a_p ▸ / f_n ▸	2.00 / 0.35	**4.00** / **0.45**	6.00 / 0.55	●	○												
	CNMG	190612-NMK	RE 1.2	a_p ▸ / f_n ▸	3.00 / 0.35	**5.00** / **0.45**	7.00 / 0.55	○	○												
		190616-NMK	RE 1.6	a_p ▸ / f_n ▸	3.00 / 0.40	**5.00** / **0.50**	7.00 / 0.60	○	○												
NWU (MEDIUM)	CNMG	120408-NWU	RE 0.8	a_p ▸ / f_n ▸	0.80 / 0.20	**2.00** / **0.40**	3.20 / 0.60	●				●									●
		120412-NWU	RE 1.2	a_p ▸ / f_n ▸	0.80 / 0.25	**2.00** / **0.45**	3.20 / 0.65	●				●									●
NMN (MEDIUM)	CNGG	120404-NMN	RE 0.4	a_p ▸ / f_n ▸	0.50 / 0.10	**2.00** / **0.20**	3.50 / 0.30													●	
		120408-NMN	RE 0.8	a_p ▸ / f_n ▸	0.50 / 0.15	**2.00** / **0.25**	3.50 / 0.35													●	
		120412-NMN	RE 1.2	a_p ▸ / f_n ▸	0.50 / 0.20	**2.00** / **0.30**	3.50 / 0.40													●	
NRP (ROUGHING)	CNMG	120408-NRP	RE 0.8	a_p ▸ / f_n ▸	2.00 / 0.25	**4.00** / **0.35**	6.00 / 0.45			●	●	●	●								
		120412-NRP	RE 1.2	a_p ▸ / f_n ▸	2.00 / 0.30	**4.00** / **0.40**	6.00 / 0.50			●	●	●	●								
		120416-NRP	RE 1.6	a_p ▸ / f_n ▸	2.00 / 0.35	**4.00** / **0.45**	6.00 / 0.55			●	●	●	●								
	CNMG	160612-NRP	RE 1.2	a_p ▸ / f_n ▸	4.00 / 0.35	**6.00** / **0.50**	8.00 / 0.65			●	●	●	●								
		160616-NRP	RE 1.6	a_p ▸ / f_n ▸	4.00 / 0.40	**6.00** / **0.55**	8.00 / 0.70			●	●	●	●								

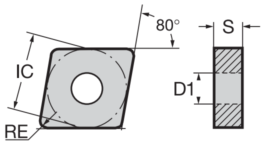
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 97

HOLDERS INTERNAL p. 104

CN

CARBIDE
Negative



4 edges

Size	IC	S	D1
MICRO CN	7.50	3.18	3.60
0903□□	9.525	3.18	3.81
1204□□	12.70	4.76	5.16
1606□□	15.87	6.35	6.35
1906□□	19.05	6.35	7.94

ISO513	HC-CVD								HC-PVD				HW	HT
	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
P			200 380	180 360	140 300	100 240			80 220	60 180				200 380
M							150 280	120 240	80 160	60 120	100 220	80 200		160 280
K	180 380	150 300								80 170				200 400
N													500 1500	
S									40 80					
H														

GRADE APPLICATION AREA		Hardness	Toughness
	Stable machining, continuous cut	+	–
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut	–	+

Application	Chipbreaker	Type	Designation	RE	a_p min	a_p	a_p max	f_n min	f_n	f_n max	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
ROUGHING	NRP P 	CNMG	190612-NRP	RE 1.2	6.00	**8.00**	10.0	0.40	**0.55**	0.70					●	●								
			190616-NRP	RE 1.6	6.00	**8.00**	10.0	0.45	**0.60**	0.75					●	●								
			190624-NRP	RE 2.4	6.00	**8.00**	10.0	0.50	**0.65**	0.80					●	●								
	NTP P 	CNMG	160612-NTP	RE 1.2	5.00	**7.00**	9.00	0.40	**0.55**	0.70				▽										
		CNMG	190612-NTP	RE 1.2	7.00	**9.00**	11.0	0.45	**0.60**	0.75				▽	▽									
			190616-NTP	RE 1.6	7.00	**9.00**	11.0	0.50	**0.65**	0.80				▽	▽									
	NRK K 	CNMG	120408-NRK	RE 0.8	1.50	**4.00**	6.50	0.20	**0.30**	0.40	●	●												
			120412-NRK	RE 1.2	1.50	**4.00**	6.50	0.25	**0.35**	0.45	●	●												
			120416-NRK	RE 1.6	1.50	**4.00**	6.50	0.30	**0.40**	0.50	●	●												
		CNMG	160612-NRK	RE 1.2	3.00	**6.00**	9.00	0.40	**0.55**	0.70	●	●												
			160616-NRK	RE 1.6	3.00	**6.00**	9.00	0.45	**0.60**	0.75	●	●												
		CNMG	190612-NRK	RE 1.2	5.00	**8.00**	11.0	0.45	**0.60**	0.75	○	○												
			190616-NRK	RE 1.6	5.00	**8.00**	11.0	0.50	**0.65**	0.80	○	○												
	Flat K 	CNMA	120404	RE 0.4	2.00	**4.00**	6.00	0.15	**0.25**	0.35	○	○												
			120408	RE 0.8	2.00	**4.00**	6.00	0.25	**0.35**	0.45	●	○												
			120412	RE 1.2	2.00	**4.00**	6.00	0.35	**0.45**	0.55	●	○												
			120416	RE 1.6	2.00	**4.00**	6.00	0.45	**0.55**	0.65	○	○												
		CNMA	160612	RE 1.2	4.00	**7.00**	10.0	0.45	**0.60**	0.75	●	○												
			160616	RE 1.6	4.00	**7.00**	10.0	0.50	**0.65**	0.80	●	○												
		CNMA	190612	RE 1.2	6.00	**9.00**	12.0	0.50	**0.65**	0.80	○	○												
			190616	RE 1.6	6.00	**9.00**	12.0	0.55	**0.70**	0.85	●	○												
HEAVY ROUGHING	MRP P  2 edges, single side	CNMM	190616-MRP	RE 1.6	6.00	**9.00**	12.0	0.60	**0.75**	0.90					○	○								
			190624-MRP	RE 2.4	6.00	**9.00**	12.0	0.65	**0.80**	0.95					●	●								
		CNMM	250924-MRP	RE 2.4	8.00	**12.0**	16.0	0.70	**0.85**	1.00					●	●								

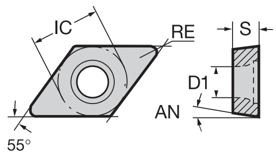
● stock standard, ○ non-standard stock, ▽ stock exhaustion

HOLDERS EXTERNAL p. 97

HOLDERS INTERNAL p. 104

DC

CARBIDE Positive



2 edges

Size	IC	S	D1	AN
0702□□	6.35	2.38	2.80	7°
11T3□□	9.525	3.97	4.40	7°
1504□□	12.70	4.76	5.50	7°

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
	HC-CVD							HC-PVD			HW		HT	
P			200 380	180 360	140 300			80 220	60 180				200 380	200 400
M						150 280	120 240	80 160	60 120				160 280	160 300
K	180 380	150 300							80 170				200 400	200 420
N										600 2200	600 2000	500 1500		
S								40 80						
H														

GRADE APPLICATION AREA		Hardness	Toughness
■ main application	Stable machining, continuous cut	+	−
■ applicable	General machining, light interruption		
	Unstable machining, interrupted cut	−	+

FINISHING

PPF P M

ground chipbreaker, picture: right-hand

Type	Designation	RE		min	rec.	max	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
DCET	070202R/L-PPF	RE 0.2	a_p / f_n	0.10 / 0.04	**0.40** / **0.07**	0.70 / 0.10									●				●	
	070204R/L-PPF	RE 0.4	a_p / f_n	0.10 / 0.04	**0.40** / **0.08**	0.70 / 0.12									●				●	
DCET	11T302R/L-PPF	RE 0.2	a_p / f_n	0.10 / 0.04	**0.50** / **0.08**	0.90 / 0.12									●				●	
	11T304R/L-PPF	RE 0.4	a_p / f_n	0.10 / 0.04	**0.50** / **0.09**	0.90 / 0.14									●				●	

PFU P M S

sharp edge

Type	Designation	RE		min	rec.	max	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
DCMT	070202-PFU	RE 0.2	a_p / f_n	0.20 / 0.04	**0.80** / **0.08**	1.40 / 0.12				●	●		●	●	●				●	○
	070204-PFU	RE 0.4	a_p / f_n	0.20 / 0.05	**0.80** / **0.11**	1.40 / 0.17				●	●		●	●	●				●	●
DCMT	11T302-PFU	RE 0.2	a_p / f_n	0.30 / 0.05	**1.00** / **0.10**	1.70 / 0.15				●	●		●	●	●				●	○
	11T304-PFU	RE 0.4	a_p / f_n	0.30 / 0.06	**1.00** / **0.14**	1.70 / 0.22			●	●	●		●	●	●				●	●
	11T308-PFU	RE 0.8	a_p / f_n	0.30 / 0.08	**1.00** / **0.16**	1.70 / 0.24			●	●	●		●	●	●				●	○

MEDIUM

PPM P M

ground chipbreaker, picture: right-hand

Type	Designation	RE		min	rec.	max	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
DCET	070204R/L-PPM	RE 0.4	a_p / f_n	0.40 / 0.03	**1.00** / **0.06**	1.60 / 0.09									●				●	
DCET	11T302R/L-PPM	RE 0.2	a_p / f_n	0.50 / 0.04	**1.50** / **0.06**	2.50 / 0.08									●				●	
	11T304R/L-PPM	RE 0.4	a_p / f_n	0.50 / 0.04	**1.50** / **0.07**	2.50 / 0.10									●				●	

PMU P M K

general purpose

Type	Designation	RE		min	rec.	max	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
DCMT	070202-PMU	RE 0.2	a_p / f_n	0.50 / 0.05	**1.50** / **0.10**	2.50 / 0.15				●	●		○						●	○
	070204-PMU	RE 0.4	a_p / f_n	0.50 / 0.06	**1.50** / **0.13**	2.50 / 0.20	●			●	●		●		●				●	●
	070208-PMU	RE 0.8	a_p / f_n	0.50 / 0.08	**1.50** / **0.16**	2.50 / 0.24	●			○	●		○						●	
DCMT	11T302-PMU	RE 0.2	a_p / f_n	0.60 / 0.06	**1.80** / **0.13**	3.00 / 0.20				●	●		●						●	○
	11T304-PMU	RE 0.4	a_p / f_n	0.60 / 0.07	**1.80** / **0.16**	3.00 / 0.25	●			●	●	●	●		●				●	●
	11T308-PMU	RE 0.8	a_p / f_n	0.60 / 0.08	**1.80** / **0.19**	3.00 / 0.30	●			●	●	●	●		●				●	○
DCMT	150404-PMU	RE 0.4	a_p / f_n	0.80 / 0.08	**2.20** / **0.17**	3.60 / 0.26	○				●									
	150408-PMU	RE 0.8	a_p / f_n	0.80 / 0.10	**2.20** / **0.22**	3.60 / 0.32	○			●	●		●							
	150412-PMU	RE 1.2	a_p / f_n	0.80 / 0.12	**2.20** / **0.24**	3.60 / 0.36					●		○							

PMN N

polished surface

Type	Designation	RE		min	rec.	max	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
DCGX	070202-PMN	RE 0.2	a_p / f_n	0.30 / 0.05	**1.50** / **0.10**	2.70 / 0.15											●			
	070204-PMN	RE 0.4	a_p / f_n	0.30 / 0.06	**1.50** / **0.13**	2.70 / 0.20										○	○	●		
	070208-PMN	RE 0.8	a_p / f_n	0.30 / 0.08	**1.50** / **0.16**	2.70 / 0.24										○	○	●		
DCGX	11T302-PMN	RE 0.2	a_p / f_n	0.50 / 0.06	**2.00** / **0.11**	3.50 / 0.16										○	●			
	11T304-PMN	RE 0.4	a_p / f_n	0.50 / 0.08	**2.00** / **0.16**	3.50 / 0.24										●	●	●		
	11T308-PMN	RE 0.8	a_p / f_n	0.50 / 0.10	**2.00** / **0.20**	3.50 / 0.30										●	●	●		

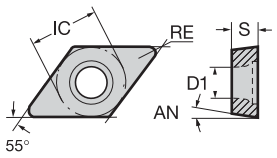
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 107

HOLDERS INTERNAL p. 111

DC

CARBIDE
Positive



2 edges

Size	IC	S	D1	AN
0702□□	6.35	2.38	2.80	7°
11T3□□	9.525	3.97	4.40	7°
1504□□	12.70	4.76	5.50	7°

ISO513	HC-CVD							HC-PVD			HW		HT				
	JC7010	**JC7020**	**JC8005**	**JC8015**	**JC8025**	**JC9010**	**JC9025**	**JP5015**	**JP5025**	**JP6010**	**JU6010**	**JU6020**	**JU4015**	**JP4020**			
P			200 380	180 360	140 300			80 220	60 180				200 380	200 400			
M						150 280	120 240	80 160	60 120				160 280	160 300			
K	180 380	150 300							80 170				200 400	200 420			
N										600 2200	600 2000	500 1500					
S								40 80									
H																	

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut		

ROUGHING

PRU P K

reinforced edge

			a_p ▸														
DCMT	**11T304-PRU**	RE 0.4	f_n ▸	1.50	**2.50**	3.50	●				●						
				0.10	**0.19**	0.28											
	11T308-PRU	RE 0.8	a_p ▸	1.50	**2.50**	3.50	●				●						
			f_n ▸	0.12	**0.22**	0.32											

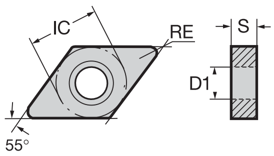
● stock standard

HOLDERS EXTERNAL p. 107

HOLDERS INTERNAL p. 111

DN

CARBIDE
Negative



4 edges

Size	IC	S	D1
MICRO DN	7.00	3.18	3.60
1104□□	9.525	4.76	3.81
1506□□	12.70	6.35	5.16

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015			
	HC-CVD								HC-PVD				HW	HT			
P			200 380	180 360	140 300	100 240			80 220	60 180				200 380			
M							150 280	120 240	80 160	60 120	100 220	80 200		160 280			
K	180 380	150 300								80 170				200 400			
N													500 1500				
S									40 80								
H																	

GRADE APPLICATION AREA		Hardness	Toughness
■ main application	Stable machining, continuous cut	+	–
■ applicable	General machining, light interruption		
	Unstable machining, interrupted cut	–	+

	Chipbreaker	Type	Designation	RE		min	rec.	max	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
FINISHING	GB P M  **MICRONEGA**, picture: right-end	MICRO	DN.R04-GB$^{R}/_{L}$	RE 0.4	a_p▸ f_n▸	0.20 0.05	**0.50** **0.10**	0.80 0.15									▽					
FINISHING	NSP P 	DNMG	110404-NSP	RE 0.4	a_p▸ f_n▸	0.30 0.06	**0.70** **0.12**	1.10 0.18				●	●									●
FINISHING	NSP P	DNMG	110408-NSP	RE 0.8	a_p▸ f_n▸	0.30 0.08	**0.70** **0.16**	1.10 0.24				●	●									●
FINISHING	NSP P	DNMG	150604-NSP	RE 0.4	a_p▸ f_n▸	0.40 0.08	**1.20** **0.15**	2.00 0.22			●	●	●									●
FINISHING	NSP P	DNMG	150608-NSP	RE 0.8	a_p▸ f_n▸	0.40 0.10	**1.20** **0.22**	2.00 0.34			●	●	●									●
FINISHING	NFP P 	DNMG	110408-NFP	RE 0.8	a_p▸ f_n▸	0.50 0.07	**1.00** **0.14**	1.50 0.21				▽	▽									
FINISHING	NFM M 	DNMG	110404-NFM	RE 0.4	a_p▸ f_n▸	0.30 0.05	**0.70** **0.10**	1.10 0.15											●			
FINISHING	NFM M	DNMG	110408-NFM	RE 0.8	a_p▸ f_n▸	0.30 0.07	**0.70** **0.15**	1.10 0.23											●			
FINISHING	NFM M	DNMG	150604-NFM	RE 0.4	a_p▸ f_n▸	0.40 0.08	**1.20** **0.14**	2.00 0.20											●			
FINISHING	NFM M	DNMG	150608-NFM	RE 0.8	a_p▸ f_n▸	0.40 0.10	**1.20** **0.20**	2.00 0.30											●			
MEDIUM	GM P M  **MICRONEGA**	MICRO	DN.R04-GM	RE 0.4	a_p▸ f_n▸	0.80 0.08	**1.60** **0.15**	2.40 0.22				○						●				▲
MEDIUM	GM P M	MICRO	DN.R08-GM	RE 0.8	a_p▸ f_n▸	0.80 0.10	**1.60** **0.17**	2.40 0.24										▽				
MEDIUM	SS M  **MICRONEGA** polished surface	MICRO	DN.R02-SS	RE 0.2	a_p▸ f_n▸	0.40 0.06	**1.20** **0.11**	2.00 0.16												●		
MEDIUM	SS M	MICRO	DN.R04-SS	RE 0.4	a_p▸ f_n▸	0.40 0.08	**1.20** **0.14**	2.00 0.20												●		▲
MEDIUM	NMU P M  picture: right-hand	DNMG	150604$^{R}/_{L}$-NMU	RE 0.4	a_p▸ f_n▸	1.00 0.15	**2.50** **0.25**	4.00 0.35					●			●						
MEDIUM	NMU P M	DNMG	150608$^{R}/_{L}$-NMU	RE 0.8	a_p▸ f_n▸	1.00 0.20	**2.50** **0.30**	4.00 0.40					●			●						

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

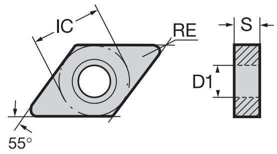
HOLDERS EXTERNAL ▶ p. 119
HOLDERS INTERNAL ▶ p. 123

nikkoTOOLS

DN

CARBIDE

Negative



4 edges

Size	IC	S	D1
MICRO DN	7.00	3.18	3.60
1104□□	9.525	4.76	3.81
1506□□	12.70	6.35	5.16

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD				HW	HT
P			200 380	180 360	140 300	100 240			80 220	60 180				200 380
M							150 280	120 240	80 160	60 120	100 220	80 200		160 280
K	180 380	150 300								80 170				200 400
N													500 1500	
S									40 80					
H														

GRADE APPLICATION AREA		Hardness	Toughness
	Stable machining, continuous cut	+	–
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut	–	+

MEDIUM

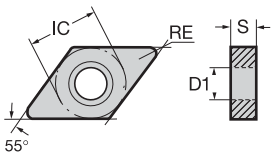
Chipbreaker	Type	Code	RE	a_p min	a_p	a_p max	f_n min	f_n	f_n max	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
NMP P 	DNMG	110404-NMP	RE 0.4	1.00	**1.50**	2.00	0.10	**0.15**	0.20				●	●									
		110408-NMP	RE 0.8	1.00	**1.50**	2.00	0.15	**0.20**	0.25	●			●	●									
	DNMG	150604-NMP	RE 0.4	1.50	**2.50**	3.50	0.12	**0.20**	0.28				●	●									
		150608-NMP	RE 0.8	1.50	**2.50**	3.50	0.16	**0.25**	0.34				●	●									
		150612-NMP	RE 1.2	1.50	**2.50**	3.50	0.20	**0.30**	0.40				●	●									
		150616-NMP	RE 1.6	1.50	**2.50**	3.50	0.25	**0.35**	0.45				●	●									
NUP P M 	DNMG	110404-NUP	RE 0.4	0.70	**1.50**	2.30	0.08	**0.15**	0.22				●	●									●
		110408-NUP	RE 0.8	0.70	**1.50**	2.30	0.12	**0.20**	0.28				●	●									●
		110412-NUP	RE 1.2	0.70	**1.50**	2.30	0.15	**0.25**	0.35				●	●									
	DNMG	150604-NUP	RE 0.4	1.00	**2.50**	4.00	0.10	**0.20**	0.30			●	●	●			●						●
		150608-NUP	RE 0.8	1.00	**2.50**	4.00	0.15	**0.25**	0.35			●	●	●			●						●
		150612-NUP	RE 1.2	1.00	**2.50**	4.00	0.18	**0.30**	0.42			●	●	●			●						
NMM M 	DNMG	110404-NMM	RE 0.4	0.70	**1.50**	2.30	0.13	**0.20**	0.27								●				○		
		110408-NMM	RE 0.8	0.70	**1.50**	2.30	0.18	**0.25**	0.32								●				●		
	DNMG	150604-NMM	RE 0.4	1.00	**2.50**	4.00	0.15	**0.25**	0.35								●				●		
		150608-NMM	RE 0.8	1.00	**2.50**	4.00	0.20	**0.30**	0.40							●	●				●		
		150612-NMM	RE 1.2	1.00	**2.50**	4.00	0.25	**0.35**	0.45								●				●		
NMK K 	DNMG	150604-NMK	RE 0.4	0.50	**2.00**	3.50	0.10	**0.20**	0.30	●	○												
		150608-NMK	RE 0.8	0.50	**2.00**	3.50	0.15	**0.25**	0.35	●	○												
		150612-NMK	RE 1.2	0.50	**2.00**	3.50	0.20	**0.30**	0.40	○	○												
NMN N  polished surface	DNGG	150604-NMN	RE 0.4	0.50	**2.00**	3.50	0.10	**0.20**	0.30													●	
		150608-NMN	RE 0.8	0.50	**2.00**	3.50	0.15	**0.25**	0.35													●	

● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 120
HOLDERS INTERNAL p. 125

DN

CARBIDE
Negative



4 edges

Size	IC	S	D1
MICRO DN	7.00	3.18	3.60
1104□□	9.525	4.76	3.81
1506□□	12.70	6.35	5.16

ISO513	HC-CVD								HC-PVD				HW	HT
	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
P			200 380	180 360	140 300	100 240			80 220	60 180				200 380
M							150 280	120 240	80 160	60 120	100 220	80 200		160 280
K	180 380	150 300								80 170				200 400
N													500 1500	
S									40 80					
H														

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut		

ROUGHING

				a_p / f_n				JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP5015	JP5025	JP9015	JP9030	JU6020	JU4015
NRP P	DNMG	150608-NRP	RE 0.8	a_p	2.00	**4.00**	6.00			●	●	●	●								
				f_n	0.25	**0.35**	0.45														
		150612-NRP	RE 1.2	a_p	2.00	**4.00**	6.00			●	●	●	●								
				f_n	0.30	**0.40**	0.50														
		150616-NRP	RE 1.6	a_p	2.00	**4.00**	6.00				●	●	●								
				f_n	0.35	**0.45**	0.55														
NTP P	DNMG	150612-NTP	RE 1.2	a_p	3.00	**5.00**	7.00					▽									
				f_n	0.35	**0.45**	0.55														
NRK K	DNMG	150608-NRK	RE 0.8	a_p	1.50	**4.00**	6.50	●	○												
				f_n	0.20	**0.30**	0.40														
		150612-NRK	RE 1.2	a_p	1.50	**4.00**	6.50	●	○												
				f_n	0.25	**0.35**	0.45														
Flat K	DNMA	150608	RE 0.8	a_p	2.00	**4.00**	6.00	●	○												
				f_n	0.25	**0.35**	0.45														
		150612	RE 1.2	a_p	2.00	**4.00**	6.00	●	○												
				f_n	0.35	**0.45**	0.55														

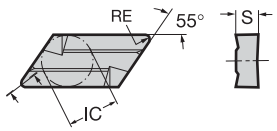
● stock standard, ○ non-standard stock, ▽ stock exhaustion

HOLDERS EXTERNAL p. 120

HOLDERS INTERNAL p. 125

KN

CARBIDE
Negative



2 edges

Size	IC	S
1604□□	9.525	4.76

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD		HW	HT
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut		

MEDIUM

11 P

picture: right-hand

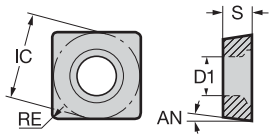
			a_p ▸			
KNUX	**160405$^{R}_{L}$-11**	RE 0.5	f_n ▸	1.00	**2.50**	4.00
				0.15	**0.25**	0.35
	160410$^{R}_{L}$-11	RE 1.0	a_p ▸	1.00	**2.50**	4.00
			f_n ▸	0.20	**0.30**	0.40

JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
				●							
				●							

● stock standard

SC

CARBIDE
Positive



4 edges

Size	IC	S	D1	AN
09T3□□	9.525	3.97	4.40	7°
1204□□	12.70	4.76	5.50	7°

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
	HC-CVD							HC-PVD			HW		HT	
P			200 380	180 360	140 300			80 220	60 180				200 380	200 400
M						150 280	120 240	80 160	60 120				160 280	160 300
K	180 380	150 300							80 170				200 400	200 420
N										600 2200	600 2000	500 1500		
S								40 80						
H														

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut		

						a_p ▸ / f_n ▸				HC-CVD						HC-PVD			HW		HT	
MEDIUM	**PMU** P M K	**SCMT**	**09T304-PMU**	RE 0.4		0.60	**1.80**	3.00				●	●	○	●						●	
						0.07	**0.16**	0.25														
			09T308-PMU	RE 0.8		0.60	**1.80**	3.00	●			●	●		●						○	
						0.08	**0.19**	0.30														
		SCMT	**120404-PMU**	RE 0.4		0.80	**2.20**	3.60				○	●									
						0.08	**0.17**	0.26														
	general purpose		**120408-PMU**	RE 0.8		0.80	**2.20**	3.60	●			●	●		●							
						0.10	**0.22**	0.32														
	PMN N	**SCGX**	**09T304-PMN**	RE 0.4		0.50	**2.00**	3.50										○	○	●		
						0.08	**0.16**	0.24														
			09T308-PMN	RE 0.8		0.50	**2.00**	3.50										○	○	●		
						0.10	**0.20**	0.30														
		SCGX	**120404-PMN**	RE 0.4		0.50	**3.00**	5.50										○	○	●		
						0.10	**0.20**	0.30														
	polished surface		**120408-PMN**	RE 0.8		0.50	**3.00**	5.50										○	○	●		
						0.15	**0.25**	0.35														
ROUGHING	**PRU** P K	**SCMT**	**09T308-PRU**	RE 0.8		1.50	**2.50**	3.50	●				●									
						0.12	**0.22**	0.32														
	reinforced edge	**SCMT**	**120408-PRU**	RE 0.8		1.50	**3.00**	4.50	●				●									
						0.14	**0.26**	0.38														

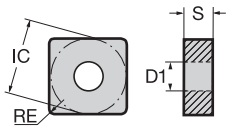
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 127

HOLDERS INTERNAL p. 128

SN

CARBIDE
Negative



8 edges

Size	IC	S	D1
0903□□	9.525	3.18	3.81
1204□□	12.70	4.76	5.16
1906□□	19.05	6.35	7.94
2509□□	25.40	9.52	8.80

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD		HW	HT
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut		

					a_p ▸ / f_n ▸			JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
FINISHING	**NSP** P	**SNMG**	**120404-NSP**	RE 0.4		0.40 0.08	**1.20** **0.15**	2.00 0.22				●							
			**120408-NSP**	RE 0.8		0.40 0.10	**1.20** **0.22**	2.00 0.34				●							
	NFP P	**SNMG**	**120404-NFP**	RE 0.4		0.50 0.06	**1.50** **0.12**	2.50 0.18				▽	▽						
			**120408-NFP**	RE 0.8		0.50 0.08	**1.50** **0.17**	2.50 0.26				▽							
	NFM M	**SNMG**	**120404-NFM**	RE 0.4		0.40 0.08	**1.20** **0.14**	2.00 0.20								●			
			**120408-NFM**	RE 0.8		0.40 0.10	**1.20** **0.20**	2.00 0.30								●			
MEDIUM	**NMP** P	**SNMG**	**120404-NMP**	RE 0.4		1.50 0.12	**2.50** **0.20**	3.50 0.28				●	●						
			**120408-NMP**	RE 0.8		1.50 0.16	**2.50** **0.25**	3.50 0.34				●	●						
			120412-NMP	RE 1.2		1.50 0.20	**2.50** **0.30**	3.50 0.40				●	●						
			120416-NMP	RE 1.6		1.50 0.25	**2.50** **0.35**	3.50 0.45				○	○						
	NUP P	**SNMG**	**120404-NUP**	RE 0.4		1.00 0.10	**2.50** **0.20**	4.00 0.30				○	○						
			**120408-NUP**	RE 0.8		1.00 0.15	**2.50** **0.25**	4.00 0.35				○	●						
			120412-NUP	RE 1.2		1.00 0.18	**2.50** **0.30**	4.00 0.42				○	●						
			120416-NUP	RE 1.6		1.00 0.20	**2.50** **0.35**	4.00 0.50				○	○						
	NMU P	**SNMG**	**120408^{R}/$_{L}$-NMU**	RE 0.8		1.00 0.20	**2.50** **0.30**	4.00 0.40					○						
	 picture: right-hand																		
	NMM M	**SNMG**	**120404-NMM**	RE 0.4		1.00 0.15	**2.50** **0.25**	4.00 0.35							●		○		
			**120408-NMM**	RE 0.8		1.00 0.20	**2.50** **0.30**	4.00 0.40							●		○		
			120412-NMM	RE 1.2		1.00 0.25	**2.50** **0.35**	4.00 0.45							○		○		
			120416-NMM	RE 1.6		1.00 0.30	**2.50** **0.40**	4.00 0.50							○		○		

● stock standard, ○ non-standard stock, ▽ stock exhaustion

HOLDERS EXTERNAL p. 129

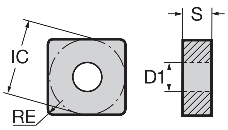
HOLDERS INTERNAL p. 133

nikkoTOOLS

TURNING
THREADING
GROOVING
MILLING
DRILLING
ACCESSORIES

SN

CARBIDE
Negative



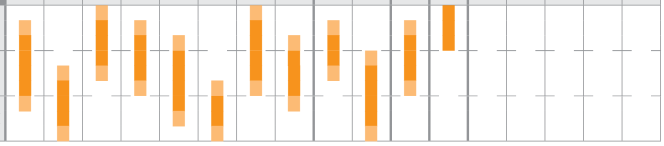
8 edges

Size	IC	S	D1
0903□□	9.525	3.18	3.81
1204□□	12.70	4.76	5.16
1906□□	19.05	6.35	7.94
2509□□	25.40	9.52	8.80

ISO513	JC7010 (HC-CVD)	JC7020 (HC-CVD)	JC8005 (HC-CVD)	JC8015 (HC-CVD)	JC8025 (HC-CVD)	JC8035 (HC-CVD)	JC9010 (HC-CVD)	JC9025 (HC-CVD)	JP9015 (HC-PVD)	JP9030 (HC-PVD)	JU6020 (HW)	JU4015 (HT)
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA — Stable machining, continuous cut
main application — General machining, light interruption
applicable — Unstable machining, interrupted cut

Hardness + / – ; Toughness – / +



Chipbreaker	Type	Designation	RE		min	rec.	max	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
MEDIUM – NMM M	SNMG	190612-NMM	RE 1.2	a_p ▸	3.00	**6.00**	9.00								○		○		
				f_n ▸	0.35	**0.45**	0.55												
		190616-NMM	RE 1.6	a_p ▸	3.00	**6.00**	9.00								○		○		
				f_n ▸	0.40	**0.50**	0.60												
MEDIUM – NMK K	SNMG	120408-NMK	RE 0.8	a_p ▸	0.50	**2.00**	3.50	●	○										
				f_n ▸	0.15	**0.25**	0.35												
		120412-NMK	RE 1.2	a_p ▸	0.50	**2.00**	3.50	●	○										
				f_n ▸	0.20	**0.30**	0.40												
MEDIUM – NMN N (polished surface)	SNGG	120404-NMN	RE 0.4	a_p ▸	0.50	**2.00**	3.50											●	
				f_n ▸	0.10	**0.20**	0.30												
		120408-NMN	RE 0.8	a_p ▸	0.50	**2.00**	3.50											●	
				f_n ▸	0.15	**0.25**	0.35												
		120412-NMN	RE 1.2	a_p ▸	0.50	**2.00**	3.50											●	
				f_n ▸	0.20	**0.30**	0.40												
ROUGHING – NRP P	SNMG	120408-NRP	RE 0.8	a_p ▸	2.00	**4.00**	6.00					●	●						
				f_n ▸	0.25	**0.35**	0.45												
		120412-NRP	RE 1.2	a_p ▸	2.00	**4.00**	6.00					●	●						
				f_n ▸	0.30	**0.40**	0.50												
		120416-NRP	RE 1.6	a_p ▸	2.00	**4.00**	6.00					●	●						
				f_n ▸	0.35	**0.45**	0.55												
	SNMG	190612-NRP	RE 1.2	a_p ▸	6.00	**8.00**	10.0					○	○						
				f_n ▸	0.40	**0.55**	0.70												
		190616-NRP	RE 1.6	a_p ▸	6.00	**8.00**	10.0					●	●						
				f_n ▸	0.45	**0.60**	0.75												
		190624-NRP	RE 2.4	a_p ▸	6.00	**8.00**	10.0					●	●						
				f_n ▸	0.50	**0.65**	0.80												
ROUGHING – NTP P	SNMG	120408-NTP	RE 0.8	a_p ▸	3.00	**5.00**	7.00				▽	▽							
				f_n ▸	0.30	**0.40**	0.50												
		120412-NTP	RE 1.2	a_p ▸	3.00	**5.00**	7.00				▽	▽							
				f_n ▸	0.35	**0.45**	0.55												
ROUGHING – NRK K	SNMG	120408-NRK	RE 0.8	a_p ▸	1.50	**4.00**	6.50	●	○										
				f_n ▸	0.20	**0.30**	0.40												
		120412-NRK	RE 1.2	a_p ▸	1.50	**4.00**	6.50	●	○										
				f_n ▸	0.25	**0.35**	0.45												
		120416-NRK	RE 1.6	a_p ▸	1.50	**4.00**	6.50	●	●										
				f_n ▸	0.30	**0.40**	0.50												
	SNMG	190612-NRK	RE 1.2	a_p ▸	5.00	**8.00**	11.0	○	○										
				f_n ▸	0.45	**0.60**	0.75												
		190616-NRK	RE 1.6	a_p ▸	5.00	**8.00**	11.0	○	○										
				f_n ▸	0.50	**0.65**	0.80												



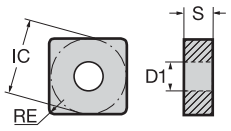



● stock standard, ○ non-standard stock, ▽ stock exhaustion

HOLDERS EXTERNAL p. 129
HOLDERS INTERNAL p. 133

SN

CARBIDE
Negative

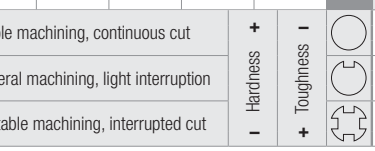


8 edges

Size	IC	S	D1
0903□□	9.525	3.18	3.81
1204□□	12.70	4.76	5.16
1906□□	19.05	6.35	7.94
2509□□	25.40	9.52	8.80

ISO513	HC-CVD								HC-PVD		HW	HT
	JC7010	**JC7020**	**JC8005**	**JC8015**	**JC8025**	**JC8035**	**JC9010**	**JC9025**	**JP9015**	**JP9030**	**JU6020**	**JU4015**
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut		



ROUGHING

Flat K

				a_p ▸				
				f_n ▸				
SNMA	**090308**	RE 0.8	a_p ▸	1.00	**2.00**	3.00	○	
			f_n ▸	0.22	**0.30**	0.38		
SNMA	**120408**	RE 0.8	a_p ▸	2.00	**4.00**	6.00	●	○
			f_n ▸	0.25	**0.35**	0.45		
	120412	RE 1.2	a_p ▸	2.00	**4.00**	6.00	●	○
			f_n ▸	0.35	**0.45**	0.55		
	120416	RE 1.6	a_p ▸	2.00	**4.00**	6.00	●	○
			f_n ▸	0.45	**0.55**	0.65		

HEAVY ROUGHING

MRP P

4 edges, single side

				a_p ▸				
				f_n ▸				
SNMM	**190616-MRP**	RE 1.6	a_p ▸	6.00	**9.00**	12.0	○	○
			f_n ▸	0.60	**0.75**	0.90		
	190624-MRP	RE 2.4	a_p ▸	6.00	**9.00**	12.0	●	●
			f_n ▸	0.65	**0.80**	0.95		
SNMM	**250924-MRP**	RE 2.4	a_p ▸	8.00	**12.0**	16.0	●	●
			f_n ▸	0.70	**0.85**	1.00		

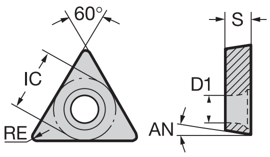
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 129

HOLDERS INTERNAL p. 133

TC

CARBIDE
Positive

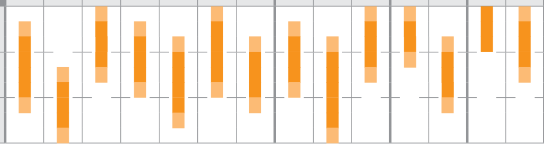


3 edges

Size	IC	S	D1	AN
0902□□	5.56	2.38	2.50	7°
1102□□	6.35	2.38	2.80	7°
16T3□□	9.525	3.97	4.40	7°
2204□□	12.70	4.76	5.50	7°

ISO513	JC7010 (HC-CVD)	JC7020 (HC-CVD)	JC8005 (HC-CVD)	JC8015 (HC-CVD)	JC8025 (HC-CVD)	JC9010 (HC-CVD)	JC9025 (HC-CVD)	JP5015 (HC-PVD)	JP5025 (HC-PVD)	JP6010 (HC-PVD)	JU6010 (HW)	JU6020 (HW)	JU4015 (HT)	JP4020 (HT)
P			200 380	180 360	140 300			80 220	60 180				200 380	200 400
M						150 280	120 240	80 160	60 120				160 280	160 300
K	180 380	150 300							80 170				200 400	200 420
N										600 2200	600 2000	500 1500		
S								40 80						
H														

GRADE APPLICATION AREA		Hardness	Toughness
■ main application	Stable machining, continuous cut	+	–
■ applicable	General machining, light interruption		
	Unstable machining, interrupted cut	–	+



Application	Geometry	Type	Designation	RE		min	rec.	max	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020
FINISHING	PFU P M S, sharp edge	TCMT	110202-PFU	RE 0.2	a_p / f_n	0.20 / 0.04	**0.80** / **0.08**	1.40 / 0.12				●	●		●	●	●				●	○
			110204-PFU	RE 0.4	a_p / f_n	0.20 / 0.05	**0.80** / **0.11**	1.40 / 0.17				●	●		●	●	●				●	●
MEDIUM	PMU P M K, general purpose	TCMT	090204-PMU	RE 0.4	a_p / f_n	0.50 / 0.05	**1.00** / **0.09**	1.50 / 0.13	●			●	●		●						●	
		TCMT	110202-PMU	RE 0.2	a_p / f_n	0.50 / 0.05	**1.50** / **0.10**	2.50 / 0.15				○	●		●		▽				●	○
			110204-PMU	RE 0.4	a_p / f_n	0.50 / 0.06	**1.50** / **0.13**	2.50 / 0.20	●			●	●	●	●		●				●	●
			110208-PMU	RE 0.8	a_p / f_n	0.50 / 0.08	**1.50** / **0.16**	2.50 / 0.24	●			●	●		●						●	
		TCMT	16T304-PMU	RE 0.4	a_p / f_n	0.60 / 0.07	**1.80** / **0.16**	3.00 / 0.25	●			●	●		●		●				●	
			16T308-PMU	RE 0.8	a_p / f_n	0.60 / 0.08	**1.80** / **0.19**	3.00 / 0.30	●	●		●	●		●		●				●	
			16T312-PMU	RE 1.2	a_p / f_n	0.60 / 0.10	**1.80** / **0.22**	3.00 / 0.34	●				○									
		TCMT	220408-PMU	RE 0.8	a_p / f_n	0.80 / 0.10	**2.20** / **0.22**	3.60 / 0.32	○				●									
	PMN N, polished surface	TCGX	090204-PMN	RE 0.4	a_p / f_n	0.30 / 0.05	**1.00** / **0.11**	1.70 / 0.17										○	○	●		
		TCGX	110202-PMN	RE 0.2	a_p / f_n	0.30 / 0.05	**1.50** / **0.10**	2.70 / 0.15										○	●			
			110204-PMN	RE 0.4	a_p / f_n	0.30 / 0.06	**1.50** / **0.13**	2.70 / 0.20										○	○	●		
			110208-PMN	RE 0.8	a_p / f_n	0.30 / 0.08	**1.50** / **0.16**	2.70 / 0.24										○	○	●		
		TCGX	16T302-PMN	RE 0.2	a_p / f_n	0.50 / 0.06	**2.00** / **0.11**	3.50 / 0.16										○	●			
			16T304-PMN	RE 0.4	a_p / f_n	0.50 / 0.08	**2.00** / **0.16**	3.50 / 0.24										○	○	●		
			16T308-PMN	RE 0.8	a_p / f_n	0.50 / 0.10	**2.00** / **0.20**	3.50 / 0.30										○	○	●		
ROUGHING	PRU P K, reinforced edge	TCMT	16T304-PRU	RE 0.4	a_p / f_n	1.50 / 0.10	**2.50** / **0.19**	3.50 / 0.28	●				●									
			16T308-PRU	RE 0.8	a_p / f_n	1.50 / 0.12	**2.50** / **0.22**	3.50 / 0.32	●				●									



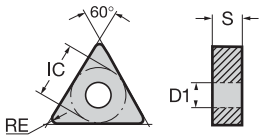

● stock standard, ○ non-standard stock, ▽ stock exhaustion

HOLDERS EXTERNAL p. 135

HOLDERS INTERNAL p. 138

TN

CARBIDE
Negative



6 edges

Size	IC	S	D1
1604□□	9.525	4.76	3.81
2204□□	12.70	4.76	5.16

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD		HW	HT
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut		

					a_p ▸ / f_n ▸			JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
FINISHING	**NSP** P	TNMG	**160404-NSP**	RE 0.4		0.40 0.08	**1.20** **0.15**	2.00 0.22			●	●	●						●
			160408-NSP	RE 0.8		0.40 0.10	**1.20** **0.22**	2.00 0.34			●	●	●						●
	NFP P	TNMG	**160408-NFP**	RE 0.8		0.50 0.08	**1.50** **0.17**	2.50 0.26				▽							
	NFM M	TNMG	**160404-NFM**	RE 0.4		0.40 0.08	**1.20** **0.14**	2.00 0.20								●			
			160408-NFM	RE 0.8		0.40 0.10	**1.20** **0.20**	2.00 0.30								●			
MEDIUM	**NMP** P	TNMG	**160404-NMP**	RE 0.4		1.50 0.12	**2.50** **0.20**	3.50 0.28				●	●						
			160408-NMP	RE 0.8		1.50 0.16	**2.50** **0.25**	3.50 0.34				●	●						▽
			160412-NMP	RE 1.2		1.50 0.20	**2.50** **0.30**	3.50 0.40				●	●						
		TNMG	**220408-NMP**	RE 0.8		3.00 0.20	**4.50** **0.30**	6.00 0.40				○	●						
			220412-NMP	RE 1.2		3.00 0.25	**4.50** **0.35**	6.00 0.45				●	●						
	NUP P M	TNMG	**160404-NUP**	RE 0.4		1.00 0.10	**2.50** **0.20**	4.00 0.30			●	●	●		●				●
			160408-NUP	RE 0.8		1.00 0.15	**2.50** **0.25**	4.00 0.35			●	●	●		●				●
			160412-NUP	RE 1.2		1.00 0.18	**2.50** **0.30**	4.00 0.42			●	●	●		●				
		TNMG	**220408-NUP**	RE 0.8		2.00 0.18	**4.50** **0.30**	7.00 0.42				○	○						
			220412-NUP	RE 1.2		2.00 0.22	**4.50** **0.35**	7.00 0.48				○	○						
			220416-NUP	RE 1.6		2.00 0.24	**4.50** **0.40**	7.00 0.56				○	○						
	NMU P M	TNMG	**160404$^{R}_{L}$-NMU**	RE 0.4		1.00 0.15	**2.50** **0.25**	4.00 0.35				○	●		●				
			160408$^{R}_{L}$-NMU	RE 0.8		1.00 0.20	**2.50** **0.30**	4.00 0.40				○	●		●				

picture: right-hand

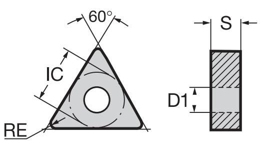
● stock standard, ○ non-standard stock, ▽ stock exhaustion

HOLDERS EXTERNAL p. 142

HOLDERS INTERNAL p. 145

TN

CARBIDE
Negative



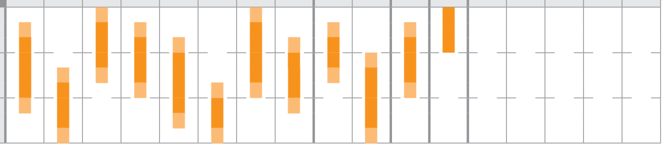
6 edges

Size	IC	S	D1
1604□□	9.525	4.76	3.81
2204□□	12.70	4.76	5.16

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
			HC-CVD						HC-PVD		HW	HT
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA	
■ main application	Stable machining, continuous cut
■ applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +



Section	Chipbreaker	Type	Designation	RE	a_p	f_n	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
MEDIUM	NMM M	TNMG	160404-NMM	RE 0.4	1.00 **2.50** 4.00	0.15 **0.25** 0.35							●	●	●	●		▽
			160408-NMM	RE 0.8	1.00 **2.50** 4.00	0.20 **0.30** 0.40							●	●	●	●		▽
			160412-NMM	RE 1.2	1.00 **2.50** 4.00	0.25 **0.35** 0.45							●	●		○		
		TNMG	220408-NMM	RE 0.8	2.00 **4.50** 7.00	0.25 **0.35** 0.45								○		○		
			220412-NMM	RE 1.2	2.00 **4.50** 7.00	0.30 **0.40** 0.50								○		○		
			220416-NMM	RE 1.6	2.00 **4.50** 7.00	0.35 **0.45** 0.55								○		○		
	NMK K	TNMG	160404-NMK	RE 0.4	0.50 **2.00** 3.50	0.10 **0.20** 0.30	●	○										
			160408-NMK	RE 0.8	0.50 **2.00** 3.50	0.15 **0.25** 0.35	●	○										
			160412-NMK	RE 1.2	0.50 **2.00** 3.50	0.20 **0.30** 0.40	●	○										
			160416-NMK	RE 1.6	0.50 **2.00** 3.50	0.25 **0.35** 0.45	○	○										
		TNMG	220408-NMK	RE 0.8	2.00 **4.00** 6.00	0.25 **0.35** 0.45	○	○										
			220412-NMK	RE 1.2	2.00 **4.00** 6.00	0.30 **0.40** 0.50	●	○										
			220416-NMK	RE 1.6	2.00 **4.00** 6.00	0.35 **0.45** 0.55	●	○										
	NMN N (polished surface)	TNGG	160404-NMN	RE 0.4	0.50 **2.00** 3.50	0.10 **0.20** 0.30											●	
			160408-NMN	RE 0.8	0.50 **2.00** 3.50	0.15 **0.25** 0.35											●	
			160412-NMN	RE 1.2	0.50 **2.00** 3.50	0.20 **0.30** 0.40											●	
ROUGHING	NRP P	TNMG	160408-NRP	RE 0.8	2.00 **4.00** 6.00	0.25 **0.35** 0.45					●	●						
			160412-NRP	RE 1.2	2.00 **4.00** 6.00	0.30 **0.40** 0.50					●	●						
		TNMG	220412-NRP	RE 1.2	4.00 **6.00** 8.00	0.35 **0.50** 0.65					●	●						
			220416-NRP	RE 1.6	4.00 **6.00** 8.00	0.40 **0.55** 0.70					●	●						
	NRK K	TNMG	160408-NRK	RE 0.8	1.50 **4.00** 6.50	0.20 **0.30** 0.40	●	○										
			160412-NRK	RE 1.2	1.50 **4.00** 6.50	0.25 **0.35** 0.45	●	○										
		TNMG	220408-NRK	RE 0.8	3.00 **6.00** 9.00	0.35 **0.50** 0.65	○	○										
			220412-NRK	RE 1.2	3.00 **6.00** 9.00	0.40 **0.55** 0.70	○	○										
			220416-NRK	RE 1.6	3.00 **6.00** 9.00	0.45 **0.60** 0.75	○	○										



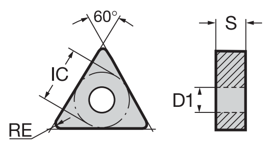


● stock standard, ○ non-standard stock, ▽ stock exhaustion

HOLDERS EXTERNAL p. 142
HOLDERS INTERNAL p. 145

TN

CARBIDE
Negative



6 edges

Size	IC	S	D1
1604□□	9.525	4.76	3.81
2204□□	12.70	4.76	5.16

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD		HW	HT
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA		Hardness	Toughness
	Stable machining, continuous cut	+	−
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut	−	+

ROUGHING

Flat K

		RE					JC7010	JC7020
TNMA	160404	RE 0.4	a_p▸ / f_n▸	2.00 / 0.15	**4.00** / **0.25**	6.00 / 0.35	○	○
	160408	RE 0.8	a_p▸ / f_n▸	2.00 / 0.25	**4.00** / **0.35**	6.00 / 0.45	●	●
	160412	RE 1.2	a_p▸ / f_n▸	2.00 / 0.35	**4.00** / **0.45**	6.00 / 0.55	●	○
	160416	RE 1.6	a_p▸ / f_n▸	2.00 / 0.45	**4.00** / **0.55**	6.00 / 0.65	●	○
TNMA	220408	RE 0.8	a_p▸ / f_n▸	4.00 / 0.35	**7.00** / **0.50**	10.0 / 0.65	●	○
	220412	RE 1.2	a_p▸ / f_n▸	4.00 / 0.45	**7.00** / **0.60**	10.0 / 0.75	●	○
	220416	RE 1.6	a_p▸ / f_n▸	4.00 / 0.50	**7.00** / **0.65**	10.0 / 0.80	○	○

● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 142

HOLDERS INTERNAL p. 145

TURNING

THREADING

GROOVING

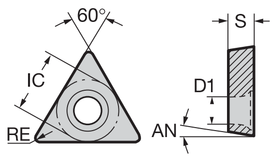
MILLING

DRILLING

ACCESSORIES

TP

CARBIDE
Positive



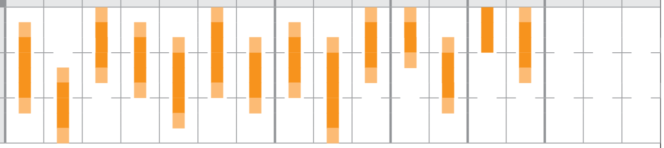
3 edges

Size	IC	S	D1	AN
0902□□	5.56	2.38	3.00	11°
1103□□	6.35	3.18	3.40	11°

ISO513	JC7010 (HC-CVD)	JC7020 (HC-CVD)	JC8005 (HC-CVD)	JC8015 (HC-CVD)	JC8025 (HC-CVD)	JC9010 (HC-CVD)	JC9025 (HC-CVD)	JP5015 (HC-PVD)	JP5025 (HC-PVD)	JP6010 (HC-PVD)	JU6010 (HW)	JU6020 (HW)	JU4015 (HT)	JP4020 (HT)			
P			200 380	180 360	140 300			80 220	60 180				200 380	200 400			
M						150 280	120 240	80 160	60 120				160 280	160 300			
K	180 380	150 300							80 170				200 400	200 420			
N										600 2200	600 2000	500 1500					
S								40 80									
H																	

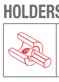
GRADE APPLICATION AREA	
	Stable machining, continuous cut
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +



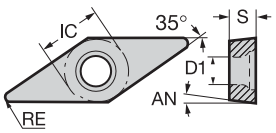
	Insert	Type	Designation	RE					JP5025	JU4015
FINISHING	PPF P M, ground chipbreaker, picture: right-hand	TPEH	090202R/L-PPF	RE 0.2	a_p ▸ / f_n ▸	0.10 / 0.03	**0.30** / **0.06**	0.50 / 0.09	●	●
			090204R/L-PPF	RE 0.4	a_p ▸ / f_n ▸	0.10 / 0.04	**0.30** / **0.07**	0.50 / 0.10	●	●
		TPEH	110302R/L-PPF	RE 0.2	a_p ▸ / f_n ▸	0.10 / 0.04	**0.40** / **0.07**	0.70 / 0.10	●	●
			110304R/L-PPF	RE 0.4	a_p ▸ / f_n ▸	0.10 / 0.04	**0.40** / **0.08**	0.70 / 0.12	●	●
MEDIUM	PPM P M, ground chipbreaker, picture: right-hand	TPEH	110304R/L-PPM	RE 0.4	a_p ▸ / f_n ▸	0.40 / 0.03	**1.00** / **0.06**	1.60 / 0.09	●	●

● stock standard

HOLDERS INTERNAL

p. 148

VB

CARBIDE
Positive



2 edges

Size	IC	S	D1	AN
1103□□	6.35	3.18	2.80	5°
1604□□	9.525	4.76	4.40	5°

ISO513	HC-CVD							HC-PVD			HW		HT					
	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020				
P			200 380	180 360	140 300			80 220	60 180				200 380	200 400				
M						150 280	120 240	80 160	60 120				160 280	160 300				
K	180 380	150 300							80 170				200 400	200 420				
N										600 2200	600 2000	500 1500						
S								40 80										
H																		

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut		

FINISHING	**PPF** P M  ground chipbreaker, picture: right-hand	**VBET**	**110302**$^{R/L}$**-PPF**	RE 0.2	a_p ▸ 0.10 **0.40** 0.70 f_n ▸ 0.04 **0.07** 0.10									●				●				
			110304$^{R/L}$**-PPF**	RE 0.4	a_p ▸ 0.10 **0.40** 0.70 f_n ▸ 0.04 **0.08** 0.12									●				●				
	PFU P M S  sharp edge	**VBMT**	**110304-PFU**	RE 0.4	a_p ▸ 0.20 **0.80** 1.40 f_n ▸ 0.05 **0.11** 0.17									●	●				●	○		
		VBMT	**160404-PFU**	RE 0.4	a_p ▸ 0.30 **1.00** 1.70 f_n ▸ 0.06 **0.14** 0.22			●	●	●		●		●	●				●	●		
			160408-PFU	RE 0.8	a_p ▸ 0.30 **1.00** 1.70 f_n ▸ 0.08 **0.16** 0.24			●	●	●		●		●	●				●	○		
MEDIUM	**PPM** P M  ground chipbreaker, picture: right-hand	**VBET**	**110302**$^{R/L}$**-PPM**	RE 0.2	a_p ▸ 0.40 **1.00** 1.60 f_n ▸ 0.03 **0.05** 0.07										●				●				
			110304$^{R/L}$**-PPM**	RE 0.4	a_p ▸ 0.40 **1.00** 1.60 f_n ▸ 0.03 **0.06** 0.09										●				●				
	PMU P M K  general purpose	**VBMT**	**160404-PMU**	RE 0.4	a_p ▸ 0.60 **1.80** 3.00 f_n ▸ 0.07 **0.16** 0.25	●			●	●		●		●				●				
			160408-PMU	RE 0.8	a_p ▸ 0.60 **1.80** 3.00 f_n ▸ 0.08 **0.19** 0.30	●			●	●		●		●				●				
ROUGHING	**PRU** P K  reinforced edge	**VBMT**	**160408-PRU**	RE 0.8	a_p ▸ 1.50 **2.50** 3.50 f_n ▸ 0.12 **0.22** 0.32	●				●												

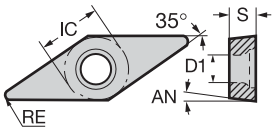
● stock standard

HOLDERS EXTERNAL p. 149

HOLDERS INTERNAL p. 152

VC

CARBIDE
Positive



2 edges

Size	IC	S	D1	AN
1103□□	6.35	3.18	2.80	7°
1604□□	9.525	4.76	4.40	7°
2205□□	12.70	5.56	5.50	7°

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut		

ISO513	HC-CVD							HC-PVD			HW		HT				
	JC7010	**JC7020**	**JC8005**	**JC8015**	**JC8025**	**JC9010**	**JC9025**	**JP5015**	**JP5025**	**JP6010**	**JU6010**	**JU6020**	**JU4015**	**JP4020**			
P			200 380	180 360	140 300			80 220	60 180				200 380	200 400			
M						150 280	120 240	80 160	60 120				160 280	160 300			
K	180 380	150 300							80 170				200 400	200 420			
N										600 2200	600 2000	500 1500					
S								40 80									
H																	

MEDIUM	**PMU** P M K  general purpose	**VCMT**	**110304-PMU**	RE 0.4	a_p ▸ 0.50 **1.50** 2.50 f_n ▸ 0.06 **0.13** 0.20	●			●	●		●						●				
		VCMT	**160404-PMU**	RE 0.4	a_p ▸ 0.60 **1.80** 3.00 f_n ▸ 0.07 **0.16** 0.25	●			●	●		●						●				
			160408-PMU	RE 0.8	a_p ▸ 0.60 **1.80** 3.00 f_n ▸ 0.08 **0.19** 0.30	●			●	●		●		▽				●				
	PMN N  polished surface	**VCGX**	**110302-PMN**	RE 0.2	a_p ▸ 0.30 **1.50** 2.70 f_n ▸ 0.05 **0.10** 0.15										●							
			110304-PMN	RE 0.4	a_p ▸ 0.30 **1.50** 2.70 f_n ▸ 0.06 **0.13** 0.20									○	○	●						
			110308-PMN	RE 0.8	a_p ▸ 0.30 **1.50** 2.70 f_n ▸ 0.08 **0.16** 0.24									○	●	●						
		VCGX	**160402-PMN**	RE 0.2	a_p ▸ 0.50 **2.00** 3.50 f_n ▸ 0.06 **0.11** 0.16									○	●						
			160404-PMN	RE 0.4	a_p ▸ 0.50 **2.00** 3.50 f_n ▸ 0.08 **0.16** 0.24									○	●	●						
			160408-PMN	RE 0.8	a_p ▸ 0.50 **2.00** 3.50 f_n ▸ 0.10 **0.20** 0.30									○	○	●						
			160412-PMN	RE 1.2	a_p ▸ 0.50 **2.00** 3.50 f_n ▸ 0.12 **0.24** 0.36									○		●						
		VCGX	**220512-PMN**	RE 1.6	a_p ▸ 1.00 **3.00** 5.00 f_n ▸ 0.14 **0.27** 0.40									○		○						
			220516-PMN	RE 1.6	a_p ▸ 1.00 **3.00** 5.00 f_n ▸ 0.14 **0.30** 0.46									○		●						
			220530-PMN	RE 3.0	a_p ▸ 1.00 **3.00** 5.00 f_n ▸ 0.20 **0.40** 0.60									●	●	●						
ROUGHING	**PRU** P K  reinforced edge	**VCMT**	**160404-PRU**	RE 0.4	a_p ▸ 1.50 **2.50** 3.50 f_n ▸ 0.10 **0.19** 0.28	●				●												
			160408-PRU	RE 0.8	a_p ▸ 1.50 **2.50** 3.50 f_n ▸ 0.12 **0.22** 0.32	●				●												

● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 153

HOLDERS INTERNAL p. 157

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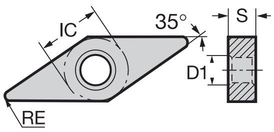
VN

CARBIDE
Negative



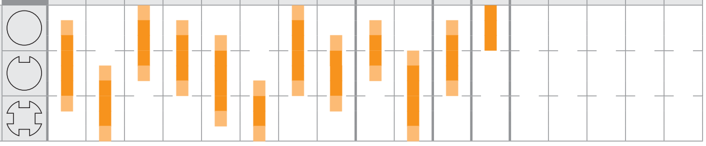
4 edges

Size	IC	S	D1
1604□□	9.525	4.76	3.81

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD		HW	HT
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA	Stable machining, continuous cut
main application	General machining, light interruption
applicable	Unstable machining, interrupted cut

Hardness (+ / −), Toughness (− / +)



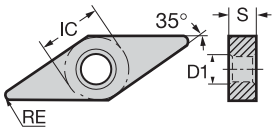
	Chipbreaker		Designation	RE					JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
FINISHING	NSP P 	VNMG	160404-NSP	RE 0.4	a_p f_n	0.40 0.08	**1.20** **0.15**	2.00 0.22			●	●	●							●
			160408-NSP	RE 0.8	a_p f_n	0.40 0.10	**1.20** **0.22**	2.00 0.34			●	●	●							●
	NFP P 	VNMG	160408-NFP	RE 0.8	a_p f_n	0.50 0.08	**1.50** **0.17**	2.50 0.26				▽								
	NFM M 	VNMG	160404-NFM	RE 0.4	a_p f_n	0.40 0.08	**1.20** **0.14**	2.00 0.20									●			
			160408-NFM	RE 0.8	a_p f_n	0.40 0.10	**1.20** **0.20**	2.00 0.30									●			
MEDIUM	NMP P 	VNMG	160404-NMP	RE 0.4	a_p f_n	1.50 0.12	**2.50** **0.20**	3.50 0.28				●	●							▽
			160408-NMP	RE 0.8	a_p f_n	1.50 0.16	**2.50** **0.25**	3.50 0.34				●	●							▽
			160412-NMP	RE 1.2	a_p f_n	1.50 0.20	**2.50** **0.30**	3.50 0.40				●	●							
	NUP P 	VNMG	160404-NUP	RE 0.4	a_p f_n	1.00 0.10	**2.50** **0.20**	4.00 0.30				○	○							●
			160408-NUP	RE 0.8	a_p f_n	1.00 0.15	**2.50** **0.25**	4.00 0.35				●	●							●
			160412-NUP	RE 1.2	a_p f_n	1.00 0.18	**2.50** **0.30**	4.00 0.42				○	○							
	NMM M 	VNMG	160404-NMM	RE 0.4	a_p f_n	1.00 0.15	**2.50** **0.25**	4.00 0.35								●		○		▽
			160408-NMM	RE 0.8	a_p f_n	1.00 0.20	**2.50** **0.30**	4.00 0.40								○		○		▽
	NMK K 	VNMG	160404-NMK	RE 0.4	a_p f_n	0.50 0.10	**2.00** **0.20**	3.50 0.30	●	○										
			160408-NMK	RE 0.8	a_p f_n	0.50 0.15	**2.00** **0.25**	3.50 0.35	●	○										
			160412-NMK	RE 1.2	a_p f_n	0.50 0.20	**2.00** **0.30**	3.50 0.40	●	○										

● stock standard, ○ non-standard stock, ▽ stock exhaustion

HOLDERS EXTERNAL p. 161
HOLDERS INTERNAL p. 163

VN

CARBIDE
Negative



4 edges

Size	IC	S	D1
1604□□	9.525	4.76	3.81

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD		HW	HT
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut		

MEDIUM

NMN N

polished surface

		RE	a_p ▸			f_n ▸			JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
VNGG	**160404-NMN**	RE 0.4	0.50	**2.00**	3.50	0.10	**0.20**	0.30											●	
	160408-NMN	RE 0.8	0.50	**2.00**	3.50	0.15	**0.25**	0.35											●	

ROUGHING

NRK K

		RE	a_p ▸			f_n ▸			JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
VNMG	**160408-NRK**	RE 0.8	1.50	**4.00**	6.50	0.20	**0.30**	0.40	○	○										
	160412-NRK	RE 1.2	1.50	**4.00**	6.50	0.25	**0.35**	0.45	○	○										

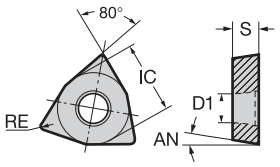
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 161

HOLDERS INTERNAL p. 163

WC

CARBIDE
Positive



3 edges

Size	IC	S	D1	AN
12T3□□	9.525	3.97	4.40	7°

ISO513	HC-CVD							HC-PVD			HW		HT				
	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020			
P			200 380	180 360	140 300			80 220	60 180				200 380	200 400			
M						150 280	120 240	80 160	60 120				160 280	160 300			
K	180 380	150 300							80 170				200 400	200 420			
N										600 2200	600 2000	500 1500					
S								40 80									
H																	

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut		

MEDIUM

PMU P M K

general purpose

			a_p ▸			f_n ▸		
WCMT	12T304-PMU	RE 0.4	0.60	**1.80**	3.00	0.07	**0.16**	0.25
	12T308-PMU	RE 0.8	0.60	**1.80**	3.00	0.08	**0.19**	0.30

JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP5015	JP5025	JP6010	JU6010	JU6020	JU4015	JP4020			
●			●	●		●						●				
●			●	●		●						●				

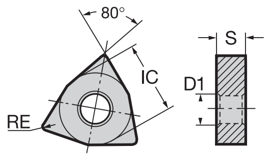
● stock standard

HOLDERS INTERNAL p. 165

nikkoTOOLS

WN

CARBIDE
Negative



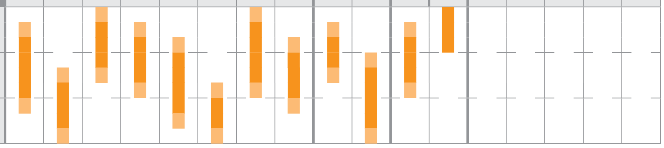
6 edges

Size	IC	S	D1
0604□□	9.525	4.76	3.81
0804□□	12.70	4.76	5.16

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD		HW	HT
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA	
■ main application	Stable machining, continuous cut
■ applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +



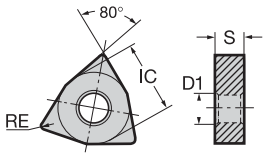
								JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
FINISHING	NSP P 	WNMG	060404-NSP	RE 0.4	a_p ▸ 0.30 **0.70** 1.10 / f_n ▸ 0.06 **0.12** 0.18						●	○							●
			060408-NSP	RE 0.8	a_p ▸ 0.30 **0.70** 1.10 / f_n ▸ 0.08 **0.16** 0.24						●	○							●
		WNMG	080404-NSP	RE 0.4	a_p ▸ 0.40 **1.20** 2.00 / f_n ▸ 0.08 **0.15** 0.22					●	●	●							●
			080408-NSP	RE 0.8	a_p ▸ 0.40 **1.20** 2.00 / f_n ▸ 0.10 **0.22** 0.34					●	●	●							●
	NFP P 	WNMG	060404-NFP	RE 0.4	a_p ▸ 0.50 **1.00** 1.50 / f_n ▸ 0.05 **0.10** 0.15						▽								
			060408-NFP	RE 0.8	a_p ▸ 0.50 **1.00** 1.50 / f_n ▸ 0.07 **0.14** 0.21						▽								
		WNMG	080404-NFP	RE 0.4	a_p ▸ 0.50 **1.50** 2.50 / f_n ▸ 0.06 **0.12** 0.18						▽								
			080408-NFP	RE 0.8	a_p ▸ 0.50 **1.50** 2.50 / f_n ▸ 0.08 **0.17** 0.26						▽								
	NFM M 	WNMG	060404-NFM	RE 0.4	a_p ▸ 0.30 **0.70** 1.10 / f_n ▸ 0.05 **0.10** 0.15											●			
			060408-NFM	RE 0.8	a_p ▸ 0.30 **0.70** 1.10 / f_n ▸ 0.07 **0.15** 0.23											●			
		WNMG	080404-NFM	RE 0.4	a_p ▸ 0.40 **1.20** 2.00 / f_n ▸ 0.08 **0.14** 0.20											●			
			080408-NFM	RE 0.8	a_p ▸ 0.40 **1.20** 2.00 / f_n ▸ 0.10 **0.20** 0.30											●			
MEDIUM	NMP P 	WNMG	060404-NMP	RE 0.4	a_p ▸ 1.00 **1.50** 2.00 / f_n ▸ 0.10 **0.15** 0.20						●	●							
			060408-NMP	RE 0.8	a_p ▸ 1.00 **1.50** 2.00 / f_n ▸ 0.15 **0.20** 0.25						●	●							
		WNMG	080404-NMP	RE 0.4	a_p ▸ 1.50 **2.50** 3.50 / f_n ▸ 0.12 **0.20** 0.28						●	●							▽
			080408-NMP	RE 0.8	a_p ▸ 1.50 **2.50** 3.50 / f_n ▸ 0.16 **0.25** 0.34						●	●							▽
			080412-NMP	RE 1.2	a_p ▸ 1.50 **2.50** 3.50 / f_n ▸ 0.20 **0.30** 0.40						●	●							
			080416-NMP	RE 1.6	a_p ▸ 1.50 **2.50** 3.50 / f_n ▸ 0.25 **0.35** 0.45						●	●							
	NUP P M 	WNMG	060404-NUP	RE 0.4	a_p ▸ 0.70 **1.50** 2.30 / f_n ▸ 0.08 **0.15** 0.22						●	●							●
			060408-NUP	RE 0.8	a_p ▸ 0.70 **1.50** 2.30 / f_n ▸ 0.12 **0.20** 0.28					○	●	●							●
		WNMG	080404-NUP	RE 0.4	a_p ▸ 1.00 **2.50** 4.00 / f_n ▸ 0.10 **0.20** 0.30					●	●	●			●				●
			080408-NUP	RE 0.8	a_p ▸ 1.00 **2.50** 4.00 / f_n ▸ 0.15 **0.25** 0.35					●	●	●			●				●
			080412-NUP	RE 1.2	a_p ▸ 1.00 **2.50** 4.00 / f_n ▸ 0.18 **0.30** 0.42					●	●	●			●				
			080416-NUP	RE 1.6	a_p ▸ 1.00 **2.50** 4.00 / f_n ▸ 0.20 **0.35** 0.50					●	●	●							
	NMM M 	WNMG	060404-NMM	RE 0.4	a_p ▸ 0.70 **1.50** 2.30 / f_n ▸ 0.13 **0.20** 0.27									●	●		○		
			060408-NMM	RE 0.8	a_p ▸ 0.70 **1.50** 2.30 / f_n ▸ 0.18 **0.25** 0.32									●	●		●		
			060412-NMM	RE 1.2	a_p ▸ 0.70 **1.50** 2.30 / f_n ▸ 0.20 **0.28** 0.36										●		●		

● stock standard, ○ non-standard stock, ▽ stock exhaustion

HOLDERS EXTERNAL p. 166
HOLDERS INTERNAL p. 169

WN

CARBIDE
Negative

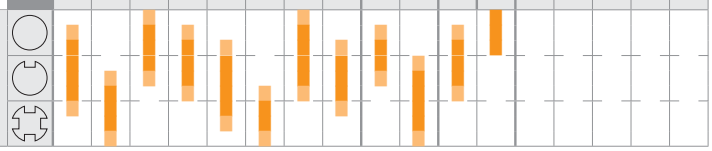


6 edges

Size	IC	S	D1
0604□□	9.525	4.76	3.81
0804□□	12.70	4.76	5.16

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD		HW	HT
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut		



MEDIUM

NMM M

			a_p ▸			f_n ▸			JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
WNMG	080404-NMM	RE 0.4	1.00	**2.50**	4.00	0.15	**0.25**	0.35							●	●	●	●		▽
	080408-NMM	RE 0.8	1.00	**2.50**	4.00	0.20	**0.30**	0.40							●	●	●	●		▽
	080412-NMM	RE 1.2	1.00	**2.50**	4.00	0.25	**0.35**	0.45							●	●	○	●		

NMK K

			a_p ▸			f_n ▸			JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
WNMG	080404-NMK	RE 0.4	0.50	**2.00**	3.50	0.10	**0.20**	0.30	●	○										
	080408-NMK	RE 0.8	0.50	**2.00**	3.50	0.15	**0.25**	0.35	●	●										
	080412-NMK	RE 1.2	0.50	**2.00**	3.50	0.20	**0.30**	0.40	●	●										

NWU P K

wiper edge

			a_p ▸			f_n ▸			JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
WNMG	080408-NWU	RE 0.8	0.80	**2.00**	3.20	0.20	**0.40**	0.60	●				●							●
	080412-NWU	RE 1.2	0.80	**2.00**	3.20	0.25	**0.45**	0.65	●				●							●

NMN N

polished surface

			a_p ▸			f_n ▸			JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
WNGG	060404-NMN	RE 0.4	0.30	**1.00**	1.70	0.08	**0.15**	0.22											●	
	060408-NMN	RE 0.8	0.30	**1.00**	1.70	0.10	**0.20**	0.30											●	
WNGG	080404-NMN	RE 0.4	0.50	**2.00**	3.50	0.10	**0.20**	0.30											●	
	080408-NMN	RE 0.8	0.50	**2.00**	3.50	0.15	**0.25**	0.35											●	
	080412-NMN	RE 1.2	0.50	**2.00**	3.50	0.20	**0.30**	0.40											●	

ROUGHING

NRP P

			a_p ▸			f_n ▸			JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
WNMG	080408-NRP	RE 0.8	2.00	**4.00**	6.00	0.25	**0.35**	0.45			●	●	●	●						
	080412-NRP	RE 1.2	2.00	**4.00**	6.00	0.30	**0.40**	0.50			●	●	●	●						
	080416-NRP	RE 1.6	2.00	**4.00**	6.00	0.35	**0.45**	0.55				●	●	●						

NTP P

			a_p ▸			f_n ▸			JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
WNMG	080408-NTP	RE 0.8	3.00	**5.00**	7.00	0.30	**0.40**	0.50				▽	▽							

● stock standard, ○ non-standard stock, ▽ stock exhaustion

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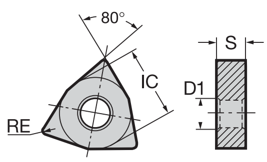
HOLDERS INTERNAL p. 169

WN

CARBIDE Negative



6 edges

Size	IC	S	D1
0604□□	9.525	4.76	3.81
0804□□	12.70	4.76	5.16

ISO513	JC7010	JC7020	JC8005	JC8015	JC8025	JC8035	JC9010	JC9025	JP9015	JP9030	JU6020	JU4015
	HC-CVD								HC-PVD		HW	HT
P			200 380	180 360	140 300	100 240						200 380
M							150 280	120 240	100 220	80 200		160 280
K	180 380	150 300										200 400
N											500 1500	
S												
H												

GRADE APPLICATION AREA	
	Stable machining, continuous cut
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut

Hardness + / – ; Toughness – / +

ROUGHING

NRK K

Flat K

Type	Designation	RE					JC7010	JC7020
WNMG	060408-NRK	RE 0.8	a_p▸ f_n▸	1.00 0.15	**2.00** **0.25**	3.00 0.35	●	●
WNMG	080408-NRK	RE 0.8	a_p▸ f_n▸	1.50 0.20	**4.00** **0.30**	6.50 0.40	●	●
	080412-NRK	RE 1.2	a_p▸ f_n▸	1.50 0.25	**4.00** **0.35**	6.50 0.45	●	●
WNMA	080408	RE 0.8	a_p▸ f_n▸	2.00 0.25	**4.00** **0.35**	6.00 0.45	●	○
	080412	RE 1.2	a_p▸ f_n▸	2.00 0.35	**4.00** **0.45**	6.00 0.55	●	○
	080416	RE 1.6	a_p▸ f_n▸	2.00 0.45	**4.00** **0.55**	6.00 0.65	●	○

● stock standard, ○ non-standard stock

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HOLDERS INTERNAL p. 169

TURNING PCBN

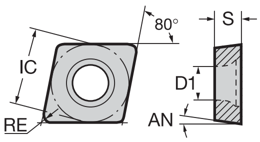
	MATERIAL	OPERATION	CONDITION	EDGE PREP.	GRADE	Vc (m/min)	fn (mm/rev)	COOLANT
H	Hardened steel	finishing ap < 0.5 mm	◯	SE	NBL050C	140 **190** 240	0.06 **0.14** 0.22	
			⟳	UE	NBL150C tool life	120 **170** 220	0.06 **0.15** 0.24	
					NBL250C reliability	100 **150** 200		
			⟳	RE	NBL350C	80 **120** 160	0.06 **0.16** 0.26	
	Bearing steel	finishing ap < 0.5 mm	◯	SE	NBL050C	120 **170** 220	0.05 **0.10** 0.15	
			⟳	UE	NBL150C tool life	100 **150** 200	0.06 **0.13** 0.20	
					NBL250C reliability	80 **130** 180		
			⟳	RE	NBL350C	60 **110** 160	0.06 **0.14** 0.22	
		roughing ap > 0.5 mm **SOLID PCBN**	◯ ⟳	UE	NBH900U	100 **140** 180	0.15 **0.30** 0.45	
			⟳	UE	NBH950U	80 **120** 160	0.10 **0.25** 0.40	
	Tool steel	finishing ap < 0.5 mm	◯	SE	NBL150C	100 **140** 180	0.04 **0.09** 0.14	
			⟳	UE	NBL250C	80 **120** 160	0.05 **0.12** 0.19	
			⟳	RE	NBL350C	60 **100** 140	0.06 **0.13** 0.20	
		roughing ap > 0.5 mm **SOLID PCBN**	◯ ⟳	UE	NBH900U	60 **100** 140	0.10 **0.30** 0.50	
			⟳	UE	NBH950U	40 **80** 120	0.10 **0.25** 0.40	
	High speed steel	finishing ap < 0.5 mm	◯	UE	NBL150C	100 **120** 140	0.05 **0.08** 0.11	
	White cast iron	finishing ap < 0.5 mm	◯ ⟳	UE	NBH500C	60 **120** 180	0.10 **0.30** 0.50	
			⟳	UE	NBH900U	40 **80** 120	0.10 **0.25** 0.40	
		roughing ap > 0.5 mm **SOLID PCBN**	◯ ⟳	UE	NBH500C	60 **90** 120	0.20 **0.40** 0.60	
			⟳	UE	NBH950U	40 **60** 80	0.20 **0.35** 0.50	
K	Gray cast iron	finishing ap < 0.5 mm	◯ ⟳	UE	NBH450C	400 **800** 1200	0.10 **0.25** 0.40	
			⟳	UE	NBH500C	600 **1000** 1400	0.10 **0.20** 0.30	
		roughing ap > 0.5 mm **SOLID PCBN**	◯ ⟳	UE	NBH500C	600 **1000** 1400	0.20 **0.40** 0.60	
			⟳	UE	NBH900U tool life	400 **800** 1200	0.20 **0.35** 0.50	
					NBH950U reliability	400 **700** 1000		
	ADI cast iron	finishing ap < 0.5 mm	◯ ⟳	UE	NBL150C	500 **600** 700	0.05 **0.15** 0.25	
			⟳	UE	NBL250C	400 **500** 600	0.05 **0.15** 0.25	
		roughing ap > 0.5 mm **SOLID PCBN**	◯ ⟳	UE	NBH500C	300 **400** 500	0.10 **0.25** 0.40	
			⟳	UE	NBH900U tool life	200 **250** 300	0.10 **0.25** 0.40	
					NBH950U reliability	180 **230** 280		
P	Sintered powder metal, high alloyed	finishing ap < 0.5 mm	◯	UE	NBL150C	80 **160** 240	0.05 **0.10** 0.15	
	Sintered powder metal, low alloyed	finishing ap < 0.5 mm	◯	UE	NBH450C	140 **220** 300	0.10 **0.20** 0.30	

◯ Stable machining, continuous cut ⟳ General machining, light interruption ⟳ Unstable machining, interrupted cut

nikkoTOOLS

CC

PCBN
Positive



2 edges

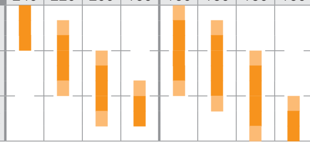
Size	IC	S	D1	AN
MICRO CC	3.50	1.40	1.90	7°
0602□□	6.35	2.38	2.80	7°
09T3□□	9.525	3.97	4.40	7°

ISO513	NBL050C (BL)	NBL150C (BL)	NBL250C (BL)	NBL350C (BL)	NBH450C (BH)	NBH500C (BH)	NBH900U (BH)	NBH950U (BH)
P		80 240			140 300			
M								
K					400 1200	300 1400	200 1200	180 1000
N								
S								
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160

◄ SINTERED POWDER METAL

GRADE APPLICATION AREA	
main application	Stable machining, continuous cut
applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / – ; Toughness – / +



Group	Type	Holder	Designation	RE		min	rec.	max	NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
SHARP	SE H — MICROBORING, full face	MICRO	CC.R02S-SE-FF	RE 0.2	a_p ▸ f_n ▸	0.05 0.04	**0.10** **0.06**	0.15 0.08		▲						
			CC.R04S-SE-FF	RE 0.4	a_p ▸ f_n ▸	0.05 0.04	**0.10** **0.08**	0.15 0.12		▲						
	SE H	CCGW	060202S-SE-2S	RE 0.2	a_p ▸ f_n ▸	0.05 0.04	**0.10** **0.06**	0.15 0.08	○	●						
			060204S-SE-2S	RE 0.4	a_p ▸ f_n ▸	0.05 0.04	**0.10** **0.08**	0.15 0.12	●	●						
			060208S-SE-2S	RE 0.8	a_p ▸ f_n ▸	0.05 0.05	**0.10** **0.10**	0.15 0.15		○						
		CCGW	09T302S-SE-2S	RE 0.2	a_p ▸ f_n ▸	0.05 0.04	**0.10** **0.06**	0.15 0.08	○	●						
			09T304S-SE-2S	RE 0.4	a_p ▸ f_n ▸	0.05 0.04	**0.10** **0.08**	0.15 0.12	●	●						
			09T308S-SE-2S	RE 0.8	a_p ▸ f_n ▸	0.05 0.05	**0.10** **0.10**	0.15 0.15		●						
UNIVERSAL	UE H	CCGW	060202S-UE-2S	RE 0.2	a_p ▸ f_n ▸	0.06 0.05	**0.13** **0.10**	0.20 0.15	○	●						
			060204S-UE-2S	RE 0.4	a_p ▸ f_n ▸	0.06 0.06	**0.13** **0.12**	0.20 0.18	●	●	●					
			060208S-UE-2S	RE 0.8	a_p ▸ f_n ▸	0.06 0.06	**0.13** **0.13**	0.20 0.20		○	○					
		CCGW	09T302S-UE-2S	RE 0.2	a_p ▸ f_n ▸	0.06 0.05	**0.13** **0.10**	0.20 0.15	○	●						
			09T304S-UE-2S	RE 0.4	a_p ▸ f_n ▸	0.06 0.06	**0.13** **0.12**	0.20 0.18	●	●	●					
			09T308S-UE-2S	RE 0.8	a_p ▸ f_n ▸	0.06 0.06	**0.13** **0.13**	0.20 0.20		●	●					
	UE K H — tip with carbide backed	CCGW	060204S-UE-2C	RE 0.4	a_p ▸ f_n ▸	0.06 0.06	**0.13** **0.12**	0.20 0.18					●			
			060208S-UE-2C	RE 0.8	a_p ▸ f_n ▸	0.06 0.06	**0.13** **0.13**	0.20 0.20					○			
		CCGW	09T304S-UE-2C	RE 0.4	a_p ▸ f_n ▸	0.06 0.06	**0.13** **0.12**	0.20 0.18					●			
			09T308S-UE-2C	RE 0.8	a_p ▸ f_n ▸	0.06 0.06	**0.13** **0.13**	0.20 0.20					●			
REINFORCED	RE H	CCGW	060204S-RE-2S	RE 0.4	a_p ▸ f_n ▸	0.08 0.06	**0.16** **0.13**	0.25 0.20				●				
			060208S-RE-2S	RE 0.8	a_p ▸ f_n ▸	0.08 0.06	**0.16** **0.14**	0.25 0.22				○				
		CCGW	09T304S-RE-2S	RE 0.4	a_p ▸ f_n ▸	0.08 0.06	**0.16** **0.13**	0.25 0.20				●				
			09T308S-RE-2S	RE 0.8	a_p ▸ f_n ▸	0.08 0.06	**0.16** **0.14**	0.25 0.22				○				
WIPER	WE H	CCGW	09T304S-WE-2S	RE 0.4	a_p ▸ f_n ▸	0.06 0.10	**0.13** **0.15**	0.20 0.20	●	●						
			09T308S-WE-2S	RE 0.8	a_p ▸ f_n ▸	0.06 0.10	**0.13** **0.18**	0.20 0.26	●	●						






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

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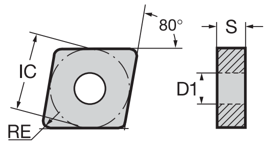
HOLDERS INTERNAL p. 89

CN

PCBN
Negative



4 edges

Size	IC	S	D1
MICRO CN	7.50	3.18	3.60
0903□□	9.525	3.18	-
1204□□	12.70	4.76	(5.16)
1207□□	12.70	7.94	-

ISO513	NBL050C (BL)	NBL150C (BL)	NBL250C (BL)	NBL350C (BL)	NBH450C (BH)	NBH500C (BH)	NBH900U (BH)	NBH950U (BH)
P		80 240			140 300			
M								
K					400 1200	300 1400	200 1200	180 1000
N								
S								
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160

◄ SINTERED POWDER METAL

GRADE APPLICATION AREA	
GRADE APPLICATION AREA	Stable machining, continuous cut
main application	General machining, light interruption
applicable	Unstable machining, interrupted cut

Hardness (+ / −), Toughness (− / +)






Group	Geometry	Type	Designation	RE					NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
SHARP	SE H – MICRONEGA, vertical	MICRO	CN.R02S-SE-4V	RE 0.2	a_p▸ f_n▸	0.06 0.05	**0.13** **0.10**	0.20 0.15		▲						
			CN.R04S-SE-4V	RE 0.4	a_p▸ f_n▸	0.06 0.06	**0.13** **0.12**	0.20 0.18		▲						
			CN.R08S-SE-4V	RE 0.8	a_p▸ f_n▸	0.06 0.06	**0.13** **0.13**	0.20 0.20		▲						
	SE H – vertical	CNGA	120404S-SE-4V	RE 0.4	a_p▸ f_n▸	0.06 0.06	**0.13** **0.12**	0.20 0.18	○	○						
			120408S-SE-4V	RE 0.8	a_p▸ f_n▸	0.06 0.06	**0.13** **0.13**	0.20 0.20	●	●						
			120412S-SE-4V	RE 1.2	a_p▸ f_n▸	0.06 0.06	**0.13** **0.14**	0.20 0.22	○	○						
UNIVERSAL	UE K H – MICRONEGA, vertical	MICRO	CN.R02S-UE-4V	RE 0.2	a_p▸ f_n▸	0.07 0.06	**0.16** **0.12**	0.25 0.18			▲		▲			
			CN.R04S-UE-4V	RE 0.4	a_p▸ f_n▸	0.07 0.08	**0.16** **0.14**	0.25 0.20			▲		▲			
			CN.R08S-UE-4V	RE 0.8	a_p▸ f_n▸	0.07 0.08	**0.16** **0.15**	0.25 0.22			▲		▲			
	UE K H – vertical	CNGA	120404S-UE-4V	RE 0.4	a_p▸ f_n▸	0.07 0.08	**0.16** **0.14**	0.25 0.20	●	●	●					
			120408S-UE-4V	RE 0.8	a_p▸ f_n▸	0.07 0.08	**0.16** **0.15**	0.25 0.22	●	●	●			●		
			120412S-UE-4V	RE 1.2	a_p▸ f_n▸	0.07 0.08	**0.16** **0.16**	0.25 0.24	●	●	●			●		
	UE K H – solid	CNGA	120408S-UE	RE 0.8	a_p▸ f_n▸	1.00 0.10	**2.00** **0.20**	3.00 0.30						○		
			120412S-UE	RE 1.2	a_p▸ f_n▸	1.00 0.10	**2.00** **0.22**	3.00 0.35						●		
	UE K H – solid, without hole	CNGN	090308S-UE	RE 0.8	a_p▸ f_n▸	0.50 0.10	**1.50** **0.20**	2.50 0.30							●	
			090312S-UE	RE 1.2	a_p▸ f_n▸	0.50 0.10	**1.50** **0.22**	2.50 0.35							●	
			090316S-UE	RE 1.6	a_p▸ f_n▸	0.50 0.10	**1.50** **0.25**	2.50 0.40							○	
		CNGN	120408S-UE	RE 0.8	a_p▸ f_n▸	1.00 0.10	**2.00** **0.20**	3.00 0.30							●	
			120412S-UE	RE 1.2	a_p▸ f_n▸	1.00 0.10	**2.00** **0.22**	3.00 0.35							●	
			120416S-UE	RE 1.6	a_p▸ f_n▸	1.00 0.10	**2.00** **0.25**	3.00 0.40							○	

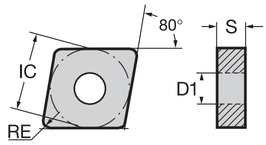
● stock standard, ○ non-standard stock, ▲ upcoming introduction

HOLDERS EXTERNAL p. 96

HOLDERS INTERNAL p. 102

CN

PCBN
Negative



4 edges

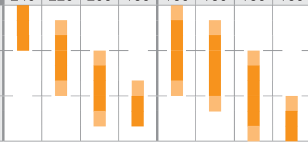
Size	IC	S	D1
MICRO CN	7.50	3.18	3.60
0903□□	9.525	3.18	-
1204□□	12.70	4.76	(5.16)
1207□□	12.70	7.94	-

ISO513	NBL050C (BL)	NBL150C (BL)	NBL250C (BL)	NBL350C (BL)	NBH450C (BH)	NBH500C (BH)	NBH900U (BH)	NBH950U (BH)
P		80 240			140 300			
M								
K					400 1200	300 1400	200 1200	180 1000
N								
S								
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160

◄ SINTERED POWDER METAL

GRADE APPLICATION AREA	
	Stable machining, continuous cut
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut

Hardness + / −, Toughness − / +



			RE					NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
UNIVERSAL – UE K H, solid, with dimple	CNGX	120712S-UE	RE 1.2	a_p▸ / f_n▸	1.00 / 0.10	**2.00** / **0.22**	3.00 / 0.35						○		
		120716S-UE	RE 1.6	a_p▸ / f_n▸	1.00 / 0.10	**2.00** / **0.25**	3.00 / 0.40						○		
REINFORCED – RE K H, vertical	CNGA	120404S-RE-4V	RE 0.4	a_p▸ / f_n▸	0.08 / 0.08	**0.17** / **0.14**	0.26 / 0.20				○			●	
		120408S-RE-4V	RE 0.8	a_p▸ / f_n▸	0.08 / 0.08	**0.17** / **0.16**	0.26 / 0.24				●			●	
		120412S-RE-4V	RE 1.2	a_p▸ / f_n▸	0.08 / 0.08	**0.17** / **0.17**	0.26 / 0.26				●			●	
WIPER – WE H, vertical	CNGA	120404S-WE-4V	RE 0.4	a_p▸ / f_n▸	0.07 / 0.10	**0.16** / **0.17**	0.25 / 0.24	○	○	○					
		120408S-WE-4V	RE 0.8	a_p▸ / f_n▸	0.07 / 0.10	**0.16** / **0.19**	0.25 / 0.28	●	●	●					
		120412S-WE-4V	RE 1.2	a_p▸ / f_n▸	0.07 / 0.10	**0.16** / **0.20**	0.25 / 0.30	●	●	●					

● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 97

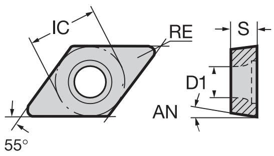
HOLDERS INTERNAL p. 104

nikkoTOOLS

TURNING · THREADING · GROOVING · MILLING · DRILLING · ACCESSORIES

DC

PCBN
Positive



2 edges

Size	IC	S	D1	AN
0702□□	6.35	2.38	2.80	7°
11T3□□	9.525	3.97	4.40	7°

ISO513	NBL050C (BL)	NBL150C (BL)	NBL250C (BL)	NBL350C (BL)	NBH450C (BH)	NBH500C (BH)	NBH900U (BH)	NBH950U (BH)
P		80 240			140 300			
M								
K					400 1200	300 1400	200 1200	180 1000
N								
S								
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160

◄ SINTERED POWDER METAL

GRADE APPLICATION AREA	Stable machining, continuous cut
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut

Hardness + / – ; Toughness – / +

	Type		Designation	RE	a_p min	a_p	a_p max	f_n min	f_n	f_n max	NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
SHARP	SE H	DCGW	070202S-SE-2S	RE 0.2	0.05	**0.10**	0.15	0.04	**0.06**	0.08	○	●						
			070204S-SE-2S	RE 0.4	0.05	**0.10**	0.15	0.04	**0.08**	0.12	●	●						
			070208S-SE-2S	RE 0.8	0.05	**0.10**	0.15	0.05	**0.10**	0.15		○						
		DCGW	11T302S-SE-2S	RE 0.2	0.05	**0.10**	0.15	0.04	**0.06**	0.08	○	●						
			11T304S-SE-2S	RE 0.4	0.05	**0.10**	0.15	0.04	**0.08**	0.12	●	●						
			11T308S-SE-2S	RE 0.8	0.05	**0.10**	0.15	0.05	**0.10**	0.15		●						
UNIVERSAL	UE H	DCGW	070202S-UE-2S	RE 0.2	0.06	**0.13**	0.20	0.05	**0.10**	0.15	○	●						
			070204S-UE-2S	RE 0.4	0.06	**0.13**	0.20	0.06	**0.12**	0.18	●	●	●					
			070208S-UE-2S	RE 0.8	0.06	**0.13**	0.20	0.06	**0.13**	0.20		○	○					
		DCGW	11T302S-UE-2S	RE 0.2	0.06	**0.13**	0.20	0.05	**0.10**	0.15	○	●						
			11T304S-UE-2S	RE 0.4	0.06	**0.13**	0.20	0.06	**0.12**	0.18	●	●	●					
			11T308S-UE-2S	RE 0.8	0.06	**0.13**	0.20	0.06	**0.13**	0.20		●	●					
	UE K H (tip with carbide backed)	DCGW	11T304S-UE-2C	RE 0.4	0.06	**0.13**	0.20	0.06	**0.12**	0.18					●			
			11T308S-UE-2C	RE 0.8	0.06	**0.13**	0.20	0.06	**0.13**	0.20					●			
REINFORCED	RE H	DCGW	070204S-RE-2S	RE 0.4	0.08	**0.16**	0.25	0.06	**0.13**	0.20				○				
			070208S-RE-2S	RE 0.8	0.08	**0.16**	0.25	0.06	**0.14**	0.22				○				
		DCGW	11T304S-RE-2S	RE 0.4	0.08	**0.16**	0.25	0.06	**0.13**	0.20				●				
			11T308S-RE-2S	RE 0.8	0.08	**0.16**	0.25	0.06	**0.14**	0.22				●				



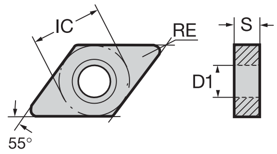

tip with carbide backed


● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 107
HOLDERS INTERNAL p. 111

DN

PCBN
Negative



4 edges

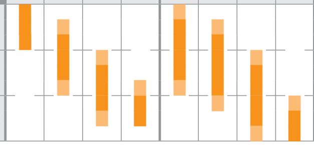
Size	IC	S	D1
MICRO DN	7.00	3.18	3.60
1504□□	12.70	4.76	5.16
1506□□	12.70	6.35	5.16

ISO513	NBL050C (BL)	NBL150C (BL)	NBL250C (BL)	NBL350C (BL)	NBH450C (BH)	NBH500C (BH)	NBH900U (BH)	NBH950U (BH)
P		80 240			140 300			
M								
K					400 1200	300 1400	200 1200	180 1000
N								
S								
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160

◄ SINTERED POWDER METAL

GRADE APPLICATION AREA	Stable machining, continuous cut
main application	General machining, light interruption
applicable	Unstable machining, interrupted cut

Hardness + / – ; Toughness – / +



	Insert	Type	Designation	RE					NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
SHARP	SE H – MICRONEGA, vertical	MICRO	DN.R02S-SE-4V	RE 0.2	a_p▸ f_n▸	0.06 0.05	**0.13** **0.10**	0.20 0.15		▲						
			DN.R04S-SE-4V	RE 0.4	a_p▸ f_n▸	0.06 0.06	**0.13** **0.12**	0.20 0.18		▲						
			DN.R08S-SE-4V	RE 0.8	a_p▸ f_n▸	0.06 0.06	**0.13** **0.13**	0.20 0.20		▲						
	SE H – vertical	DNGA	150404S-SE-4V	RE 0.4	a_p▸ f_n▸	0.06 0.06	**0.13** **0.12**	0.20 0.18	○	○						
			150408S-SE-4V	RE 0.8	a_p▸ f_n▸	0.06 0.06	**0.13** **0.13**	0.20 0.20	○	○						
	SE H	DNGA	150604S-SE-4S	RE 0.4	a_p▸ f_n▸	0.06 0.06	**0.13** **0.12**	0.20 0.18	○	○						
			150608S-SE-4S	RE 0.8	a_p▸ f_n▸	0.06 0.06	**0.13** **0.13**	0.20 0.20	○	○						
UNIVERSAL	UE K H – MICRONEGA, vertical	MICRO	DN.R02S-UE-4V	RE 0.2	a_p▸ f_n▸	0.07 0.06	**0.16** **0.12**	0.25 0.18			▲		▲			
			DN.R04S-UE-4V	RE 0.4	a_p▸ f_n▸	0.07 0.08	**0.16** **0.14**	0.25 0.20			▲		▲			
			DN.R08S-UE-4V	RE 0.8	a_p▸ f_n▸	0.07 0.08	**0.16** **0.15**	0.25 0.22			▲		▲			
	UE K H – vertical	DNGA	150404S-UE-4V	RE 0.4	a_p▸ f_n▸	0.07 0.08	**0.16** **0.14**	0.25 0.20		○	●					
			150408S-UE-4V	RE 0.8	a_p▸ f_n▸	0.07 0.08	**0.16** **0.15**	0.25 0.22		○	●					
		DNGA	150604S-UE-4V	RE 0.4	a_p▸ f_n▸	0.07 0.08	**0.16** **0.14**	0.25 0.20							●	
			150608S-UE-4V	RE 0.8	a_p▸ f_n▸	0.07 0.08	**0.16** **0.15**	0.25 0.22						●	●	
			150612S-UE-4V	RE 1.2	a_p▸ f_n▸	0.07 0.08	**0.16** **0.16**	0.25 0.24							●	
	UE H	DNGA	150604S-UE-4S	RE 0.4	a_p▸ f_n▸	0.07 0.08	**0.16** **0.14**	0.25 0.20	○	●	●					
			150608S-UE-4S	RE 0.8	a_p▸ f_n▸	0.07 0.08	**0.16** **0.15**	0.25 0.22	○	●	●					
			150612S-UE-4S	RE 1.2	a_p▸ f_n▸	0.07 0.08	**0.16** **0.16**	0.25 0.24	○	○	○					






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

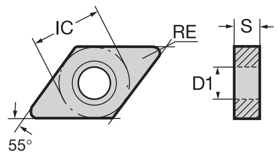
HOLDERS EXTERNAL ▶ p. 119

HOLDERS INTERNAL ▶ p. 123

TURNING
THREADING
GROOVING
MILLING
DRILLING
ACCESSORIES

DN

PCBN
Negative



4 edges

Size	IC	S	D1
MICRO DN	7.00	3.18	3.60
1504□□	12.70	4.76	5.16
1506□□	12.70	6.35	5.16

ISO513	BL: NBL050C	NBL150C	NBL250C	NBL350C	BH: NBH450C	NBH500C	NBH900U	NBH950U	
P		80 240			140 300				◀ SINTERED POWDER METAL
M									
K					400 1200	300 1400	200 1200	180 1000	
N									
S									
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160	

GRADE APPLICATION AREA	
■ main application	Stable machining, continuous cut
■ applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / −, Toughness − / +

REINFORCED

RE H

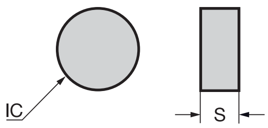
							NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
DNGA	150604S-RE-4S	RE 0.4	a_p▸ f_n▸	0.08 0.08	**0.17** **0.14**	0.26 0.20				○				
	150608S-RE-4S	RE 0.8	a_p▸ f_n▸	0.08 0.08	**0.17** **0.16**	0.26 0.24				○				
	150612S-RE-4S	RE 1.2	a_p▸ f_n▸	0.08 0.08	**0.17** **0.17**	0.26 0.26				○				

○ non-standard stock

HOLDERS EXTERNAL p. 120
HOLDERS INTERNAL p. 125

RN

PCBN
Negative



Size	IC	S
0603□□	6.35	3.18
0903□□	9.525	3.18
1203□□	12.70	3.18
1204□□	12.70	4.76

ISO513	BL NBL050C	NBL150C	NBL250C	NBL350C	BH NBH450C	NBH500C	NBH900U	NBH950U	
P		80 240			140 300				◄ SINTERED POWDER METAL
M									
K					400 1200	300 1400	200 1200	180 1000	
N									
S									
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160	

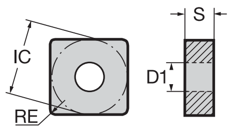
GRADE APPLICATION AREA	Stable machining, continuous cut	+ Hardness −	− Toughness +
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut		

Type	Designation			a_p / f_n	NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
SHARP SE K H  solid	RNGN	090300T-SE	-	a_p▸ 0.20 **1.50** 2.80 f_n▸ 0.10 **0.20** 0.40						●		
UNIVERSAL UE K H  solid	RNGN	060300S-UE	-	a_p▸ 0.50 **1.50** 2.50 f_n▸ 0.10 **0.20** 0.30						●		
	RNGN	090300S-UE	-	a_p▸ 0.50 **2.00** 3.50 f_n▸ 0.10 **0.30** 0.50						●	●	●
	RNGN	120300S-UE	-	a_p▸ 0.50 **2.50** 4.50 f_n▸ 0.10 **0.40** 0.70							●	●
	RNGN	120400S-UE	-	a_p▸ 0.50 **2.50** 4.50 f_n▸ 0.10 **0.40** 0.70						●	●	●
REINFORCED RE K H  solid	RNGN	120400S-RE	-	a_p▸ 1.00 **3.00** 5.00 f_n▸ 0.10 **0.45** 0.80							●	○

● stock standard, ○ non-standard stock

SN

PCBN
Negative



8 edges

Size	IC	S	D1
0903□□	9.525	3.18	-
1204□□	12.70	4.76	(5.16)
1207□□	12.70	7.94	-

ISO513	NBL050C (BL)	NBL150C (BL)	NBL250C (BL)	NBL350C (BL)	NBH450C (BH)	NBH500C (BH)	NBH900U (BH)	NBH950U (BH)	
P		80 240			140 300				◄ SINTERED POWDER METAL
M									
K					400 1200	300 1400	200 1200	180 1000	
N									
S									
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160	

GRADE APPLICATION AREA	
	Stable machining, continuous cut
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut

Hardness: + / –; Toughness: – / +

UNIVERSAL

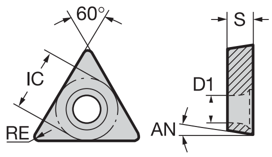
Insert	Type	Designation	RE					NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
UE K H  vertical	SNGA	120404S-UE-8V	RE 0.4	a_p▸ f_n▸	0.07 0.08	**0.16** **0.14**	0.25 0.20							●	
		120408S-UE-8V	RE 0.8	a_p▸ f_n▸	0.07 0.08	**0.16** **0.15**	0.25 0.22		○	○				●	
		120412S-UE-8V	RE 1.2	a_p▸ f_n▸	0.07 0.08	**0.16** **0.16**	0.25 0.24							●	
UE K H  solid	SNGA	120412S-UE	RE 1.2	a_p▸ f_n▸	1.00 0.10	**2.00** **0.22**	3.00 0.35						●		
UE K H  solid, without hole	SNGN	090308S-UE	RE 0.8	a_p▸ f_n▸	0.50 0.10	**1.50** **0.20**	2.50 0.30							●	
		090312S-UE	RE 1.2	a_p▸ f_n▸	0.50 0.10	**1.50** **0.22**	2.50 0.35							●	
		090316S-UE	RE 1.6	a_p▸ f_n▸	0.50 0.10	**1.50** **0.25**	2.50 0.40							●	
	SNGN	120408S-UE	RE 0.8	a_p▸ f_n▸	1.00 0.10	**2.00** **0.20**	3.00 0.30							●	
		120412S-UE	RE 1.2	a_p▸ f_n▸	1.00 0.10	**2.00** **0.22**	3.00 0.35							●	
		120416S-UE	RE 1.6	a_p▸ f_n▸	1.00 0.10	**2.00** **0.25**	3.00 0.40							○	
UE K H  solid,with dimple	SNGX	120712S-UE	RE 1.2	a_p▸ f_n▸	1.00 0.10	**2.00** **0.22**	3.00 0.35						○		
		120716S-UE	RE 1.6	a_p▸ f_n▸	1.00 0.10	**2.00** **0.25**	3.00 0.40						○		

● stock standard, ○ non-standard stock

HOLDERS EXTERNAL ▶ p. 129
HOLDERS INTERNAL ▶ p. 133

TC

PCBN Positive



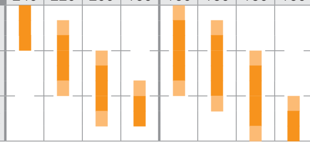
3 edges

Size	IC	S	D1	AN
1102□□	6.35	2.38	2.80	7°
16T3□□	9.525	3.97	4.40	7°

ISO513	NBL050C (BL)	NBL150C (BL)	NBL250C (BL)	NBL350C (BL)	NBH450C (BH)	NBH500C (BH)	NBH900U (BH)	NBH950U (BH)	
P		80 240			140 300				◄ SINTERED POWDER METAL
M									
K					400 1200	300 1400	200 1200	180 1000	
N									
S									
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160	

GRADE APPLICATION AREA	
■ main application	Stable machining, continuous cut
■ applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / – ; Toughness – / +



Geometry	Type	Code	RE		min	rec.	max	NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
SHARP – SE H	TCGW	110204S-SE-3S	RE 0.4	a_p ▸	0.05	**0.10**	0.15	○	○						
				f_n ▸	0.04	**0.08**	0.12								
		110208S-SE-3S	RE 0.8	a_p ▸	0.05	**0.10**	0.15		○						
				f_n ▸	0.05	**0.10**	0.15								
	TCGW	16T304S-SE-3S	RE 0.4	a_p ▸	0.05	**0.10**	0.15	○	○						
				f_n ▸	0.05	**0.10**	0.15								
		16T308S-SE-3S	RE 0.8	a_p ▸	0.05	**0.10**	0.15		○						
				f_n ▸	0.05	**0.10**	0.15								
UNIVERSAL – UE H	TCGW	110204S-UE-3S	RE 0.4	a_p ▸	0.06	**0.13**	0.20	○	○	●					
				f_n ▸	0.06	**0.12**	0.18								
		110208S-UE-3S	RE 0.8	a_p ▸	0.06	**0.13**	0.20		○	●					
				f_n ▸	0.06	**0.13**	0.20								
	TCGW	16T304S-UE-3S	RE 0.4	a_p ▸	0.06	**0.13**	0.20	○	○	●					
				f_n ▸	0.06	**0.12**	0.18								
		16T308S-UE-3S	RE 0.8	a_p ▸	0.06	**0.13**	0.20		○	●					
				f_n ▸	0.06	**0.13**	0.20								
UNIVERSAL – UE K H (tip with carbide backed)	TCGW	110204S-UE-3C	RE 0.4	a_p ▸	0.06	**0.13**	0.20					●	○		
				f_n ▸	0.06	**0.12**	0.18								
		110208S-UE-3C	RE 0.8	a_p ▸	0.06	**0.13**	0.20					●	○		
				f_n ▸	0.06	**0.13**	0.20								
	TCGW	16T304S-UE-3C	RE 0.4	a_p ▸	0.06	**0.13**	0.20					●			
				f_n ▸	0.06	**0.12**	0.18								
		16T308S-UE-3C	RE 0.8	a_p ▸	0.06	**0.13**	0.20					●	○		
				f_n ▸	0.06	**0.13**	0.20								
REINFORCED – RE H	TCGW	110204S-RE-3S	RE 0.4	a_p ▸	0.08	**0.16**	0.25				○				
				f_n ▸	0.06	**0.13**	0.20								
		110208S-RE-3S	RE 0.8	a_p ▸	0.08	**0.16**	0.25				○				
				f_n ▸	0.06	**0.14**	0.22								
	TCGW	16T304S-RE-3S	RE 0.4	a_p ▸	0.08	**0.16**	0.25				○				
				f_n ▸	0.06	**0.13**	0.20								
		16T308S-RE-3S	RE 0.8	a_p ▸	0.08	**0.16**	0.25				○				
				f_n ▸	0.06	**0.14**	0.22								
REINFORCED – RE K H (tip with carbide backed)	TCGW	110208S-RE-3C	RE 0.8	a_p ▸	0.08	**0.16**	0.25					●*	●*		
				f_n ▸	0.06	**0.14**	0.22								
	TCGW	16T308S-RE-3C	RE 0.8	a_p ▸	0.08	**0.16**	0.25					○*	○*		
				f_n ▸	0.06	**0.14**	0.22								

SE H


UE H


UE K H


tip with carbide backed

RE H


RE K H


tip with carbide backed

● stock standard, ○ non-standard stock

* uncoated (NBH450U / NBH500U)

HOLDERS EXTERNAL ▶ p. 135
HOLDERS INTERNAL ▶ p. 138

TURNING

THREADING

GROOVING

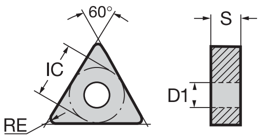
MILLING

DRILLING

ACCESSORIES

TN

PCBN
Negative



6 edges

Size	IC	S	D1
1604□□	9.525	4.76	(3.81)

ISO513	NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U	
	BL				BH				
P		80 240			140 300				◄ SINTERED POWDER METAL
M									
K					400 1200	300 1400	200 1200	180 1000	
N									
S									
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160	

GRADE APPLICATION AREA		Hardness	Toughness
■ main application	Stable machining, continuous cut	+	−
■ applicable	General machining, light interruption		
	Unstable machining, interrupted cut	−	+

Type		Insert	Designation	RE					NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
SHARP	SE H  vertical	TNGA	160404S-SE-6V	RE 0.4	a_p ► f_n ►	0.06 0.06	**0.13** **0.12**	0.20 0.18	○	○						
			160408S-SE-6V	RE 0.8	a_p ► f_n ►	0.06 0.06	**0.13** **0.13**	0.20 0.20	○	○						
			160412S-SE-6V	RE 1.2	a_p ► f_n ►	0.06 0.06	**0.13** **0.14**	0.20 0.22	○	○						
UNIVERSAL	UE K H  vertical	TNGA	160404S-UE-6V	RE 0.4	a_p ► f_n ►	0.07 0.08	**0.16** **0.14**	0.25 0.20	●	●	●			●	●	
			160408S-UE-6V	RE 0.8	a_p ► f_n ►	0.07 0.08	**0.16** **0.15**	0.25 0.22	●	●	●			●	●	
			160412S-UE-6V	RE 1.2	a_p ► f_n ►	0.07 0.08	**0.16** **0.16**	0.25 0.24	○	○	○			○	●	
	UE K H  solid, without hole	TNGN	160408S-UE	RE 0.8	a_p ► f_n ►	1.00 0.10	**2.00** **0.20**	3.00 0.30							●	
REINFORCED	RE H  vertical	TNGA	160404S-RE-6V	RE 0.4	a_p ► f_n ►	0.08 0.08	**0.17** **0.14**	0.26 0.20				○				
			160408S-RE-6V	RE 0.8	a_p ► f_n ►	0.08 0.08	**0.17** **0.16**	0.26 0.24				○				
			160412S-RE-6V	RE 1.2	a_p ► f_n ►	0.08 0.08	**0.17** **0.17**	0.26 0.26				○				

● stock standard, ○ non-standard stock

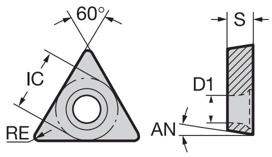
HOLDERS EXTERNAL ► p. 142

HOLDERS INTERNAL ► p. 145

nikkoTOOLS

TP

PCBN
Positive



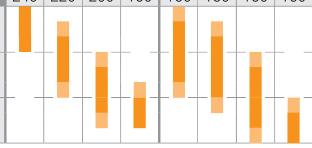
3 edges

Size	IC	S	D1	AN
0902□□	5.56	2.38	3.00	11°
1103□□	6.35	3.18	3.30	11°

ISO513	BL NBL050C	BL NBL150C	BL NBL250C	BL NBL350C	BH NBH450C	BH NBH500C	BH NBH900U	BH NBH950U	
P		80 240			140 300				◄ SINTERED POWDER METAL
M									
K					400 1200	300 1400	200 1200	180 1000	
N									
S									
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160	

GRADE APPLICATION AREA	
■ main application	Stable machining, continuous cut
■ applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / –, Toughness – / +



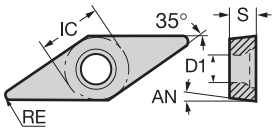
							NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
SHARP SE H	TPGW	110304S-SE-3S	RE 0.4	a_p▸ f_n▸	0.05 0.04	**0.10** **0.08**	0.15 0.12		○						
		110308S-SE-3S	RE 0.8	a_p▸ f_n▸	0.05 0.05	**0.10** **0.10**	0.15 0.15		○						
UNIVERSAL UE H	TPGW	090204S-UE-3S	RE 0.4	a_p▸ f_n▸	0.06 0.06	**0.13** **0.12**	0.20 0.18			●					
	TPGW	110302S-UE-3S	RE 0.2	a_p▸ f_n▸	0.06 0.05	**0.13** **0.10**	0.20 0.15			○					
		110304S-UE-3S	RE 0.4	a_p▸ f_n▸	0.06 0.06	**0.13** **0.12**	0.20 0.18			●					
		110308S-UE-3S	RE 0.8	a_p▸ f_n▸	0.06 0.06	**0.13** **0.13**	0.20 0.20			●					

● stock standard, ○ non-standard stock

HOLDERS INTERNAL
p. 148

VB

PCBN
Positive



2 edges

Size	IC	S	D1	AN
1103□□	6.35	3.18	2.80	5°
1604□□	9.525	4.76	4.40	5°

ISO513	BL NBL050C	BL NBL150C	BL NBL250C	BL NBL350C	BH NBH450C	BH NBH500C	BH NBH900U	BH NBH950U
P		80 240			140 300			
M								
K					400 1200	300 1400	200 1200	180 1000
N								
S								
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160

◄ SINTERED POWDER METAL

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut		

					a_p ▸ / f_n ▸				BL NBL050C	BL NBL150C	BL NBL250C	BL NBL350C	BH NBH450C	BH NBH500C	BH NBH900U	BH NBH950U
SHARP	SE H		VBGW	110302S-SE-2S	RE 0.2	a_p ▸	0.05	**0.10**	0.15		●							
						f_n ▸	0.04	**0.06**	0.08									
				110304S-SE-2S	RE 0.4	a_p ▸	0.05	**0.10**	0.15	●	●							
						f_n ▸	0.04	**0.08**	0.12									
			VBGW	160402S-SE-2S	RE 0.2	a_p ▸	0.05	**0.10**	0.15		●							
						f_n ▸	0.04	**0.06**	0.08									
				160404S-SE-2S	RE 0.4	a_p ▸	0.05	**0.10**	0.15	●	●							
						f_n ▸	0.04	**0.08**	0.12									
				160408S-SE-2S	RE 0.8	a_p ▸	0.05	**0.10**	0.15	●	●							
						f_n ▸	0.05	**0.10**	0.15									
UNIVERSAL	UE H		VBGW	110302S-UE-2S	RE 0.2	a_p ▸	0.06	**0.13**	0.20		○							
						f_n ▸	0.05	**0.10**	0.15									
				110304S-UE-2S	RE 0.4	a_p ▸	0.06	**0.13**	0.20	●	●	●						
						f_n ▸	0.06	**0.12**	0.18									
			VBGW	160402S-UE-2S	RE 0.2	a_p ▸	0.06	**0.13**	0.20		●							
						f_n ▸	0.05	**0.10**	0.15									
				160404S-UE-2S	RE 0.4	a_p ▸	0.06	**0.13**	0.20	●	●	●						
						f_n ▸	0.06	**0.12**	0.18									
				160408S-UE-2S	RE 0.8	a_p ▸	0.06	**0.13**	0.20	●	●	●						
						f_n ▸	0.06	**0.13**	0.20									
	UE K H	 tip with carbide backed	VBGW	160404S-UE-2C	RE 0.4	a_p ▸	0.06	**0.13**	0.20					○				
						f_n ▸	0.06	**0.12**	0.18									
				160408S-UE-2C	RE 0.8	a_p ▸	0.06	**0.13**	0.20					○				
						f_n ▸	0.06	**0.13**	0.20									
REINFORCED	RE H		VBGW	160404S-RE-2S	RE 0.4	a_p ▸	0.08	**0.16**	0.25				○					
						f_n ▸	0.06	**0.13**	0.20									
				160408S-RE-2S	RE 0.8	a_p ▸	0.08	**0.16**	0.25				○					
						f_n ▸	0.06	**0.14**	0.22									
	RE K H	 tip with carbide backed	VBGW	160404S-RE-2C	RE 0.4	a_p ▸	0.08	**0.16**	0.25					○*				
						f_n ▸	0.06	**0.13**	0.20									
				160408S-RE-2C	RE 0.8	a_p ▸	0.08	**0.16**	0.25					○*				
						f_n ▸	0.06	**0.14**	0.22									

● stock standard, ○ non-standard stock

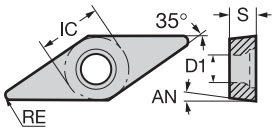
* uncoated (NBH450U)

HOLDERS EXTERNAL p. 149

HOLDERS INTERNAL p. 152

VC

PCBN
Positive



2 edges

Size	IC	S	D1	AN
1103□□	6.35	3.18	2.80	7°
1604□□	9.525	4.76	4.40	7°

ISO513	BL NBL050C	BL NBL150C	BL NBL250C	BL NBL350C	BH NBH450C	BH NBH500C	BH NBH900U	BH NBH950U
P		80 240			140 300			
M								
K					400 1200	300 1400	200 1200	180 1000
N								
S								
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160

◄ SINTERED POWDER METAL

GRADE APPLICATION AREA	
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut
	Stable machining, continuous cut

Hardness + / − Toughness − / +

SHARP

SE H

			a_p ▸			f_n ▸		
VCGW	110304S-SE-2S	RE 0.4	0.05	**0.10**	0.15	0.04	**0.08**	0.12
VCGW	160404S-SE-2S	RE 0.4	0.05	**0.10**	0.15	0.04	**0.08**	0.12
	160408S-SE-2S	RE 0.8	0.05	**0.10**	0.15	0.05	**0.10**	0.15

● NBL150C

UNIVERSAL

UE H

			a_p ▸			f_n ▸		
VCGW	110304S-UE-2S	RE 0.4	0.06	**0.13**	0.20	0.06	**0.12**	0.18
VCGW	160404S-UE-2S	RE 0.4	0.06	**0.13**	0.20	0.06	**0.12**	0.18
	160408S-UE-2S	RE 0.8	0.06	**0.13**	0.20	0.06	**0.13**	0.20

● NBL250C

● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 153

HOLDERS INTERNAL p. 157

TURNING

THREADING

GROOVING

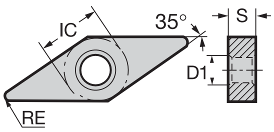
MILLING

DRILLING

ACCESSORIES

VN

PCBN
Negative



4 edges

Size	IC	S	D1
1604□□	9.525	4.76	3.81

ISO513	NBL050C (BL)	NBL150C (BL)	NBL250C (BL)	NBL350C (BL)	NBH450C (BH)	NBH500C (BH)	NBH900U (BH)	NBH950U (BH)
P		80 240			140 300			
M								
K					400 1200	300 1400	200 1200	180 1000
N								
S								
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160

◄ SINTERED POWDER METAL

GRADE APPLICATION AREA	
main application	Stable machining, continuous cut
applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / −, Toughness − / +

	Type	Designation	RE	a_p / f_n			NBL050C	NBL150C	NBL250C	NBL350C	NBH450C	NBH500C	NBH900U	NBH950U
SHARP – SE H, vertical	VNGA	160404S-SE-4V	RE 0.4	a_p ▸ 0.06 / f_n ▸ 0.06	**0.13** / **0.12**	0.20 / 0.18		○						
		160408S-SE-4V	RE 0.8	a_p ▸ 0.06 / f_n ▸ 0.06	**0.13** / **0.13**	0.20 / 0.20		○						
UNIVERSAL – UE K H, vertical	VNGA	160404S-UE-4V	RE 0.4	a_p ▸ 0.07 / f_n ▸ 0.08	**0.16** / **0.14**	0.25 / 0.20			○			●		
		160408S-UE-4V	RE 0.8	a_p ▸ 0.07 / f_n ▸ 0.08	**0.16** / **0.15**	0.25 / 0.22			○			●		

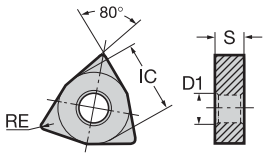
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL ► p. 161

HOLDERS INTERNAL ► p. 163

WN

PCBN
Negative



6 edges

Size	IC	S	D1
0804□□	12.70	4.76	5.16

ISO513	BL NBL050C	BL NBL150C	BL NBL250C	BL NBL350C	BH NBH450C	BH NBH500C	BH NBH900U	BH NBH950U
P		80 240			140 300			
M								
K					400 1200	300 1400	200 1200	180 1000
N								
S								
H	120 240	100 220	80 200	60 160	60 160	60 180	40 180	40 160

◀ SINTERED POWDER METAL

GRADE APPLICATION AREA	Stable machining, continuous cut
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +

				a_p / f_n				BL NBL050C	BL NBL150C	BL NBL250C	BL NBL350C	BH NBH450C	BH NBH500C	BH NBH900U	BH NBH950U
SHARP	**SE** H	WNGA	**080404S-SE-6V**	RE 0.4	a_p ▸	0.06	**0.13**	0.20		○						
					f_n ▸	0.06	**0.12**	0.18								
	vertical		**080408S-SE-6V**	RE 0.8	a_p ▸	0.06	**0.13**	0.20		○						
					f_n ▸	0.06	**0.13**	0.20								
UNIVERSAL	**UE** K H	WNGA	**080404S-UE-6V**	RE 0.4	a_p ▸	0.07	**0.16**	0.25			○				●	
					f_n ▸	0.08	**0.14**	0.20								
	vertical		**080408S-UE-6V**	RE 0.8	a_p ▸	0.07	**0.16**	0.25			●				●	
					f_n ▸	0.08	**0.15**	0.22								
			080412S-UE-6V	RE 1.2	a_p ▸	0.07	**0.16**	0.25			○				●	
					f_n ▸	0.08	**0.16**	0.24								
REINFORCED	**RE** K H	WNGA	**080404S-RE-6V**	RE 0.4	a_p ▸	0.08	**0.17**	0.26				○			●	
					f_n ▸	0.08	**0.14**	0.20								
	vertical		**080408S-RE-6V**	RE 0.8	a_p ▸	0.08	**0.17**	0.26				●			●	
					f_n ▸	0.08	**0.16**	0.24								
			080412S-RE-6V	RE 1.2	a_p ▸	0.08	**0.17**	0.26				○			●	
					f_n ▸	0.08	**0.17**	0.26								

● stock standard, ○ non-standard stock

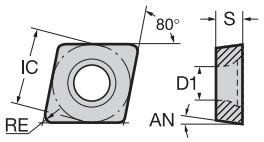
HOLDERS EXTERNAL p. 166

HOLDERS INTERNAL p. 169

TURNING Ceramic

CC

CERAMIC
Positive



2 edges

Size	IC	S	D1	AN
09T3□□	9.525	3.93	4.40	7°
1204□□	12.70	4.76	5.50	7°

ISO513	Al_2O_3+TiCN			Si_3N_4			SiAlON			Al_2O_3+SiC	
	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

GRADE APPLICATION AREA	
main application	Stable machining, continuous cut
applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness: + / −
Toughness: − / +

UNIVERSAL

T02020 K

CCGW	09T308-GP	K	RE 0.8	a_p ▸	1.00	**2.50**	4.00		●
				f_n ▸	0.12	**0.23**	0.34		
	09T312-GP	K	RE 1.2	a_p ▸	1.00	**2.50**	4.00		●
				f_n ▸	0.13	**0.26**	0.36		
CCGW	120408-GP	K	RE 0.8	a_p ▸	1.00	**2.50**	4.00		●
				f_n ▸	0.14	**0.28**	0.42		
	120412-GP	K	RE 1.2	a_p ▸	1.00	**2.50**	4.00		●
				f_n ▸	0.16	**0.31**	0.46		

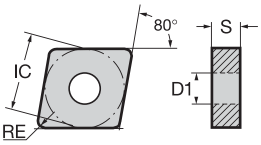
● stock standard

HOLDERS EXTERNAL p. 86

HOLDERS INTERNAL p. 91

CN

CERAMIC
Negative



4 edges

Size	IC	S	D1
1204□□	12.70	4.76	(5.16)
1207□□	12.70	7.94	-
1606□□	15.87	6.35	6.35

ISO513	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
	Al_2O_3+TiCN			Si_3N_4			SiAlON			Al_2O_3+SiC	
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

GRADE APPLICATION AREA	
■ main application	Stable machining, continuous cut
■ applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +

Chipbreaker	ISO	Designation	Material / RE		min	std	max	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
SHARP T01020 H (NAC150 coated)	CNGA	120404-CC	H RE 0.4	a_p / f_n	0.20 / 0.04	**0.70** / **0.08**	1.20 / 0.12	●	●									
		120408-CC	H RE 0.8	a_p / f_n	0.20 / 0.05	**0.70** / **0.10**	1.20 / 0.15	●	●									
		120412-CC	H RE 1.2	a_p / f_n	0.20 / 0.06	**0.70** / **0.13**	1.20 / 0.20	●	●									
UNIVERSAL T02020 K H S	CNGA	120404-GP	H RE 0.4	a_p / f_n	0.40 / 0.06	**1.20** / **0.14**	2.00 / 0.22		●									
			K RE 0.4	a_p / f_n	1.00 / 0.10	**2.50** / **0.19**	4.00 / 0.28					○						
		120408-GP	H RE 0.8	a_p / f_n	0.40 / 0.10	**1.20** / **0.20**	2.00 / 0.30		●	●								
			S RE 0.8	a_p / f_n	1.00 / 0.14	**2.50** / **0.27**	4.00 / 0.40							▽		▲		
		120412-GP	H RE 1.2	a_p / f_n	0.40 / 0.12	**1.20** / **0.23**	2.00 / 0.34		●	●								
			S RE 1.2	a_p / f_n	1.00 / 0.20	**2.50** / **0.35**	4.00 / 0.50							▽		▲		
	CNGA	160612-GP	H RE 1.2	a_p / f_n	1.00 / 0.14	**2.50** / **0.27**	4.00 / 0.40		●									
		160616-GP	H RE 1.6	a_p / f_n	1.00 / 0.15	**2.50** / **0.30**	4.00 / 0.45		○									
	CNMA	120408-GP	K RE 0.8	a_p / f_n	1.00 / 0.14	**2.50** / **0.27**	4.00 / 0.40				○	●	○					
		120412-GP	K RE 1.2	a_p / f_n	1.00 / 0.20	**2.50** / **0.35**	4.00 / 0.50				●	●	●					
		120416-GP	K RE 1.6	a_p / f_n	1.00 / 0.20	**2.50** / **0.36**	4.00 / 0.52				○	●	○					
	CNMA	160612-GP	K RE 1.2	a_p / f_n	2.00 / 0.22	**4.50** / **0.39**	7.00 / 0.56					●						
		160616-GP	K RE 1.6	a_p / f_n	2.00 / 0.24	**4.50** / **0.43**	7.00 / 0.62					●						
S01525 H (coated)	CNGA	120404-GS	H RE 0.4	a_p / f_n	0.40 / 0.06	**1.20** / **0.14**	2.00 / 0.22	●										
		120408-GS	H RE 0.8	a_p / f_n	0.40 / 0.10	**1.20** / **0.20**	2.00 / 0.30	●										
		120412-GS	H RE 1.2	a_p / f_n	0.40 / 0.12	**1.20** / **0.23**	2.00 / 0.34	●										
S02020 H	CNGA	120404-GS	H RE 0.4	a_p / f_n	0.40 / 0.06	**1.20** / **0.14**	2.00 / 0.22		▽									
		120408-GS	H RE 0.8	a_p / f_n	0.40 / 0.10	**1.20** / **0.20**	2.00 / 0.30		●									
		120412-GS	H RE 1.2	a_p / f_n	0.40 / 0.12	**1.20** / **0.23**	2.00 / 0.34		●									

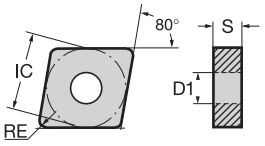
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

HOLDERS EXTERNAL p. 97

HOLDERS INTERNAL p. 104

CN

CERAMIC
Negative



4 edges

Size	IC	S	D1
1204□□	12.70	4.76	(5.16)
1207□□	12.70	7.94	-
1606□□	15.87	6.35	6.35

ISO513	Al_2O_3+TiCN			Si_3N_4			SiAlON			Al_2O_3+SiC	
	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut		

UNIVERSAL	**T02020** K S H  without hole	**CNGN**	**120708-GP**	H RE 0.8	a_p ▸ f_n ▸	0.40 0.10	**1.20** **0.20**	2.00 0.30		○									
				K S RE 0.8	a_p ▸ f_n ▸	1.00 0.14	**2.50** **0.27**	4.00 0.40					○		▽				
			120712-GP	H RE 1.2	a_p ▸ f_n ▸	0.40 0.12	**1.20** **0.23**	2.00 0.34		○									
				K S RE 1.2	a_p ▸ f_n ▸	1.00 0.20	**2.50** **0.35**	4.00 0.50				▽	○		▽	▽		○*	○*
			120716-GP	H RE 1.6	a_p ▸ f_n ▸	0.40 0.14	**1.20** **0.26**	2.00 0.38		○									
				K S RE 1.6	a_p ▸ f_n ▸	1.00 0.20	**2.50** **0.36**	4.00 0.52					○					○*	○*
		CNMN	**120412-GP**	K RE 1.2	a_p ▸ f_n ▸	1.00 0.20	**2.50** **0.35**	4.00 0.50					○						
			120416-GP	K RE 1.6	a_p ▸ f_n ▸	1.00 0.20	**2.50** **0.36**	4.00 0.52					○						
	T02020 K S H  with dimple	**CNGX**	**120708-GP**	H RE 0.8	a_p ▸ f_n ▸	0.40 0.10	**1.20** **0.20**	2.00 0.30		○									
			120712-GP	H RE 1.2	a_p ▸ f_n ▸	0.40 0.12	**1.20** **0.23**	2.00 0.34		○									
		CNMX	**120712-GP**	K S RE 1.2	a_p ▸ f_n ▸	1.00 0.20	**2.50** **0.35**	4.00 0.50				○	●	○	▽		▲		
			120716-GP	K S RE 1.6	a_p ▸ f_n ▸	1.00 0.20	**2.50** **0.36**	4.00 0.52				●	●	●			▲		
REINFORCED	**P15015** H  without hole	**CNGN**	**120712-HI**	H RE 1.2	a_p ▸ f_n ▸	0.40 0.14	**1.20** **0.26**	2.00 0.38			○								
			120716-HI	H RE 1.6	a_p ▸ f_n ▸	0.40 0.18	**1.20** **0.31**	2.00 0.44			○								
WIPER	**T02020** K 	**CNGA**	**120410-WK**	H RE 1.0	a_p ▸ f_n ▸	1.00 0.20	**2.50** **0.35**	4.00 0.50					●						
	T02020 H 	**CNGA**	**120410-WH**	H RE 1.0	a_p ▸ f_n ▸	0.40 0.12	**1.20** **0.26**	2.00 0.40		●									

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

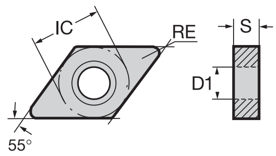
* T01520

HOLDERS EXTERNAL p. 97

HOLDERS INTERNAL p. 104

DN

CERAMIC
Negative



4 edges

Size	IC	S	D1
1506□□	12.70	6.35	5.16
1507□□	12.70	7.94	-

ISO513	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
	Al_2O_3+TiCN			Si_3N_4			SiAlON			Al_2O_3+SiC	
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

GRADE APPLICATION AREA	
main application	Stable machining, continuous cut
applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +

	Insert	Type	Code		a_p / f_n			NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
SHARP	T01020 H, NAC150 coated	DNGA	150604-CC	H RE 0.4	0.20 / 0.04	**0.70** / **0.08**	1.20 / 0.12	●	●									
			150608-CC	H RE 0.8	0.20 / 0.05	**0.70** / **0.10**	1.20 / 0.15	●	●									
			150612-CC	H RE 1.2	0.20 / 0.06	**0.70** / **0.13**	1.20 / 0.20		●									
UNIVERSAL	T02020 K H	DNGA	150604-GP	H RE 0.4	0.40 / 0.06	**1.20** / **0.14**	2.00 / 0.22		●									
			150608-GP	H RE 0.8	0.40 / 0.10	**1.20** / **0.20**	2.00 / 0.30		●	●								
				K RE 0.8	1.00 / 0.14	**2.50** / **0.27**	4.00 / 0.40					●						
			150612-GP	H RE 1.2	0.40 / 0.12	**1.20** / **0.23**	2.00 / 0.34		●	●								
			150616-GP	H RE 1.6	0.40 / 0.14	**1.20** / **0.26**	2.00 / 0.38		○									
		DNMA	150612-GP	K RE 1.2	1.00 / 0.20	**2.50** / **0.35**	4.00 / 0.50					●						
	S01525 H, coated	DNGA	150604-GS	H RE 0.4	0.40 / 0.06	**1.20** / **0.14**	2.00 / 0.22	●										
			150608-GS	H RE 0.8	0.40 / 0.10	**1.20** / **0.20**	2.00 / 0.30	●										
	S02020 H	DNGA	150604-GS	H RE 0.4	0.40 / 0.06	**1.20** / **0.14**	2.00 / 0.22		●									
			150608-GS	H RE 0.8	0.40 / 0.10	**1.20** / **0.20**	2.00 / 0.30		●									
			150612-GS	H RE 1.2	0.40 / 0.12	**1.20** / **0.23**	2.00 / 0.34		○									
	T02020 H, without hole	DNGN	150708-GP	H RE 0.8	0.40 / 0.10	**1.20** / **0.20**	2.00 / 0.30		○									
			150712-GP	H RE 1.2	0.40 / 0.12	**1.20** / **0.23**	2.00 / 0.34		○									
			150716-GP	H RE 1.6	0.40 / 0.14	**1.20** / **0.26**	2.00 / 0.38		○									





● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 120

HOLDERS INTERNAL p. 125

TURNING
THREADING
GROOVING
MILLING
DRILLING
ACCESSORIES

TURNING

THREADING

GROOVING

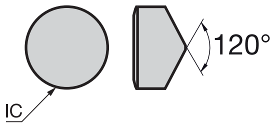
MILLING

DRILLING

ACCESSORIES

RC

CERAMIC
Positive



Size	IC	S	D1
0606□□	6.35	6.35	-
0907□□	9.525	7.94	-
1207□□	12.70	7.94	-
1510□□	15.87	10.0	-
1910□□	19.05	10.0	-

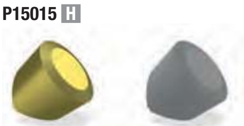
ISO513	NAC150 (Al_2O_3+TiCN)	NAC200 (Al_2O_3+TiCN)	NAC250 (Al_2O_3+TiCN)	NSN350 (Si_3N_4)	NSN400 (Si_3N_4)	NSN450 (Si_3N_4)	NSA600 (SiAlON)	NSA650 (SiAlON)	NSA6000 (SiAlON)	NWR700 (Al_2O_3+SiC)	NWR750 (Al_2O_3+SiC)
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

GRADE APPLICATION AREA: Stable machining, continuous cut / General machining, light interruption / Unstable machining, interrupted cut (Hardness + / –, Toughness – / +)

■ main application
■ applicable

Type	Insert	Designation		Grade	a_p / f_n			NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
SHARP	T01020 S	RCGX	060600-CC	S	a_p 1.00 / f_n 0.15	**1.50** / **0.30**	2.00 / 0.45									○		
		RCGX	090700-CC	S	a_p 1.00 / f_n 0.20	**2.00** / **0.38**	3.00 / 0.56									○		
		RCGX	120700-CC	S	a_p 1.00 / f_n 0.22	**2.50** / **0.40**	4.00 / 0.58									●		
UNIVERSAL	T02020 S H (NAC150 coated)	RCGX	090700-GP	H	a_p 0.60 / f_n 0.12	**1.80** / **0.26**	3.00 / 0.40	●	●	○								
				S	a_p 1.00 / f_n 0.22	**2.00** / **0.35**	3.00 / 0.58								▽		○*	○*
		RCGX	120700-GP	H	a_p 0.60 / f_n 0.13	**1.80** / **0.28**	3.00 / 0.43	○	○	○								
				S	a_p 1.00 / f_n 0.24	**2.00** / **0.42**	3.00 / 0.60							▽	▽		○*	○*
	S02020 H	RCGX	060600-GS	H	a_p 0.40 / f_n 0.10	**1.20** / **0.24**	2.00 / 0.38		○									
		RCGX	060700-GS	H	a_p 0.40 / f_n 0.10	**1.20** / **0.24**	2.00 / 0.38		●									
REINFORCED	P15015 H (NAC150 coated)	RCGX	090700-HI	H	a_p 0.60 / f_n 0.15	**1.80** / **0.30**	3.00 / 0.45	●	●	●								
		RCGX	120700-HI	H	a_p 0.60 / f_n 0.18	**1.80** / **0.34**	3.00 / 0.50	●	●	●								
	P20015 H	RCGX	151000-HI	H	a_p 1.00 / f_n 0.20	**2.50** / **0.40**	4.00 / 0.60		○	●								
		RCGX	191000-HI	H	a_p 1.00 / f_n 0.20	**2.50** / **0.45**	4.00 / 0.70		○	○								



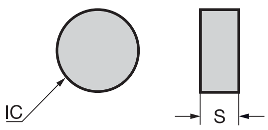

● stock standard, ○ non-standard stock, ▽ stock exhaustion

* T01520

nikkoTOOLS

RN

CERAMIC
Negative



Size	IC	S	D1
1204□□	12.70	4.76	-
1207□□	12.70	7.94	-
1907□□	19.05	7.94	-

ISO513	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
	Al_2O_3+TiCN			Si_3N_4			SiAlON			Al_2O_3+SiC	
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

GRADE APPLICATION AREA	
main application	Stable machining, continuous cut
applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness: + … − ; Toughness: − … +

Type	Insert	Designation		ISO	Cutting data	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
SHARP	T01020 S 	RNGN	120400-CC	S	a_p 1.00 **2.50** 4.00 f_n 0.22 **0.40** 0.58									●		
SHARP		RNGN	120700-CC	S	a_p 1.00 **2.50** 4.00 f_n 0.22 **0.40** 0.58									●		
UNIVERSAL	T02020 S H  NAC150 coated	RNGN	120400-GP	H	a_p 0.60 **1.80** 3.00 f_n 0.13 **0.28** 0.43		●									
UNIVERSAL				S	a_p 1.00 **2.00** 3.00 f_n 0.24 **0.42** 0.60										○*	○*
UNIVERSAL		RNGN	120700-GP	H	a_p 0.60 **1.80** 3.00 f_n 0.13 **0.28** 0.43	○	●	○								
UNIVERSAL				S	a_p 1.00 **2.00** 3.00 f_n 0.24 **0.42** 0.60					○		▽	▽		○*	○*
UNIVERSAL		RNGN	190700-GP	S	a_p 1.00 **2.50** 4.00 f_n 0.30 **0.55** 0.80										▽*	▽*
REINFORCED	T20015 H  NAC150 coated	RNGN	120700-T20015	H	a_p 0.60 **1.80** 3.00 f_n 0.18 **0.34** 0.50	▽		▽								
REINFORCED	K20015 H  NAC150 coated	RNGN	120700-HT	H	a_p 0.60 **1.80** 3.00 f_n 0.18 **0.34** 0.50	●		●								
REINFORCED	P15015 H  NAC150 coated	RNGN	120700-HI	H	a_p 0.60 **1.80** 3.00 f_n 0.18 **0.34** 0.50	●	●	●								

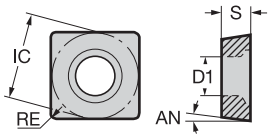
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

* T01520

TURNING | THREADING | GROOVING | MILLING | DRILLING | ACCESSORIES

SC

CERAMIC
Positive



4 edges

Size	IC	S	D1	AN
09T3□□	9.525	3.93	4.40	7°
1204□□	12.70	4.76	5.50	7°

ISO513	Al_2O_3+TiCN			Si_3N_4			SiAlON			Al_2O_3+SiC		
	NAC150	**NAC200**	**NAC250**	**NSN350**	**NSN400**	**NSN450**	**NSA600**	**NSA650**	**NSA6000**	**NWR700**	**NWR750**	
P												
M												
K		300 600		500 1000	400 1000	400 800						
N												
S							150 350	150 300	150 400	200 500	200 400	
H	80 200	60 180	50 150									

GRADE APPLICATION AREA	Stable machining, continuous cut
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut

Hardness: + / −
Toughness: − / +

UNIVERSAL

T02020 K

SCGW	**09T308-GP**	K RE 0.8	a_p ▸	1.00	**2.50**	4.00	●
			f_n ▸	0.12	**0.23**	0.34	
SCGW	**120408-GP**	K RE 0.8	a_p ▸	1.00	**2.50**	4.00	●
			f_n ▸	0.14	**0.28**	0.42	

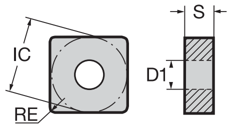
● stock standard

HOLDERS EXTERNAL p. 127

HOLDERS INTERNAL p. 128

SN

CERAMIC
Negative



8 edges

Size	IC	S	D1
0904□□	9.525	4.76	-
1204□□	12.70	4.76	(5.16)
1207□□	12.70	7.94	-

ISO513	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
	Al_2O_3+TiCN			Si_3N_4			SiAlON			Al_2O_3+SiC	
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

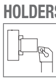
GRADE APPLICATION AREA	
■ main application	Stable machining, continuous cut
■ applicable	General machining, light interruption
	Unstable machining, interrupted cut

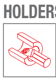
Hardness + / −, Toughness − / +

	Insert	Type	Designation	Group	RE	a_p min	a_p	a_p max	f_n min	f_n	f_n max	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
SHARP	T01020 H 	SNGA	120404-CC	H	0.4	0.20	**0.70**	1.20	0.04	**0.08**	0.12		●									
			120408-CC	H	0.8	0.20	**0.70**	1.20	0.05	**0.10**	0.15		●									
			120412-CC	H	1.2	0.20	**0.70**	1.20	0.06	**0.13**	0.20		●									
	T01020 S  without hole	SNGN	120708-CC	S	0.8	1.00	**2.50**	4.00	0.14	**0.28**	0.42									○		
			120712-CC	S	1.2	1.00	**2.50**	4.00	0.20	**0.35**	0.50									●		
UNIVERSAL	T02020 K H 	SNGA	120404-GP	H	0.4	0.40	**1.20**	2.00	0.06	**0.14**	0.22		●									
			120408-GP	H	0.8	0.40	**1.20**	2.00	0.10	**0.20**	0.30		●									
			120412-GP	H	1.2	0.40	**1.20**	2.00	0.12	**0.23**	0.34		●									
		SNMA	120408-GP	K	0.8	1.00	**2.50**	4.00	0.14	**0.27**	0.40					●						
			120412-GP	K	1.2	1.00	**2.50**	4.00	0.20	**0.35**	0.50					●						
			120416-GP	K	1.6	1.00	**2.50**	4.00	0.20	**0.36**	0.52					○						
	T02020 K H  NAC150 coated without hole	SNGN	090404-GP	K	0.4	1.00	**2.50**	4.00	0.12	**0.25**	0.38					▽						
			090408-GP	K	0.8	1.00	**2.50**	4.00	0.14	**0.28**	0.42					▽						
		SNGN	120404-GP	K	0.4	1.00	**2.50**	4.00	0.12	**0.25**	0.38					▽						
			120408-GP	K	0.8	1.00	**2.50**	4.00	0.14	**0.28**	0.42					●						
			120412-GP	K	1.2	1.00	**2.50**	4.00	0.20	**0.35**	0.50					●	●					▽*
		SNGN	120708-GP	H	0.8	0.40	**1.20**	2.00	0.10	**0.20**	0.30	●	●									
			120712-GP	H	1.2	0.40	**1.20**	2.00	0.12	**0.23**	0.34		●									
			120716-GP	H	1.6	0.40	**1.20**	2.00	0.14	**0.27**	0.40		○									
		SNMN	120416-GP	K	1.6	1.00	**2.50**	4.00	0.20	**0.36**	0.52					●						
	T02020 K S H  with dimple	SNGX	120712-GP	H	1.2	0.40	**1.20**	2.00	0.12	**0.23**	0.34		●									
			120716-GP	H	1.6	0.40	**1.20**	2.00	0.14	**0.27**	0.40		●									
		SNMX	120712-GP	K S	1.2	1.00	**2.50**	4.00	0.20	**0.35**	0.50				○	●	○			▲		
			120716-GP	K S	1.6	1.00	**2.50**	4.00	0.20	**0.36**	0.52				○	●	○	▽		▲		

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

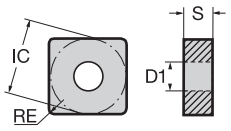
* T01520

HOLDERS EXTERNAL  p. 129

HOLDERS INTERNAL  p. 133

SN

CERAMIC
Negative



8 edges

Size	IC	S	D1
0904□□	9.525	4.76	-
1204□□	12.70	4.76	(5.16)
1207□□	12.70	7.94	-

ISO513	Al_2O_3+TiCN			Si_3N_4			SiAlON			Al_2O_3+SiC	
	NAC150	**NAC200**	**NAC250**	**NSN350**	**NSN400**	**NSN450**	**NSA600**	**NSA650**	**NSA6000**	**NWR700**	**NWR750**
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

GRADE APPLICATION AREA	
main application	Stable machining, continuous cut
applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +

REINFORCED

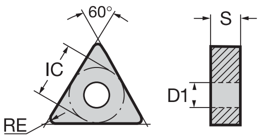
P20015 H

SNGN	**120716-HI**	H	RE 1.6	a_p ▸	1.00	**2.50**	4.00
				f_n ▸	0.18	**0.30**	0.42
	120720-HI	H	RE 2.0	a_p ▸	1.00	**2.50**	4.00
				f_n ▸	0.20	**0.32**	0.44
	120724-HI	H	RE 2.4	a_p ▸	1.00	**2.50**	4.00
				f_n ▸	0.22	**0.35**	0.48

○ non-standard stock

TN

CERAMIC
Negative

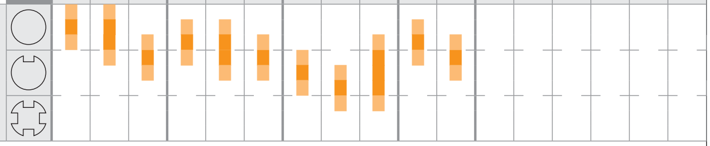


6 edges

Size	IC	S	D1
1604□□	9.525	4.76	(3.81)
1607□□	12.70	7.94	-

ISO513	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
	Al_2O_3+TiCN			Si_3N_4			SiAlON			Al_2O_3+SiC	
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

GRADE APPLICATION AREA	Stable machining, continuous cut
main application	General machining, light interruption
applicable	Unstable machining, interrupted cut



	Insert		Designation			min		max	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
SHARP	T01020 H  NAC150 coated	TNGA	160404-CC	H RE 0.4	a_p▸ f_n▸	0.20 0.04	**0.70** **0.08**	1.20 0.12	●	●									
			160408-CC	H RE 0.8	a_p▸ f_n▸	0.20 0.05	**0.70** **0.10**	1.20 0.15	●	●									
			160412-CC	H RE 1.2	a_p▸ f_n▸	0.20 0.06	**0.70** **0.13**	1.20 0.20		●									
UNIVERSAL	T02020 K H 	TNGA	160404-GP	H RE 0.4	a_p▸ f_n▸	0.40 0.06	**1.20** **0.14**	2.00 0.22		●									
			160408-GP	H RE 0.8	a_p▸ f_n▸	0.40 0.10	**1.20** **0.20**	2.00 0.30		●	●								
				K RE 0.8	a_p▸ f_n▸	1.00 0.14	**2.50** **0.27**	4.00 0.40					●						
			160412-GP	H RE 1.2	a_p▸ f_n▸	0.40 0.12	**1.20** **0.23**	2.00 0.34		●	●								
				K RE 1.2	a_p▸ f_n▸	1.00 0.20	**2.50** **0.35**	4.00 0.50					●						
	T02020 K H  without hole	TNGN	160408-GP	K RE 0.8	a_p▸ f_n▸	1.00 0.14	**2.50** **0.27**	4.00 0.40					●						
		TNGN	160708-GP	H RE 0.8	a_p▸ f_n▸	0.40 0.10	**1.20** **0.20**	2.00 0.30		○									
				K RE 0.8	a_p▸ f_n▸	1.00 0.14	**2.50** **0.27**	4.00 0.40					○						
			160712-GP	H RE 1.2	a_p▸ f_n▸	0.40 0.12	**1.20** **0.23**	2.00 0.34		○									
				K RE 1.2	a_p▸ f_n▸	1.00 0.20	**2.50** **0.35**	4.00 0.50					○						
	S01525 H  coated	TNGA	160404-GS	H RE 0.4	a_p▸ f_n▸	0.40 0.06	**1.20** **0.14**	2.00 0.22	●										
			160408-GS	H RE 0.8	a_p▸ f_n▸	0.40 0.10	**1.20** **0.20**	2.00 0.30	●										
			160412-GS	H RE 1.2	a_p▸ f_n▸	0.40 0.12	**1.20** **0.23**	2.00 0.34	●										
	S02020 H 	TNGA	160404-GS	H RE 0.4	a_p▸ f_n▸	0.40 0.06	**1.20** **0.14**	2.00 0.22		●									
			160408-GS	H RE 0.8	a_p▸ f_n▸	0.40 0.10	**1.20** **0.20**	2.00 0.30		●									
			160412-GS	H RE 1.2	a_p▸ f_n▸	0.40 0.12	**1.20** **0.23**	2.00 0.34		○									

● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 142

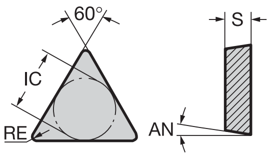
HOLDERS INTERNAL p. 145

TURNING
THREADING
GROOVING
MILLING
DRILLING
ACCESSORIES

nikkoTOOLS

TP

CERAMIC Positive



3 edges

Size	IC	S	AN
1103□□	6.35	3.18	11°
1603□□	9.525	3.18	11°

ISO513	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
	Al_2O_3+TiCN			Si_3N_4			SiAlON			Al_2O_3+SiC	
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

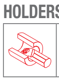
GRADE APPLICATION AREA	
■ main application	Stable machining, continuous cut
■ applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness (+ / –) — Toughness (– / +)

Type	Insert		Designation		RE	a_p ▸	f_n ▸	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
SHARP	T01020 H, NAC150 coated	TPGN	110302-CC	H	RE 0.2	0.20 **0.60** 1.00	0.04 **0.06** 0.08	●	●									
			110304-CC	H	RE 0.4	0.20 **0.60** 1.00	0.04 **0.08** 0.12	●	●									
			110308-CC	H	RE 0.8	0.20 **0.60** 1.00	0.05 **0.10** 0.15	●	●									
		TPGN	160304-CC	H	RE 0.4	0.20 **0.70** 1.20	0.04 **0.08** 0.12	●	●									
			160308-CC	H	RE 0.8	0.20 **0.70** 1.20	0.05 **0.10** 0.15	●	●									
			160312-CC	H	RE 1.2	0.20 **0.70** 1.20	0.06 **0.13** 0.20		●									
UNIVERSAL	T02020 K H	TPGN	110302-GP	H	RE 0.2	0.40 **1.20** 2.00	0.05 **0.10** 0.15		●									
			110304-GP	H	RE 0.4	0.40 **1.20** 2.00	0.07 **0.15** 0.23		●									
			110304-GP	K	RE 0.4	1.00 **2.00** 3.00	0.10 **0.20** 0.30					○						
			110308-GP	H	RE 0.8	0.40 **1.20** 2.00	0.08 **0.17** 0.26		●									
			110308-GP	K	RE 0.8	1.00 **2.00** 3.00	0.12 **0.23** 0.34					●						
		TPGN	160304-GP	H	RE 0.4	0.50 **1.50** 2.50	0.08 **0.16** 0.24		●									
			160304-GP	K	RE 0.4	1.00 **2.50** 4.00	0.12 **0.23** 0.34					○						
			160308-GP	H	RE 0.8	0.50 **1.50** 2.50	0.10 **0.20** 0.30		●									
			160308-GP	K	RE 0.8	1.00 **2.50** 4.00	0.14 **0.28** 0.42					●						
			160312-GP	K	RE 1.2	1.00 **2.50** 4.00	0.16 **0.31** 0.46					●						
	S01525 H, coated	TPGN	110302-GS	H	RE 0.2	0.40 **1.20** 2.00	0.05 **0.10** 0.15	○										
			110304-GS	H	RE 0.4	0.40 **1.20** 2.00	0.07 **0.15** 0.23	●										
			110308-GS	H	RE 0.8	0.40 **1.20** 2.00	0.08 **0.17** 0.26	○										
		TPGN	160304-GS	H	RE 0.4	0.50 **1.50** 2.50	0.08 **0.16** 0.24	●										
			160308-GS	H	RE 0.8	0.50 **1.50** 2.50	0.10 **0.20** 0.30	●										

● stock standard, ○ non-standard stock

HOLDERS INTERNAL



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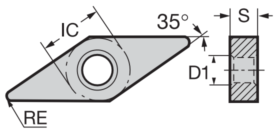
nikkoTOOLS

VN

CERAMIC
Negative



4 edges

Size	IC	S	D1
1604□□	9.525	4.76	3.81

ISO513	NAC150	NAC200	NAC250	NSN350	NSN400	NSN450	NSA600	NSA650	NSA6000	NWR700	NWR750
	Al_2O_3+TiCN			Si_3N_4			SiAlON			Al_2O_3+SiC	
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

GRADE APPLICATION AREA		Hardness	Toughness
■ main application	Stable machining, continuous cut	+	–
■ applicable	General machining, light interruption		
	Unstable machining, interrupted cut	–	+

SHARP

T01020 H

NAC150 coated

Type	Designation			ap / fn			NAC150	NAC200	NAC250	NSN350	NSN400	NSN450
VNGA	160404-CC	H RE 0.4	a_p▸ / f_n▸	0.20 / 0.04	**0.70** / **0.08**	1.20 / 0.12	●	●				
	160408-CC	H RE 0.8	a_p▸ / f_n▸	0.20 / 0.05	**0.70** / **0.10**	1.20 / 0.15	●	●				
	160412-CC	H RE 1.2	a_p▸ / f_n▸	0.20 / 0.06	**0.70** / **0.13**	1.20 / 0.20	○	○				

UNIVERSAL

T02020 K H

Type	Designation			ap / fn			NAC150	NAC200	NAC250	NSN350	NSN400	NSN450
VNGA	160404-GP	H RE 0.4	a_p▸ / f_n▸	0.40 / 0.06	**1.20** / **0.14**	2.00 / 0.22		●				
		K RE 0.4	a_p▸ / f_n▸	1.00 / 0.10	**2.50** / **0.19**	4.00 / 0.28					○	
	160408-GP	H RE 0.8	a_p▸ / f_n▸	0.40 / 0.10	**1.20** / **0.20**	2.00 / 0.30		●	○			
		K RE 0.8	a_p▸ / f_n▸	1.00 / 0.14	**2.50** / **0.27**	4.00 / 0.40					●	
	160412-GP	H RE 1.2	a_p▸ / f_n▸	0.40 / 0.12	**1.20** / **0.23**	2.00 / 0.34		○	○			
		K RE 1.2	a_p▸ / f_n▸	1.00 / 0.20	**2.50** / **0.35**	4.00 / 0.50					○	

S01525 H

coated

Type	Designation			ap / fn			NAC150	NAC200	NAC250	NSN350	NSN400	NSN450
VNGA	160404-GS	H RE 0.4	a_p▸ / f_n▸	0.40 / 0.06	**1.20** / **0.14**	2.00 / 0.22	●					
	160408-GS	H RE 0.8	a_p▸ / f_n▸	0.40 / 0.10	**1.20** / **0.20**	2.00 / 0.30	●					
	160412-GS	H RE 1.2	a_p▸ / f_n▸	0.40 / 0.12	**1.20** / **0.23**	2.00 / 0.34	○					

S02020 H

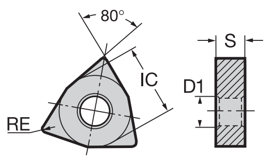
Type	Designation			ap / fn			NAC150	NAC200	NAC250	NSN350	NSN400	NSN450
VNGA	160404-GS	H RE 0.4	a_p▸ / f_n▸	0.40 / 0.06	**1.20** / **0.14**	2.00 / 0.22		●				
	160408-GS	H RE 0.8	a_p▸ / f_n▸	0.40 / 0.10	**1.20** / **0.20**	2.00 / 0.30		●				
	160412-GS	H RE 1.2	a_p▸ / f_n▸	0.40 / 0.12	**1.20** / **0.23**	2.00 / 0.34		○				

● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 161
HOLDERS INTERNAL p. 163

WN

CERAMIC
Negative



6 edges

Size	IC	S	D1
0804□□	12.70	4.76	5.16

ISO513	NAC150 (Al_2O_3+TiCN)	NAC200 (Al_2O_3+TiCN)	NAC250 (Al_2O_3+TiCN)	NSN350 (Si_3N_4)	NSN400 (Si_3N_4)	NSN450 (Si_3N_4)	NSA600 (SiAlON)	NSA650 (SiAlON)	NSA6000 (SiAlON)	NWR700 (Al_2O_3+SiC)	NWR750 (Al_2O_3+SiC)
P											
M											
K		300 600		500 1000	400 1000	400 800					
N											
S							150 350	150 300	150 400	200 500	200 400
H	80 200	60 180	50 150								

GRADE APPLICATION AREA	
■ main application	Stable machining, continuous cut
■ applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / –   Toughness – / +

Geometry	Insert	Type	Designation	Material	RE		min		max	NAC200	NSN400
SHARP	T01020 H	WNGA	080404-CC	H	RE 0.4	a_p ▸	0.20	**0.70**	1.20	●	
						f_n ▸	0.04	**0.08**	0.12		
			080408-CC	H	RE 0.8	a_p ▸	0.20	**0.70**	1.20	●	
						f_n ▸	0.05	**0.10**	0.15		
			080412-CC	H	RE 1.2	a_p ▸	0.20	**0.70**	1.20	●	
						f_n ▸	0.06	**0.13**	0.20		
UNIVERSAL	T02020 K H	WNGA	080404-GP	H	RE 0.4	a_p ▸	0.40	**1.20**	2.00	●	
						f_n ▸	0.06	**0.14**	0.22		
			080408-GP	H	RE 0.8	a_p ▸	0.40	**1.20**	2.00	●	
						f_n ▸	0.10	**0.20**	0.30		
				K	RE 0.8	a_p ▸	1.00	**2.50**	4.00		●
						f_n ▸	0.14	**0.27**	0.40		
			080412-GP	H	RE 1.2	a_p ▸	0.40	**1.20**	2.00	●	
						f_n ▸	0.12	**0.23**	0.34		
				K	RE 1.2	a_p ▸	1.00	**2.50**	4.00		●
						f_n ▸	0.20	**0.35**	0.50		

● stock standard

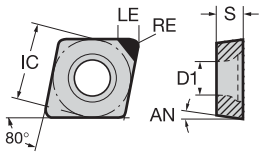
HOLDERS EXTERNAL p. 166

HOLDERS INTERNAL p. 169

TURNING Diamond

CC

DIAMOND
Positive



1 edge

Size	IC	S	D1	AN
MICRO CC	3.50	1.40	1.90	7°
0602□□	6.35	2.38	2.80	7°
09T3□□	9.525	3.97	4.40	7°
1204□□	12.70	4.76	5.50	7°

ISO513	DP (PCD) ND050	ND100	ND120	ND150	ND190	PD NDC300	DM NDM500
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		

◄ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut		

SLANT TIP	STANDARD N	CCGT	060202	RE 0.2 / LE 2.8	a_p ▸	0.40	**1.00**	1.60		●				
					f_n ▸	0.05	**0.10**	0.15						
			060204	RE 0.4 / LE 2.8	a_p ▸	0.40	**1.00**	1.60	○	●		○		
					f_n ▸	0.10	**0.15**	0.20						
			060208	RE 0.8 / LE 2.7	a_p ▸	0.40	**1.00**	1.60		●				
					f_n ▸	0.15	**0.20**	0.25						
		CCGT	09T302	RE 0.2 / LE 2.8	a_p ▸	0.40	**1.00**	1.60		●				
					f_n ▸	0.05	**0.10**	0.15						
			09T304	RE 0.4 / LE 2.8	a_p ▸	0.40	**1.00**	1.60	●	●		●	○	○
					f_n ▸	0.10	**0.15**	0.20						
			09T308	RE 0.8 / LE 2.7	a_p ▸	0.40	**1.00**	1.60	○	●		●	○	○
					f_n ▸	0.15	**0.20**	0.25						
		CCGT	120404	RE 0.4 / LE 2.8	a_p ▸	0.40	**1.00**	1.60		●				
					f_n ▸	0.10	**0.15**	0.20						
			120408	RE 0.8 / LE 2.7	a_p ▸	0.40	**1.00**	1.60		○				
					f_n ▸	0.15	**0.20**	0.25						
	tip angle: 7°													
	LARGE N	CCGT	060204-LRG	RE 0.4 / LE 3.2	a_p ▸	0.40	**1.20**	2.00		○				
					f_n ▸	0.10	**0.15**	0.20						
		CCGT	09T304-LRG	RE 0.4 / LE 4.3	a_p ▸	0.40	**1.50**	2.60		●				
					f_n ▸	0.10	**0.15**	0.20						
			09T308-LRG	RE 0.8 / LE 4.2	a_p ▸	0.40	**1.50**	2.60		●				
					f_n ▸	0.15	**0.20**	0.25						
		CCGT	120404-LRG	RE 0.4 / LE 4.3	a_p ▸	0.40	**1.50**	2.60		○				
					f_n ▸	0.10	**0.15**	0.20						
			120408-LRG	RE 0.8 / LE 4.2	a_p ▸	0.40	**1.50**	2.60		○				
					f_n ▸	0.15	**0.20**	0.25						
	tip angle: 7°													
FLAT TIP	STANDARD N	MICRO	CC.R02	RE 0.2 / LE 1.5	a_p ▸	0.20	**0.60**	1.00	●		●		●	
					f_n ▸	0.05	**0.10**	0.15						
			CC.R04	RE 0.4 / LE 1.5	a_p ▸	0.20	**0.60**	1.00	●		●		●	
					f_n ▸	0.10	**0.15**	0.20						
	MICROBORING													
	STANDARD N	CCGW	060202	RE 0.2 / LE 2.8	a_p ▸	0.40	**1.00**	1.60	○	●		○		
					f_n ▸	0.05	**0.10**	0.15						
			060204	RE 0.4 / LE 2.8	a_p ▸	0.40	**1.00**	1.60	●	●		●		
					f_n ▸	0.10	**0.15**	0.20						
			060208	RE 0.8 / LE 2.7	a_p ▸	0.40	**1.00**	1.60	●	●		●		
					f_n ▸	0.15	**0.20**	0.25						
		CCGW	09T302	RE 0.2 / LE 2.8	a_p ▸	0.40	**1.00**	1.60		●				
					f_n ▸	0.05	**0.10**	0.15						
			09T304	RE 0.4 / LE 2.8	a_p ▸	0.40	**1.00**	1.60	●	●		●	●	○ ○
					f_n ▸	0.10	**0.15**	0.20						
			09T308	RE 0.8 / LE 2.7	a_p ▸	0.40	**1.00**	1.60	●	●		●	●	○ ○
					f_n ▸	0.15	**0.20**	0.25						
		CCGW	120404	RE 0.4 / LE 2.8	a_p ▸	0.40	**1.00**	1.60	○	●		○		
					f_n ▸	0.10	**0.15**	0.20						
			120408	RE 0.8 / LE 2.7	a_p ▸	0.40	**1.00**	1.60	○	●		○		
					f_n ▸	0.15	**0.20**	0.25						

● stock standard, ○ non-standard stock

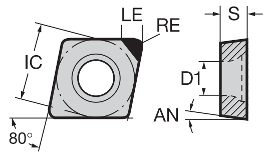
HOLDERS EXTERNAL p. 86

HOLDERS INTERNAL p. 89

nikkoTOOLS

CC

DIAMOND
Positive



1 edge

Size	IC	S	D1	AN
MICRO CC	3.50	1.40	1.90	7°
0602□□	6.35	2.38	2.80	7°
09T3□□	9.525	3.97	4.40	7°
1204□□	12.70	4.76	5.50	7°

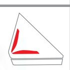
ISO513	DP (PCD) ND050	DP (PCD) ND100	DP (PCD) ND120	DP (PCD) ND150	DP (PCD) ND190	PD NDC3300	DM NDM500
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		

◀ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA	Stable machining, continuous cut
main application	General machining, light interruption
applicable	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +

	Type	Code	RE / LE		min	rec.	max	ND050	ND100	ND120	ND150	ND190	NDC3300	NDM500
FLAT TIP – LARGE N	CCGW	060204-LRG	RE 0.4 LE 3.2	a_p▸ f_n▸	0.40 0.10	**1.20** **0.15**	2.00 0.20		●					
	CCGW	09T304-LRG	RE 0.4 LE 4.3	a_p▸ f_n▸	0.40 0.10	**1.50** **0.15**	2.60 0.20		●					
		09T308-LRG	RE 0.8 LE 4.2	a_p▸ f_n▸	0.40 0.15	**1.50** **0.20**	2.60 0.25		●					
	CCGW	120404-LRG	RE 0.4 LE 4.3	a_p▸ f_n▸	0.40 0.10	**1.50** **0.15**	2.60 0.20		●					
		120408-LRG	RE 0.8 LE 4.2	a_p▸ f_n▸	0.40 0.15	**1.50** **0.20**	2.60 0.25		●					
CHIPBREAKER – CBF N (finishing)	CCGX	060202-CBF	RE 0.2 LE 3.3	a_p▸ f_n▸	0.20 0.04	**0.60** **0.08**	1.00 0.12			●				
		060204-CBF	RE 0.4 LE 3.3	a_p▸ f_n▸	0.20 0.05	**0.60** **0.10**	1.00 0.15			●				
	CCGX	09T302-CBF	RE 0.2 LE 4.3	a_p▸ f_n▸	0.20 0.04	**0.60** **0.08**	1.00 0.12			●				
		09T304-CBF	RE 0.4 LE 4.3	a_p▸ f_n▸	0.20 0.15	**0.60** **0.10**	1.00 0.15			●				
CHIPBREAKER – CBG N (roughing)	CCGX	060204-CBG	RE 0.4 LE 3.3	a_p▸ f_n▸	0.40 0.10	**1.20** **0.15**	2.00 0.20			●				
	CCGX	09T304-CBG	RE 0.4 LE 4.3	a_p▸ f_n▸	0.50 0.10	**1.50** **0.15**	2.50 0.20			●				
		09T308-CBG	RE 0.8 LE 4.2	a_p▸ f_n▸	0.50 0.15	**1.50** **0.20**	2.50 0.25			●				
FULL EDGE – 1S N (flat tip, picture: right-hand)	CCGX	060204R/L-1S	RE 0.4 LE 6.5	a_p▸ f_n▸	0.50 0.10	**2.00** **0.15**	3.50 0.20		●					
	CCGX	09T304R/L-1S	RE 0.4 LE 9.7	a_p▸ f_n▸	0.50 0.10	**3.00** **0.15**	5.50 0.20		●					



finishing

roughing

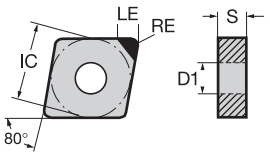
flat tip, picture: right-hand

● stock standard

HOLDERS EXTERNAL p. 86
HOLDERS INTERNAL p. 91

CN

DIAMOND
Negative



1 edge

Size	IC	S	D1
MICRO CN	7.50	3.18	3.60
1204□□	12.70	4.76	5.16

ISO513	DP (PCD) ND050	ND100	ND120	ND150	ND190	PD ND300	DM NDM500
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		◄ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut		

				RE / LE	a_p ▸			
SLANT TIP	**STANDARD** N  tip angle: 7°	CNGM	120404	RE 0.4 LE 2.8	f_n ▸	0.40 0.10	**1.00 0.15**	1.60 0.20
			120408	RE 0.8 LE 2.7	f_n ▸	0.40 0.15	**1.00 0.20**	1.60 0.25
	LARGE N  tip angle: 7°	CNGM	120404-LRG	RE 0.4 LE 4.3	f_n ▸	0.40 0.10	**1.50 0.15**	2.60 0.20
			120408-LRG	RE 0.8 LE 4.2	f_n ▸	0.40 0.15	**1.50 0.20**	2.60 0.25
FLAT TIP	**LARGE** N  MICRONEGA	MICRO	CN.R02-LRG	RE 0.2 LE 3.3	f_n ▸	0.40 0.05	**1.20 0.10**	2.00 0.15
			CN.R04-LRG	RE 0.4 LE 3.3	f_n ▸	0.40 0.10	**1.20 0.15**	2.00 0.20
			CN.R08-LRG	RE 0.8 LE 3.2	f_n ▸	0.40 0.15	**1.20 0.20**	2.00 0.25
	STANDARD N 	CNGA	120404	RE 0.4 LE 2.8	f_n ▸	0.40 0.10	**1.00 0.15**	1.60 0.20
			120408	RE 0.8 LE 2.7	f_n ▸	0.50 0.15	**1.00 0.20**	1.50 0.25
	LARGE N 	CNGA	120404-LRG	RE 0.4 LE 4.3	f_n ▸	0.40 0.10	**1.50 0.15**	2.60 0.20
			120408-LRG	RE 0.8 LE 4.2	f_n ▸	0.40 0.15	**1.50 0.20**	2.60 0.25
CHIPBREAKER	**CBF** N   MICRONEGA, finishing	MICRO	CN.R02-CBF	RE 0.2 LE 3.3	f_n ▸	0.20 0.04	**0.60 0.08**	1.00 0.12
			CN.R04-CBF	RE 0.4 LE 3.3	f_n ▸	0.20 0.05	**0.60 0.10**	1.00 0.15
	CBG N   MICRONEGA, roughing	MICRO	CN.R04-CBG	RE 0.4 LE 3.3	f_n ▸	0.40 0.10	**1.20 0.15**	2.00 0.20
			CN.R08-CBG	RE 0.8 LE 3.2	f_n ▸	0.40 0.15	**1.20 0.20**	2.00 0.25

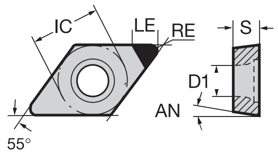
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 96

HOLDERS INTERNAL p. 102

DC

DIAMOND
Positive



1 edge

Size	IC	S	D1	AN
0702□□	6.35	2.38	2.80	7°
11T3□□	9.525	3.97	4.40	7°

ISO513	ND050	ND100	ND120	ND150	ND190	NDC3300	NDM500
	DP (PCD)					PD	DM
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		

◄ HARD METAL (Co ≤ 16%)

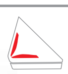
GRADE APPLICATION AREA	
main application	Stable machining, continuous cut
applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / −, Toughness − / +

Type		Insert		RE / LE		min	std	max	ND050	ND100	ND120	ND150	ND190	NDC3300	NDM500
SLANT TIP – STANDARD N		DCGT	070202	RE 0.2	a_p▸	0.40	**1.00**	1.60		●					
				LE 2.5	f_n▸	0.05	**0.10**	0.15							
			070204	RE 0.4	a_p▸	0.40	**1.00**	1.60		●					
				LE 2.4	f_n▸	0.10	**0.15**	0.20							
			070208	RE 0.8	a_p▸	0.40	**1.00**	1.60		●					
				LE 2.0	f_n▸	0.15	**0.20**	0.25							
		DCGT	11T302	RE 0.2	a_p▸	0.40	**1.00**	1.60		●					
				LE 2.5	f_n▸	0.05	**0.10**	0.15							
			11T304	RE 0.4	a_p▸	0.40	**1.00**	1.60	●	●		●	○	○	
				LE 2.4	f_n▸	0.10	**0.15**	0.20							
tip angle: 7°			11T308	RE 0.8	a_p▸	0.40	**1.00**	1.60	●	●		●	○	○	
				LE 2.0	f_n▸	0.15	**0.20**	0.25							
SLANT TIP – LARGE N		DCGT	070204-LRG	RE 0.4	a_p▸	0.40	**1.20**	2.00		○					
				LE 3.0	f_n▸	0.10	**0.15**	0.20							
		DCGT	11T304-LRG	RE 0.4	a_p▸	0.40	**1.50**	2.60		●					
				LE 3.9	f_n▸	0.10	**0.15**	0.20							
tip angle: 7°			11T308-LRG	RE 0.8	a_p▸	0.40	**1.50**	2.60		●					
				LE 3.5	f_n▸	0.15	**0.20**	0.25							
FLAT TIP – STANDARD N		DCGW	070202	RE 0.2	a_p▸	0.40	**1.00**	1.60	●	●		●			
				LE 2.5	f_n▸	0.05	**0.10**	0.15							
			070204	RE 0.4	a_p▸	0.40	**1.00**	1.60	●	●		●			
				LE 2.4	f_n▸	0.10	**0.15**	0.20							
			070208	RE 0.8	a_p▸	0.40	**1.00**	1.60	○	○		○			
				LE 2.0	f_n▸	0.15	**0.20**	0.25							
		DCGW	11T302	RE 0.2	a_p▸	0.40	**1.00**	1.60	○	●		○		○	
				LE 2.5	f_n▸	0.05	**0.10**	0.15							
			11T304	RE 0.4	a_p▸	0.40	**1.00**	1.60	●	●		●	●	●	○
				LE 2.4	f_n▸	0.10	**0.15**	0.20							
			11T308	RE 0.8	a_p▸	0.40	**1.00**	1.60	●	●		●	●	●	○
				LE 2.0	f_n▸	0.15	**0.20**	0.25							
			11T312	RE 1.2	a_p▸	0.40	**1.00**	1.60						○	
				LE 3.1	f_n▸	0.20	**0.30**	0.40							
FLAT TIP – LARGE N		DCGW	070204-LRG	RE 0.4	a_p▸	0.40	**1.20**	2.00		●					
				LE 2.9	f_n▸	0.10	**0.15**	0.20							
		DCGW	11T304-LRG	RE 0.4	a_p▸	0.40	**1.50**	2.60		●					
				LE 3.9	f_n▸	0.10	**0.15**	0.20							
			11T308-LRG	RE 0.8	a_p▸	0.40	**1.50**	2.60		○					
				LE 3.5	f_n▸	0.15	**0.20**	0.25							
CHIPBREAKER – CBF N		DCGX	070202-CBF	RE 0.2	a_p▸	0.20	**0.60**	1.00			●				
				LE 3.0	f_n▸	0.04	**0.08**	0.12							
			070204-CBF	RE 0.4	a_p▸	0.20	**0.60**	1.00			○				
				LE 2.9	f_n▸	0.05	**0.10**	0.15							
		DCGX	11T302-CBF	RE 0.2	a_p▸	0.20	**0.60**	1.00			●				
				LE 4.0	f_n▸	0.04	**0.08**	0.12							
finishing			11T304-CBF	RE 0.4	a_p▸	0.20	**0.60**	1.00			●				
				LE 3.9	f_n▸	0.05	**0.10**	0.15							





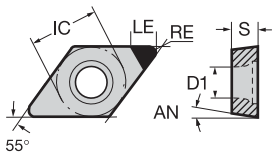
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 107

HOLDERS INTERNAL p. 111

DC

DIAMOND
Positive



1 edge

Size	IC	S	D1	AN
0702□□	6.35	2.38	2.80	7°
11T3□□	9.525	3.97	4.40	7°

ISO513	DP (PCD) ND050	ND100	ND120	ND150	ND190	PD NDC300	DM NDM500
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		

◄ HARD METAL (Co ≤ 16%)

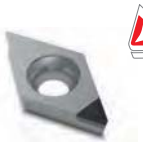
GRADE APPLICATION AREA	
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut

Stable machining, continuous cut

Hardness + / − ; Toughness − / +

CHIPBREAKER

CBG N



roughing

DCGX	**070204-CBG**	RE 0.4 LE 2.9	a_p ▸	0.40	**1.20**	2.00	○
			f_n ▸	0.10	**0.15**	0.20	
DCGX	**11T304-CBG**	RE 0.4 LE 3.9	a_p ▸	0.50	**1.50**	2.50	●
			f_n ▸	0.10	**0.15**	0.20	
	11T308-CBG	RE 0.8 LE 3.5	a_p ▸	0.50	**1.50**	2.50	●
			f_n ▸	0.15	**0.20**	0.25	

FULL EDGE

1S N

flat tip, picture: right-hand

DCGX	**070204$^{R}_{L}$-1S**	RE 0.4 LE 7.8	a_p ▸	0.50	**2.00**	3.50	●
			f_n ▸	0.10	**0.15**	0.20	
DCGX	**11T304$^{R}_{L}$-1S**	RE 0.4 LE 11.6	a_p ▸	0.50	**3.00**	5.50	●
			f_n ▸	0.10	**0.15**	0.20	

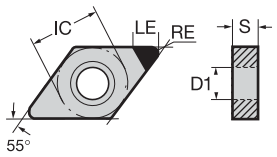
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 107

HOLDERS INTERNAL p. 111

DN

DIAMOND
Negative



1 edge

Size	IC	S	D1
MICRO DN	7.00	3.18	3.60
1506□□	12.70	6.35	5.16

ISO513	ND050	ND100	ND120	ND150	ND190	NDC300	NDM500
	DP (PCD)					PD	DM
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		

◄ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut		

SLANT TIP	STANDARD N  tip angle: 7°	DNGM	150604	RE 0.4 LE 2.4	a_p ▸ 0.40 **1.00** 1.60 f_n ▸ 0.10 **0.15** 0.20		○							
			150608	RE 0.8 LE 2.0	a_p ▸ 0.40 **1.00** 1.60 f_n ▸ 0.15 **0.20** 0.25		○							
	LARGE N  tip angle: 7°	DNGM	150604-LRG	RE 0.4 LE 3.9	a_p ▸ 0.40 **1.50** 2.60 f_n ▸ 0.10 **0.15** 0.20		○							
			150608-LRG	RE 0.8 LE 3.5	a_p ▸ 0.40 **1.50** 2.60 f_n ▸ 0.15 **0.20** 0.25		○							
FLAT TIP	LARGE N  MICRONEGA	MICRO	DN.R02-LRG	RE 0.2 LE 3.1	a_p ▸ 0.40 **1.20** 2.00 f_n ▸ 0.05 **0.10** 0.15			●						
			DN.R04-LRG	RE 0.4 LE 2.9	a_p ▸ 0.40 **1.20** 2.00 f_n ▸ 0.10 **0.15** 0.20			●						
			DN.R08-LRG	RE 0.8 LE 2.5	a_p ▸ 0.40 **1.20** 2.00 f_n ▸ 0.15 **0.20** 0.25			●						
	STANDARD N 	DNGA	150604	RE 0.4 LE 2.4	a_p ▸ 0.40 **1.00** 1.60 f_n ▸ 0.10 **0.15** 0.20		○							
			150608	RE 0.8 LE 2.0	a_p ▸ 0.40 **1.00** 1.60 f_n ▸ 0.15 **0.20** 0.25		●							
	LARGE N 	DNGA	150604-LRG	RE 0.4 LE 3.9	a_p ▸ 0.40 **1.50** 2.60 f_n ▸ 0.10 **0.15** 0.20		○							
			150608-LRG	RE 0.8 LE 3.5	a_p ▸ 0.40 **1.50** 2.60 f_n ▸ 0.15 **0.20** 0.25		○							
CHIPBREAKER	CBF N   MICRONEGA, finishing	MICRO	DN.R02-CBF	RE 0.2 LE 3.1	a_p ▸ 0.20 **0.60** 1.00 f_n ▸ 0.04 **0.08** 0.12			●						
			DN.R04-CBF	RE 0.4 LE 2.9	a_p ▸ 0.20 **0.60** 1.00 f_n ▸ 0.05 **0.10** 0.15			●						
	CBG N   MICRONEGA, roughing	MICRO	DN.R04-CBG	RE 0.4 LE 2.9	a_p ▸ 0.40 **1.20** 2.00 f_n ▸ 0.10 **0.15** 0.20			●						
			DN.R08-CBG	RE 0.8 LE 2.5	a_p ▸ 0.40 **1.20** 2.00 f_n ▸ 0.15 **0.20** 0.25			●						

● stock standard, ○ non-standard stock

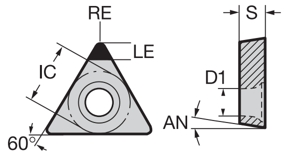
HOLDERS EXTERNAL p. 119

HOLDERS INTERNAL p. 123

nikkoTOOLS

TC

DIAMOND
Positive



1 edge

Size	IC	S	D1	AN
0902□□	5.56	2.38	2.50	7°
1102□□	6.35	2.38	2.80	7°
16T3□□	9.525	3.97	4.40	7°

ISO513	ND050 (DP (PCD))	ND100 (DP (PCD))	ND120 (DP (PCD))	ND150 (DP (PCD))	ND190 (DP (PCD))	NDC300 (PD)	NDM500 (DM)
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		

◄ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA	
main application	Stable machining, continuous cut
applicable	General machining, light interruption
	Unstable machining, interrupted cut

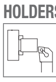
Hardness + / −, Toughness − / +

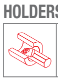
Group	Type	Designation	RE / LE		min	rec.	max	ND050	ND100	ND120	ND150	ND190	NDC300	NDM500
SLANT TIP – STANDARD N (tip angle: 7°)	TCGT	090202	RE 0.2	a_p ▸	0.40	**1.00**	1.60		○					
			LE 2.6	f_n ▸	0.05	**0.10**	0.15							
		090204	RE 0.4	a_p ▸	0.40	**1.00**	1.60		○					
			LE 2.5	f_n ▸	0.10	**0.15**	0.20							
	TCGT	110202	RE 0.2	a_p ▸	0.40	**1.00**	1.60		○					
			LE 2.6	f_n ▸	0.05	**0.10**	0.15							
		110204	RE 0.4	a_p ▸	0.40	**1.00**	1.60		●					
			LE 2.5	f_n ▸	0.10	**0.15**	0.20							
		110208	RE 0.8	a_p ▸	0.40	**1.00**	1.60		○					
			LE 2.2	f_n ▸	0.15	**0.20**	0.25							
	TCGT	16T304	RE 0.4	a_p ▸	0.40	**1.00**	1.60		○					
			LE 2.5	f_n ▸	0.10	**0.15**	0.20							
		16T308	RE 0.8	a_p ▸	0.40	**1.00**	1.60		○					
			LE 2.2	f_n ▸	0.15	**0.20**	0.25							
SLANT TIP – LARGE N (tip angle: 7°)	TCGT	110204-LRG	RE 0.4	a_p ▸	0.40	**1.50**	2.60		○					
			LE 4.0	f_n ▸	0.10	**0.15**	0.20							
		110208-LRG	RE 0.8	a_p ▸	0.40	**1.50**	2.60		○					
			LE 3.7	f_n ▸	0.15	**0.20**	0.25							
	TCGT	16T304-LRG	RE 0.4	a_p ▸	0.40	**1.50**	2.60		○					
			LE 4.0	f_n ▸	0.10	**0.15**	0.20							
		16T308-LRG	RE 0.8	a_p ▸	0.40	**1.50**	2.60		○					
			LE 3.7	f_n ▸	0.15	**0.20**	0.25							
FLAT TIP – STANDARD N	TCGW	090202	RE 0.2	a_p ▸	0.40	**1.00**	1.60		○					
			LE 2.6	f_n ▸	0.05	**0.10**	0.15							
		090204	RE 0.4	a_p ▸	0.40	**1.00**	1.60		●					
			LE 2.5	f_n ▸	0.10	**0.15**	0.20							
	TCGW	110202	RE 0.2	a_p ▸	0.40	**1.00**	1.60		○					
			LE 2.6	f_n ▸	0.05	**0.10**	0.15							
		110204	RE 0.4	a_p ▸	0.40	**1.00**	1.60	●	●		●			
			LE 2.5	f_n ▸	0.10	**0.15**	0.20							
		110208	RE 0.8	a_p ▸	0.40	**1.00**	1.60	●	○		○			
			LE 2.2	f_n ▸	0.15	**0.20**	0.25							
	TCGW	16T304	RE 0.4	a_p ▸	0.40	**1.00**	1.60		●					
			LE 2.5	f_n ▸	0.10	**0.15**	0.20							
		16T308	RE 0.8	a_p ▸	0.40	**1.00**	1.60	●	●		●			
			LE 2.2	f_n ▸	0.15	**0.20**	0.25							
FLAT TIP – LARGE N	TCGW	110204-LRG	RE 0.4	a_p ▸	0.40	**1.50**	2.60		○					
			LE 4.0	f_n ▸	0.10	**0.15**	0.20							
		110208-LRG	RE 0.8	a_p ▸	0.40	**1.50**	2.60		●					
			LE 3.7	f_n ▸	0.15	**0.20**	0.25							
	TCGW	16T304-LRG	RE 0.4	a_p ▸	0.40	**1.50**	2.60		●					
			LE 4.0	f_n ▸	0.10	**0.15**	0.20							
		16T308-LRG	RE 0.8	a_p ▸	0.40	**1.50**	2.60		●					
			LE 3.7	f_n ▸	0.15	**0.20**	0.25							
CHIPBREAKER – CBF N (finishing)	TCGX	090202-CBF	RE 0.2	a_p ▸	0.20	**0.60**	1.00			●				
			LE 3.6	f_n ▸	0.04	**0.08**	0.12							
		090204-CBF	RE 0.4	a_p ▸	0.20	**0.60**	1.00			●				
			LE 3.5	f_n ▸	0.05	**0.10**	0.15							
	TCGX	110202-CBF	RE 0.2	a_p ▸	0.20	**0.60**	1.00			●				
			LE 4.1	f_n ▸	0.04	**0.08**	0.12							
		110204-CBF	RE 0.4	a_p ▸	0.20	**0.60**	1.00			●				
			LE 4.0	f_n ▸	0.05	**0.10**	0.15							
	TCGX	16T304-CBF	RE 0.4	a_p ▸	0.20	**0.60**	1.00			●				
			LE 4.0	f_n ▸	0.05	**0.10**	0.15							






● stock standard, ○ non-standard stock

HOLDERS EXTERNAL

p. 135

HOLDERS INTERNAL

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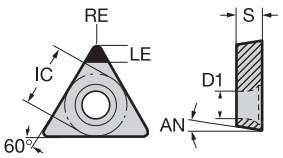
TURNING
THREADING
GROOVING
MILLING
DRILLING
ACCESSORIES

TC

DIAMOND
Positive



1 edge

Size	IC	S	D1	AN
0902□□	5.56	2.38	2.50	7°
1102□□	6.35	2.38	2.80	7°
16T3□□	9.525	3.97	4.40	7°

ISO513	ND050	ND100	ND120	ND150	ND190	NDC300	NDM500
	DP (PCD)					PD	DM
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		

◄ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA	Stable machining, continuous cut
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +

CHIPBREAKER

CBG N

roughing

		RE / LE	a_p ▸			f_n ▸		
TCGX	090204-CBG	RE 0.4 LE 3.5	0.50	**1.50**	2.50	0.10	**0.15**	0.20
TCGX	110204-CBG	RE 0.4 LE 4.0	0.50	**1.50**	2.50	0.10	**0.15**	0.20
	110208-CBG	RE 0.8 LE 3.7	0.50	**1.50**	2.50	0.15	**0.20**	0.25
TCGX	16T304-CBG	RE 0.4 LE 4.0	0.50	**1.50**	2.50	0.10	**0.15**	0.20
	16T308-CBG	RE 0.8 LE 3.7	0.50	**1.50**	2.50	0.15	**0.20**	0.25

FULL EDGE

1S N

flat tip

		RE / LE	a_p ▸			f_n ▸		
TCGX	090204-1S	RE 0.4 LE 9.6	0.50	**1.50**	2.50	0.10	**0.15**	0.20
TCGX	110204-1S	RE 0.4 LE 11.0	0.50	**2.00**	3.50	0.10	**0.15**	0.20
TCGX	16T304-1S	RE 0.4 LE 16.5	0.50	**3.00**	5.50	0.10	**0.15**	0.20

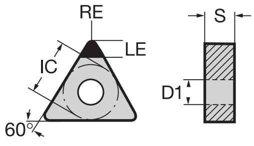
● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 135

HOLDERS INTERNAL p. 138

TN

DIAMOND
Negative



1 edge

Size	IC	S	D1	AN
1604□□	9.525	4.76	3.81	

ISO513	ND050 (DP (PCD))	ND100 (DP (PCD))	ND120 (DP (PCD))	ND150 (DP (PCD))	ND190 (DP (PCD))	NDC3300 (PD)	NDM500 (DM)
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		

◀ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA	
■ main application	Stable machining, continuous cut
■ applicable	General machining, light interruption
	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +

	Type		Designation	RE / LE		min	rec.	max	ND050	ND100	ND120	ND150	ND190	NDC3300	NDM500
SLANT TIP	STANDARD N, tip angle: 7°	TNGM	160404	RE 0.4 / LE 2.5	a_p▸ / f_n▸	0.40 / 0.10	**1.00** / **0.15**	1.60 / 0.20		●					
			160408	RE 0.8 / LE 2.0	a_p▸ / f_n▸	0.40 / 0.15	**1.00** / **0.20**	1.60 / 0.25		●					
	LARGE N, tip angle: 7°	TNGM	160404-LRG	RE 0.4 / LE 4.0	a_p▸ / f_n▸	0.40 / 0.10	**1.50** / **0.15**	2.60 / 0.20		○					
			160408-LRG	RE 0.8 / LE 3.7	a_p▸ / f_n▸	0.40 / 0.15	**1.50** / **0.20**	2.60 / 0.25		○					
FLAT TIP	STANDARD N	TNGA	160404	RE 0.4 / LE 2.5	a_p▸ / f_n▸	0.40 / 0.10	**1.00** / **0.15**	1.60 / 0.20		○					
			160408	RE 0.8 / LE 2.0	a_p▸ / f_n▸	0.40 / 0.15	**1.00** / **0.20**	1.60 / 0.25		○					
	LARGE N	TNGA	160404-LRG	RE 0.4 / LE 4.0	a_p▸ / f_n▸	0.40 / 0.10	**1.50** / **0.15**	2.60 / 0.20		○					
			160408-LRG	RE 0.8 / LE 3.7	a_p▸ / f_n▸	0.40 / 0.15	**1.50** / **0.20**	2.60 / 0.25		○					

● stock standard, ○ non-standard stock

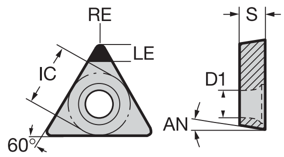
HOLDERS EXTERNAL ▶ p. 142

HOLDERS INTERNAL ▶ p. 145

nikkoTOOLS

TP

DIAMOND
Positive



1 edge

Size	IC	S	D1	AN
0802□□	4.76	2.38	2.30	11°
0902□□	5.56	2.38	3.00	11°
1103□□	6.35	3.18	3.30	11°

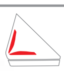
ISO513	ND050	ND100	ND120	ND150	ND190	NDC3300	NDM500
	DP (PCD)					PD	DM
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		◄ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA: Stable machining, continuous cut / General machining, light interruption / Unstable machining, interrupted cut (Hardness + / –, Toughness – / +)

■ main application
■ applicable

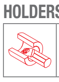
Type		Designation		RE / LE		min	std	max	ND050	ND100	ND120	ND150	ND190	NDC3300	NDM500
SLANT TIP	STANDARD N	TPGT	080202	RE 0.2	a_p ▸	0.40	**1.00**	1.60	○	○					
				LE 2.6	f_n ▸	0.05	**0.10**	0.15							
			080204	RE 0.4	a_p ▸	0.40	**1.00**	1.60		●					
				LE 2.5	f_n ▸	0.10	**0.15**	0.20							
		TPGT	090202	RE 0.2	a_p ▸	0.40	**1.00**	1.60		○					
				LE 2.6	f_n ▸	0.05	**0.10**	0.15							
			090204	RE 0.4	a_p ▸	0.40	**1.00**	1.60		○					
				LE 2.5	f_n ▸	0.10	**0.15**	0.20							
		TPGT	110302	RE 0.2	a_p ▸	0.40	**1.00**	1.60		●					
				LE 2.6	f_n ▸	0.05	**0.10**	0.15							
	tip angle: 7°		110304	RE 0.4	a_p ▸	0.40	**1.00**	1.60		●					
				LE 2.2	f_n ▸	0.10	**0.15**	0.20							
FLAT TIP	STANDARD N	TPGW	080202	RE 0.2	a_p ▸	0.40	**1.00**	1.60		○					
				LE 2.6	f_n ▸	0.05	**0.10**	0.15							
			080204	RE 0.4	a_p ▸	0.40	**1.00**	1.60		○					
				LE 2.5	f_n ▸	0.10	**0.15**	0.20							
		TPGW	090202	RE 0.2	a_p ▸	0.40	**1.00**	1.60		○					
				LE 2.6	f_n ▸	0.05	**0.10**	0.15							
			090204	RE 0.4	a_p ▸	0.40	**1.00**	1.60		●					
				LE 2.5	f_n ▸	0.10	**0.15**	0.20							
		TPGW	110302	RE 0.2	a_p ▸	0.40	**1.00**	1.60		○					
				LE 2.6	f_n ▸	0.05	**0.10**	0.15							
			110304	RE 0.4	a_p ▸	0.40	**1.00**	1.60		○					
				LE 2.2	f_n ▸	0.10	**0.15**	0.20							
CHIPBREAKER	CBF N	TPGX	090202-CBF	RE 0.2	a_p ▸	0.20	**0.60**	1.00			●				
				LE 3.2	f_n ▸	0.05	**0.10**	0.15							
			090204-CBF	RE 0.4	a_p ▸	0.20	**0.60**	1.00			●				
				LE 3.1	f_n ▸	0.10	**0.15**	0.20							
		TPGX	110302-CBF	RE 0.2	a_p ▸	0.20	**0.60**	1.00			●				
				LE 4.1	f_n ▸	0.05	**0.10**	0.15							
	finishing		110304-CBF	RE 0.4	a_p ▸	0.20	**0.60**	1.00			●				
				LE 4.0	f_n ▸	0.10	**0.15**	0.20							
	CBG N	TPGX	090204-CBG	RE 0.4	a_p ▸	0.40	**1.20**	2.00			●				
				LE 3.1	f_n ▸	0.10	**0.15**	0.20							
	roughing	TPGX	110304-CBG	RE 0.4	a_p ▸	0.50	**1.50**	2.50			●				
				LE 4.0	f_n ▸	0.10	**0.15**	0.20							



● stock standard, ○ non-standard stock

HOLDERS INTERNAL



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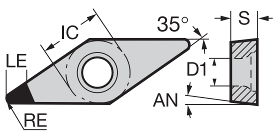
VB

DIAMOND
Positive



1 edge

Size	IC	S	D1	AN
1103□□	6.35	3.18	2.80	5°
1604□□	9.525	4.76	4.40	5°

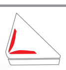
ISO513	ND050	ND100	ND120	ND150	ND190	NDC3000	NDM500
	DP (PCD)					PD	DM
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		◄ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA		Hardness	Toughness
main application	Stable machining, continuous cut	+	–
applicable	General machining, light interruption		
	Unstable machining, interrupted cut	–	+

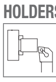
Type				Cutting data	ND050	ND100	ND120	ND150	ND190	NDC3000	NDM500
SLANT TIP – STANDARD N (tip angle: 7°)	VBGT	110302	RE 0.2 LE 3.0	a_p 0.40 **1.00** 1.60 / f_n 0.05 **0.10** 0.15		●		●			
		110304	RE 0.4 LE 2.5	a_p 0.40 **1.00** 1.60 / f_n 0.10 **0.15** 0.20		●					
	VBGT	160404	RE 0.4 LE 2.5	a_p 0.40 **1.00** 1.60 / f_n 0.10 **0.15** 0.20	●	●		●	○	○	
		160408	RE 0.8 LE 2.2	a_p 0.40 **1.00** 1.60 / f_n 0.15 **0.20** 0.25	●	●		●	○	○	
SLANT TIP – LARGE N (tip angle: 7°)	VBGT	160404-LRG	RE 0.4 LE 4.5	a_p 0.40 **1.50** 2.60 / f_n 0.10 **0.15** 0.20		●					
		160408-LRG	RE 0.8 LE 3.7	a_p 0.40 **1.50** 2.60 / f_n 0.15 **0.20** 0.25		●					
FLAT TIP – STANDARD N	VBGW	110302	RE 0.2 LE 3.0	a_p 0.40 **1.00** 1.60 / f_n 0.05 **0.10** 0.15	●	●		○			
		110304	RE 0.4 LE 2.5	a_p 0.40 **1.00** 1.60 / f_n 0.10 **0.15** 0.20	○	●		○			
	VBGW	160404	RE 0.4 LE 2.5	a_p 0.40 **1.00** 1.60 / f_n 0.10 **0.15** 0.20	○	●		○	○	○	○
		160408	RE 0.8 LE 2.2	a_p 0.40 **1.00** 1.60 / f_n 0.15 **0.20** 0.25	○	○		○	○	○	○
FLAT TIP – LARGE N	VBGW	160404-LRG	RE 0.4 LE 4.5	a_p 0.40 **1.50** 2.60 / f_n 0.10 **0.15** 0.20		●					
		160408-LRG	RE 0.8 LE 3.7	a_p 0.40 **1.50** 2.60 / f_n 0.15 **0.20** 0.25		●					
CHIPBREAKER – CBF N (finishing)	VBGX	110302-CBF	RE 0.2 LE 5.0	a_p 0.20 **0.60** 1.00 / f_n 0.04 **0.08** 0.12			●				
		110304-CBF	RE 0.4 LE 4.5	a_p 0.20 **0.60** 1.00 / f_n 0.05 **0.10** 0.15			●				
	VBGX	160404-CBF	RE 0.4 LE 4.5	a_p 0.20 **0.60** 1.00 / f_n 0.05 **0.10** 0.15			●				
CHIPBREAKER – CBG N (roughing)	VBGX	110304-CBG	RE 0.4 LE 4.5	a_p 0.50 **1.50** 2.50 / f_n 0.10 **0.15** 0.20			●				
	VBGX	160404-CBG	RE 0.4 LE 4.5	a_p 0.50 **1.50** 2.50 / f_n 0.10 **0.15** 0.20			●				
		160408-CBG	RE 0.8 LE 3.7	a_p 0.50 **1.50** 2.50 / f_n 0.15 **0.20** 0.25			●				



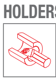


● stock standard, ○ non-standard stock



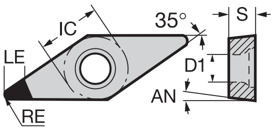
HOLDERS EXTERNAL p. 149



HOLDERS INTERNAL p. 152

VC

DIAMOND Positive



1 edge

Size	IC	S	D1	AN
1103□□	6.35	3.18	2.80	7°
1604□□	9.525	4.76	4.40	7°

ISO513	DP (PCD) ND050	DP (PCD) ND100	DP (PCD) ND120	DP (PCD) ND150	DP (PCD) ND190	PD NDC300	DM NDM500
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		◄ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA	
	Stable machining, continuous cut
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut

Hardness + / – ; Toughness – / +

Group	Type	Designation	Code	RE / LE		min	rec.	max	ND050	ND100	ND120	ND150	ND190	NDC300	NDM500
SLANT TIP	STANDARD N, tip angle: 7°	VCGT	110302	RE 0.2	a_p ▸	0.40	**1.00**	1.60	●	●					
				LE 3.0	f_n ▸	0.05	**0.10**	0.15							
			110304	RE 0.4	a_p ▸	0.40	**1.00**	1.60		●					
				LE 2.5	f_n ▸	0.10	**0.15**	0.20							
		VCGT	160402	RE 0.2	a_p ▸	0.40	**1.00**	1.60		●				○	
				LE 3.0	f_n ▸	0.05	**0.10**	0.15							
			160404	RE 0.4	a_p ▸	0.40	**1.00**	1.60	●	●		●	○	○	
				LE 2.5	f_n ▸	0.10	**0.15**	0.20							
			160408	RE 0.8	a_p ▸	0.40	**1.00**	1.60	●	●		●	○	○	
				LE 2.2	f_n ▸	0.15	**0.20**	0.25							
	LARGE N, tip angle: 7°	VCGT	160404-LRG	RE 0.4	a_p ▸	0.40	**1.50**	2.60		●					
				LE 4.5	f_n ▸	0.10	**0.15**	0.20							
			160408-LRG	RE 0.8	a_p ▸	0.40	**1.50**	2.60		●					
				LE 3.7	f_n ▸	0.15	**0.20**	0.25							
FLAT TIP	STANDARD N	VCGW	110302	RE 0.2	a_p ▸	0.40	**1.00**	1.60	●	●					
				LE 3.0	f_n ▸	0.05	**0.10**	0.15							
			110304	RE 0.4	a_p ▸	0.40	**1.00**	1.60		●					
				LE 2.5	f_n ▸	0.10	**0.15**	0.20							
		VCGW	160404	RE 0.4	a_p ▸	0.40	**1.00**	1.60	●	●		●	○	○	○
				LE 2.5	f_n ▸	0.10	**0.15**	0.20							
			160408	RE 0.8	a_p ▸	0.40	**1.00**	1.60	●	●		●	○	○	○
				LE 2.2	f_n ▸	0.15	**0.20**	0.25							
	LARGE N	VCGW	110304-LRG	RE 0.4	a_p ▸	0.40	**1.50**	2.60		●					
				LE 4.5	f_n ▸	0.10	**0.15**	0.20							
		VCGW	160404-LRG	RE 0.4	a_p ▸	0.40	**1.50**	2.60		●					
				LE 4.5	f_n ▸	0.10	**0.15**	0.20							
			160408-LRG	RE 0.8	a_p ▸	0.40	**1.50**	2.60		●					
				LE 3.7	f_n ▸	0.15	**0.20**	0.25							
			160412-LRG	RE 1.2	a_p ▸	0.40	**1.50**	2.60		○					
				LE 3.3	f_n ▸	0.20	**0.25**	0.30							
CHIPBREAKER	CBF N, finishing	VCGX	110302-CBF	RE 0.2	a_p ▸	0.20	**0.60**	1.00			●				
				LE 5.0	f_n ▸	0.04	**0.08**	0.12							
			110304-CBF	RE 0.4	a_p ▸	0.20	**0.60**	1.00			●				
				LE 4.5	f_n ▸	0.05	**0.10**	0.15							
		VCGX	160404-CBF	RE 0.4	a_p ▸	0.20	**0.60**	1.00			●				
				LE 4.5	f_n ▸	0.05	**0.10**	0.15							
	CBG N, roughing	VCGX	110304-CBG	RE 0.4	a_p ▸	0.50	**1.50**	2.50			●				
				LE 4.5	f_n ▸	0.10	**0.15**	0.20							
		VCGX	160404-CBG	RE 0.4	a_p ▸	0.50	**1.50**	2.50			●				
				LE 4.5	f_n ▸	0.10	**0.15**	0.20							
			160408-CBG	RE 0.8	a_p ▸	0.50	**1.50**	2.50			●				
				LE 3.7	f_n ▸	0.15	**0.20**	0.25							





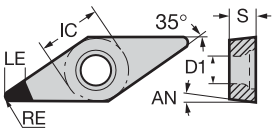



● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 153
HOLDERS INTERNAL p. 157

VC

DIAMOND
Positive



1 edge

Size	IC	S	D1	AN
1103□□	6.35	3.18	2.80	7°
1604□□	9.525	4.76	4.40	7°

ISO513	DP (PCD) ND050	ND100	ND120	ND150	ND190	PD NDC300	DM NDM500
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		

◄ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA	
■ main application	General machining, light interruption
■ applicable	Unstable machining, interrupted cut

Stable machining, continuous cut

Hardness + / −

Toughness − / +

FULL EDGE

1S N

flat tip, picture: right-hand

VCGX	**110304**$^{R}_{L}$**-1S**	RE 0.4 LE 11.2	a_p ▸	0.50	**2.00**	3.50	●
			f_n ▸	0.10	**0.15**	0.20	
VCGX	**160404**$^{R}_{L}$**-1S**	RE 0.4 LE 16.6	a_p ▸	0.50	**3.00**	5.50	●
			f_n ▸	0.10	**0.15**	0.20	

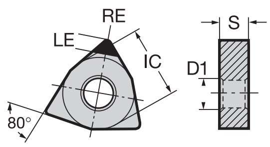
● stock standard

HOLDERS EXTERNAL p. 153

HOLDERS INTERNAL p. 157

WN

DIAMOND
Negative



1 edge

Size	IC	S	D1
0804□□	12.70	4.76	5.16

ISO513	ND050	ND100	ND120	ND150	ND190	NDC3300	NDM500
	DP (PCD)					PD	DM
P							
M							
K							
N	500 1500	500 2000	500 2000	500 2500	500 2500	1000 3000	1000 3000
S	50 100						
H					10 30		◄ HARD METAL (Co ≤ 16%)

GRADE APPLICATION AREA		Hardness	Toughness	ND050	ND100	ND120	ND150	ND190	NDC3300	NDM500
	Stable machining, continuous cut	+	–				■	■	■	■
■ main application	General machining, light interruption			■	■	■	■	■		
■ applicable	Unstable machining, interrupted cut	–	+	■						

		Type	Designation	RE / LE		min	opt	max	ND050	ND100	ND120	ND150	ND190	NDC3300	NDM500
SLANT TIP	STANDARD N  tip angle: 7°	WNGM	080404	RE 0.4 LE 2.8	a_p▸ f_n▸	0.40 0.10	**1.00** **0.15**	1.60 0.20		●					
			080408	RE 0.8 LE 2.7	a_p▸ f_n▸	0.40 0.15	**1.00** **0.20**	1.60 0.25		●					
	LARGE N  tip angle: 7°	WNGM	080404-LRG	RE 0.4 LE 4.3	a_p▸ f_n▸	0.40 0.10	**1.50** **0.15**	2.60 0.20		○					
			080408-LRG	RE 0.8 LE 4.2	a_p▸ f_n▸	0.40 0.15	**1.50** **0.20**	2.60 0.25		○					
FLAT TIP	STANDARD N 	WNGA	080404	RE 0.4 LE 2.8	a_p▸ f_n▸	0.40 0.10	**1.00** **0.15**	1.60 0.20		●					
			080408	RE 0.8 LE 2.7	a_p▸ f_n▸	0.40 0.15	**1.00** **0.20**	1.60 0.25		○					
	LARGE N 	WNGA	080404-LRG	RE 0.4 LE 4.3	a_p▸ f_n▸	0.40 0.10	**1.50** **0.15**	2.60 0.20		○					
			080408-LRG	RE 0.8 LE 4.2	a_p▸ f_n▸	0.40 0.15	**1.50** **0.20**	2.60 0.25		○					

● stock standard, ○ non-standard stock

HOLDERS EXTERNAL p. 166

HOLDERS INTERNAL p. 169

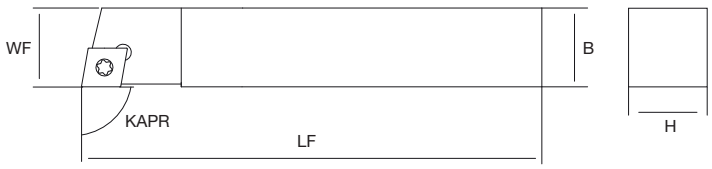
TURNING
THREADING
GROOVING
MILLING
DRILLING
ACCESSORIES

TURNING Holders

CC

EXTERNAL

Right-hand shown



SCAC
External turning (KAPR 90°)

		R	L	H	B	WF	LF	KG	MIID		
06	**NT-SCAC$^{R}_{L}$0808K06**	○	○	8	8	8	125		CC□□0602		
	NT-SCAC$^{R}_{L}$1010K06	●	●	10	10	10	125				
	NT-SCAC$^{R}_{L}$1212K06	●	●	12	12	12	125				
09	**NT-SCAC$^{R}_{L}$1212K09**	●	●	12	12	12	125		CC□□09T3		
	NT-SCAC$^{R}_{L}$1616K09	●	●	16	16	16	125				

● stock standard, ○ non-standard stock

Spare Parts

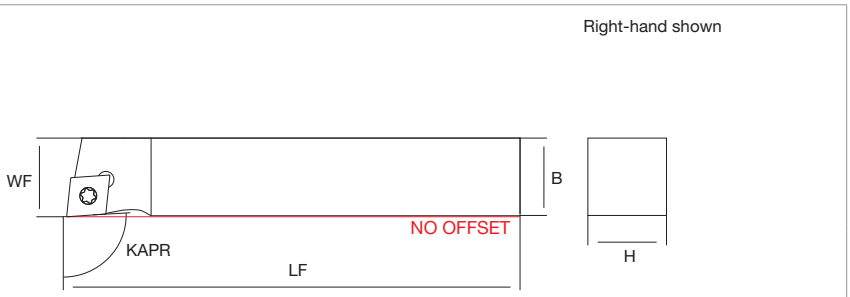
	INSERT SCREW	INSERT WRENCH
NT-SCAC$^{R}_{L}$0808K06	NT-ST010	NT-FT07
NT-SCAC$^{R}_{L}$1010K06		
NT-SCAC$^{R}_{L}$1212K06		
NT-SCAC$^{R}_{L}$1212K09	NT-ST030	NT-FT15
NT-SCAC$^{R}_{L}$1616K09		

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
CC□□0602	page 8	page 39	page 56	page 70
CC□□09T3	page 8	page 39	page 56	page 70

CC

EXTERNAL



SCLC N

External turning (KAPR 95°)

		R	L	H	B	WF	LF	KG	MIID		
06	**NT-SCLC^{R}/$_{L}$0808K06N**	○	○	8	8	8	125		CC□□0602		
	NT-SCLC^{R}/$_{L}$1010K06N	●	●	10	10	10	125				
09	**NT-SCLC^{R}/$_{L}$1212K09N**	●	●	12	12	12	125		CC□□09T3		
	NT-SCLC^{R}/$_{L}$1616K09N	●	●	16	16	16	125				

● stock standard, ○ non-standard stock

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-SCLC^{R}/$_{L}$0808K06N	NT-ST010	NT-FT07
NT-SCLC^{R}/$_{L}$1010K06N		
NT-SCLC^{R}/$_{L}$1212K09N	NT-ST030	NT-FT15
NT-SCLC^{R}/$_{L}$1616K09N		

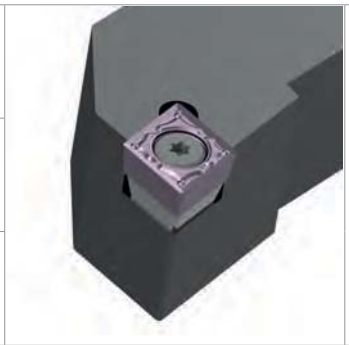
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
CC□□0602	page 8	page 39	page 56	page 70
CC□□09T3	page 8	page 39	page 56	page 70

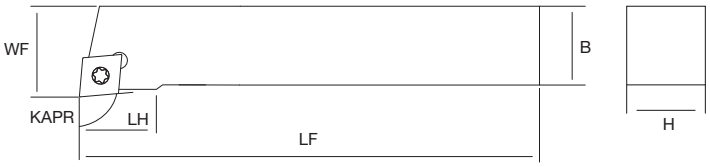
CC

EXTERNAL

S



Right-hand shown



SCLC
External turning (KAPR 95°)

		R	L	H	B	WF	LF	LH	KG	MIID	
09	**NT-SCLC^{R}/L2020K09S**	●	●	20	20	25	125	22		CC□□09T3	
	NT-SCLC^{R}/L2525M09S	●	●	25	25	32	150	25			
12	**NT-SCLC^{R}/L2020K12S**	●	●	20	20	25	125	22		CC□□1204	
	NT-SCLC^{R}/L2525M12S	●	●	25	25	32	150	25			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SCLC^{R}/L2020K09S	NT-SH011	NT-SR010	NT-WR035	NT-ST040	NT-FT15
NT-SCLC^{R}/L2525M09S					
NT-SCLC^{R}/L2020K12S	NT-SH001	NT-SR001	NT-WR040	NT-ST007	NT-FT15
NT-SCLC^{R}/L2525M12S					

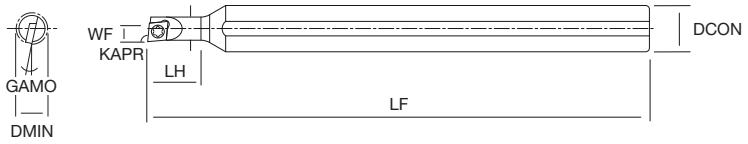
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
CC□□09T3	page 8	page 39	page 56	page 70
CC□□1204	page 8	-	page 56	page 70

CC

INTERNAL

S



STEEL

max 3xD

INTERNAL COOLANT

A MICRO

Internal turning (KAPR 95°)

		R	DMIN	DCON	WF	LF	LH	GAMO	KG	MIID
MICRO	NT-A12H-MICRO-CC-RH	●	5	12	2.5	100	8	15°		MICRO CC
	NT-A16H-MICRO-CC-RH	●	5	16	2.5	100	12	15°		

● stock standard

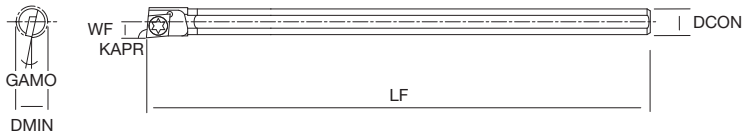
Spare Parts	INSERT SCREW	INSERT WRENCH
NT-A12H-MICRO-CC-RH	NT-ST002	NT-FT06
NT-A16H-MICRO-CC-RH		

Inserts	CARBIDE	PCBN	CERAMIC	DIAMOND
MICRO CC	page 8	page 39	-	page 70

CC

INTERNAL

S



CARBIDE

max 7xD

C MICRO

Internal turning (KAPR 95°)

		R	DMIN	DCON	WF	LF	GAMO	KG	MIID	
MICRO	**NT-C04G-MICRO-CC-RH**	●	5	4	2.5	90	15°		MICRO CC	
	NT-C05H-MICRO-CC-RH	●	6	5	3	100	13°			

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
NT-C04G-MICRO-CC-RH / **NT-C05H-MICRO-CC-RH**	NT-ST002	NT-FT06

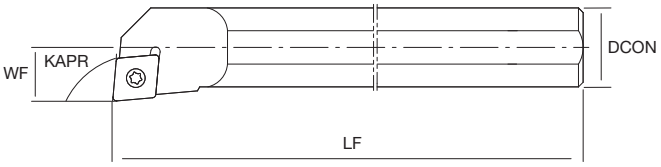
Inserts	CARBIDE	PCBN	CERAMIC	DIAMOND
MICRO CC	page 8	page 39	-	page 70

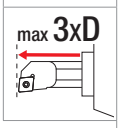
Please check page 285 for details and availability of sleeves for Microboring bars

CC

INTERNAL

S





S SCLC

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
06	NT-S08H-SCLC$^{R}_{L}$06	●	●	10	8	5	100	13°		CC□□0602	
	NT-S10K-SCLC$^{R}_{L}$06	●	●	12	10	6	125	12°			
	NT-S12M-SCLC$^{R}_{L}$06	●	●	14	12	7	150	9°			
	NT-S16Q-SCLC$^{R}_{L}$06	●	●	18	16	9	180	7°			
09	NT-S12M-SCLC$^{R}_{L}$09	●	●	14	12	7	150	13°		CC□□09T3	
	NT-S16Q-SCLC$^{R}_{L}$09	●	●	18	16	9	180	9°			
	NT-S20R-SCLC$^{R}_{L}$09	●	●	22	20	11	200	5°			
12	NT-S20R-SCLC$^{R}_{L}$12	●	●	25	20	13	200	8°		CC□□1204	
	NT-S25R-SCLC$^{R}_{L}$12	●	●	32	25	17	200	8°			
	NT-S32S-SCLC$^{R}_{L}$12S	●	●	40	32	22	250	6°		CC□□1204	
	NT-S40T-SCLC$^{R}_{L}$12S	●	●	50	40	27	300	4°			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-S08H-SCLC$^{R}_{L}$06	-	-	-	NT-ST006	NT-FT07
NT-S10K-SCLC$^{R}_{L}$06				NT-ST010	
NT-S12M-SCLC$^{R}_{L}$06					
NT-S16Q-SCLC$^{R}_{L}$06					
NT-S12M-SCLC$^{R}_{L}$09	-	-	-	NT-ST025	NT-FT15
NT-S16Q-SCLC$^{R}_{L}$09					
NT-S20R-SCLC$^{R}_{L}$09				NT-ST030	
NT-S20R-SCLC$^{R}_{L}$12	-	-	-	NT-ST050	NT-FT15
NT-S25R-SCLC$^{R}_{L}$12					
NT-S32S-SCLC$^{R}_{L}$12S	NT-SH001	NT-SR001	NT-WR040	NT-ST007	NT-FT15
NT-S40T-SCLC$^{R}_{L}$12S					

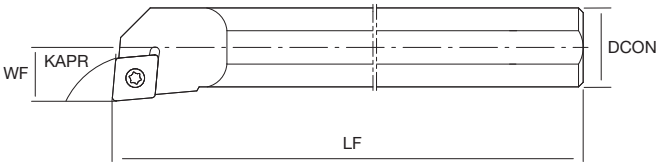
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
CC□□0602	page 8	page 39	-	page 70
CC□□09T3	page 8	page 39	page 56	page 70
CC□□1204	page 8	-	page 56	page 70

CC

INTERNAL

S



STEEL

max 3xD

INTERNAL COOLANT

A SCLC

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
06	NT-A08H-SCLC^{R}/L06	●	●	10	8	5	100	13°		CC□□0602	
	NT-A10K-SCLC^{R}/L06	●	●	12	10	6	125	12°			
	NT-A12M-SCLC^{R}/L06	●	●	14	12	7	150	9°			
	NT-A16Q-SCLC^{R}/L06	●	●	18	16	9	180	7°			
09	NT-A12M-SCLC^{R}/L09	●	●	14	12	7	150	13°		CC□□09T3	
	NT-A16Q-SCLC^{R}/L09	●	●	18	16	9	180	9°			
	NT-A20R-SCLC^{R}/L09	●	●	22	20	11	200	5°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-A08H-SCLC^{R}/L06	NT-ST006	NT-FT07
NT-A10K-SCLC^{R}/L06	NT-ST010	
NT-A12M-SCLC^{R}/L06		
NT-A16Q-SCLC^{R}/L06		
NT-A12M-SCLC^{R}/L09	NT-ST025	NT-FT15
NT-A16Q-SCLC^{R}/L09		
NT-A20R-SCLC^{R}/L09	NT-ST030	

Inserts

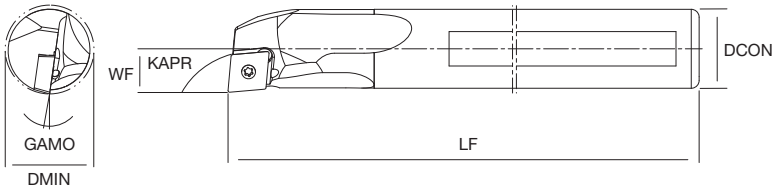
	CARBIDE	PCBN	CERAMIC	DIAMOND
CC□□0602	page 8	page 39	-	page 70
CC□□09T3	page 8	page 39	page 56	page 70

CC

INTERNAL

S

Right-hand shown



VORTEX

max 5xD

INTERNAL COOLANT

V SCLC

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
06	NT-V08H-SCLC$^{R}_{L}$06-10	●	●	10	8	5	100	14°		CC□□0602	
	NT-V10K-SCLC$^{R}_{L}$06-12	●	●	12	10	6	125	12°			
	NT-V12M-SCLC$^{R}_{L}$06-14	●	●	14	12	7	150	10°			
09	NT-V12M-SCLC$^{R}_{L}$09-14	●	●	14	12	7	150	12°		CC□□09T3	
	NT-V16Q-SCLC$^{R}_{L}$09-18	●	●	18	16	9	180	10°			
	NT-V20R-SCLC$^{R}_{L}$09-22	●	●	22	20	11	200	8°			
	NT-V25S-SCLC$^{R}_{L}$09-27	●	●	27	25	13.5	250	6°			
12	NT-V20R-SCLC$^{R}_{L}$12-25	●	●	25	20	13	200	7°		CC□□1204	
	NT-V25S-SCLC$^{R}_{L}$12-32	●	●	32	25	17	250	5°			

● stock standard

Spare Parts

INSERT SCREW

INSERT WRENCH

NT-V08H-SCLC$^{R}_{L}$06-10	NT-ST006	NT-FT07
NT-V10K-SCLC$^{R}_{L}$06-12	NT-ST010	
NT-V12M-SCLC$^{R}_{L}$06-14		
NT-V12M-SCLC$^{R}_{L}$09-14	NT-ST025	NT-FT15
NT-V16Q-SCLC$^{R}_{L}$09-18		
NT-V20R-SCLC$^{R}_{L}$09-22	NT-ST030	
NT-V25S-SCLC$^{R}_{L}$09-27		
NT-V20R-SCLC$^{R}_{L}$12-25	NT-ST050	NT-FT15
NT-V25S-SCLC$^{R}_{L}$12-32		

Inserts

CARBIDE

PCBN

CERAMIC

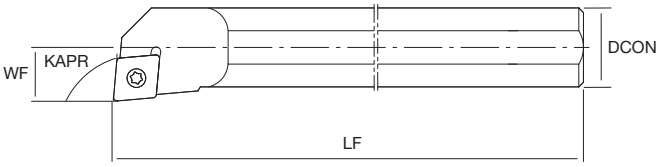
DIAMOND

CC□□0602	page 8	page 39	-	page 70
CC□□09T3	page 8	page 39	page 56	page 70
CC□□1204	page 8	-	page 56	page 70

CC

INTERNAL

Right-hand shown



CARBIDE

max 7xD

INTERNAL COOLANT

E SCLC

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
06	**NT-E08K-SCLC$^{R}_{L}$06**	●	●	10	8	5	125	9°		CC□□0602	
	NT-E10K-SCLC$^{R}_{L}$06	●	●	12	10	6	125	7°			
	NT-E12M-SCLC$^{R}_{L}$06	●	●	14	12	7	150	6°			
09	**NT-E12M-SCLC$^{R}_{L}$09**	●	●	14	12	7	150	6°		CC□□09T3	
	NT-E16R-SCLC$^{R}_{L}$09	●	●	18	16	9	200	7°			
	NT-E20R-SCLC$^{R}_{L}$09	●	●	22	20	11	200	5°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-E08K-SCLC$^{R}_{L}$06	NT-ST006	NT-FT07
NT-E10K-SCLC$^{R}_{L}$06	NT-ST010	
NT-E12M-SCLC$^{R}_{L}$06		
NT-E12M-SCLC$^{R}_{L}$09	NT-ST025	NT-FT15
NT-E16R-SCLC$^{R}_{L}$09		
NT-E20R-SCLC$^{R}_{L}$09	NT-ST030	

Inserts

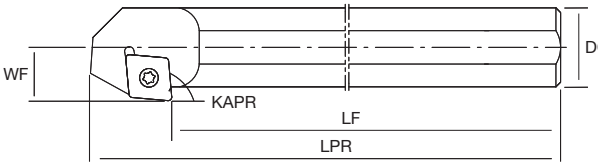
	CARBIDE	PCBN	CERAMIC	DIAMOND
CC□□0602	page 8	page 39	-	page 70
CC□□09T3	page 8	page 39	page 56	page 70

CC

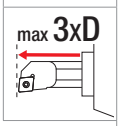
INTERNAL

S

Right-hand shown



STEEL



S SCZC

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	LPR	GAMO	KG	MIID
06	NT-S08H-SCZC[R]/L06	●	●	12	8	6.5	100	110	13°		CC□□0602
	NT-S10K-SCZC[R]/L06	●	●	14	10	7.5	125	135	12°		
	NT-S12M-SCZC[R]/L06	●	●	16	12	8.5	150	160	10°		
09	NT-S16Q-SCZC[R]/L09	●	●	21	16	11.5	180	196	10°		CC□□09T3
	NT-S20R-SCZC[R]/L09	●	●	25	20	13.5	200	218	8°		
	NT-S25R-SCZC[R]/L09	●	●	32	25	16	200	218	8°		

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-S08H-SCZC[R]/L06	NT-ST006	NT-FT07
NT-S10K-SCZC[R]/L06	NT-ST010	
NT-S12M-SCZC[R]/L06		
NT-S16Q-SCZC[R]/L09	NT-ST030	NT-FT15
NT-S20R-SCZC[R]/L09		
NT-S25R-SCZC[R]/L09		

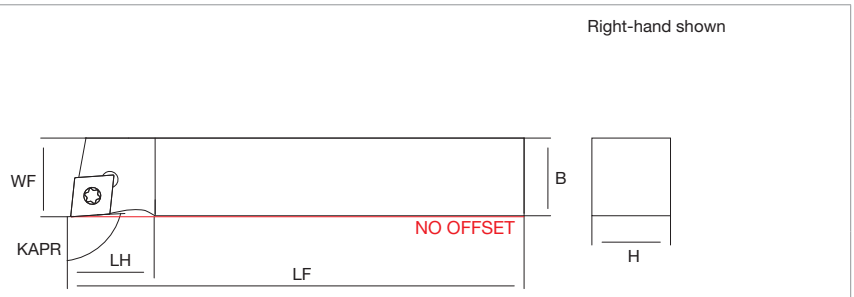
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
CC□□0602	page 8	page 39	-	page 70
CC□□09T3	page 8	page 39	page 56	page 70

CN

EXTERNAL

MICRONEGA



MICRO CN

External Turning (KAPR 95°)

		R	L	H	B	WF	LF	LH	KG	MIID	
MICRO	NT-EX10H-MICRO-CN RH/LH	●	●	10	10	10	100	15		MICRO CN	
	NT-EX12H-MICRO-CN RH/LH	●	●	12	12	12	100	15			
	NT-EX16K-MICRO-CN RH/LH	●	●	16	16	16	120	15			
	NT-EX20K-MICRO-CN RH/LH	●	●	20	20	20	120	15			
	NT-EX25M-MICRO-CN RH/LH	●	●	25	25	25	150	15			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-EX10H-MICRO-CN RH/LH	NT-ST400	NT-FT10
NT-EX12H-MICRO-CN RH/LH		
NT-EX16K-MICRO-CN RH/LH		
NT-EX20K-MICRO-CN RH/LH		
NT-EX25M-MICRO-CN RH/LH		

Inserts

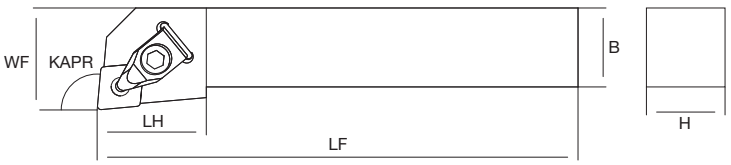
	CARBIDE	PCBN	CERAMIC	DIAMOND
MICRO CN	page 10	page 40	-	page 72

CN

EXTERNAL

D

Right-hand shown



DCLN

External Turning (KAPR 95°)

		R	L	H	B	WF	LF	LH	KG	MIID	
09	**NT-DCLN$^{R}_{L}$1616H09X**	●	●	16	16	20	100	33		CN□□0903	
	NT-DCLN$^{R}_{L}$2020K09X	●	●	20	20	25	125	30			
	NT-DCLN$^{R}_{L}$2525M09X	●	●	25	25	32	150	30			
12	**NT-DCLN$^{R}_{L}$2020K12X**	●	●	20	20	25	125	40		CN□□1204	
	NT-DCLN$^{R}_{L}$2525M12X	●	●	25	25	32	150	36			
	NT-DCLN$^{R}_{L}$3225P12X	●	●	32	25	32	170	36			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	CLAMP	SPRING	CLAMP SCREW	CLAMP WRENCH
NT-DCLN$^{R}_{L}$1616H09X	NT-SH012	NT-ST031	NT-WR020	NT-CS250	NT-SG250	NT-SC250	NT-TX15
NT-DCLN$^{R}_{L}$2020K09X							
NT-DCLN$^{R}_{L}$2525M09X							
NT-DCLN$^{R}_{L}$2020K12X	NT-SH030	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-SC200	NT-TX20
NT-DCLN$^{R}_{L}$2525M12X							
NT-DCLN$^{R}_{L}$3225P12X							

Inserts

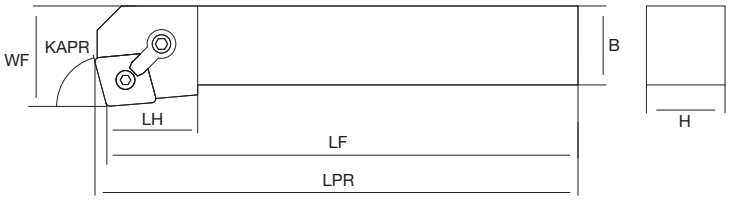
	CARBIDE	PCBN	CERAMIC	DIAMOND
CN□□0903	page 10	-	-	-
CN□□1204	page 10	page 40	page 57	page 72

CN

EXTERNAL

M

Right-hand shown



MCKN

External turning (KAPR 75°)

		R	L	H	B	WF	LF	LH	LPR	KG	MIID
12	**NT-MCKN^{R}/L2020K12**	●	●	20	20	25	122	37	125		CN□□1204
12	**NT-MCKN^{R}/L2525M12**	●	●	25	25	32	147	34	150		CN□□1204
12	**NT-MCKN^{R}/L3232P12**	●	●	32	32	40	167	40	170		CN□□1204
16	**NT-MCKN^{R}/L3232P16**	○	○	32	32	40	167	40	170		CN□□1606

● stock standard, ○ non-standard stock

Spare Parts

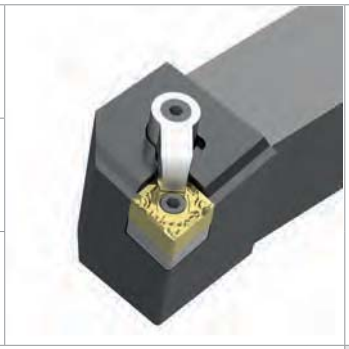
	SHIM	ECCENTRIC PIN	CLAMP	CLAMP SCREW	WRENCH
NT-MCKN^{R}/L2020K12	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MCKN^{R}/L2525M12					
NT-MCKN^{R}/L3232P12					
NT-MCKN^{R}/L3232P16	NT-SH055	NT-SP040	NT-CS010	NT-SC010	NT-WR030

Inserts

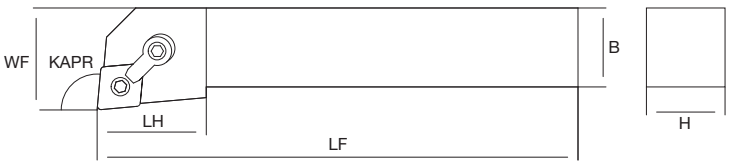
	CARBIDE	PCBN	CERAMIC	DIAMOND
CN□□1204	page 10	page 40	page 57	page 72
CN□□1606	page 10	-	page 57	-

CN

EXTERNAL



Right-hand shown



MCLN

External turning (KAPR 95°)

		R	L	H	B	WF	LF	LH	KG	MIID	
12	NT-MCLN$^{R}_{L}$2020K12	●	●	20	20	25	125	33		CN□□1204	
	NT-MCLN$^{R}_{L}$2525M12	●	●	25	25	32	150	33			
	NT-MCLN$^{R}_{L}$3232P12	●	●	32	32	40	170	33			
16	NT-MCLN$^{R}_{L}$2525M16	●	●	25	25	32	150	33		CN□□1606	
	NT-MCLN$^{R}_{L}$3232P16	●	●	32	32	40	170	33			
19	NT-MCLN$^{R}_{L}$3232P19	○	○	32	32	40	170	38		CN□□1906	
	NT-MCLN$^{R}_{L}$4040S19	○	○	40	40	50	250	38			

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	CLAMP	CLAMP SCREW	WRENCH
					
NT-MCLN$^{R}_{L}$2020K12	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MCLN$^{R}_{L}$2525M12					
NT-MCLN$^{R}_{L}$3232P12					
NT-MCLN$^{R}_{L}$2525M16	NT-SH055	NT-SP040	NT-CS010	NT-SC010	NT-WR030
NT-MCLN$^{R}_{L}$3232P16					
NT-MCLN$^{R}_{L}$3232P19	NT-SH080	NT-SP050	NT-CS015	NT-SC070	NT-WR040
NT-MCLN$^{R}_{L}$4040S19					

Inserts

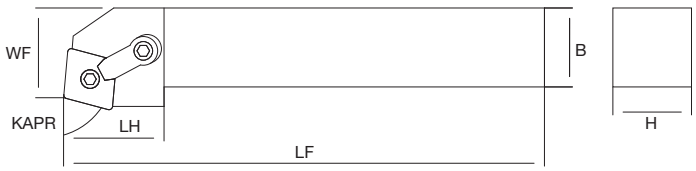
	CARBIDE	PCBN	CERAMIC	DIAMOND
				
CN□□1204	page 10	page 40	page 57	page 72
CN□□1606	page 10	-	page 57	-
CN□□1906	page 11	-	-	-

CN

EXTERNAL

M

Right-hand shown



MCRN

External turning (KAPR 75°)

		R	L	H	B	WF	LF	LH	KG	MIID	
12	**NT-MCRN^{R}/L2020K12**	●	●	20	20	22	125	37		CN□□1204	
12	**NT-MCRN^{R}/L2525M12**	●	●	25	25	27	150	34		CN□□1204	
12	**NT-MCRN^{R}/L3232P12**	●	●	32	32	35	170	40		CN□□1204	
16	**NT-MCRN^{R}/L3232P16**	○	○	32	32	35	170	40		CN□□1606	

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	CLAMP	CLAMP SCREW	WRENCH
NT-MCRN^{R}/L2020K12	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MCRN^{R}/L2525M12					
NT-MCRN^{R}/L3232P12					
NT-MCRN^{R}/L3232P16	NT-SH055	NT-SP040	NT-CS010	NT-SC010	NT-WR030

Inserts

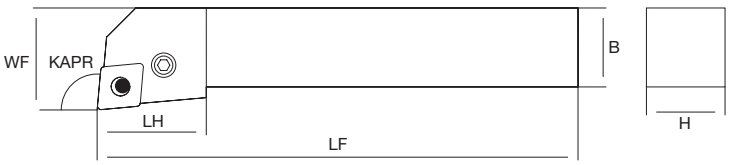
	CARBIDE	PCBN	CERAMIC	DIAMOND
CN□□1204	page 10	page 40	page 57	page 72
CN□□1606	page 10	-	page 57	-

CN

EXTERNAL

P

Right-hand shown



PCLN

External turning (KAPR 95°)

		R	L	H	B	WF	LF	LH	KG	MIID	
09	**NT-PCLN^{R}/L1616H09**	●	●	16	16	20	100	20		CN□□0903	
	NT-PCLN^{R}/L2020K09	●	●	20	20	25	125	20			
	NT-PCLN^{R}/L2525M09	●	●	25	25	32	150	23			
12	**NT-PCLN^{R}/L2020K12**	●	●	20	20	25	125	26		CN□□1204	
	NT-PCLN^{R}/L2525M12	●	●	25	25	32	150	26			

● stock standard

Spare Parts

	SHIM	PLUG	LEVER	LEVER SCREW	WRENCH
NT-PCLN^{R}/L1616H09	NT-SH012	NT-SR012	NT-LL012	NT-SC015	NT-WR025
NT-PCLN^{R}/L2020K09					
NT-PCLN^{R}/L2525M09					
NT-PCLN^{R}/L2020K12	NT-SH035	NT-SR020	NT-LL020	NT-SC025	NT-WR030
NT-PCLN^{R}/L2525M12					

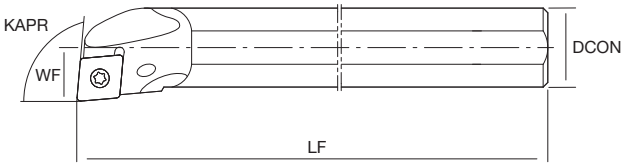
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
CN□□0903	page 10	-	-	-
CN□□1204	page 10	page 40	page 57	page 72

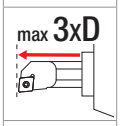
CN

INTERNAL

MICRONEGA



Right-hand shown



INTERNAL COOLANT

A MICRO CN

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
MICRO	NT-A08K-MICRO-CN RH/LH	●	●	10	8	5.5	125	21°		MICRO CN	
	NT-A10K-MICRO-CN RH/LH	●	●	12	10	6	125	21°			
	NT-A12M-MICRO-CN RH/LH	●	●	14	12	7	150	19°			
	NT-A16R-MICRO-CN RH/LH	●	●	20	16	10	200	16°			
	NT-A20R-MICRO-CN RH/LH	●	●	24	20	12.5	200	16°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-A08K-MICRO-CN RH/LH	NT-ST400	NT-FT10
NT-A10K-MICRO-CN RH/LH		
NT-A12M-MICRO-CN RH/LH		
NT-A16R-MICRO-CN RH/LH		
NT-A20R-MICRO-CN RH/LH		

Inserts

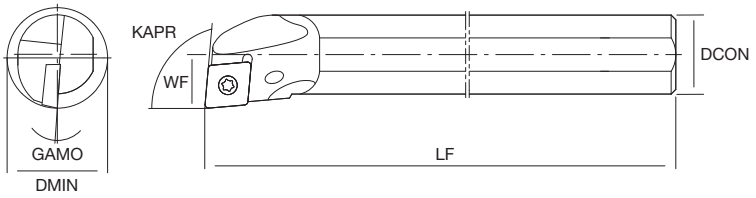
	CARBIDE	PCBN	CERAMIC	DIAMOND
MICRO CN	page 10	page 40	-	page 72

CN

INTERNAL

MICRONEGA

Right-hand shown



CARBIDE

max 7xD

INTERNAL COOLANT

E MICRO CN

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
MICRO	NT-E08K-MICRO-CN RH/LH	●	●	10	8	5.5	125	21°		MICRO CN	
	NT-E10K-MICRO-CN RH/LH	○	●	12	10	6	125	21°			
	NT-E12M-MICRO-CN RH/LH	●	●	14	12	7	150	19°			
	NT-E16R-MICRO-CN RH/LH	●	●	20	16	10	200	16°			
	NT-E20R-MICRO-CN RH/LH	●	●	24	20	12.5	200	16°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-E08K-MICRO-CN RH/LH	NT-ST400	NT-FT10
NT-E10K-MICRO-CN RH/LH		
NT-E12M-MICRO-CN RH/LH		
NT-E16R-MICRO-CN RH/LH		
NT-E20R-MICRO-CN RH/LH		

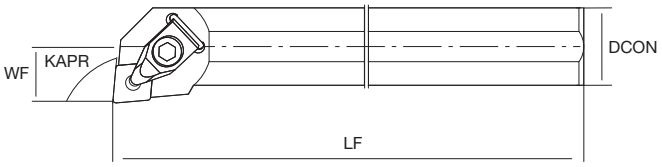
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
MICRO CN	page 10	page 40	-	page 72

CN

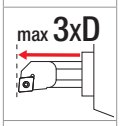
INTERNAL

D



Right-hand shown

STEEL



INTERNAL COOLANT

A DCLN

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
12	**NT-A25R-DCLN^{R}/$_{L}$12**	●	●	32	25	17	200	14°		CN□□1204	
	NT-A32S-DCLN^{R}/$_{L}$12	●	●	40	32	22	250	14°			
	NT-A40T-DCLN^{R}/$_{L}$12	●	●	50	40	27	300	12°			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	CLAMP	SPRING	CLAMP SCREW	CLAMP WRENCH
NT-A25R-DCLN^{R}/$_{L}$12	NT-SH035	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-SC200	NT-TX20
NT-A32S-DCLN^{R}/$_{L}$12							
NT-A40T-DCLN^{R}/$_{L}$12							

Inserts

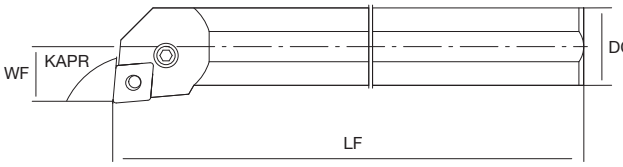
	CARBIDE	PCBN	CERAMIC	DIAMOND
CN□□1204	page 10	page 40	page 57	page 72

CN

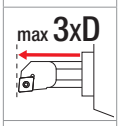
INTERNAL

P

Right-hand shown



STEEL



INTERNAL COOLANT

A PCLN

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
12	**NT-A25R-PCLN$^{R}_{L}$12**	●	●	32	25	17	200	11°		CN□□1204	
	NT-A32S-PCLN$^{R}_{L}$12	●	●	40	32	22	250	11°			
	NT-A40T-PCLN$^{R}_{L}$12	●	●	50	40	27	300	10°			

● stock standard

Spare Parts	SHIM	PLUG	LEVER	LEVER SCREW	WRENCH
NT-A25R-PCLN$^{R}_{L}$12	-	NT-SR015	NT-LL015	NT-SC015	NT-WR025
NT-A32S-PCLN$^{R}_{L}$12	NT-SH035	NT-SR020	NT-LL020	NT-SC025	NT-WR030
NT-A40T-PCLN$^{R}_{L}$12					

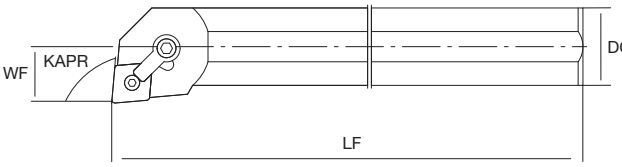
Inserts	CARBIDE	PCBN	CERAMIC	DIAMOND
CN□□1204	page 10	page 40	page 57	page 72

CN

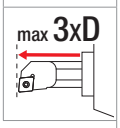
INTERNAL

M

Right-hand shown



STEEL



S MCLN

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
12	NT-S20R-MCLN^{R}/L12	●	●	25	20	13	200	17°		CN□□1204	
	NT-S25R-MCLN^{R}/L12	●	●	32	25	17	200	14°			
	NT-S32S-MCLN^{R}/L12	●	●	40	32	22	250	14°			
	NT-S40T-MCLN^{R}/L12	●	●	50	40	27	300	12°			
	NT-S50U-MCLN^{R}/L12	●	●	63	50	35	350	12°			
16	NT-S40T-MCLN^{R}/L16	●	●	50	40	27	300	11°		CN□□1606	
	NT-S50U-MCLN^{R}/L16	●	●	63	50	35	350	12°			
19	NT-S50U-MCLN^{R}/L19	●	●	63	50	35	350	12°		CN□□1906	

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	PIN WRENCH	CLAMP	CLAMP SCREW	CLAMP WRENCH
NT-S20R-MCLN^{R}/L12	-	NT-SP035	NT-WR025	NT-CS030	NT-SC030	NT-WR025
NT-S25R-MCLN^{R}/L12				NT-CS010	NT-SC008	NT-WR030
NT-S32S-MCLN^{R}/L12	NT-SH030	NT-SP010	NT-WR030		NT-SC010	
NT-S40T-MCLN^{R}/L12						
NT-S50U-MCLN^{R}/L12						
NT-S40T-MCLN^{R}/L16	NT-SH055	NT-SP040	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-S50U-MCLN^{R}/L16						
NT-S50U-MCLN^{R}/L19	NT-SH080	NT-SP050	NT-WR030	NT-CS015	NT-SC070	NT-WR040

Inserts

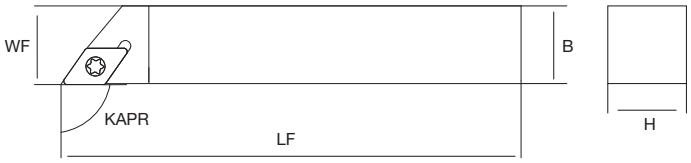
	CARBIDE	PCBN	CERAMIC	DIAMOND
CN□□1204	page 10	page 40	page 57	page 72
CN□□1606	page 10	-	page 57	-
CN□□1906	page 11	-	-	-

DC

EXTERNAL

S

Right-hand shown



SDAC

External turning (KAPR 90°)

		R	L	H	B	WF	LF	KG	MIID		
07	**NT-SDAC$^{R}_{L}$0808K07**	○	○	8	8	8	125		DC□□0702		
	NT-SDAC$^{R}_{L}$1010K07	●	●	10	10	10	125				
	NT-SDAC$^{R}_{L}$1212K07	●	●	12	12	12	125				
11	**NT-SDAC$^{R}_{L}$1212K11**	●	●	12	12	12	125		DC□□11T3		
	NT-SDAC$^{R}_{L}$1616K11	●	●	16	16	16	125				

● stock standard, ○ non-standard stock

Spare Parts

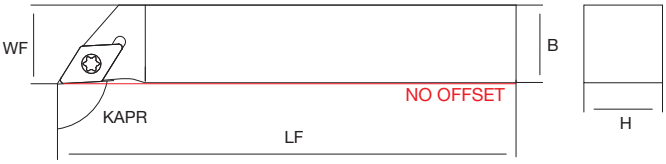
	INSERT SCREW	INSERT WRENCH
NT-SDAC$^{R}_{L}$0808K07	NT-ST010	NT-FT07
NT-SDAC$^{R}_{L}$1010K07		
NT-SDAC$^{R}_{L}$1212K07		
NT-SDAC$^{R}_{L}$1212K11	NT-ST035	NT-FT15
NT-SDAC$^{R}_{L}$1616K11		

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
DC□□0702	page 14	page 42	-	page 73
DC□□11T3	page 14	page 42	-	page 73

DC

EXTERNAL



SDJC N

External turning (KAPR 93°)

		R	L	H	B	WF	LF	KG	MIID		
07	NT-SDJC$^{R}_{L}$0808K07N	○	○	8	8	8	125		DC□□0702		
	NT-SDJC$^{R}_{L}$1010K07N	●	●	10	10	10	125				
	NT-SDJC$^{R}_{L}$1212K07N	●	●	12	12	12	125				
11	NT-SDJC$^{R}_{L}$1212K11N	●	●	12	12	12	125		DC□□11T3		
	NT-SDJC$^{R}_{L}$1616K11N	●	●	16	16	16	125				

● stock standard, ○ non-standard stock

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-SDJC$^{R}_{L}$0808K07N	NT-ST010	NT-FT07
NT-SDJC$^{R}_{L}$1010K07N		
NT-SDJC$^{R}_{L}$1212K07N		
NT-SDJC$^{R}_{L}$1212K11N	NT-ST035	NT-FT15
NT-SDJC$^{R}_{L}$1616K11N		

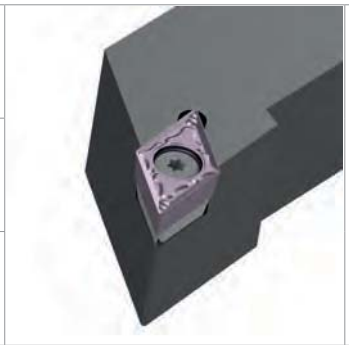
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
DC□□0702	page 14	page 42	-	page 73
DC□□11T3	page 14	page 42	-	page 73

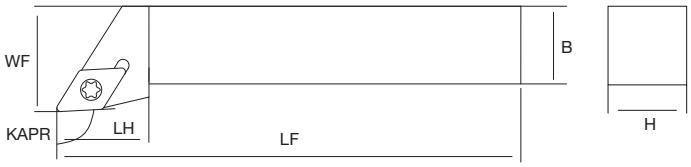
DC

EXTERNAL

S



Right-hand shown



SDJC

External turning (KAPR 93°)

		R	L	H	B	WF	LF	LH	KG	MIID	
11	**NT-SDJC$^{R}_{L}$1616H11**	●	●	16	16	20	100	18		DC□□11T3	
	NT-SDJC$^{R}_{L}$2020K11	●	●	20	20	25	125	23			
	NT-SDJC$^{R}_{L}$2525M11	●	●	25	25	32	150	27			
	NT-SDJC$^{R}_{L}$2020K11S	●	●	20	20	25	125	22		DC□□11T3	
	NT-SDJC$^{R}_{L}$2525M11S	●	●	25	25	32	150	25			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SDJC$^{R}_{L}$1616H11	-	-	-	NT-ST035	NT-FT15
NT-SDJC$^{R}_{L}$2020K11					
NT-SDJC$^{R}_{L}$2525M11					
NT-SDJC$^{R}_{L}$2020K11S	NT-SH007	NT-SR010	NT-WR035	NT-ST040	NT-FT15
NT-SDJC$^{R}_{L}$2525M11S					

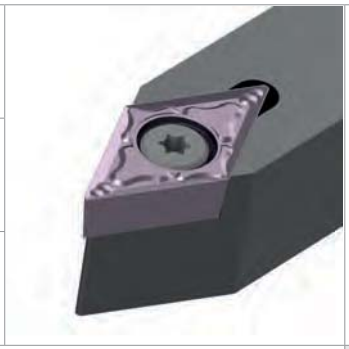
Inserts

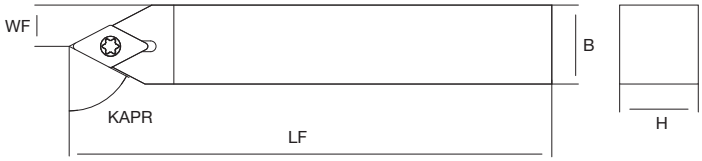
	CARBIDE	PCBN	CERAMIC	DIAMOND
DC□□11T3	page 14	page 42	-	page 73

DC

EXTERNAL

S





SDNCN
External turning (KAPR 62.5°)

			H	B	WF	LF	KG	MIID		
07	**NT-SDNCN0808H07**	○	8	8	4	100		DC□□0702		
	NT-SDNCN1010H07	○	10	10	5	100				
11	**NT-SDNCN1212H11**	●	12	12	6	100		DC□□11T3		
	NT-SDNCN1616H11	●	16	16	8	100				
	NT-SDNCN2020K11	●	20	20	10	125				
	NT-SDNCN2525M11	●	25	25	12.5	150				
	NT-SDNCN2020K11S	○	20	20	10	125		DC□□11T3		
	NT-SDNCN2525M11S	○	25	25	12.5	150				

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SDNCN0808H07	-	-	-	NT-ST010	NT-FT07
NT-SDNCN1010H07					
NT-SDNCN1212H11	-	-	-	NT-ST035	NT-FT15
NT-SDNCN1616H11					
NT-SDNCN2020K11					
NT-SDNCN2525M11					
NT-SDNCN2020K11S	NT-SH007	NT-SR010	NT-WR035	NT-ST040	NT-FT15
NT-SDNCN2525M11S					

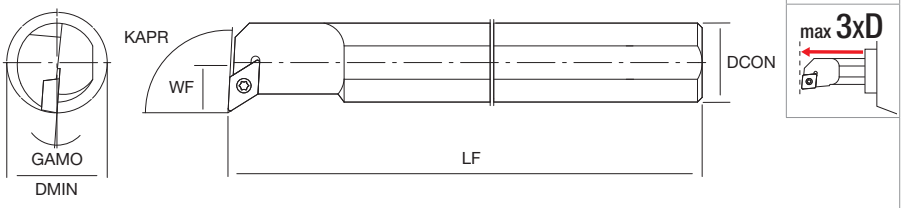
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
DC□□0702	page 14	page 42	-	page 73
DC□□11T3	page 14	page 42	-	page 73

DC

INTERNAL

S



S SDUC

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
07	NT-S10M-SDUC$^{R}_{L}$07	●	●	13	10	7	150	10°		DC□□0702	
	NT-S12M-SDUC$^{R}_{L}$07	●	●	16	12	9	150	8°			
	NT-S16Q-SDUC$^{R}_{L}$07	●	●	20	16	11	180	6°			
	NT-S20R-SDUC$^{R}_{L}$07	●	●	25	20	13	200	5°			
11	NT-S16Q-SDUC$^{R}_{L}$11	●	●	20	16	11	180	7°		DC□□11T3	
	NT-S20R-SDUC$^{R}_{L}$11	●	●	25	20	13	200	8°			
	NT-S25R-SDUC$^{R}_{L}$11	●	●	32	25	17	200	4°			
	NT-S32S-SDUC$^{R}_{L}$11	●	●	39	32	22	250	4°			
	NT-S40T-SDUC$^{R}_{L}$11	●	●	50	40	24	300	2°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-S10M-SDUC$^{R}_{L}$07	NT-ST010	NT-FT07
NT-S12M-SDUC$^{R}_{L}$07		
NT-S16Q-SDUC$^{R}_{L}$07		
NT-S20R-SDUC$^{R}_{L}$07		
NT-S16Q-SDUC$^{R}_{L}$11	NT-ST035	NT-FT15
NT-S20R-SDUC$^{R}_{L}$11		
NT-S25R-SDUC$^{R}_{L}$11		
NT-S32S-SDUC$^{R}_{L}$11		
NT-S40T-SDUC$^{R}_{L}$11		

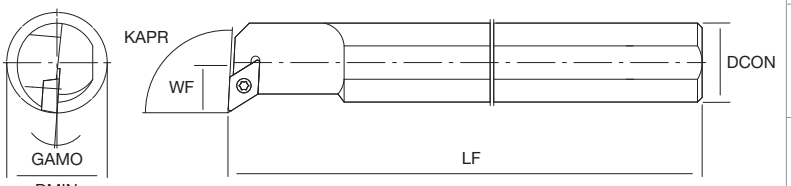
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
DC□□0702	page 14	page 42	-	page 73
DC□□11T3	page 14	page 42	-	page 73

DC

INTERNAL

S



STEEL

max 3xD

INTERNAL COOLANT

A SDUC

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
07	**NT-A10M-SDUC$^{R}_{L}$07**	●	●	13	10	7	150	10°		DC□□0702	
	NT-A12M-SDUC$^{R}_{L}$07	●	●	16	12	9	150	8°			
	NT-A16Q-SDUC$^{R}_{L}$07	●	●	20	16	11	180	6°			
	NT-A20R-SDUC$^{R}_{L}$07	●	●	25	20	13	200	5°			
11	**NT-A16Q-SDUC$^{R}_{L}$11**	●	●	20	16	11	180	7°		DC□□11T3	
	NT-A20R-SDUC$^{R}_{L}$11	●	●	25	20	13	200	8°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-A10M-SDUC$^{R}_{L}$07	NT-ST010	NT-FT07
NT-A12M-SDUC$^{R}_{L}$07		
NT-A16Q-SDUC$^{R}_{L}$07		
NT-A20R-SDUC$^{R}_{L}$07		
NT-A16Q-SDUC$^{R}_{L}$11	NT-ST035	NT-FT15
NT-A20R-SDUC$^{R}_{L}$11		

Inserts

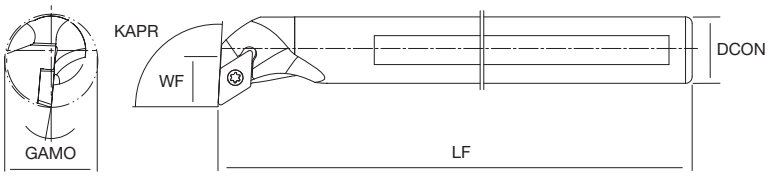
	CARBIDE	PCBN	CERAMIC	DIAMOND
DC□□0702	page 14	page 42	-	page 73
DC□□11T3	page 14	page 42	-	page 73

DC

INTERNAL

S

Right-hand shown



VORTEX

max 5xD

INTERNAL COOLANT

V SDUC

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
07	NT-V10K-SDUC$^{R}_{L}$07-14	●	●	14	10	8.7	125	5°		DC□□0702	
	NT-V12M-SDUC$^{R}_{L}$07-16	●	●	16	12	9.7	150	5°			
	NT-V16Q-SDUC$^{R}_{L}$07-20	●	●	20	16	11.7	180	5°			
	NT-V20R-SDUC$^{R}_{L}$07-25	●	●	25	20	13.7	200	5°			
11	NT-V16Q-SDUC$^{R}_{L}$11-23	●	●	23	16	14.5	180	5°		DC□□11T3	
	NT-V20R-SDUC$^{R}_{L}$11-27	●	●	27	20	16.5	200	5°			
	NT-V25S-SDUC$^{R}_{L}$11-32	●	●	32	25	19	250	5°			

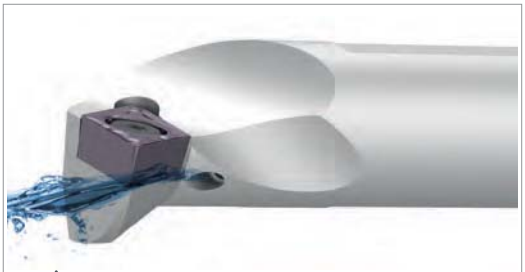
● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-V10K-SDUC$^{R}_{L}$07-14	NT-ST010	NT-FT07
NT-V12M-SDUC$^{R}_{L}$07-16		
NT-V16Q-SDUC$^{R}_{L}$07-20		
NT-V20R-SDUC$^{R}_{L}$07-25		
NT-V16Q-SDUC$^{R}_{L}$11-23	NT-ST035	NT-FT15
NT-V20R-SDUC$^{R}_{L}$11-27		
NT-V25S-SDUC$^{R}_{L}$11-32		

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
DC□□0702	page 14	page 42	-	page 73
DC□□11T3	page 14	page 42	-	page 73



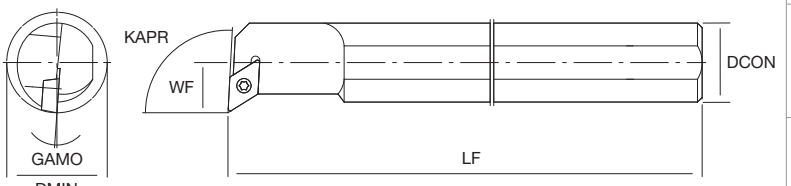
COOLANT HOLE POSITION

Improved chip evacuation thanks to optimized direction of coolant jet

DC

INTERNAL

S



CARBIDE

max 7xD

INTERNAL COOLANT

E SDUC

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
07	**NT-E10K-SDUC$^{R}_{L}$07**	●	●	13	10	7	125	10°		DC□□0702	
	NT-E12M-SDUC$^{R}_{L}$07	●	●	16	12	9	150	8°			
11	**NT-E16R-SDUC$^{R}_{L}$11**	●	●	20	16	11	200	7°		DC□□11T3	
	NT-E20R-SDUC$^{R}_{L}$11	●	●	25	20	13	200	8°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-E10K-SDUC$^{R}_{L}$07	NT-ST010	NT-FT07
NT-E12M-SDUC$^{R}_{L}$07		
NT-E16R-SDUC$^{R}_{L}$11	NT-ST035	NT-FT15
NT-E20R-SDUC$^{R}_{L}$11		

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
DC□□0702	page 14	page 42	-	page 73
DC□□11T3	page 14	page 42	-	page 73

DC

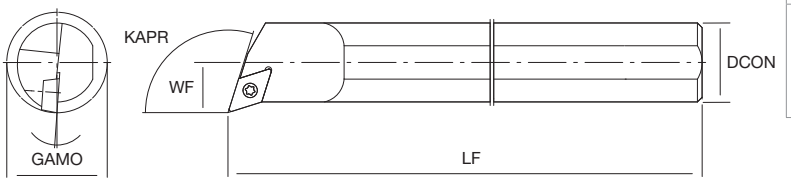
INTERNAL

S

Right-hand shown

STEEL

max 3xD



S SDQC

Internal turning (KAPR 107.5°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
07	NT-S10M-SDQC$^{R}_{L}$07	●	●	13	10	7	150	10°		DC□□0702	
	NT-S12M-SDQC$^{R}_{L}$07	●	●	16	12	9	150	8°			
	NT-S16Q-SDQC$^{R}_{L}$07	●	●	20	16	11	180	6°			
	NT-S20R-SDQC$^{R}_{L}$07	●	●	25	20	13	200	6°			
11	NT-S16Q-SDQC$^{R}_{L}$11	●	●	20	16	11	180	6°		DC□□11T3	
	NT-S20R-SDQC$^{R}_{L}$11	●	●	25	20	13	200	8°			
	NT-S25R-SDQC$^{R}_{L}$11	●	●	32	25	17	200	4°			
	NT-S32S-SDQC$^{R}_{L}$11	●	●	38	32	20	250	4°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-S10M-SDQC$^{R}_{L}$07	NT-ST010	NT-FT07
NT-S12M-SDQC$^{R}_{L}$07		
NT-S16Q-SDQC$^{R}_{L}$07		
NT-S20R-SDQC$^{R}_{L}$07		
NT-S16Q-SDQC$^{R}_{L}$11	NT-ST035	NT-FT15
NT-S20R-SDQC$^{R}_{L}$11		
NT-S25R-SDQC$^{R}_{L}$11		
NT-S32S-SDQC$^{R}_{L}$11		

Inserts

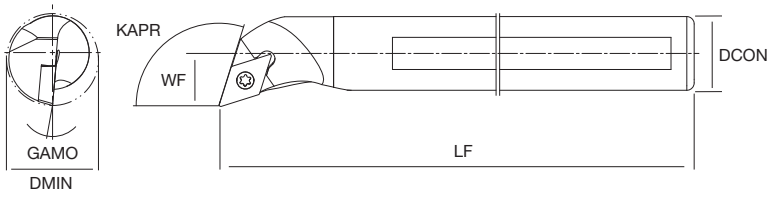
	CARBIDE	PCBN	CERAMIC	DIAMOND
DC□□0702	page 14	page 42	-	page 73
DC□□11T3	page 14	page 42	-	page 73

DC

INTERNAL

S

Right-hand shown



VORTEX

max 5xD

INTERNAL COOLANT

V SDQC

Internal turning (KAPR 107.5°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
07	NT-V10K-SDQC$^{R}_{L}$07-13	●	●	13	10	7.7	125	10°		DC□□0702	
	NT-V12M-SDQC$^{R}_{L}$07-16	●	●	16	12	9.7	150	8°			
	NT-V16Q-SDQC$^{R}_{L}$07-20	●	●	20	16	11.7	180	6°			
	NT-V20R-SDQC$^{R}_{L}$07-25	●	●	25	20	13.7	200	5°			
11	NT-V16Q-SDQC$^{R}_{L}$11-20	●	●	20	16	11.5	180	6°		DC□□11T3	
	NT-V20R-SDQC$^{R}_{L}$11-25	●	●	25	20	14.4	200	5°			
	NT-V25S-SDQC$^{R}_{L}$11-30	●	●	30	25	16.9	250	4°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-V10K-SDQC$^{R}_{L}$07-13	NT-ST010	NT-FT07
NT-V12M-SDQC$^{R}_{L}$07-16		
NT-V16Q-SDQC$^{R}_{L}$07-20		
NT-V20R-SDQC$^{R}_{L}$07-25		
NT-V16Q-SDQC$^{R}_{L}$11-20	NT-ST035	NT-FT15
NT-V20R-SDQC$^{R}_{L}$11-25		
NT-V25S-SDQC$^{R}_{L}$11-30		

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
DC□□0702	page 14	page 42	-	page 73
DC□□11T3	page 14	page 42	-	page 73

COOLANT HOLE POSITION

Improved chip evacuation thanks to optimized direction of coolant jet

DC

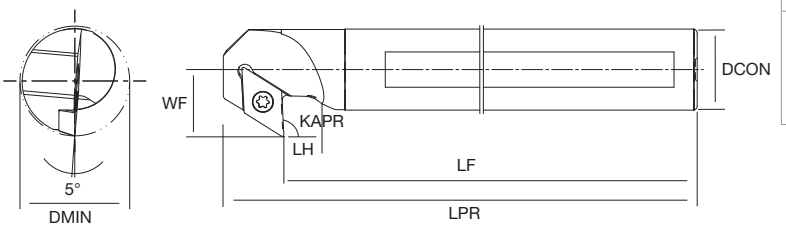
INTERNAL

S

Right-hand shown

STEEL

max 3xD



S SDZC

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	LPR	GAMO	KG	MIID
07	**NT-S10M-SDZC$^{R}_{L}$07**	●	●	14	10	8.5	139	150	10°		DC□□0702
	NT-S12M-SDZC$^{R}_{L}$07	●	●	17	12	10.5	139	150	9°		
	NT-S16Q-SDZC$^{R}_{L}$07	●	●	21	16	12.5	169	180	8°		
11	**NT-S20R-SDZC$^{R}_{L}$11**	●	●	26	20	15.5	184	200	8°		DC□□11T3
	NT-S25R-SDZC$^{R}_{L}$11	○	○	33	25	18	180	200	6°		
	NT-S32S-SDZC$^{R}_{L}$11	○	○	38	32	21.5	230	250	4°		

● stock standard, ○ non-standard stock

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-S10M-SDZC$^{R}_{L}$07	NT-ST010	NT-FT07
NT-S12M-SDZC$^{R}_{L}$07		
NT-S16Q-SDZC$^{R}_{L}$07		
NT-S20R-SDZC$^{R}_{L}$11	NT-ST035	NT-FT15
NT-S25R-SDZC$^{R}_{L}$11		
NT-S32S-SDZC$^{R}_{L}$11		

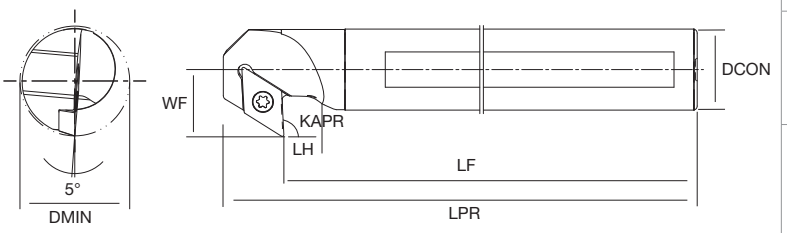
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
DC□□0702	page 14	page 42	-	page 73
DC□□11T3	page 14	page 42	-	page 73

DC

INTERNAL

Right-hand shown



VORTEX

max 5xD

INTERNAL COOLANT

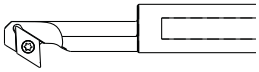
V SDZC

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	LH	LPR	KG	MIID
07	NT-V10L-SDZC$^{R}_{L}$07-14	●	●	14	10	8.7	130.5	14	140		DC□□0702
	NT-V12M-SDZC$^{R}_{L}$07-16	●	●	16	12	9.7	139.5	12.5	150		
	NT-V16Q-SDZC$^{R}_{L}$07-14*	●	●	14	16	13	170	30	180		
	NT-V16Q-SDZC$^{R}_{L}$07-20	●	●	20	16	11.7	169.5	17.5	180		
11	NT-V16Q-SDZC$^{R}_{L}$11-23	●	●	23	16	14.5	165	15	180		DC□□11T3
	NT-V20R-SDZC$^{R}_{L}$11-20*	●	●	20	20	16.1	185	40	200		
	NT-V20R-SDZC$^{R}_{L}$11-27	●	●	27	20	16.5	185	15	200		
	NT-V25S-SDZC$^{R}_{L}$11-32	●	●	32	25	19	235	15	250		

● stock standard

*Reduced neck



Spare Parts

	INSERT SCREW	INSERT WRENCH
		
NT-V10L-SDZC$^{R}_{L}$07-14	NT-ST010	NT-FT07
NT-V12M-SDZC$^{R}_{L}$07-16		
NT-V16Q-SDZC$^{R}_{L}$07-14		
NT-V16Q-SDZC$^{R}_{L}$07-20		
NT-V16Q-SDZC$^{R}_{L}$11-23	NT-ST035	NT-FT15
NT-V20R-SDZC$^{R}_{L}$11-20		
NT-V20R-SDZC$^{R}_{L}$11-27		
NT-V25S-SDZC$^{R}_{L}$11-32		

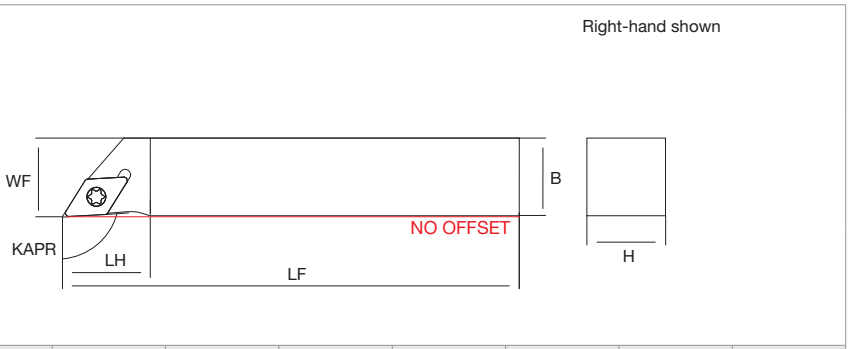
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
				
DC□□0702	page 14	page 42	-	page 73
DC□□11T3	page 14	page 42	-	page 73

DN

EXTERNAL

MICRONEGA



MICRO DN
External Turning (KAPR 95°)

		R	L	H	B	WF	LF	LH	KG	MIID	
MICRO	NT-EX10H-MICRO-DN RH/LH	●	●	10	10	10	100	18		MICRO DN	
	NT-EX12H-MICRO-DN RH/LH	●	●	12	12	12	100	18			
	NT-EX16K-MICRO-DN RH/LH	●	●	16	16	16	120	18			
	NT-EX20K-MICRO-DN RH/LH	●	●	20	20	20	120	18			
	NT-EX25M-MICRO-DN RH/LH	●	●	25	25	25	150	18			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-EX10H-MICRO-DN RH/LH	NT-ST400	NT-FT10
NT-EX12H-MICRO-DN RH/LH		
NT-EX16K-MICRO-DN RH/LH		
NT-EX20K-MICRO-DN RH/LH		
NT-EX25M-MICRO-DN RH/LH		

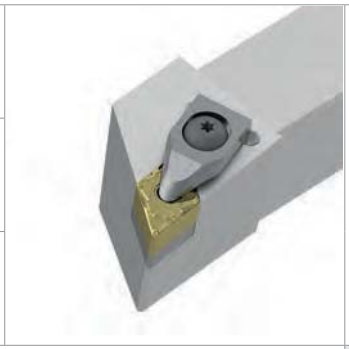
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
MICRO DN	page 16	page 43	-	page 75

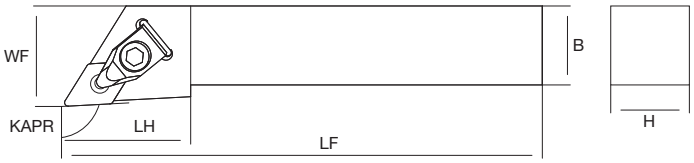
DN

EXTERNAL

D



Right-hand shown



DDJN
External turning (KAPR 93°)

		R	L	H	B	WF	LF	LH	KG	MIID	
11	**NT-DDJN$^{R}_{L}$1616H11X**	●	●	16	16	20	100	36		DN□□1104	
	NT-DDJN$^{R}_{L}$2020K11X	●	●	20	20	25	125	36			
	NT-DDJN$^{R}_{L}$2525M11X	●	●	25	25	32	150	36			
15	**NT-DDJN$^{R}_{L}$2020K1506X**	●	●	20	20	25	125	43		DN□□1506 (DN□□1504)*	
	NT-DDJN$^{R}_{L}$2525M1506X	●	●	25	25	32	150	43			
	NT-DDJN$^{R}_{L}$3225P1506X	●	●	32	25	32	170	43			

● stock standard

*For DN□□1504 please purchase separately shim **NT-SH025**

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	CLAMP	SPRING	CLAMP SCREW	CLAMP WRENCH
NT-DDJN$^{R}_{L}$1616H11X	NT-SH007	NT-ST250	NT-WR020	NT-CS250	NT-SG250	NT-SC250	NT-TX15
NT-DDJN$^{R}_{L}$2020K11X							
NT-DDJN$^{R}_{L}$2525M11X							
NT-DDJN$^{R}_{L}$2020K1506X	NT-SH045*	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-SC200	NT-TX20
NT-DDJN$^{R}_{L}$2525M1506X							
NT-DDJN$^{R}_{L}$3225P1506X							

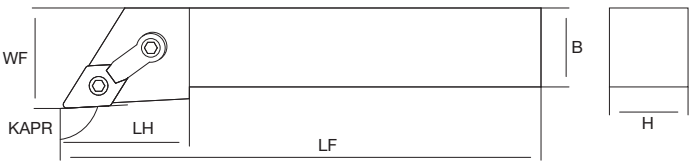
*Shim for DNMG1504: **NT-SH025**

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
DN□□1104	page 16	-	-	-
DN□□1504	-	page 43	-	-
DN□□1506	page 16	page 43	page 59	page 75

DN

EXTERNAL



MDJN

External turning (KAPR 93°)

		R	L	H	B	WF	LF	LH	KG	MIID	
15	NT-MDJN^{R}/L2020K1506	●	●	20	20	25	125	37		DN□□1506 (DN□□1504)*	
	NT-MDJN^{R}/L2525M1506	●	●	25	25	32	150	37			
	NT-MDJN^{R}/L3232P1506	●	●	32	32	40	170	42			

● stock standard

*For DN□□1504 please purchase separately shim **NT-SH025**

Spare Parts

	SHIM	ECCENTRIC PIN	CLAMP	CLAMP SCREW	WRENCH
NT-MDJN^{R}/L2020K1506	NT-SH045*	NT-SP025	NT-CS025	NT-SC010	NT-WR030
NT-MDJN^{R}/L2525M1506					
NT-MDJN^{R}/L3232P1506					

*Shim for DNMG1504: **NT-SH025**

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
DN□□1504	-	page 43	-	-
DN□□1506	page 16	page 43	page 59	page 75

DN

EXTERNAL

P

Right-hand shown

PDJN

External turning (KAPR 93°)

		R	L	H	B	WF	LF	LH	KG	MIID	
15	**NT-PDJN$^{R}_{L}$2525M1506**	●	●	25	25	32	150	36		DN□□1506	

● stock standard

Spare Parts

	SHIM	PLUG	LEVER	LEVER SCREW	WRENCH
NT-PDJN$^{R}_{L}$2525M1506	NT-SH020	NT-SR020	NT-LL020	NT-SC020	NT-WR030

Inserts

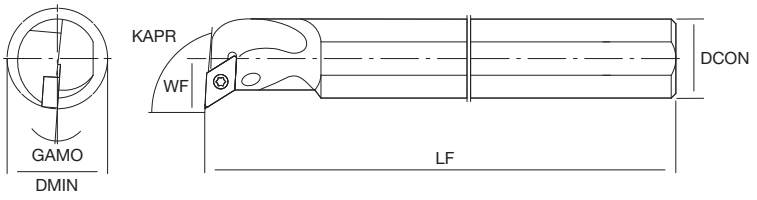
	CARBIDE	PCBN	CERAMIC	DIAMOND
DN□□1506	page 16	page 43	page 59	page 75

DN

INTERNAL

MICRONEGA

Right-hand shown



STEEL

max 3xD

INTERNAL COOLANT

A MICRO DN

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
MICRO	NT-A10K-MICRO-DN RH/LH	●	●	15	10	9.3	125	19°		MICRO DN	
	NT-A12M-MICRO-DN RH/LH	●	●	16	12	9	150	17°			
	NT-A16R-MICRO-DN RH/LH	●	●	20	16	11	200	17°			
	NT-A20R-MICRO-DN RH/LH	●	●	24	20	13	200	17°			

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
NT-A10K-MICRO-DN RH/LH	NT-ST400	NT-FT10
NT-A12M-MICRO-DN RH/LH		
NT-A16R-MICRO-DN RH/LH		
NT-A20R-MICRO-DN RH/LH		

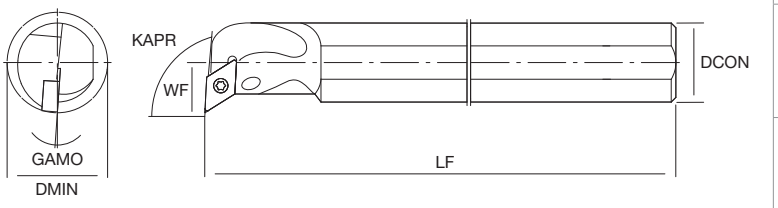
Inserts	CARBIDE	PCBN	CERAMIC	DIAMOND
MICRO DN	page 16	page 43	-	page 75

DN

INTERNAL

MICRONEGA

Right-hand shown



CARBIDE

max 7xD

INTERNAL COOLANT

E MICRO DN

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
MICRO	NT-E10K-MICRO-DN RH/LH	●	●	15	10	9.3	125	19°		MICRO DN	
	NT-E12M-MICRO-DN RH/LH	●	●	16	12	9	150	17°			
	NT-E16R-MICRO-DN RH/LH	●	●	20	16	11	200	17°			
	NT-E20R-MICRO-DN RH/LH	●	●	24	20	13	200	17°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-E10K-MICRO-DN RH/LH	NT-ST400	NT-FT10
NT-E12M-MICRO-DN RH/LH		
NT-E16R-MICRO-DN RH/LH		
NT-E20R-MICRO-DN RH/LH		

Inserts

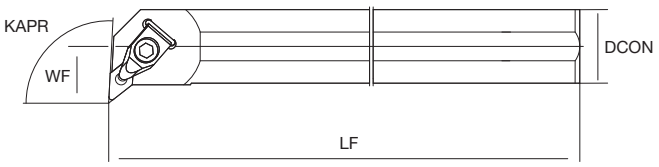
	CARBIDE	PCBN	CERAMIC	DIAMOND
MICRO DN	page 16	page 43	-	page 75

DN

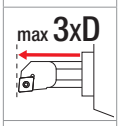
INTERNAL

D

Right-hand shown



STEEL



INTERNAL COOLANT

A DDUN

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
15	NT-A25R-DDUN$^{R}_{L}$1506	●	●	32	25	17	200	16°		DN□□1506	
	NT-A32S-DDUN$^{R}_{L}$1506	●	●	40	32	22	250	12°			
	NT-A40T-DDUN$^{R}_{L}$1506	●	●	50	40	27	300	10°			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	CLAMP	SPRING	CLAMP SCREW	CLAMP WRENCH
NT-A25R-DDUN$^{R}_{L}$1506	NT-SH020	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-SC200	NT-TX20
NT-A32S-DDUN$^{R}_{L}$1506							
NT-A40T-DDUN$^{R}_{L}$1506							

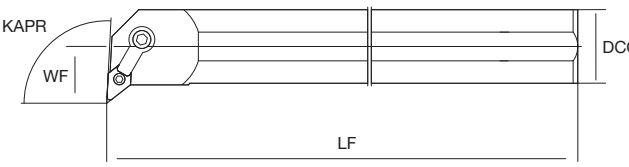
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
DN□□1506	page 16	page 43	page 59	page 75

DN

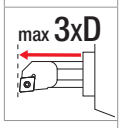
INTERNAL

M



Right-hand shown

STEEL



S MDUN

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
15	NT-S32S-MDUN$^{R}_{L}$1506	●	●	40	32	22	250	17°		DN□□1506 (DN□□1504)*	
	NT-S40T-MDUN$^{R}_{L}$1506	●	●	50	40	27	350	15°			
	NT-S50U-MDUN$^{R}_{L}$1506	●	●	63	50	35	300	12°			

● stock standard

*For DN□□1504 please purchase separately shim **NT-SH025**

Spare Parts

	SHIM	ECCENTRIC PIN	CLAMP	CLAMP SCREW	WRENCH
NT-S32S-MDUN$^{R}_{L}$1506	NT-SH045*	NT-SP025	NT-CS025	NT-SC008	NT-WR030
NT-S40T-MDUN$^{R}_{L}$1506				NT-SC010	
NT-S50U-MDUN$^{R}_{L}$1506					

*Shim for DNMG1504: **NT-SH025**

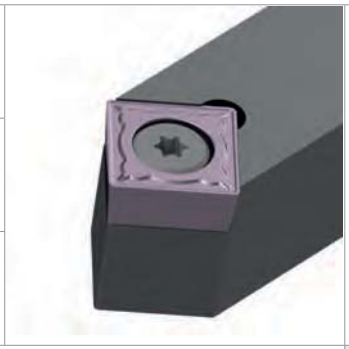
Inserts

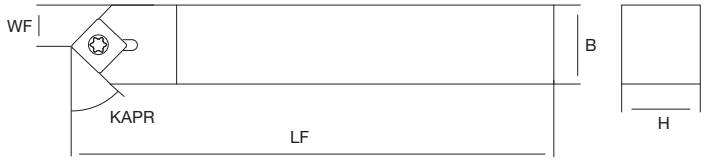
	CARBIDE	PCBN	CERAMIC	DIAMOND
DN□□1504	-	page 43	-	-
DN□□1506	page 16	page 43	page 59	page 75

SC

EXTERNAL

S





SSDCN
External turning (KAPR 45°)

			H	B	WF	LF	KG	MIID		
09	**NT-SSDCN2020K09**	●	20	20	10	125		SC□□09T3		
	NT-SSDCN2525M09	●	25	25	12.5	150				
12	**NT-SSDCN2020K12**	●	20	20	10	125		SC□□1204		
	NT-SSDCN2525M12	●	25	25	12.5	150				

● stock standard

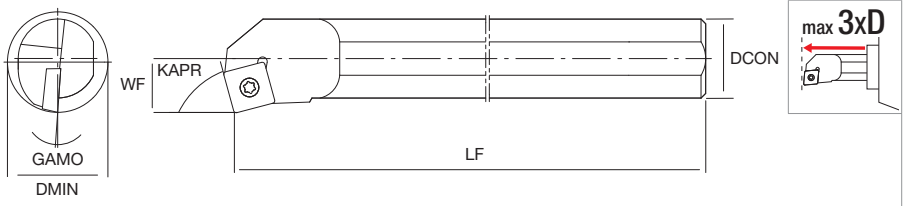
Spare Parts	INSERT SCREW	INSERT WRENCH
NT-SSDCN2020K09	NT-ST020	NT-FT15
NT-SSDCN2525M09		
NT-SSDCN2020K12	NT-ST050	NT-FT15
NT-SSDCN2525M12		

Inserts	CARBIDE	PCBN	CERAMIC	DIAMOND
SC□□09T3	page 20	-	page 62	-
SC□□1204	page 20	-	page 62	-

SC

INTERNAL

S



S SSKC

Internal turning (KAPR 75°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
09	NT-S12M-SSKC$^{R}_{L}$09	●	●	16	12	8.5	150	12°		SC□□09T3	
	NT-S16Q-SSKC$^{R}_{L}$09	●	●	20	16	11	180	11°			
	NT-S20R-SSKC$^{R}_{L}$09	●	●	25	20	13	200	6°			
	NT-S25R-SSKC$^{R}_{L}$09	●	●	31	25	15	200	6°			
12	NT-S25R-SSKC$^{R}_{L}$12	●	●	32	25	17	200	7°		SC□□1204	
	NT-S32S-SSKC$^{R}_{L}$12	●	●	40	32	22	250	7°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-S12M-SSKC$^{R}_{L}$09	NT-ST020	NT-FT15
NT-S16Q-SSKC$^{R}_{L}$09		
NT-S20R-SSKC$^{R}_{L}$09		
NT-S25R-SSKC$^{R}_{L}$09		
NT-S25R-SSKC$^{R}_{L}$12	NT-ST050	NT-FT15
NT-S32S-SSKC$^{R}_{L}$12		

Inserts

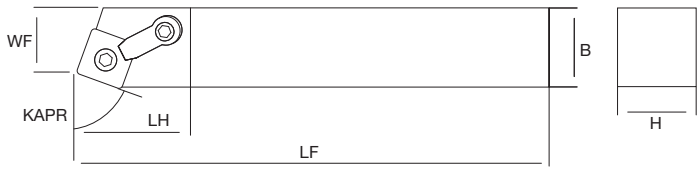
	CARBIDE	PCBN	CERAMIC	DIAMOND
SC□□09T3	page 20	-	page 62	-
SC□□1204	page 20	-	page 62	-

SN

EXTERNAL

M

Right-hand shown



MSBN

External turning (KAPR 75°)

		R	L	H	B	WF	LF	LH	KG	MIID	
12	NT-MSBN$^{R}_{L}$2020K12	●	●	20	20	17	125	37		SN□□1204	
	NT-MSBN$^{R}_{L}$2525M12	●	●	25	25	22	150	37			
	NT-MSBN$^{R}_{L}$3232P12	○	○	32	32	27	170	42			
19	NT-MSBN$^{R}_{L}$3232P19	○	○	32	32	27	170	42		SN□□1906	
	NT-MSBN$^{R}_{L}$4040S19	○	○	40	40	35	250	42			

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	CLAMP	CLAMP SCREW	WRENCH
NT-MSBN$^{R}_{L}$2020K12	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MSBN$^{R}_{L}$2525M12					
NT-MSBN$^{R}_{L}$3232P12					
NT-MSBN$^{R}_{L}$3232P19	NT-SH090	NT-SP050	NT-CS015	NT-SC070	NT-WR040
NT-MSBN$^{R}_{L}$4040S19					

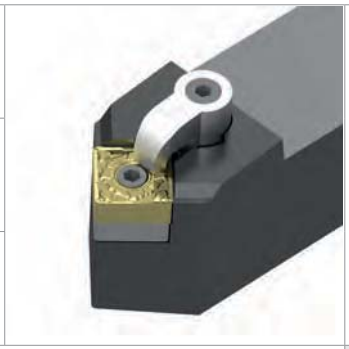
Inserts

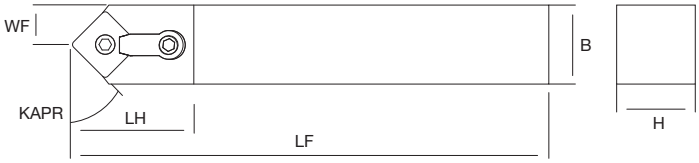
	CARBIDE	PCBN	CERAMIC	DIAMOND
SN□□1204	page 21	page 46	page 63	-
SN□□1906	page 22	-	-	-

SN

EXTERNAL

M





MSDNN

External turning (KAPR 45°)

			H	B	WF	LF	LH	KG	MIID	
12	**NT-MSDNN2020K12**	●	20	20	10	125	35		SN□□1204	
	NT-MSDNN2525M12	●	25	25	12.5	150	37			
	NT-MSDNN3232P12	○	32	32	16	170	43			

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	CLAMP	CLAMP SCREW	WRENCH
					
NT-MSDNN2020K12	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MSDNN2525M12					
NT-MSDNN3232P12					

Inserts

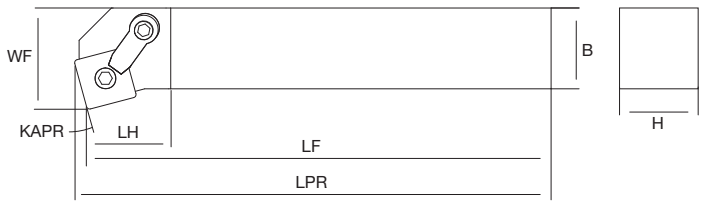
	CARBIDE	PCBN	CERAMIC	DIAMOND
				
SN□□1204	page 21	page 46	page 63	-

SN

EXTERNAL

M

Right-hand shown



MSKN

External turning (KAPR 75°)

		R	L	H	B	WF	LF	LH	LPR	KG	MIID
12	**NT-MSKN^{R}/L2020K12**	●	●	20	20	25	122	37	125		SN□□1204
12	**NT-MSKN^{R}/L2525M12**	●	●	25	25	32	147	37	150		SN□□1204
12	**NT-MSKN^{R}/L3232P12**	○	○	32	32	40	167	42	170		SN□□1204
19	**NT-MSKN^{R}/L4040S19**	○	○	40	40	50	247	42	250		SN□□1906

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	CLAMP	CLAMP SCREW	WRENCH
NT-MSKN^{R}/L2020K12	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MSKN^{R}/L2525M12					
NT-MSKN^{R}/L3232P12					
NT-MSKN^{R}/L4040S19	NT-SH090	NT-SP050	NT-CS015	NT-SC070	NT-WR040

Inserts

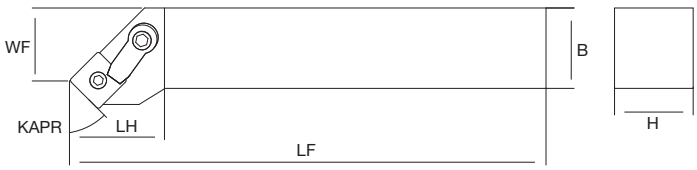
	CARBIDE	PCBN	CERAMIC	DIAMOND
SN□□1204	page 21	page 46	page 63	-
SN□□1906	page 22	-	-	-

SN

EXTERNAL

M

Right-hand shown



MSSN

External turning (KAPR 45°)

		R	L	H	B	WF	LF	LH	KG	MIID	
12	**NT-MSSN$^{R}_{L}$2020K12**	●	●	20	20	25	125	35		SN□□1204	
	NT-MSSN$^{R}_{L}$2525M12	●	●	25	25	32	150	35			
	NT-MSSN$^{R}_{L}$3232P12	○	○	32	32	40	170	42			
19	**NT-MSSN$^{R}_{L}$3232P19**	○	○	32	32	40	170	42		SN□□1906	
	NT-MSSN$^{R}_{L}$4040S19	○	○	40	40	40	250	42			

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	CLAMP	CLAMP SCREW	WRENCH
					
NT-MSSN$^{R}_{L}$2020K12	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MSSN$^{R}_{L}$2525M12					
NT-MSSN$^{R}_{L}$3232P12					
NT-MSSN$^{R}_{L}$3232P19	NT-SH090	NT-SP050	NT-CS015	NT-SC070	NT-WR040
NT-MSSN$^{R}_{L}$4040S19					

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
				
SN□□1204	page 21	page 46	page 63	-
SN□□1906	page 22	-	-	-

SN

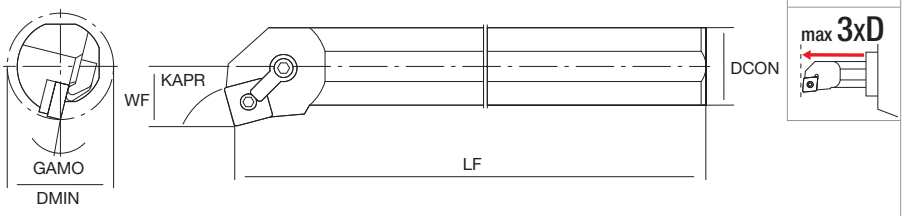
INTERNAL

M

Right-hand shown

STEEL

max 3xD



S MSKN

Internal turning (KAPR 75°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
12	NT-S20R-MSKN$^{R}_{L}$12	●	●	25	20	13	200	17°			
	NT-S25R-MSKN$^{R}_{L}$12	●	●	32	25	17	200	14°			
	NT-S32S-MSKN$^{R}_{L}$12	●	●	40	32	22	250	14°		SN□□1204	
	NT-S40T-MSKN$^{R}_{L}$12	●	●	50	40	27	300	15°			
	NT-S50U-MSKN$^{R}_{L}$12	●	●	63	50	35	350	12°			
19	NT-S50U-MSKN$^{R}_{L}$19	○	○	63	50	35	350	8°		SN□□1906	

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	PIN WRENCH	CLAMP	CLAMP SCREW	CLAMP WRENCH
NT-S20R-MSKN$^{R}_{L}$12	-	NT-SP035	NT-WR025	NT-CS030	NT-SC030	NT-WR025
NT-S25R-MSKN$^{R}_{L}$12				NT-CS010	NT-SC008	NT-WR030
NT-S32S-MSKN$^{R}_{L}$12	NT-SH070	NT-SP010	NT-WR030		NT-SC010	
NT-S40T-MSKN$^{R}_{L}$12						
NT-S50U-MSKN$^{R}_{L}$12						
NT-S50U-MSKN$^{R}_{L}$19	NT-SH090	NT-SP050	NT-WR030	NT-CS015	NT-SC070	NT-WR040

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
SN□□1204	page 21	page 46	page 63	-
SN□□1906	page 22	-	-	-

TB

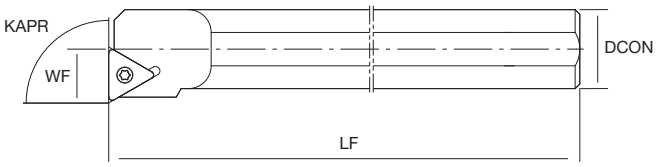
INTERNAL

S

Right-hand shown

STEEL

max 3xD



S STUB

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
06	NT-S08H-STUB$^{R}_{L}$06	●	●	10	8	4	100	12°		TB□□061	

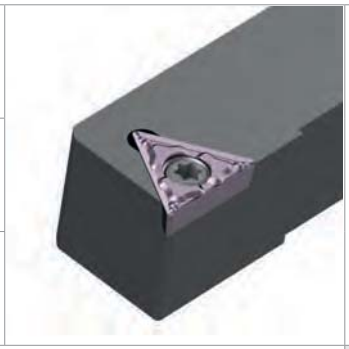
● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
		
NT-S08H-STUB$^{R}_{L}$06	NT-ST003	NT-FT06

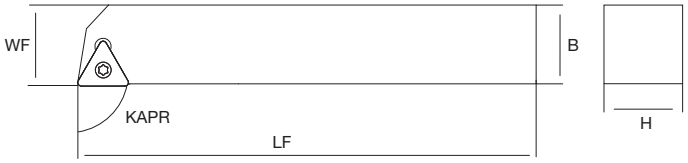
TC

EXTERNAL

S



Right-hand shown



STAC

External turning (KAPR 90°)

		R	L	H	B	WF	LF	KG	MIID		
09	NT-STAC$^{R}_{L}$0808H09	○	○	8	8	8.5	100		TC□□0902		
	NT-STAC$^{R}_{L}$1010H09	○	○	10	10	10.5	100				
11	NT-STAC$^{R}_{L}$1212H11	●	●	12	12	12.5	100		TC□□1102		
	NT-STAC$^{R}_{L}$1616H11	●	●	16	16	16.5	100				

● stock standard, ○ non-standard stock

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-STAC$^{R}_{L}$0808H09	NT-ST004	NT-FT07
NT-STAC$^{R}_{L}$1010H09		
NT-STAC$^{R}_{L}$1212H11	NT-ST010	NT-FT07
NT-STAC$^{R}_{L}$1616H11		

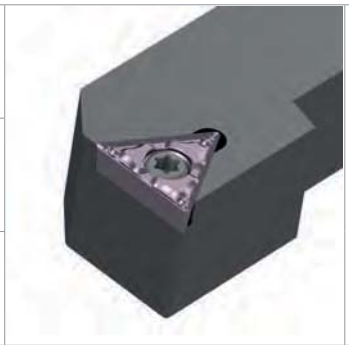
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
TC□□0902	page 24	-	-	page 76
TC□□1102	page 24	page 47	-	page 76

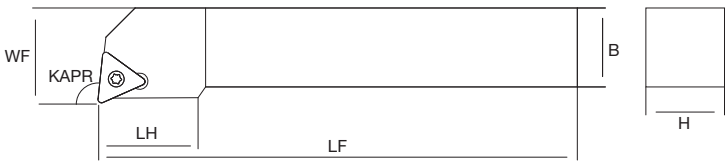
TC

EXTERNAL

S



Right-hand shown



STFC
External turning (KAPR 91°)

		R	L	H	B	WF	LF	LH	KG	MIID	
09	**NT-STFC$^{R}_{L}$0808H09**	○	○	8	8	10	100	12		TC□□0902	
	NT-STFC$^{R}_{L}$1010H09	○	○	10	10	12	100	12			
11	**NT-STFC$^{R}_{L}$1212H11**	●	●	12	12	16	100	17		TC□□1102	
	NT-STFC$^{R}_{L}$1616H11	●	●	16	16	20	100	18			
16	**NT-STFC$^{R}_{L}$2020K16**	●	●	20	20	25	125	22		TC□□16T3	
	NT-STFC$^{R}_{L}$2525M16	●	●	25	25	32	150	25			

● stock standard, ○ non-standard stock

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-STFC$^{R}_{L}$0808H09	NT-ST004	NT-FT07
NT-STFC$^{R}_{L}$1010H09		
NT-STFC$^{R}_{L}$1212H11	NT-ST010	NT-FT07
NT-STFC$^{R}_{L}$1616H11		
NT-STFC$^{R}_{L}$2020K16	NT-ST020	NT-FT15
NT-STFC$^{R}_{L}$2525M16		

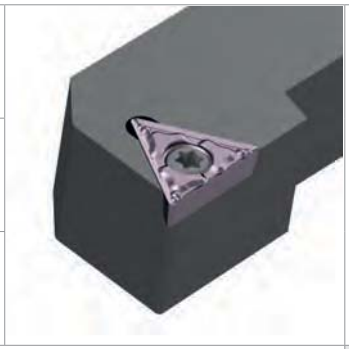
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
TC□□0902	page 24	-	-	page 76
TC□□1102	page 24	page 47	-	page 76
TC□□16T3	page 24	page 47	-	page 76

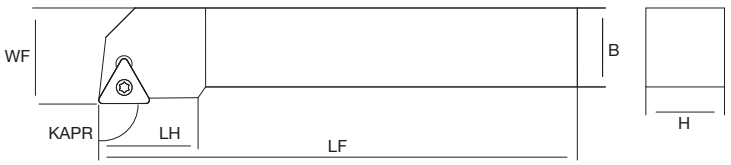
TC

EXTERNAL

S



Right-hand shown



STGC

External turning (KAPR 91°)

		R	L	H	B	WF	LF	LH	KG	MIID	
11	**NT-STGC$^{R}_{L}$1212H11**	○	○	12	12	16	100	17		TC□□1102	
	NT-STGC$^{R}_{L}$1616H11	○	●	16	16	20	100	18			
16	**NT-STGC$^{R}_{L}$2020K16**	●	●	20	20	25	125	22		TC□□16T3	
	NT-STGC$^{R}_{L}$2525M16	●	●	25	25	32	150	25			

● stock standard, ○ non-standard stock

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-STGC$^{R}_{L}$1212H11	NT-ST010	NT-FT07
NT-STGC$^{R}_{L}$1616H11		
NT-STGC$^{R}_{L}$2020K16	NT-ST020	NT-FT15
NT-STGC$^{R}_{L}$2525M16		

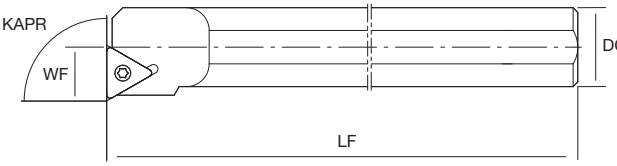
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
TC□□1102	page 24	page 47	-	page 76
TC□□16T3	page 24	page 47	-	page 76

TC

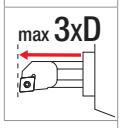
INTERNAL

S



Right-hand shown

STEEL



max 3xD

S STFC

Internal turning (KAPR 91°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
09	**NT-S08H-STFC$^{R}_{L}$09**	●	●	12	8	6	100	15°		TC□□0902	
	NT-S10K-STFC$^{R}_{L}$09	●	●	14	10	7	125	15°			
	NT-S12M-STFC$^{R}_{L}$09	●	●	16	12	9	150	10°			
11	**NT-S10K-STFC$^{R}_{L}$11**	●	●	14	10	7	125	15°		TC□□1102	
	NT-S12M-STFC$^{R}_{L}$11	●	●	14	12	7	150	10°			
	NT-S16K-STFC$^{R}_{L}$11	●	●	18	16	9	180	8°			
	NT-S20R-STFC$^{R}_{L}$11	●	●	25	20	13	200	3°			
16	**NT-S20R-STFC$^{R}_{L}$16**	●	●	25	20	13	200	8°		TC□□16T3	
	NT-S25R-STFC$^{R}_{L}$16	●	●	32	25	17	200	6°			
	NT-S32S-STFC$^{R}_{L}$16	●	●	39	32	22	250	4°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-S08H-STFC$^{R}_{L}$09	NT-ST004	NT-FT07
NT-S10K-STFC$^{R}_{L}$09		
NT-S12M-STFC$^{R}_{L}$09		
NT-S10K-STFC$^{R}_{L}$11	NT-ST010	NT-FT07
NT-S12M-STFC$^{R}_{L}$11		
NT-S16K-STFC$^{R}_{L}$11		
NT-S20R-STFC$^{R}_{L}$11		
NT-S20R-STFC$^{R}_{L}$16	NT-ST030	NT-FT15
NT-S25R-STFC$^{R}_{L}$16		
NT-S32S-STFC$^{R}_{L}$16		

Inserts

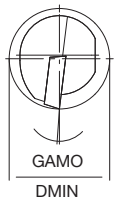
	CARBIDE	PCBN	CERAMIC	DIAMOND
TC□□0902	page 24	-	-	page 76
TC□□1102	page 24	page 47	-	page 76
TC□□16T3	page 24	page 47	-	page 76

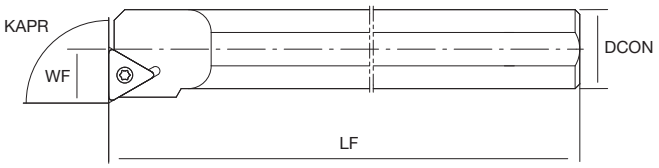
TC

INTERNAL

S

Right-hand shown





STEEL

max 3xD

INTERNAL COOLANT

A STFC

Internal turning (KAPR 91°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
11	NT-A10K-STFC$^{R}_{L}$11	●	●	14	10	7	125	15°		TC□□1102	
	NT-A12M-STFC$^{R}_{L}$11	●	●	14	12	7	150	10°			
	NT-A16Q-STFC$^{R}_{L}$11	●	●	18	16	9	180	8°			
	NT-A20R-STFC$^{R}_{L}$11	●	●	25	20	13	200	3°			

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
		
NT-A10K-STFC$^{R}_{L}$11 NT-A12M-STFC$^{R}_{L}$11 NT-A16Q-STFC$^{R}_{L}$11 NT-A20R-STFC$^{R}_{L}$11	NT-ST010	NT-FT07

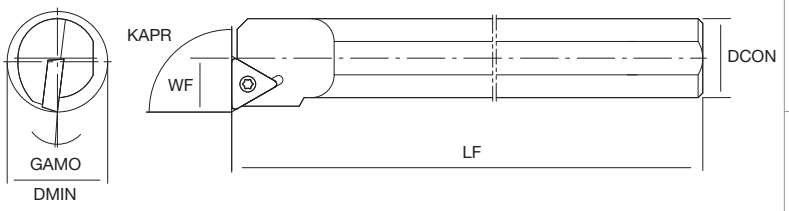
Inserts	CARBIDE	PCBN	CERAMIC	DIAMOND
				
TC□□1102	page 24	page 47	-	page 76

TC

INTERNAL

S

Right-hand shown



CARBIDE

max 7xD

INTERNAL COOLANT

E STFC

Internal turning (KAPR 91°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
11	NT-E10K-STFC$^{R}_{L}$11	●	●	12	10	6	125	15°		TC□□1102	
	NT-E12M-STFC$^{R}_{L}$11	●	●	14	12	7	150	10°			
	NT-E16R-STFC$^{R}_{L}$11	●	●	18	16	9	200	8°			
	NT-E20R-STFC$^{R}_{L}$11	●	●	22	20	11	200	6°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-E10K-STFC$^{R}_{L}$11 NT-E12M-STFC$^{R}_{L}$11 NT-E16R-STFC$^{R}_{L}$11 NT-E20R-STFC$^{R}_{L}$11	NT-ST010	NT-FT07

Inserts

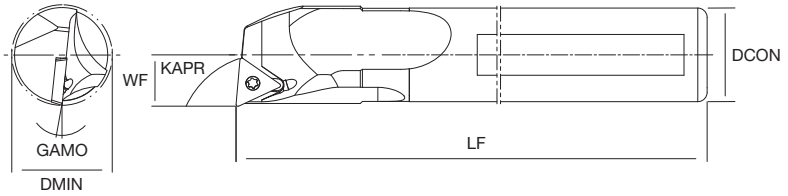
	CARBIDE	PCBN	CERAMIC	DIAMOND
TC□□1102	page 24	page 47	-	page 76

TC

INTERNAL

S

Right-hand shown



VORTEX

max 5xD

INTERNAL COOLANT

V STLC

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
09	NT-V08H-STLC$^{R}_{L}$09-10	●	●	10	8	5	100	14°		TC□□0902	
	NT-V10K-STLC$^{R}_{L}$09-12	●	●	12	10	6	125	12°			
	NT-V12M-STLC$^{R}_{L}$09-14	●	●	14	12	7	150	10°			
11	NT-V10K-STLC$^{R}_{L}$11-12	●	●	12	10	6	125	12°		TC□□1102	
	NT-V12M-STLC$^{R}_{L}$11-14	●	●	14	12	7	150	10°			
	NT-V16Q-STLC$^{R}_{L}$11-18	●	●	18	16	9	180	8°			
	NT-V20R-STLC$^{R}_{L}$11-22	●	●	22	20	11	200	6°			
16	NT-V20R-STLC$^{R}_{L}$16-25	●	●	25	20	12.5	200	8°		TC□□16T3	
	NT-V25S-STLC$^{R}_{L}$16-32	●	●	32	25	16	250	6°			

● stock standard

Spare Parts

INSERT SCREW

INSERT WRENCH

NT-V08H-STLC$^{R}_{L}$09-10	NT-ST004	NT-FT07
NT-V10K-STLC$^{R}_{L}$09-12		
NT-V12M-STLC$^{R}_{L}$09-14		
NT-V10K-STLC$^{R}_{L}$11-12	NT-ST010	NT-FT07
NT-V12M-STLC$^{R}_{L}$11-14		
NT-V16Q-STLC$^{R}_{L}$11-18		
NT-V20R-STLC$^{R}_{L}$11-22		
NT-V20R-STLC$^{R}_{L}$16-25	NT-ST030	NT-FT15
NT-V25S-STLC$^{R}_{L}$16-32		

Inserts

CARBIDE

PCBN

CERAMIC

DIAMOND

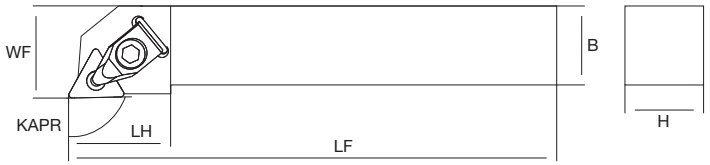
TC□□0902	page 24	-	-	page 76
TC□□1102	page 24	page 47	-	page 76
TC□□16T3	page 24	page 47	-	page 76

TN

EXTERNAL

D

Right-hand shown



DTGN

External turning (KAPR 91°)

		R	L	H	B	WF	LF	LH	KG	MIID	
16	NT-DTGN$^{R}_{L}$2020K16X	●	●	20	20	25	125	33		TN□□1604	
	NT-DTGN$^{R}_{L}$2525M16X	●	●	25	25	32	150	33			

● stock standard

Spare Parts	SHIM	SHIM SCREW	CLAMP	SPRING	CLAMP SCREW	WRENCH
						
NT-DTGN$^{R}_{L}$2020K16X	NT-SH006	NT-ST250	NT-CS250	NT-SG250	NT-SC250	NT-TX15
NT-DTGN$^{R}_{L}$2525M16X						

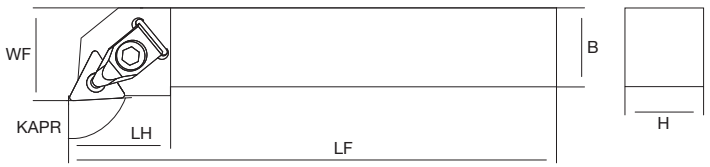
Inserts	CARBIDE	PCBN	CERAMIC	DIAMOND
				
TN□□1604	page 25	page 48	page 65	page 78

TN

EXTERNAL

D

Right-hand shown



DTJN

External turning (KAPR 93°)

		R	L	H	B	WF	LF	LH	KG	MIID	
16	**NT-DTJN$^{R}_{L}$2020K16X**	●	●	20	20	25	125	33		TN□□1604	
	NT-DTJN$^{R}_{L}$2525M16X	●	●	25	25	32	150	33			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	CLAMP	SPRING	CLAMP SCREW	WRENCH
						
NT-DTJN$^{R}_{L}$2020K16X	NT-SH006	NT-ST250	NT-CS250	NT-SG250	NT-SC250	NT-TX15
NT-DTJN$^{R}_{L}$2525M16X						

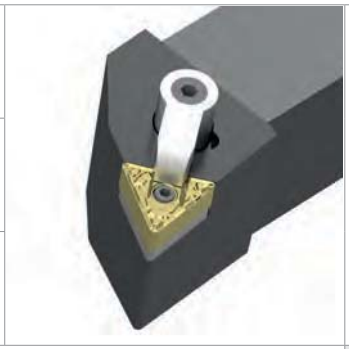
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
				
TN□□1604	page 25	page 48	page 65	page 78

TN

EXTERNAL

M



Right-hand shown

MTJN
External turning (KAPR 93°)

		R	L	H	B	WF	LF	LH	KG	MIID	
16	**NT-MTJN$^{R}_{L}$2020K16**	●	●	20	20	25	125	33		TN□□1604	
	NT-MTJN$^{R}_{L}$2525M16	●	●	25	25	32	150	35			
	NT-MTJN$^{R}_{L}$3232P16	●	●	32	32	40	170	43			
22	**NT-MTJN$^{R}_{L}$2525M22**	●	●	25	25	32	150	43		TN□□2204	
	NT-MTJN$^{R}_{L}$3225P22	●	●	32	25	32	170	43			

● stock standard

Spare Parts

	SHIM	ECCENTRIC PIN	PIN WRENCH	CLAMP	CLAMP SCREW	CLAMP WRENCH
NT-MTJN$^{R}_{L}$2020K16	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
NT-MTJN$^{R}_{L}$2525M16					NT-SC010	
NT-MTJN$^{R}_{L}$3232P16						
NT-MTJN$^{R}_{L}$2525M22	NT-SH008	NT-SP010	NT-WR030	NT-CS070	NT-SC070	NT-WR040
NT-MTJN$^{R}_{L}$3225P22						

Inserts

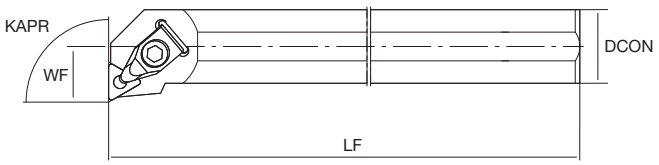
	CARBIDE	PCBN	CERAMIC	DIAMOND
TN□□1604	page 25	page 48	page 65	page 78
TN□□2204	page 25	-	-	-

TN

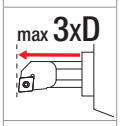
INTERNAL

D

Right-hand shown



STEEL



INTERNAL COOLANT

A DTFN

Internal turning (KAPR 91°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
16	NT-A25R-DTFN$^{R}_{L}$16	●	●	32	25	17	200	13°		TN□□1604	
	NT-A32S-DTFN$^{R}_{L}$16	●	●	40	32	22	250	13°			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	CLAMP	SPRING	CLAMP SCREW	WRENCH
NT-A25R-DTFN$^{R}_{L}$16 NT-A32S-DTFN$^{R}_{L}$16	NT-SH006	NT-ST250	NT-CS250	NT-SG250	NT-SC250	NT-TX15

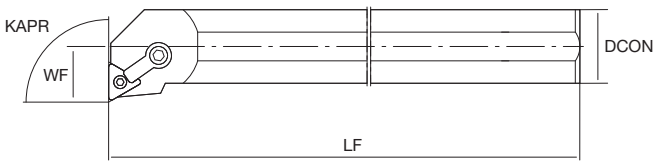
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
TN□□1604	page 25	page 48	page 65	page 78

TN

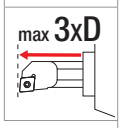
INTERNAL

M



Right-hand shown

STEEL



S MTUN

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
16	NT-S20R-MTUNR/L16	●	●	25	20	13	200	17°		TN□□1604	
	NT-S25R-MTUNR/L16	●	●	32	25	17	200	12°			
	NT-S32S-MTUNR/L16	●	●	40	32	22	250	10°			
	NT-S40T-MTUNR/L16	●	●	50	40	27	300	10°			
	NT-S50U-MTUNR/L16	●	●	63	50	35	350	8°			
22	NT-S40T-MTUNR/L22	○	○	50	40	27	300	15°		TN□□2204	
	NT-S50U-MTUNR/L22	○	○	63	50	35	350	12°			

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	PIN WRENCH	CLAMP	CLAMP SCREW	CLAMP WRENCH
NT-S20R-MTUNR/L16	-	NT-SP030	NT-WR020	NT-CS030	NT-SC030	NT-WR025
NT-S25R-MTUNR/L16				NT-CS010	NT-SC008	NT-WR030
NT-S32S-MTUNR/L16	NT-SH005	NT-SP020			NT-SC010	
NT-S40T-MTUNR/L16						
NT-S50U-MTUNR/L16						
NT-S40T-MTUNR/L22	NT-SH008	NT-SP010	NT-WR030	NT-CS070	NT-SC070	NT-WR040
NT-S50U-MTUNR/L22						

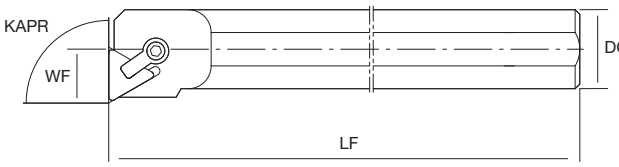
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
TN□□1604	page 25	page 48	page 65	page 78
TN□□2204	page 25	-	-	-

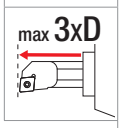
TP

INTERNAL

C



Right-hand shown



S CTUP

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
11	NT-S12M-CTUP$^{R}_{L}$11	●	●	16	12	9	150	0°		TP□□1103	
11	NT-S16Q-CTUP$^{R}_{L}$11	●	●	20	16	11	180	3°		TP□□1103	
11	NT-S20R-CTUP$^{R}_{L}$11	●	●	25	20	13	200	3°		TP□□1103	
16	NT-S25R-CTUP$^{R}_{L}$16	●	●	32	25	17	200	3°		TP□□1604	
16	NT-S32S-CTUP$^{R}_{L}$16	●	●	40	32	22	250	3°		TP□□1604	

● stock standard

Spare Parts

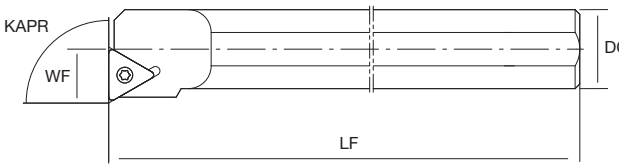
NT-S12M-CTUP$^{R}_{L}$11	-	-	-	NT-CS003		NT-WR025
NT-S16Q-CTUP$^{R}_{L}$11				NT-CS005	NT-SC005	
NT-S20R-CTUP$^{R}_{L}$11						
NT-S25R-CTUP$^{R}_{L}$16	NT-SH002	NT-ST022	NT-FT06	NT-CS010	NT-SC008	NT-WR030
NT-S32S-CTUP$^{R}_{L}$16						

Inserts

TP□□1103	-	-	page 66	-
TP□□1604	-	-	page 66	-

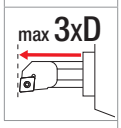
TP

INTERNAL



Right-hand shown

STEEL



S STUP

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
09	**NT-S10K-STUP$^{R}_{L}$09**	●	●	12	10	6	125	8°		TP□□0902	
	NT-S12M-STUP$^{R}_{L}$09	●	●	14	12	7	150	5°			
11	**NT-S10K-STUP$^{R}_{L}$11**	●	●	12	10	6	125	8°		TP□□1103	
	NT-S12M-STUP$^{R}_{L}$11	●	●	14	12	7	150	7°			
	NT-S16K-STUP$^{R}_{L}$11	●	●	18	16	9	180	4°			
	NT-S20R-STUP$^{R}_{L}$11	●	●	22	20	11	200	2°			

● stock standard

Spare Parts

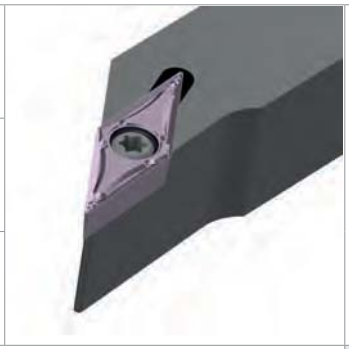
	INSERT SCREW	INSERT WRENCH
NT-S10K-STUP$^{R}_{L}$09	NT-ST005	NT-FT08
NT-S12M-STUP$^{R}_{L}$09		
NT-S10K-STUP$^{R}_{L}$11	NT-ST014	NT-FT10
NT-S12M-STUP$^{R}_{L}$11		
NT-S16K-STUP$^{R}_{L}$11	NT-ST015	
NT-S20R-STUP$^{R}_{L}$11		

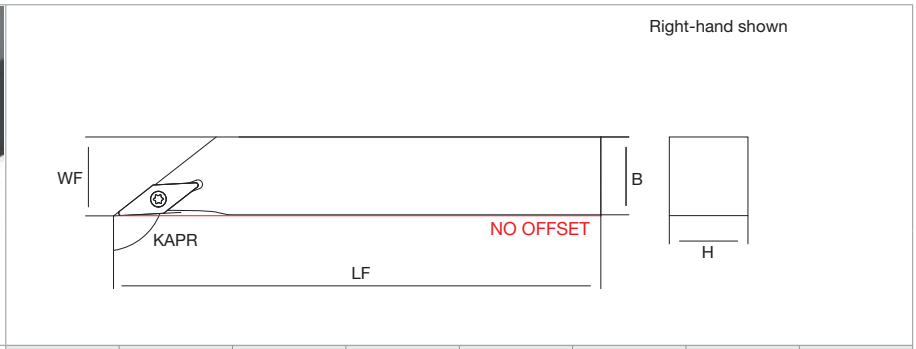
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
TP□□0902	page 28	page 49	-	page 79
TP□□1103	page 28	page 49	-	page 79

VB

EXTERNAL





SVJB N
External turning (KAPR 93°)

		R	L	H	B	WF	LF	KG	MIID		
11	NT-SVJB$^{R}_{L}$1212K11N	●	●	12	12	12	125		VB□□1103		
11	NT-SVJB$^{R}_{L}$1616K11N	●	●	16	16	16	125		VB□□1103		
16	NT-SVJB$^{R}_{L}$1616H16N	●	●	16	16	16	100		VB□□1604		

● stock standard

Spare Parts

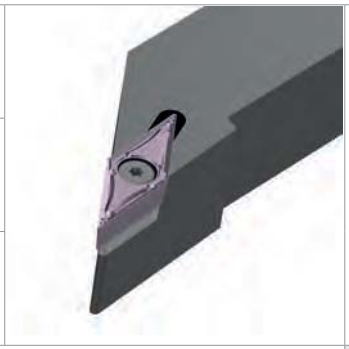
	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SVJB$^{R}_{L}$1212K11N	-	-	-	NT-ST010	NT-FT07
NT-SVJB$^{R}_{L}$1616K11N					
NT-SVJB$^{R}_{L}$1616H16N	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15

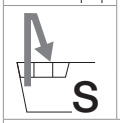
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
VB□□1103	page 29	page 50	-	page 80
VB□□1604	page 29	page 50	-	page 80

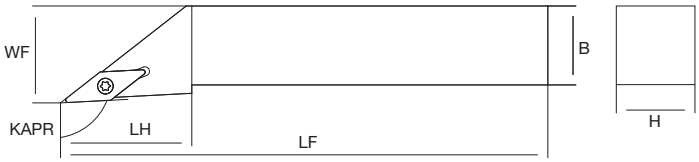
VB

EXTERNAL





Right-hand shown



SVJB
External turning (KAPR 93°)

		R	L	H	B	WF	LF	LH	KG	MIID	
11	**NT-SVJB$^{R}_{L}$2020K11**	●	●	20	20	25	125	22		VB□□1103	
16	**NT-SVJB$^{R}_{L}$2020K16**	●	●	20	20	25	125	33		VB□□1604	
	NT-SVJB$^{R}_{L}$2525M16	●	●	25	25	32	150	38			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SVJB$^{R}_{L}$2020K11	-	-	-	NT-ST010	NT-FT07
NT-SVJB$^{R}_{L}$2020K16	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15
NT-SVJB$^{R}_{L}$2525M16					

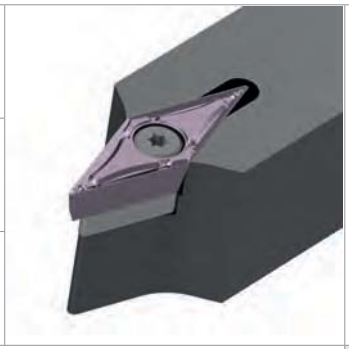
Inserts

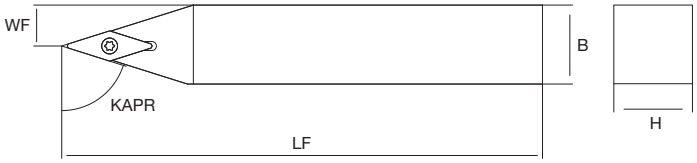
	CARBIDE	PCBN	CERAMIC	DIAMOND
VB□□1103	page 29	page 50	-	page 80
VB□□1604	page 29	page 50	-	page 80

VB

EXTERNAL

S





SVVBN

External turning (KAPR 72.5°)

			H	B	WF	LF	KG	MIID		
11	**NT-SVVBN2020K11**	●	20	20	10	125		VB□□1103		
	NT-SVVBN2525M11	●	25	25	12.5	150				
16	**NT-SVVBN2020K16**	●	20	20	10	125		VB□□1604		
	NT-SVVBN2525M16	●	25	25	12.5	150				

● stock standard

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SVVBN2020K11	-	-	-	NT-ST010	NT-FT07
NT-SVVBN2525M11					
NT-SVVBN2020K16	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15
NT-SVVBN2525M16					

Inserts

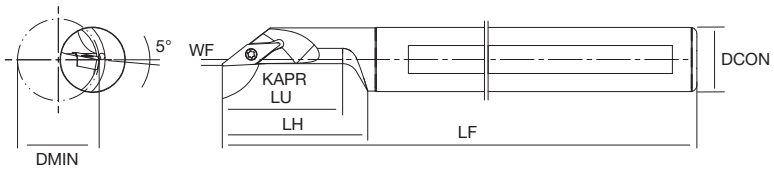
	CARBIDE	PCBN	CERAMIC	DIAMOND
VB□□1103	page 29	page 50	-	page 80
VB□□1604	page 29	page 50	-	page 80

VB

INTERNAL

S

Right-hand shown



VORTEX

max 5xD

INTERNAL COOLANT

V SVJB

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	LH	LU	KG	MIID
11	NT-V20R-SVJB$^{R}_{L}$11-25	●	●	25	20	2	200	48	37.5		VB□□1103
	NT-V25S-SVJB$^{R}_{L}$11-30	●	●	30	25	3.5	250	58	46		

● stock standard

Spare Parts

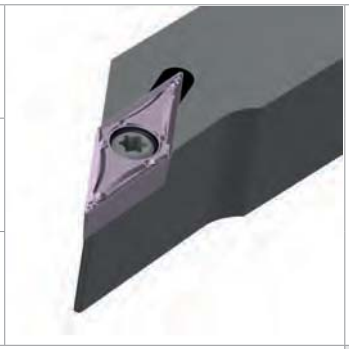
	INSERT SCREW	INSERT WRENCH
		
NT-V20R-SVJB$^{R}_{L}$11-25 NT-V25S-SVJB$^{R}_{L}$11-30	NT-ST010	NT-FT07

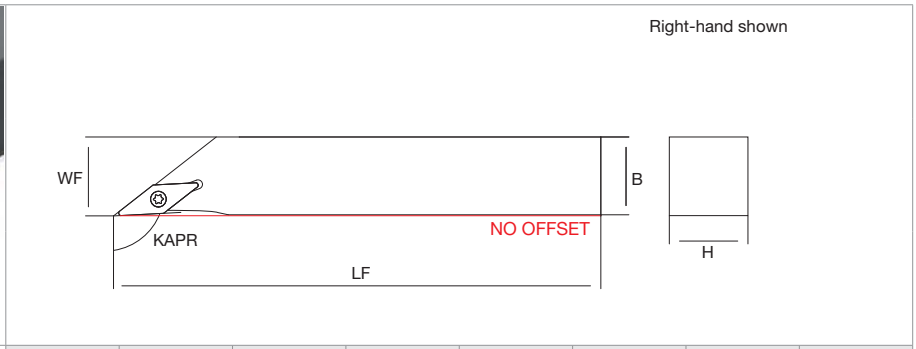
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
				
VB□□1103	page 29	page 50	-	page 80

VC

EXTERNAL





SVJC N
External turning (KAPR 93°)

		R	L	H	B	WF	LF	KG	MIID		
11	NT-SVJC$^{R}_{L}$1010K11N	○	○	10	10	10	125		VC□□1103		
11	NT-SVJC$^{R}_{L}$1212K11N	●	●	12	12	12	125		VC□□1103		
11	NT-SVJC$^{R}_{L}$1616K11N	●	●	16	16	16	125		VC□□1103		
16	NT-SVJC$^{R}_{L}$1616H16N	●	●	16	16	16	100		VC□□1604		

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SVJC$^{R}_{L}$1010K11N	-	-	-	NT-ST010	NT-FT07
NT-SVJC$^{R}_{L}$1212K11N					
NT-SVJC$^{R}_{L}$1616K11N					
NT-SVJC$^{R}_{L}$1616H16N	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15

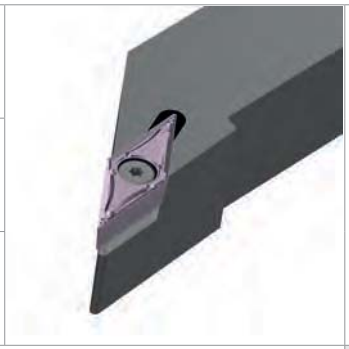
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
VC□□1103	page 30	page 51	-	page 81
VC□□1604	page 30	page 51	-	page 81

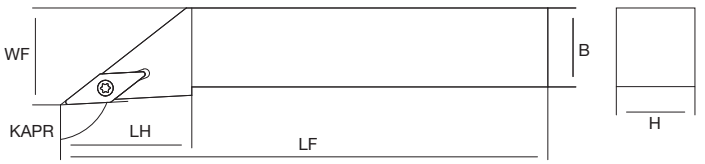
VC

EXTERNAL

S



Right-hand shown



SVJC
External turning (KAPR 93°)

		R	L	H	B	WF	LF	LH	KG	MIID	
11	**NT-SVJC$^{R}_{L}$2020K11**	●	●	20	20	25	125	22		VC□□1103	
16	**NT-SVJC$^{R}_{L}$2020K16**	●	●	20	20	25	125	33		VC□□1604	
	NT-SVJC$^{R}_{L}$2525M16	●	●	25	25	32	150	38			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SVJC$^{R}_{L}$2020K11	-	-	-	NT-ST010	NT-FT07
NT-SVJC$^{R}_{L}$2020K16	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15
NT-SVJC$^{R}_{L}$2525M16					

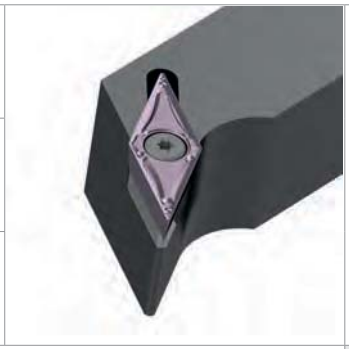
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
VC□□1103	page 30	page 51	-	page 81
VC□□1604	page 30	page 51	-	page 81

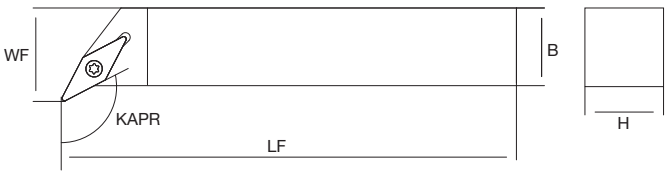
VC

EXTERNAL

S



Right-hand shown



SVPC

External turning (KAPR 117.5°)

		R	L	H	B	WF	LF	KG	MIID		
11	NT-SVPC**R**/L1010H11	○	○	10	10	14.5	100		VC□□1103		
	NT-SVPC**R**/L1212H11	●	●	12	12	16.5	100				
	NT-SVPC**R**/L1616H11	●	●	16	16	20.5	100				
16	NT-SVPC**R**/L2020K16	●	●	20	20	25	125		VC□□1604		
	NT-SVPC**R**/L2525M16	●	●	25	25	32	150				

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SVPC**R**/L1010H11	-	-	-	NT-ST010	NT-FT07
NT-SVPC**R**/L1212H11					
NT-SVPC**R**/L1616H11					
NT-SVPC**R**/L2020K16	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15
NT-SVPC**R**/L2525M16					

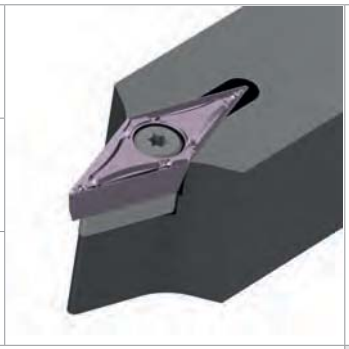
Inserts

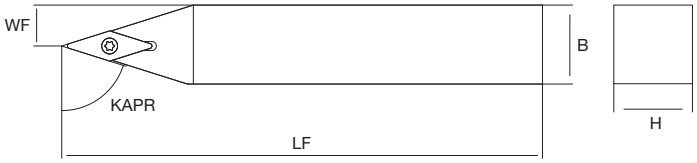
	CARBIDE	PCBN	CERAMIC	DIAMOND
VC□□1103	page 30	page 51	-	page 81
VC□□1604	page 30	page 51	-	page 81

VC

EXTERNAL

S





SVVCN
External turning (KAPR 72.5°)

			H	B	WF	LF	KG	MIID		
11	**NT-SVVCN1010H11**	○	10	10	5	100		VC□□1103		
	NT-SVVCN1212H11	●	12	12	6	100				
	NT-SVVCN1616H11	●	16	16	8	100				
16	**NT-SVVCN2020K16**	●	20	20	10	125		VC□□1604		
	NT-SVVCN2525M16	●	25	25	12.5	150				

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SVVCN1010H11	-	-	-	NT-ST010	NT-FT07
NT-SVVCN1212H11					
NT-SVVCN1616H11					
NT-SVVCN2020K16	NT-SH050	NT-SR010	NT-WR035	NT-ST040	NT-FT15
NT-SVVCN2525M16					

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
VC□□1103	page 30	page 51	-	page 81
VC□□1604	page 30	page 51	-	page 81

VC

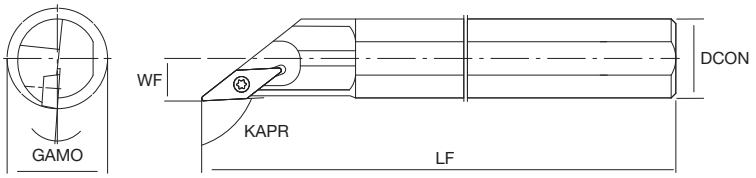
INTERNAL

S

Right-hand shown

STEEL

max 3xD



S SVJC

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
11	NT-S12M-SVJC$^{R}_{L}$11	●	●	14	12	7	150	7°		VC□□1103	
	NT-S16Q-SVJC$^{R}_{L}$11	●	●	18	16	9	180	7°			
16	NT-S16Q-SVJC$^{R}_{L}$16	●	●	18	16	9	180	7°		VC□□1604	
	NT-S20R-SVJC$^{R}_{L}$16	●	●	21	20	10.5	200	6°			
	NT-S25R-SVJC$^{R}_{L}$16	●	●	27	25	13.5	200	6°			
	NT-S32S-SVJC$^{R}_{L}$16	●	●	34	32	17	250	4°			
	NT-S40T-SVJC$^{R}_{L}$16	○	○	44	40	22	300	4°			

● stock standard, ○ non-standard stock

Spare Parts

	INSERT SCREW	INSERT WRENCH
		
NT-S12M-SVJC$^{R}_{L}$11	NT-ST010	NT-FT07
NT-S16Q-SVJC$^{R}_{L}$11		
NT-S16Q-SVJC$^{R}_{L}$16	NT-ST030	NT-FT15
NT-S20R-SVJC$^{R}_{L}$16		
NT-S25R-SVJC$^{R}_{L}$16		
NT-S32S-SVJC$^{R}_{L}$16		
NT-S40T-SVJC$^{R}_{L}$16		

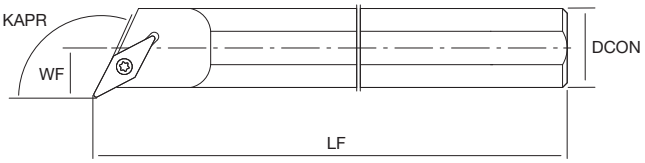
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
				
VC□□1103	page 30	page 51	-	page 81
VC□□1604	page 30	page 51	-	page 81

VC

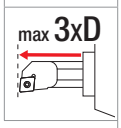
INTERNAL

S



Right-hand shown

STEEL



S SVQC

Internal turning (KAPR 107.5°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
11	NT-S16Q-SVQC$^{R}_{L}$11	●	●	22	16	13	180	7°		VC□□1103	
	NT-S20R-SVQC$^{R}_{L}$11	●	●	27	20	15	200	6°			
16	NT-S20R-SVQC$^{R}_{L}$16	●	●	30	20	19	200	8°		VC□□1604	
	NT-S25R-SVQC$^{R}_{L}$16	●	●	34	25	20.5	200	4°			
	NT-S32S-SVQC$^{R}_{L}$16	●	●	41	32	22.5	250	8°			
	NT-S40T-SVQC$^{R}_{L}$16	○	○	50	40	27	300	6°			

● stock standard, ○ non-standard stock

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-S16Q-SVQC$^{R}_{L}$11	NT-ST010	NT-FT07
NT-S20R-SVQC$^{R}_{L}$11		
NT-S20R-SVQC$^{R}_{L}$16	NT-ST030	NT-FT15
NT-S25R-SVQC$^{R}_{L}$16		
NT-S32S-SVQC$^{R}_{L}$16		
NT-S40T-SVQC$^{R}_{L}$16		

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
VC□□1103	page 30	page 51	-	page 81
VC□□1604	page 30	page 51	-	page 81

VC

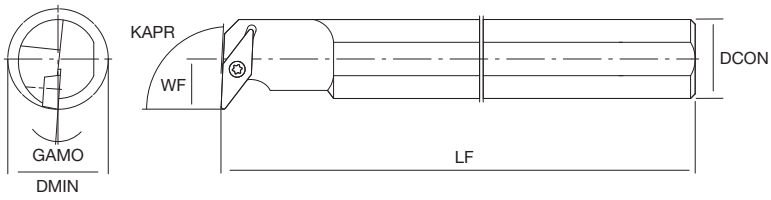
INTERNAL

S

Right-hand shown

STEEL

max 3xD



S SVUC

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
11	NT-S16Q-SVUC$^{R}_{L}$11	●	●	22	16	13	180	7°		VC□□1103	
	NT-S20R-SVUC$^{R}_{L}$11	●	●	27	20	15	200	6°			
16	NT-S20R-SVUC$^{R}_{L}$16	●	●	31	20	19	200	8°		VC□□1604	
	NT-S25R-SVUC$^{R}_{L}$16	●	●	33	25	20.5	200	7°			
	NT-S32S-SVUC$^{R}_{L}$16	●	●	42	32	22.5	250	5°			
	NT-S40T-SVUC$^{R}_{L}$16	○	○	51	40	27	300	4°			

● stock standard, ○ non-standard stock

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-S16Q-SVUC$^{R}_{L}$11	NT-ST010	NT-FT07
NT-S20R-SVUC$^{R}_{L}$11		
NT-S20R-SVUC$^{R}_{L}$16	NT-ST030	NT-FT15
NT-S25R-SVUC$^{R}_{L}$16		
NT-S32S-SVUC$^{R}_{L}$16		
NT-S40T-SVUC$^{R}_{L}$16		

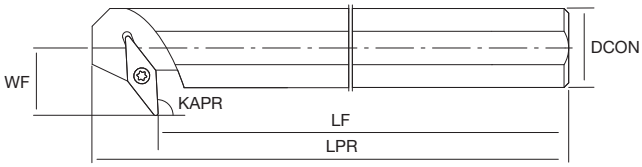
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
VC□□1103	page 30	page 51	-	page 81
VC□□1604	page 30	page 51	-	page 81

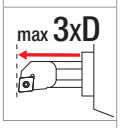
VC

INTERNAL

S



Right-hand shown



S SVZC

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	LPR	GAMO	KG	MIID
16	**NT-S20R-SVZC$^{R}_{L}$16**	●	●	30	20	17	183	200	7.5°		VC□□1604
	NT-S25R-SVZC$^{R}_{L}$16	●	●	35	25	19.5	180	200	7.5°		
	NT-S32S-SVZC$^{R}_{L}$16	○	○	40	32	23	230	250	7.5°		

● stock standard, ○ non-standard stock

Spare Parts

	INSERT SCREW	INSERT WRENCH
		
NT-S20R-SVZC$^{R}_{L}$16	NT-ST030	NT-FT15
NT-S25R-SVZC$^{R}_{L}$16		
NT-S32S-SVZC$^{R}_{L}$16		

Inserts

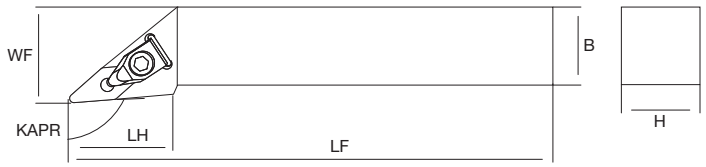
	CARBIDE	PCBN	CERAMIC	DIAMOND
				
VC□□1604	page 30	page 51	-	page 81

VN

EXTERNAL

D

Right-hand shown



DVJN

External turning (KAPR 93°)

		R	L	H	B	WF	LF	LH	KG	MIID	
16	**NT-DVJN$^{R}_{L}$2020K16X**	●	●	20	20	25	125	50		VN□□1604	
	NT-DVJN$^{R}_{L}$2525M16X	●	●	25	25	32	150	46			

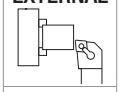
● stock standard

Spare Parts	SHIM	SHIM SCREW	SHIM WRENCH	CLAMP	SPRING	CLAMP SCREW	CLAMP WRENCH
							
NT-DVJN$^{R}_{L}$2020K16X	NT-SH075	NT-ST250	NT-TX15	NT-CS210	NT-SG200	NT-SC200	NT-TX20
NT-DVJN$^{R}_{L}$2525M16X							

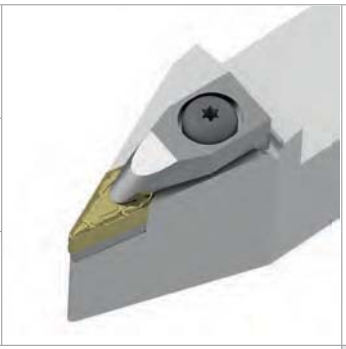
Inserts	CARBIDE	PCBN	CERAMIC	DIAMOND
				
VN□□1604	page 31	page 52	page 67	-

VN

EXTERNAL



D



DVVNN

External turning (KAPR 72.5°)

			H	B	WF	LF	LH	KG	MIID	
16	**NT-DVVNN2020K16X**	●	20	20	10	125	47		VN□□1604	
	NT-DVVNN2525M16X	●	25	25	12.5	150	47			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	CLAMP	SPRING	CLAMP SCREW	CLAMP WRENCH
							
NT-DVVNN2020K16X	NT-SH075	NT-ST250	NT-TX15	NT-CS210	NT-SG200	NT-SC200	NT-TX20
NT-DVVNN2525M16X							

Inserts

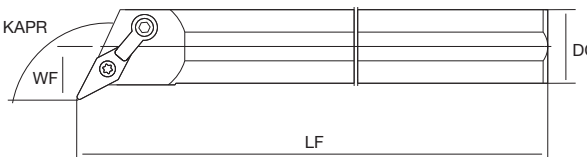
	CARBIDE	PCBN	CERAMIC	DIAMOND
				
VN□□1604	page 31	page 52	page 67	-

VN

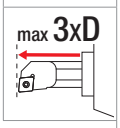
INTERNAL

M

Right-hand shown



STEEL



S MVQN

Internal turning (KAPR 107.5°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
16	NT-S25R-MVQN$^{R}_{L}$16	●	●	33	25	20	200	12°		VN□□1604	
	NT-S32S-MVQN$^{R}_{L}$16	●	●	40	32	23	250	17°			
	NT-S40T-MVQN$^{R}_{L}$16	●	●	50	40	27	300	15°			
	NT-S50U-MVQN$^{R}_{L}$16	●	●	63	50	33	350	12°			

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	PIN WRENCH	CLAMP	CLAMP SCREW	CLAMP WRENCH
						
NT-S25R-MVQN$^{R}_{L}$16	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
NT-S32S-MVQN$^{R}_{L}$16						
NT-S40T-MVQN$^{R}_{L}$16					NT-SC010	
NT-S50U-MVQN$^{R}_{L}$16						

Inserts

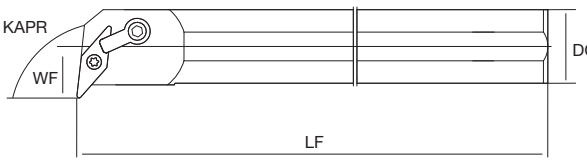
	CARBIDE	PCBN	CERAMIC	DIAMOND
				
VN□□1604	page 31	page 52	page 67	-

VN

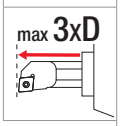
INTERNAL

M

Right-hand shown



STEEL



S MVUN

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
16	NT-S25R-MVUN$^{R}_{L}$16	●	●	37	25	20	200	12°		VN□□1604	
	NT-S32S-MVUN$^{R}_{L}$16	●	●	40	32	22	250	12°			
	NT-S40T-MVUN$^{R}_{L}$16	●	●	50	40	27	300	15°			
	NT-S50U-MVUN$^{R}_{L}$16	○	○	63	50	32	350	12°			

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	PIN WRENCH	CLAMP	CLAMP SCREW	CLAMP WRENCH
NT-S25R-MVUN$^{R}_{L}$16	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
NT-S32S-MVUN$^{R}_{L}$16						
NT-S40T-MVUN$^{R}_{L}$16					NT-SC010	
NT-S50U-MVUN$^{R}_{L}$16						

Inserts

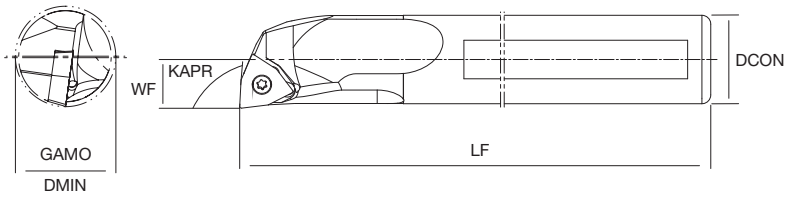
	CARBIDE	PCBN	CERAMIC	DIAMOND
VN□□1604	page 31	page 52	page 67	-

WC

INTERNAL

S

Right-hand shown



VORTEX

max 5xD

INTERNAL COOLANT

V SWUC

Internal turning (KAPR 93°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
12	NT-V12M-SWUC$^{R}_{L}$12-14	●	●	14	12	7	150	13°		WC□□12T3	
	NT-V16Q-SWUC$^{R}_{L}$12-18	●	●	18	16	9	180	10°			
	NT-V20R-SWUC$^{R}_{L}$12-22	●	●	22	20	11	200	8°			
	NT-V25S-SWUC$^{R}_{L}$12-27	●	●	27	25	13.5	250	8°			

● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-V12M-SWUC$^{R}_{L}$12-14	NT-ST020	NT-FT15
NT-V16Q-SWUC$^{R}_{L}$12-18		
NT-V20R-SWUC$^{R}_{L}$12-22		
NT-V25S-SWUC$^{R}_{L}$12-27		

Inserts

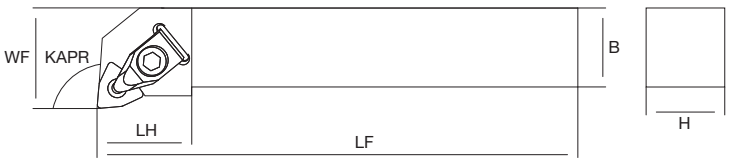
	CARBIDE	PCBN	CERAMIC	DIAMOND
WC□□12T3	page 33	-	-	-

WN

EXTERNAL

D

Right-hand shown



DWLN
External turning (KAPR 95°)

		R	L	H	B	WF	LF	LH	KG	MIID	
06	NT-DWLN^{R}/L1616H06X	●	●	16	16	20	100	33		WN□□0604	
	NT-DWLN^{R}/L2020K06X	●	●	20	20	25	125	33			
	NT-DWLN^{R}/L2525M06X	●	●	25	25	32	150	33			
08	NT-DWLN^{R}/L2020K08X	●	●	20	20	25	125	40		WN□□0804	
	NT-DWLN^{R}/L2525M08X	●	●	25	25	32	150	40			
	NT-DWLN^{R}/L3225P08X	●	●	32	25	32	170	40			

● stock standard

Spare Parts

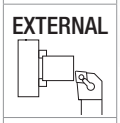
	SHIM	SHIM SCREW	SHIM WRENCH	CLAMP	SPRING	CLAMP SCREW	CLAMP WRENCH
NT-DWLN^{R}/L1616H06X	NT-SH003	NT-ST250	NT-TX15	NT-CS250	NT-SG250	NT-SC250	NT-TX15
NT-DWLN^{R}/L2020K06X							
NT-DWLN^{R}/L2525M06X							
NT-DWLN^{R}/L2020K08X	NT-SH010	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-SC200	NT-TX20
NT-DWLN^{R}/L2525M08X							
NT-DWLN^{R}/L3225P08X							

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
WN□□0604	page 34	-	-	-
WN□□0804	page 34	page 53	page 68	page 83

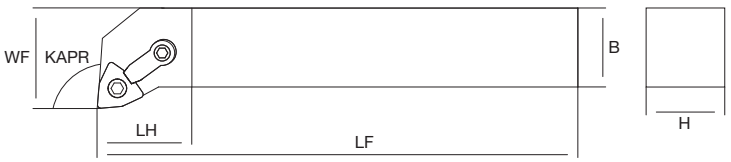
WN

EXTERNAL



M

Right-hand shown



MWLN

External turning (KAPR 95°)

		R	L	H	B	WF	LF	LH	KG	MIID	
06	**NT-MWLN^{R}/L2020K06**	○	○	20	20	25	125	34		WN□□0604	
	NT-MWLN^{R}/L2525M06	○	○	25	25	32	150	34			
08	**NT-MWLN^{R}/L2020K08**	●	●	20	20	25	125	34		WN□□0804	
	NT-MWLN^{R}/L2525M08	●	●	25	25	32	150	34			
	NT-MWLN^{R}/L3232P08	●	●	32	32	40	170	40			

● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	PIN WRENCH	CLAMP	CLAMP SCREW	CLAMP WRENCH
						
NT-MWLN^{R}/L2020K06	NT-SH003	NT-SP020	NT-WR020	NT-CS009	NT-SC030	NT-WR025
NT-MWLN^{R}/L2525M06						
NT-MWLN^{R}/L2020K08	NT-SH010	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-MWLN^{R}/L2525M08						
NT-MWLN^{R}/L3232P08						

Inserts

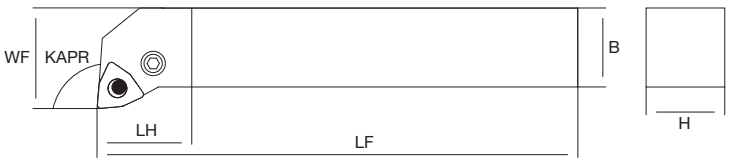
	CARBIDE	PCBN	CERAMIC	DIAMOND
				
WN□□0604	page 34	-	-	-
WN□□0804	page 34	page 53	page 68	page 83

WN

EXTERNAL

P

Right-hand shown



PWLN

External turning (KAPR 95°)

		R	L	H	B	WF	LF	LH	KG	MIID	
08	**NT-PWLN$^{R}_{L}$2020K08**	●	●	20	20	25	125	20		WN□□0804	
	NT-PWLN$^{R}_{L}$2525M08	●	●	25	25	32	150	26			

● stock standard

Spare Parts

	SHIM	PLUG	LEVER	LEVER SCREW	WRENCH
					
NT-PWLN$^{R}_{L}$2020K08	NT-SH015	NT-SR020	NT-LL020	NT-SC025	NT-WR030
NT-PWLN$^{R}_{L}$2525M08					

Inserts

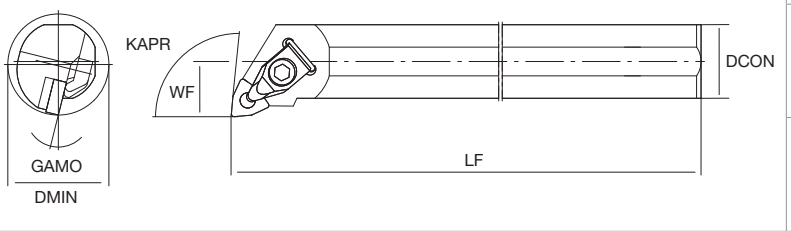
	CARBIDE	PCBN	CERAMIC	DIAMOND
				
WN□□0804	page 34	page 53	page 68	page 83

WN

INTERNAL

D

Right-hand shown



STEEL

max 3xD

INTERNAL COOLANT

A DWLN

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
08	**NT-A25R-DWLN$^{R}_{L}$08**	●	●	32	25	17	200	14°		WN□□0804	
	NT-A32S-DWLN$^{R}_{L}$08	●	●	40	32	22	250	14°			
	NT-A40T-DWLN$^{R}_{L}$08	●	●	50	40	27	300	12°			

● stock standard

Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	CLAMP	SPRING	CLAMP SCREW	CLAMP WRENCH
NT-A25R-DWLN$^{R}_{L}$08	NT-SH015	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-SC200	NT-TX20
NT-A32S-DWLN$^{R}_{L}$08							
NT-A40T-DWLN$^{R}_{L}$08							

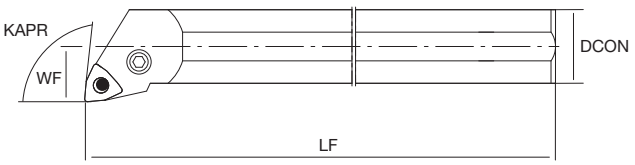
Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
WN□□0804	page 34	page 53	page 68	page 83

WN

INTERNAL

P



STEEL

max 3xD

INTERNAL COOLANT

A PWLN

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
08	**NT-A25R-PWLN$^{R}_{L}$08**	●	●	30	25	17	200	12°		WN□□0804	
	NT-A32S-PWLN$^{R}_{L}$08	●	●	40	32	22	250	10°			
	NT-A40T-PWLN$^{R}_{L}$08	●	●	48	40	27	300	8°			

● stock standard

Spare Parts

	SHIM	PLUG	LEVER	LEVER SCREW	WRENCH
NT-A25R-PWLN$^{R}_{L}$08	-	NT-SR015	NT-LL015	NT-SC015	NT-WR025
NT-A32S-PWLN$^{R}_{L}$08	NT-SH015	NT-SR020	NT-LL020	NT-SC025	NT-WR030
NT-A40T-PWLN$^{R}_{L}$08					

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
WN□□0804	page 34	page 53	page 68	page 83

WN

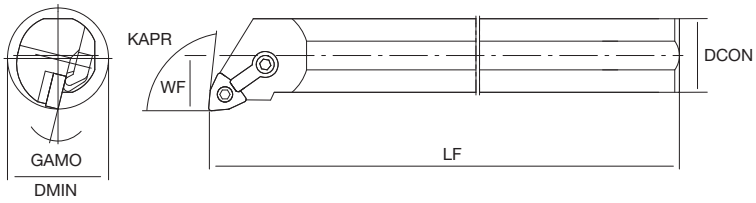
INTERNAL

M

Right-hand shown

STEEL

max 3xD



S MWLN

Internal turning (KAPR 95°)

		R	L	DMIN	DCON	WF	LF	GAMO	KG	MIID	
06	NT-S16Q-MWLN$^{R}_{L}$06	○	○	22	16	11	180	18°		WN□□0604	
08	NT-S20R-MWLN$^{R}_{L}$08	●	●	25	20	13	200	17°		WN□□0804	
08	NT-S25R-MWLN$^{R}_{L}$08	●	●	32	25	17	200	14°			
08	NT-S32S-MWLN$^{R}_{L}$08	●	●	40	32	22	250	14°			
08	NT-S40T-MWLN$^{R}_{L}$08	●	●	50	40	27	300	12°			
08	NT-S50U-MWLN$^{R}_{L}$08	●	●	63	50	35	350	12°			

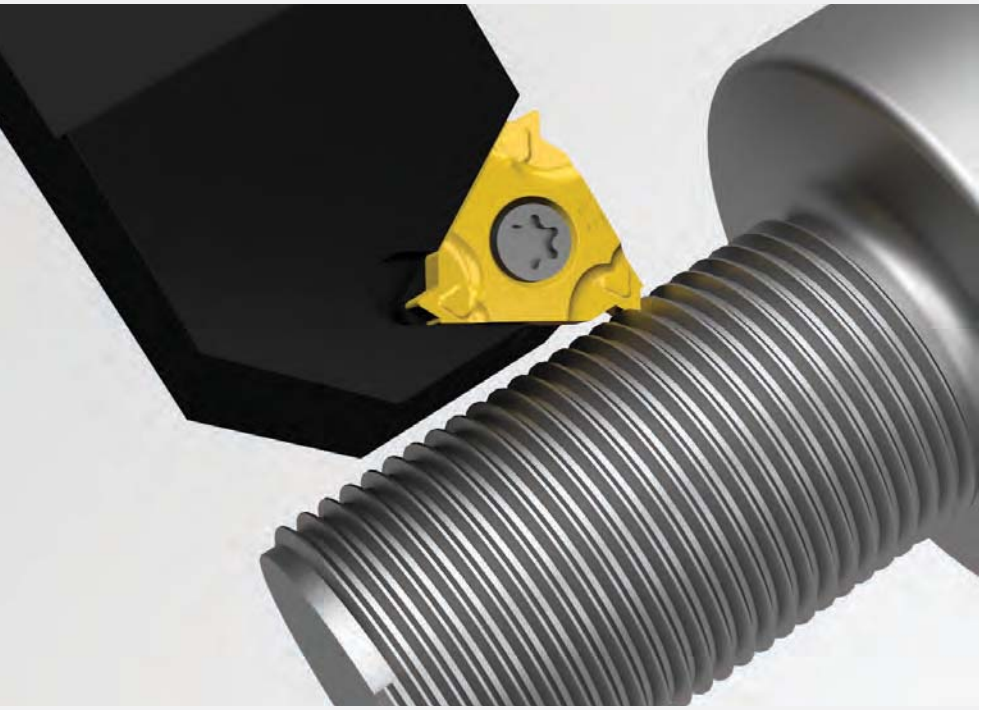
● stock standard, ○ non-standard stock

Spare Parts

	SHIM	ECCENTRIC PIN	PIN WRENCH	CLAMP	CLAMP SCREW	CLAMP WRENCH
NT-S16Q-MWLN$^{R}_{L}$06	-	NT-SP030	NT-WR020	NT-CS030	NT-SC030	NT-WR025
NT-S20R-MWLN$^{R}_{L}$08	-	NT-SP035	NT-WR025	NT-CS030	NT-SC030	NT-WR025
NT-S25R-MWLN$^{R}_{L}$08				NT-CS010	NT-SC008	NT-WR030
NT-S32S-MWLN$^{R}_{L}$08	NT-SH010	NT-SP010	NT-WR030		NT-SC010	
NT-S40T-MWLN$^{R}_{L}$08						
NT-S50U-MWLN$^{R}_{L}$08						

Inserts

	CARBIDE	PCBN	CERAMIC	DIAMOND
WN□□0604	page 34	-	-	-
WN□□0804	page 34	page 53	page 68	page 83

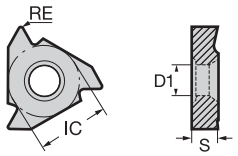


THREADING

THREADING Carbide

TPM

CARBIDE
External threading



3 edges

Size	IC	S	D1
16	9.525	3.65	4.00

GRADE APPLICATION AREA	Stable machining, continuous cut
main application	General machining, light interruption
applicable	Unstable machining, interrupted cut

Hardness + / – Toughness – / +

ISO513	HC-PVD JP5125
P	80 180
M	60 140
K	50 120
N	
S	20 40
H	

FULL PROFILE

M P M K S  METRIC 60°	16ER	100ISO-TPM	RE 0.14	pitch: 1.00 mm no. of passes 5÷8	●
		125ISO-TPM	RE 0.18	pitch: 1.25 mm no. of passes 6÷9	●
		150ISO-TPM	RE 0.22	pitch: 1.50 mm no. of passes 6÷9	●
		175ISO-TPM	RE 0.25	pitch: 1.75 mm no. of passes 8÷11	●
		200ISO-TPM	RE 0.29	pitch: 2.00 mm no. of passes 8÷11	●
		250ISO-TPM	RE 0.36	pitch: 2.50 mm no. of passes 10÷13	●
		300ISO-TPM	RE 0.43	pitch: 3.00 mm no. of passes 12÷15	●
UN P M K S  UNIFIED 60°	16ER	24UN-TPM	RE 0.15	pitch: 24 TPI no. of passes 5÷8	●
		20UN-TPM	RE 0.18	pitch: 20 TPI no. of passes 6÷9	●
		18UN-TPM	RE 0.20	pitch: 18 TPI no. of passes 6÷9	●
		16UN-TPM	RE 0.23	pitch: 16 TPI no. of passes 7÷10	●
		14UN-TPM	RE 0.26	pitch: 14 TPI no. of passes 8÷11	●
		12UN-TPM	RE 0.31	pitch: 12 TPI no. of passes 8÷11	●
		08UN-TPM	RE 0.46	pitch: 8 TPI no. of passes 12÷15	●
NPT P M K S  NATIONAL PIPE TAPERED 60°	16ER	18NPT-TPM	RE 0.20	pitch: 18 TPI no. of passes 8÷11	●
		14NPT-TPM	RE 0.22	pitch: 14 TPI no. of passes 10÷13	●
		11.5NPT-TPM	RE 0.25	pitch: 11.5 TPI no. of passes 12÷15	●
W P M K S  WHITWORTH 55°	16ER	19W-TPM	RE 0.17	pitch: 19 TPI no. of passes 6÷9	●
		14W-TPM	RE 0.24	pitch: 14 TPI no. of passes 8÷11	●
		11W-TPM	RE 0.30	pitch: 11 TPI no. of passes 9÷12	●
BSPT P M K S  BRITISH STANDARD PIPE TAPERED 55°	16ER	28BSPT-TPM	RE 0.11	pitch: 28 TPI no. of passes 5÷8	●
		19BSPT-TPM	RE 0.17	pitch: 19 TPI no. of passes 6÷9	●
		14BSPT-TPM	RE 0.24	pitch: 14 TPI no. of passes 9÷12	●
		11BSPT-TPM	RE 0.30	pitch: 11 TPI no. of passes 12÷15	●

● stock standard

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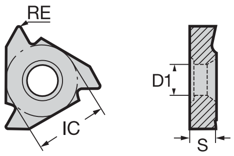
TPM

CARBIDE
External threading

ISO513	HC-PVD JP5125
P	80 180
M	60 140
K	50 120
N	
S	20 40
H	



3 edges

Size	IC	S	D1
16	9.525	3.65	4.00

GRADE APPLICATION AREA		
main application	Stable machining, continuous cut	Hardness + / Toughness −
applicable	General machining, light interruption	
	Unstable machining, interrupted cut	Hardness − / Toughness +

PARTIAL PROFILE

60° P M K S

METRIC AND UNIFIED THREADS

Size	Code	RE	Pitch	JP5125
16ER	A60-TPM	RE 0.08	pitch: 0.50÷1.50 mm, 48÷16 TPI	●
	G60-TPM	RE 0.25	pitch: 1.75÷3.00 mm, 14÷8 TPI	●
	AG60-TPM	RE 0.08	pitch: 0.50÷3.00 mm, 48÷8 TPI	●

55° P M K S

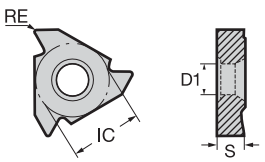
WHITWORTH AND GAS THREADS

Size	Code	RE	Pitch	JP5125
16ER	A55-TPM	RE 0.08	pitch: 48÷16 TPI	●
	G55-TPM	RE 0.21	pitch: 14÷8 TPI	●
	AG55-TPM	RE 0.08	pitch: 48÷8 TPI	●

● stock standard

TPM

CARBIDE
Internal threading



3 edges

Size	IC	S	D1
11	6.35	3.18	3.20
16	9.525	3.65	4.00

GRADE APPLICATION AREA	Stable machining, continuous cut
main application	General machining, light interruption
applicable	Unstable machining, interrupted cut

Hardness + / − ; Toughness − / +

ISO513	HC-PVD JP5125
P	80 180
M	60 140
K	50 120
N	
S	20 40
H	

FULL PROFILE

M P M K S

METRIC 60°

11IR	100ISO-TPM	RE 0.07	pitch: 1.00 mm no. of passes 5÷8	●
	125ISO-TPM	RE 0.09	pitch: 1.25 mm no. of passes 6÷9	●
	150ISO-TPM	RE 0.11	pitch: 1.50 mm no. of passes 6÷9	●
	175ISO-TPM	RE 0.13	pitch: 1.75 mm no. of passes 8÷11	●
	200ISO-TPM	RE 0.15	pitch: 2.00 mm no. of passes 8÷11	●
16IR	100ISO-TPM	RE 0.07	pitch: 1.00 mm no. of passes 5÷8	●
	125ISO-TPM	RE 0.09	pitch: 1.25 mm no. of passes 6÷9	●
	150ISO-TPM	RE 0.11	pitch: 1.50 mm no. of passes 6÷9	●
	175ISO-TPM	RE 0.13	pitch: 1.75 mm no. of passes 8÷11	●
	200ISO-TPM	RE 0.15	pitch: 2.00 mm no. of passes 8÷11	●
	250ISO-TPM	RE 0.18	pitch: 2.50 mm no. of passes 10÷13	●
	300ISO-TPM	RE 0.22	pitch: 3.00 mm no. of passes 12÷15	●

UN P M K S

UNIFIED 60°

16IR	24UN-TPM	RE 0.08	pitch: 24 TPI no. of passes 5÷8	●
	20UN-TPM	RE 0.09	pitch: 20 TPI no. of passes 6÷9	●
	18UN-TPM	RE 0.10	pitch: 18 TPI no. of passes 6÷9	●
	16UN-TPM	RE 0.12	pitch: 16 TPI no. of passes 7÷10	●
	14UN-TPM	RE 0.13	pitch: 14 TPI no. of passes 8÷11	●
	12UN-TPM	RE 0.16	pitch: 12 TPI no. of passes 8÷11	●
	08UN-TPM	RE 0.23	pitch: 8 TPI no. of passes 12÷15	●

NPT P M K S

NATIONAL PIPE TAPERED 60°

16IR	18NPT-TPM	RE 0.20	pitch: 18 TPI no. of passes 8÷11	●
	14NPT-TPM	RE 0.22	pitch: 14 TPI no. of passes 10÷13	●
	11.5NPT-TPM	RE 0.25	pitch: 11.5 TPI no. of passes 12÷15	●

W P M K S

WHITWORTH 55°

16IR	19W-TPM	RE 0.17	pitch: 19 TPI no. of passes 6÷9	●
	14W-TPM	RE 0.24	pitch: 14 TPI no. of passes 8÷11	●
	11W-TPM	RE 0.30	pitch: 11 TPI no. of passes 9÷12	●

● stock standard

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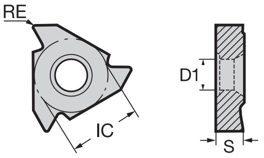
TPM

CARBIDE
Internal threading



3 edges

Size	IC	S	D1
11	6.35	3.18	3.20
16	9.525	3.65	4.00

ISO513	HC-PVD JP5125
P	80 180
M	60 140
K	50 120
N	
S	20 40
H	

GRADE APPLICATION AREA		Hardness	Toughness
	Stable machining, continuous cut	+	–
main application	General machining, light interruption		
applicable	Unstable machining, interrupted cut	–	+

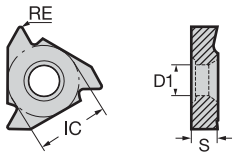
Profile	Type	Size	Designation	RE	Pitch	JP5125
FULL PROFILE	BSPT P M K S  BRITISH STANDARD PIPE TAPERED 55°	16IR	28BSPT-TPM	RE 0.11	pitch: 28 TPI no. of passes 5÷8	●
			19BSPT-TPM	RE 0.17	pitch: 19 TPI no. of passes 6÷9	●
			14BSPT-TPM	RE 0.24	pitch: 14 TPI no. of passes 9÷12	●
			11BSPT-TPM	RE 0.30	pitch: 11 TPI no. of passes 12÷15	●
PARTIAL PROFILE	60° P M K S  METRIC AND UNIFIED THREADS	11IR	A60-TPM	RE 0.08	pitch: 0.50÷1.50 mm, 48÷16 TPI	●
		16IR	A60-TPM	RE 0.08	pitch: 0.50÷1.50 mm, 48÷16 TPI	●
			G60-TPM	RE 0.13	pitch: 1.75÷3.00 mm, 14÷8 TPI	●
			AG60-TPM	RE 0.08	pitch: 0.50÷3.00 mm, 48÷8 TPI	●
	55° P M K S  WHITWORTH AND GAS THREADS	11IR	A55-TPM	RE 0.08	pitch: 48÷16 TPI	●
		16IR	A55-TPM	RE 0.08	pitch: 48÷16 TPI	●
			G55-TPM	RE 0.21	pitch: 14÷8 TPI	●
			AG55-TPM	RE 0.08	pitch: 48÷8 TPI	●

● stock standard

THREADING Advanced

16ER

DIAMOND-PCBN
External threading



1 edge

Size	IC	S	D1
16	9.525	3.65	4.00

ISO513	DP ND120	BH NBH450U
P		140 300
M		
K		400 1200
N	500 2000	
S		
H		60 160

◄ SINTERED POWDER METAL

GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut		

FULL PROFILE

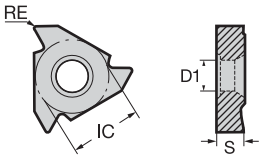
METRIC N H

				DP ND120	BH NBH450U
16ER	100ISO	N	pitch: 1.00 mm no. of passes 5÷8	○	
		H	pitch: 1.00 mm no. of passes 7÷10		○
	125ISO	N	pitch: 1.25 mm no. of passes 6÷9	○	
		H	pitch: 1.25 mm no. of passes 8÷11		○
	150ISO	N	pitch: 1.50 mm no. of passes 6÷9	○	
		H	pitch: 1.50 mm no. of passes 8÷11		○
	175ISO	N	pitch: 1.75 mm no. of passes 8÷11	○	
		H	pitch: 1.75 mm no. of passes 10÷13		○
	200ISO	N	pitch: 2.00 mm no. of passes 8÷11	○	
		H	pitch: 2.00 mm no. of passes 10÷13		○
	250ISO	N	pitch: 2.50 mm no. of passes 10÷13	○	
		H	pitch: 2.50 mm no. of passes 13÷15		○
	300ISO	N	pitch: 3.00 mm no. of passes 12÷15	○	
		H	pitch: 3.00 mm no. of passes 14÷17		○

○ non-standard stock

16IR

DIAMOND-PCBN
Internal threading



1 edge

Size	IC	S	D1
16	9.525	3.65	4.00

ISO513	DP ND120	BH NBH450U
P		140 300
M		
K		400 1200
N	500 2000	
S		
H		60 160

◄ SINTERED POWDER METAL

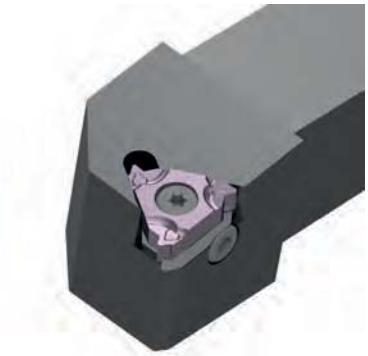
GRADE APPLICATION AREA	Stable machining, continuous cut	Hardness + / −	Toughness − / +
■ main application	General machining, light interruption		
■ applicable	Unstable machining, interrupted cut		

FULL PROFILE

METRIC N H

				DP ND120	BH NBH450U
16IR	100ISO	N	pitch: 1.00 mm no. of passes 5÷8	○	
		H	pitch: 1.00 mm no. of passes 7÷10		○
	125ISO	N	pitch: 1.25 mm no. of passes 6÷9	○	
		H	pitch: 1.25 mm no. of passes 8÷11		○
	150ISO	N	pitch: 1.50 mm no. of passes 6÷9	○	
		H	pitch: 1.50 mm no. of passes 8÷11		○
	175ISO	N	pitch: 1.75 mm no. of passes 8÷11	○	
		H	pitch: 1.75 mm no. of passes 10÷13		○
	200ISO	N	pitch: 2.00 mm no. of passes 8÷11	○	
		H	pitch: 2.00 mm no. of passes 10÷13		○
	250ISO	N	pitch: 2.50 mm no. of passes 10÷13	○	
		H	pitch: 2.50 mm no. of passes 13÷15		○
	300ISO	N	pitch: 3.00 mm no. of passes 12÷15	○	
		H	pitch: 3.00 mm no. of passes 14÷17		○

○ non-standard stock

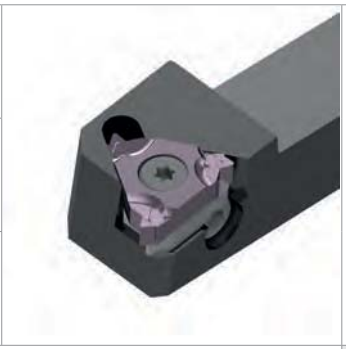


THREADING Holders

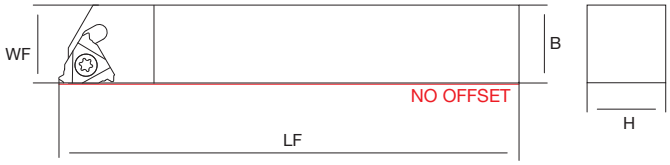
16E

EXTERNAL

S



Right-hand shown



SE N

External threading

		R	L	H	B	WF	LF	KG	MIID		
16	NT-SE$^{R}_{L}$1212H16N	●	○	12	12	12	100		16E$^{R}_{L}$□□□		
	NT-SE$^{R}_{L}$1616H16N	○	○	16	16	16	100				

● stock standard, ○ non-standard stock

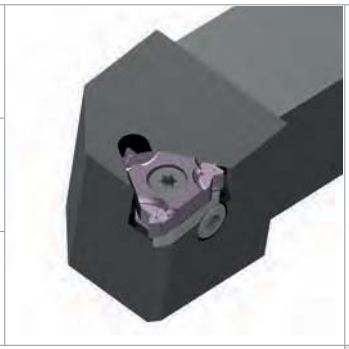
Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SER1212H16N	NT-SH060	NT-ST080	NT-WR025	NT-ST040	NT-FT15
NT-SER1616H16N					
NT-SEL1212H16N	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15
NT-SEL1616H16N					

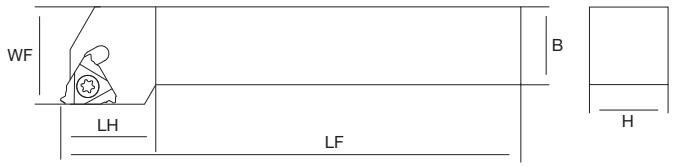
16E

EXTERNAL

S



Right-hand shown



SE
External threading

		R	L	H	B	WF	LF	LH	KG	MIID	
16	NT-SE$^{R}_{L}$1616H16	●	●	16	16	20	100	22		16E$^{R}_{L}$□□□	
	NT-SE$^{R}_{L}$2020K16	●	●	20	20	25	125	25			
	NT-SE$^{R}_{L}$2525M16	●	●	32	25	32	150	25			

● stock standard

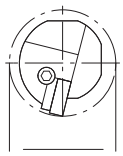
Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SER1616H16	NT-SH060	NT-ST080	NT-WR025	NT-ST040	NT-FT15
NT-SER2020K16					
NT-SER2525M16					
NT-SEL1616H16	NT-SH065	NT-ST080	NT-WR025	NT-ST040	NT-FT15
NT-SEL2020K16					
NT-SEL2525M16					

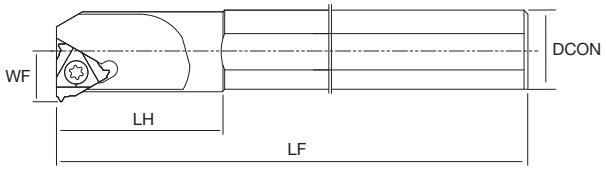
11I
16I

INTERNAL

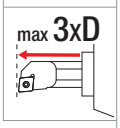
S



Right-hand shown



STEEL

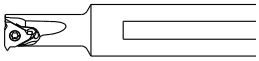


SI
Internal threading

		R	L	DMIN	DCON	WF	LF	LH	KG	MIID	
11	**NT-SIR1012-11**	●		10	12	5.2	150	25		11IR□□□	
	NT-SIR1216-11*	●		12	16	6.3	150	25			
	NT-SIR1516-11*	●		15	16	7.5	150	25			
16	**NT-SI$^{R}_{L}$2016-16**	●	●	20	16	10	150	35		16I$^{R}_{L}$□□□	
	NT-SI$^{R}_{L}$2420S-16	●	●	24	20	12	180	35			
	NT-SI$^{R}_{L}$3025S-16	●	●	30	25	15	200	35			
	NT-SI$^{R}_{L}$3732S-16	●	●	37	32	18.5	250	35			

● stock standard

*Reduced neck



Spare Parts

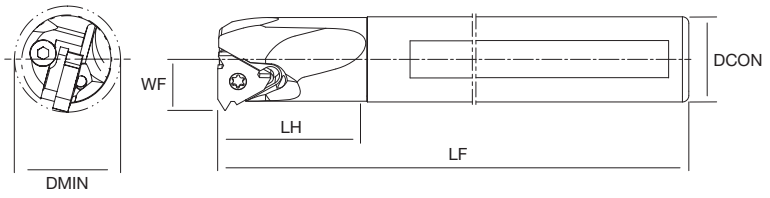
	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SIR1012-11	-	-	-	NT-ST041	NT-FT08
NT-SIR1216-11					
NT-SIR1516-11					
NT-SIR2016-16	-	-	-	NT-ST030	NT-FT15
NT-SIR2420S-16	NT-SH065	NT-ST080	NT-WR025	NT-ST040	
NT-SIR3025S-16					
NT-SIR3732S-16					
NT-SIL2016-16	-	-	-	NT-ST030	NT-FT15
NT-SIL2420S-16	NT-SH060	NT-ST080	NT-WR025	NT-ST040	
NT-SIL3025S-16					
NT-SIL3732S-16					

11I
16I

INTERNAL

S

Right-hand shown



VORTEX

max 5xD

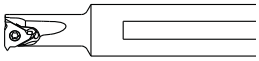
INTERNAL COOLANT

V SIR
Internal threading

			DMIN	DCON	WF	LF	LH	KG	MIID	
11	NT-V10M-SIR11-10	●	10	10	5.2	150	25		11IR□□□	
	NT-V16M-SIR11-12*	●	12	16	6.3	150	25			
	NT-V16M-SIR11-15*	●	15	16	7.5	150	25			
16	NT-V16M-SIR16-20	●	20	16	10	150	35		16IR□□□	
	NT-V20Q-SIR16-24	●	24	20	12	180	35			
	NT-V25R-SIR16-30	●	30	25	15	200	35			
	NT-V32S-SIR16-37	●	37	32	18.5	250	35			

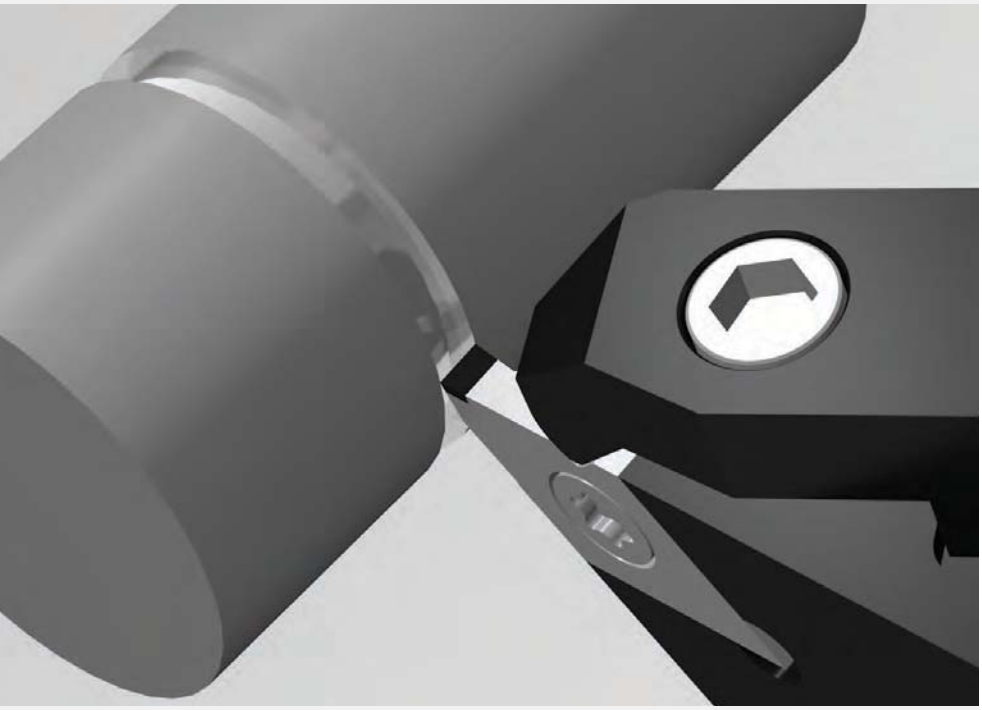
● stock standard

*Reduced neck



Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-V10M-SIR11-10	-	-	-	NT-ST041	NT-FT08
NT-V16M-SIR11-12					
NT-V16M-SIR11-15					
NT-V16M-SIR16-20	-	-	-	NT-ST030	NT-FT15
NT-V20Q-SIR16-24	NT-SH065	NT-ST080	NT-WR025	NT-ST040	
NT-V25R-SIR16-30					
NT-V32S-SIR16-37					



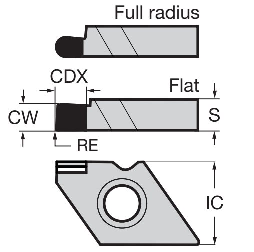
GROOVING

GROOVING Advanced

TURNING | THREADING | GROOVING | MILLING | DRILLING | ACCESSORIES

BGF

DIAMOND-PCBN
External grooving



Size	IC	S	CDX
100	12.70	4.76	1.8
150	12.70	4.76	2.6
200	12.70	4.76	3.0
250	12.70	4.76	3.5
300÷400	12.70	4.76	4.5

ISO513	ND120 (DP)	NBH450U (BH)	
P		140 300	◄ SINTERED POWDER METAL
M			
K		400 1200	
N	500 2000		
S			
H		60 160	

GRADE APPLICATION AREA	
	Stable machining, continuous cut
main application	General machining, light interruption
applicable	Unstable machining, interrupted cut

Hardness (+ / −), Toughness (− / +)

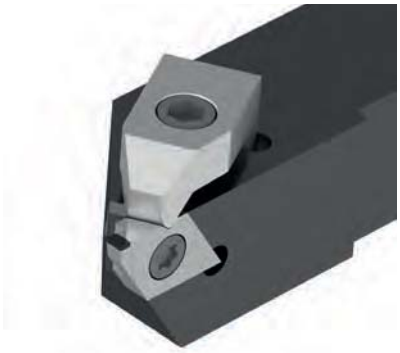
Type		Code	Grade	CW	RE	f_n min	f_n	f_n max	ND120	NBH450U
FLAT BGF N H	BGFR/L	100-010	N	1.00	0.10	0.04	**0.08**	0.12	○*	
			H	1.00	0.10	0.04	**0.05**	0.06		○
		150-010	N	1.50	0.10	0.04	**0.08**	0.12	○*	
			H	1.50	0.10	0.04	**0.05**	0.06		○
		200-020	N	2.00	0.20	0.06	**0.10**	0.14	○*	
			H	2.00	0.20	0.04	**0.06**	0.08		○
		250-020	N	2.50	0.20	0.06	**0.10**	0.14	○*	
			H	2.50	0.20	0.04	**0.06**	0.08		○
		300-020	N	3.00	0.20	0.06	**0.10**	0.14	○*	
			H	3.00	0.20	0.04	**0.06**	0.08		○
		350-020	N	3.50	0.20	0.08	**0.12**	0.16	○*	
			H	3.50	0.20	0.06	**0.08**	0.10		○
		400-020	N	4.00	0.20	0.08	**0.12**	0.16	○*	
			H	4.00	0.20	0.06	**0.08**	0.10		○
FULL RADIUS BGF N H	BGFR/L	100-050FR	N	1.00	0.50	0.04	**0.08**	0.12	○*	
			H	1.00	0.50	0.04	**0.05**	0.06		○
		150-075FR	N	1.50	0.75	0.04	**0.08**	0.12	○*	
			H	1.50	0.75	0.04	**0.05**	0.06		○
		200-100FR	N	2.00	1.00	0.06	**0.10**	0.14	○*	
			H	2.00	1.00	0.04	**0.06**	0.08		○
		250-125FR	N	2.50	1.25	0.06	**0.10**	0.14	○*	
			H	2.50	1.25	0.04	**0.06**	0.08		○
		300-150FR	N	3.00	1.50	0.06	**0.10**	0.14	○*	
			H	3.00	1.50	0.04	**0.06**	0.08		○
		350-175FR	N	3.50	1.75	0.08	**0.12**	0.16	○*	
			H	3.50	1.75	0.06	**0.08**	0.10		○
		400-200FR	N	4.00	2.00	0.08	**0.12**	0.16	○*	
			H	4.00	2.00	0.06	**0.08**	0.10		○

picture: right-hand (FLAT)

picture: right-hand (FULL RADIUS)

○ non-standard stock

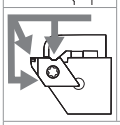
*Only right-hand available



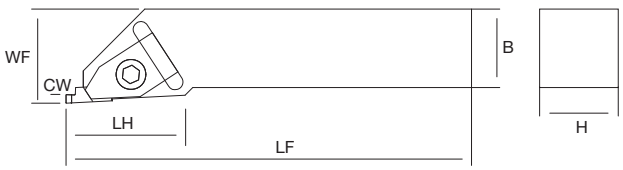
GROOVING Holders

BGF

EXTERNAL



Right-hand shown



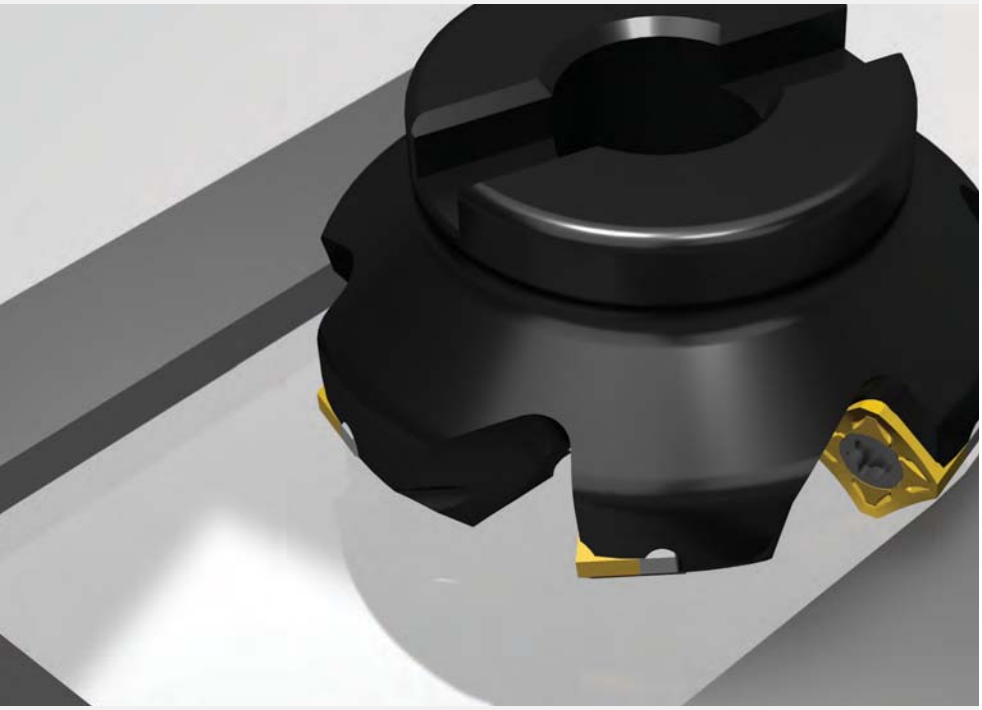
BGF-HLD
External grooving

		R	L	H	B	WF	LF	LH	KG	MIID	
CW 1÷4	BGF-HLD 1616R/L	▽		16	16	30	150	45		BGFR/L□□□	
	BGF-HLD 2020R/L	●	●	20	20	30	150	45			
	BGF-HLD 2525R/L	●	●	25	25	30	150	45			

● stock standard, ▽ stock exhaustion

Spare Parts

	CLAMP	CLAMP SCREW	CLAMP WRENCH	INSERT SCREW	INSERT WRENCH
					
BGF-HLF 1616R/L	NT-CS300R/L	NT-SC300	NT-WR040	NT-ST300	NT-FT15
BGF-HLF 2020R/L					
BGF-HLF 2525R/L					



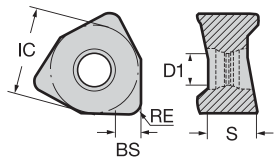
MILLING

MILLING Shouldering

TURNING THREADING GROOVING MILLING DRILLING ACCESSORIES

WNEX

DOUBLE3GON
Shouldering double side



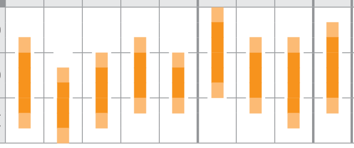
6 edges

Size	IC	S	D1
04	6.70	3.30	3.10
08	12.70	6.45	4.60

ISO513	JP5530 (HC-PVD)	JP5540 (HC-PVD)	JP7525 (HC-PVD)	JP8525 (HC-PVD)	JP9525 (HC-PVD)	JC7515 (HC-CVD)	JC7530 (HC-CVD)	JC8530 (HC-CVD)	JU6520 (HW)
P	60 230	60 220		80 250				100 320	
M	60 150	60 200			70 220				
K			100 240			120 350	100 300		
N									200 1000
S		40 100							
H									

GRADE APPLICATION AREA	
GRADE APPLICATION AREA	Light cut, stable machining
main application	Variable condition, general machining
applicable	Heavy cut, unstable machining

Hardness + / − ; Toughness − / +



Type		Designation	RE / BS		a_p / f_z			JP5530	JP5540	JP7525	JP8525	JP9525	JC7515	JC7530	JC8530	JU6520
SHARP — SC P M S	WNEX	080604R-SC	RE 0.4 / BS 1.8	a_p / f_z	0.50 / 0.08	**4.00** / **0.14**	7.00 / 0.20		●		●					
		080608R-SC	RE 0.8 / BS 1.5	a_p / f_z	1.00 / 0.10	**4.00** / **0.16**	7.00 / 0.22		●		●					
GENERAL — GP P M K	WNEX	040304R-GP	RE 0.4 / BS 0.9	a_p / f_z	0.50 / 0.06	**1.80** / **0.12**	3.00 / 0.18		▲		●	▽		●	●	
	WNEX	080608R-GP	RE 0.8 / BS 1.5	a_p / f_z	1.00 / 0.14	**4.00** / **0.20**	7.00 / 0.26	▲	●	▲	●	▽	▲	●	●	
REINFORCED — TE P K	WNEX	080608R-TE	RE 0.8 / BS 1.5	a_p / f_z	1.00 / 0.14	**4.00** / **0.22**	7.00 / 0.30	▲	●	▲	●	▽	▲	●	●	
		080612R-TE	RE 1.2 / BS 1.1	a_p / f_z	1.00 / 0.14	**4.00** / **0.24**	7.00 / 0.34		●		●			●	●	
ALUMINIUM — AL N (polished surface)	WNEX	080608R-AL	RE 0.8 / BS 1.4	a_p / f_z	1.00 / 0.10	**4.00** / **0.17**	7.00 / 0.24									●





polished surface

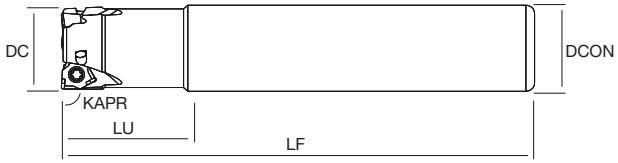
● stock standard, ▲ upcoming introduction, ▽ stock exhaustion

Spare Parts


	INSERT SCREW	INSERT WRENCH
NT-WX04H D□□□	NT-ST018	NT-FTB08
NT-WX08H D□□□	NT-ST017	NT-FTB15

CYLINDRICAL

INTERNAL COOLANT



SHOULDERING

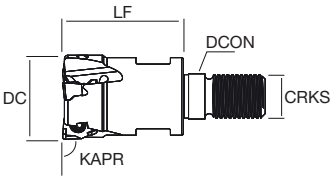
90°

P M K

N S

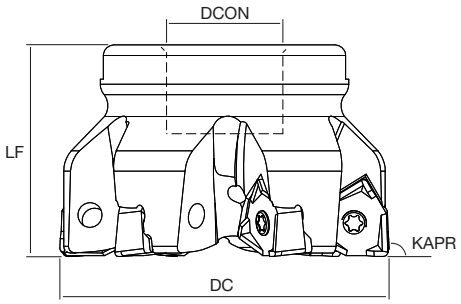
SCREW-IN

INTERNAL COOLANT



ARBOR

INTERNAL COOLANT



DOUBLE3GON

Shouldering (KAPR 90°)

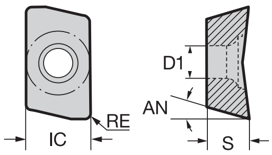
				DC	Z	DCON	LF	LU	CRKS	KG	MIID
CYLINDRICAL	NT-WX04H	D020-S16-Z3	●	20	3	16	110	20	-	0.30	WNEX04
		D020-S20-Z3	●		3	20	110	28	-	0.30	
		D025-S20-Z4	●	25	4	20	120	22	-	0.50	
		D025-S25-Z4	●		4	25	120	30	-	0.50	
		D032-S25-Z5	●	32	5	25	130	25	-	0.80	
		D032-S32-Z5	●		5	32	130	40	-	0.80	
SCREW-IN	NT-WX04H	D020-M10-Z3	●	20	3	10.5	28	-	M10	0.10	WNEX04
		D025-M12-Z4	●	25	4	12.5	30	-	M12	0.15	
		D032-M16-Z5	●	32	5	17	40	-	M16	0.25	
ARBOR	NT-WX04H	D040-F16-Z7	●	40	7	16	40	-	-	0.25	WNEX04
		D050-F22-Z9	●	50	9	22	40	-	-	0.50	
	NT-WX08H	D050-F22-Z4	●	50	4	22	40	-	-	0.45	WNEX08
		D050-F22-Z5	●		5	22	40	-	-	0.45	
		D063-F22-Z6	●	63	6	22	40	-	-	0.70	
		D063-F27-Z6	●		6	27	40	-	-	0.70	
		D063-F22-Z7	●		7	22	40	-	-	0.80	
		D080-F27-Z7	●	80	7	27	50	-	-	1.00	
		D080-F27-Z9	●		9	27	50	-	-	1.00	
		D100-F32-Z8	●	100	8	32	50	-	-	1.60	
		D100-F32-Z11	●		11	32	50	-	-	1.60	
		D125-F40-Z11	●	125	11	40	63	-	-	2.40	
		D160-F40-Z12	●	160	12	40	63	-	-	4.00	

● stock standard

nikkoTOOLS

NT-RKP

REKPLUS
Shouldering - positive



2 edges

Size	IC	S	D1	AN
11	6.35	3.50	2.80	11°
16	9.525	4.76	4.50	11°

ISO513	JP5520	JP5530	JP7615	JP7525	JP8625	JP9535	JP9635	JC7515	JU6520	JU4525
	HC-PVD							CVD	HW	HT
P	80 250	60 230			80 250					160 350
M	60 160	60 150				60 200	60 200			100 240
K			120 250	100 240				120 350		160 380
N									200 1000	
S						40 100	40 100			
H										

GRADE APPLICATION AREA	
	Light cut, stable machining
main application	Variable condition, general machining
applicable	Heavy cut, unstable machining

Hardness + / – ; Toughness – / +

Type		Insert	RE		min	rec.	max	JP5520	JP5530	JP7615	JP7525	JP8625	JP9535	JP9635	JC7515	JU6520	JU4525
HELICAL TYPE – HSC P M S (low cutting force)	NT-RKP	11R04M-HSC	RE 0.4	a_p / f_z	0.50 / 0.05	**4.50** / **0.10**	8.00 / 0.15					●		●			
		11R08M-HSC	RE 0.8	a_p / f_z	1.00 / 0.05	**4.50** / **0.10**	8.00 / 0.15					●		●			
		11R12M-HSC	RE 1.2	a_p / f_z	1.00 / 0.05	**4.50** / **0.10**	8.00 / 0.15					●		●			
	NT-RKP	16R08M-HSC	RE 0.8	a_p / f_z	1.00 / 0.08	**7.00** / **0.14**	13.00 / 0.18					●		●			
		16R12M-HSC	RE 1.2	a_p / f_z	1.00 / 0.08	**7.00** / **0.14**	13.00 / 0.18					●		●			
HELICAL TYPE – HGP P M K (1st choice, general purpose)	NT-RKP	11R04M-HGP	RE 0.4	a_p / f_z	0.50 / 0.08	**4.50** / **0.14**	8.00 / 0.20					●		●			
		11R08M-HGP	RE 0.8	a_p / f_z	1.00 / 0.08	**4.50** / **0.14**	8.00 / 0.20			●		●		●			
		11R12M-HGP	RE 1.2	a_p / f_z	1.00 / 0.08	**4.50** / **0.14**	8.00 / 0.20					●		●			
		11R16M-HGP	RE 1.6	a_p / f_z	1.00 / 0.08	**4.50** / **0.14**	8.00 / 0.20					●		●			
	NT-RKP	16R08M-HGP	RE 0.8	a_p / f_z	1.00 / 0.10	**7.00** / **0.17**	13.00 / 0.25			●		●		●			
		16R12M-HGP	RE 1.2	a_p / f_z	1.00 / 0.10	**7.00** / **0.17**	13.00 / 0.25					●		●			
		16R16M-HGP	RE 1.6	a_p / f_z	1.00 / 0.10	**7.00** / **0.17**	13.00 / 0.25					●		●			
		16R20M-HGP	RE 2.0	a_p / f_z	1.00 / 0.10	**7.00** / **0.17**	13.00 / 0.25					●		●			
		16R31M-HGP	RE 3.1	a_p / f_z	1.00 / 0.10	**7.00** / **0.17**	13.00 / 0.25					●		●			
STRAIGHT TYPE – SC P M (low cutting force)	NT-RKP	11R08M-SC	RE 0.8	a_p / f_z	1.00 / 0.05	**4.50** / **0.10**	8.00 / 0.15	▽	▽				▽				
	NT-RKP	16R08M-SC	RE 0.8	a_p / f_z	1.00 / 0.08	**7.00** / **0.14**	13.00 / 0.18	▽					▽				
STRAIGHT TYPE – GP P M K (general purpose)	NT-RKP	11R08M-GP	RE 0.8	a_p / f_z	1.00 / 0.08	**4.50** / **0.14**	8.00 / 0.20	●	●		●		●		▽		●
	NT-RKP	16R08M-GP	RE 0.8	a_p / f_z	1.00 / 0.10	**7.00** / **0.17**	13.00 / 0.25	●	●		○		●		▽		●
STRAIGHT TYPE – TE P K (reinforced edge)	NT-RKP	11R08M-TE	RE 0.8	a_p / f_z	1.00 / 0.10	**4.50** / **0.16**	8.00 / 0.22	●	●		○						
	NT-RKP	16R08M-TE	RE 0.8	a_p / f_z	1.00 / 0.12	**7.00** / **0.20**	13.00 / 0.28	●	●		○						

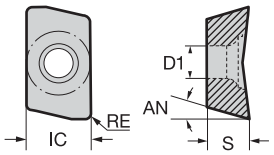




● stock standard, ○ non-standard stock, ▽ stock exhaustion

NT-RKP

REKPLUS
Shouldering - positive



2 edges

Size	IC	S	D1	AN
11	6.35	3.50	2.80	11°
16	9.525	4.76	4.50	11°

ISO513	JP5520	JP5530	JP7615	JP7525	JP8625	JP9535	JP9635	JC7515	JU6520	JU4525
	HC-PVD							CVD	HW	HT
P	80 250	60 230			80 250					160 350
M	60 160	60 150				60 200	60 200			100 240
K			120 250	100 240				120 350		160 380
N									200 1000	
S						40 100	40 100			
H										

GRADE APPLICATION AREA	
main application	Variable condition, general machining
applicable	Heavy cut, unstable machining

Light cut, stable machining

Hardness: + / −

Toughness: − / +

STRAIGHT TYPE

AL N

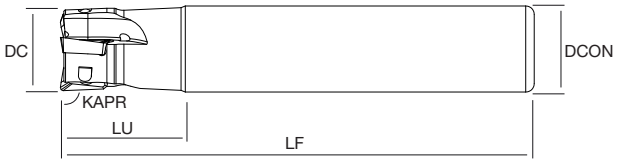
polished surface

		RE	a_p ▸			f_z ▸			
NT-RKP	11R04G-AL	RE 0.4	0.50	**4.50**	8.00	0.10	**0.17**	0.25	●
	11R08G-AL	RE 0.8	1.00	**4.50**	8.00	0.10	**0.17**	0.25	●
NT-RKP	16R08G-AL	RE 0.8	1.00	**7.00**	13.00	0.10	**0.20**	0.30	●

● stock standard

CYLINDRICAL

INTERNAL COOLANT

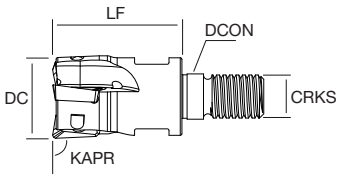


SHOULDERING

P M K
N S

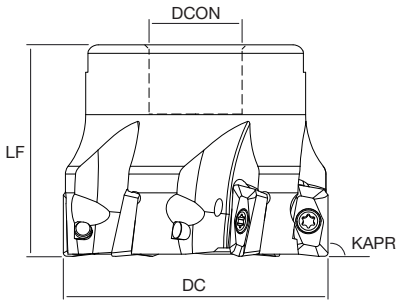
SCREW-IN

INTERNAL COOLANT



ARBOR

INTERNAL COOLANT



REKPLUS
Shouldering (KAPR 90°)

				DC	Z	DCON	LF	LU	CRKS	KG	MIID
CYLINDRICAL	NT-RKP11	D016-S16-Z2	●	16	2	16	100	25	-	0.15	NT-RKP11
		D020-S16-Z3	●	20	3	16	110	30	-	0.25	
		D020-S20-Z3	●		3	20	110	30	-	0.30	
		D025-S20-Z3	●	25	3	20	120	35	-	0.40	
		D025-S25-Z3	●		3	25	120	35	-	0.50	
		D025-S25-Z4	●		4	25	120	35	-	0.50	
		D032-S25-Z4	●	32	4	25	130	35	-	0.60	
		D032-S32-Z4	●		4	32	130	35	-	1.00	
		D032-S32-Z5	●		5	32	130	35	-	1.00	
	NT-RKP16	D025-S25-Z2	●	25	2	25	120	35	-	0.45	NT-RKP16
		D032-S32-Z3	●	32	3	32	130	45	-	0.75	
		D040-S32-Z4	●	40	4	32	150	45	-	1.00	
CYLINDRICAL LONG	NT-RKP11	D016-S15-Z2-L160	●	16	2	15	160	25	-	0.25	NT-RKP11
		D016-S16-Z2-L160	●		2	16	160	25	-	0.30	
		D017-S16-Z2-L170	●	17	2	16	170	25	-	0.35	
		D020-S19-Z3-L200	●	20	3	19	200	30	-	0.50	
		D020-S20-Z3-L200	●		3	20	200	30	-	0.50	
		D021-S20-Z3-L210	●	21	3	20	210	30	-	0.50	
		D025-S24-Z3-L250	●	25	3	24	250	35	-	1.00	
		D025-S25-Z3-L250	●		3	25	250	35	-	1.00	
		D026-S25-Z3-L260	●	26	3	25	260	35	-	1.00	

● stock standard

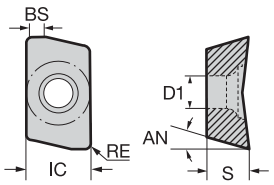
REKPLUS Shouldering (KAPR 90°)				DC	Z	DCON	LF	LU	CRKS	KG	MIID
WELDON	NT-RKP11	D016-W16-Z2-L080	●	16	2	16	80	25	-	0.15	NT-RKP11
		D020-W20-Z3-L090	●	20	3	20	90	30	-	0.20	
		D025-W25-Z4-L100	●	25	4	25	100	35	-	0.35	
SCREW-IN	NT-RKP11	D016-M08-Z2	●	16	2	8.5	25	-	M8	0.05	NT-RKP11
		D020-M10-Z2	▽	20	2	10.5	30	-	M10	0.10	
		D020-M10-Z3	●		3	10.5	38	-	M10	0.10	
		D025-M12-Z3	●	25	3	12.5	38	-	M12	0.15	
		D025-M12-Z4	●		4	12.5	38	-	M12	0.15	
		D032-M16-Z4	●	32	4	17	43	-	M16	0.25	
		D032-M16-Z5	●		5	17	43	-	M16	0.25	
	NT-RKP16	D025-M12-Z2	●	25	2	12.5	38	-	M12	0.15	NT-RKP16
		D032-M16-Z3	●	32	3	17	43	-	M16	0.25	
		D040-M16-Z4	●	40	4	17	43	-	M16	0.30	
ARBOR	NT-RKP11	D040-F16-Z5	●	40	5	16	40	-	-	0.25	NT-RKP11
		D040-F16-Z6	●		6	16	40	-	-	0.25	
		D050-F22-Z5	●	50	5	22	40	-	-	0.45	
		D050-F22-Z7	●		7	22	40	-	-	0.45	
		D063-F22-Z6	●	63	6	22	40	-	-	0.65	
		D063-F22-Z8	●		8	22	40	-	-	0.65	
		D080-F27-Z7	●	80	7	27	50	-	-	1.20	
		D080-F27-Z10	●		10	27	50	-	-	1.20	
	NT-RKP16	D040-F16-Z4	●	40	4	16	40	-	-	0.25	NT-RKP16
		D040-F16-Z5	●		5	16	40	-	-	0.25	
		D050-F22-Z4	●	50	4	22	40	-	-	0.50	
		D050-F22-Z5	●		5	22	40	-	-	0.50	
		D063-F22-Z5	●	63	5	22	40	-	-	0.80	
		D063-F22-Z6	●		6	22	40	-	-	0.80	
		D080-F27-Z6	●	80	6	27	50	-	-	1.20	
		D080-F27-Z8	●		8	27	50	-	-	1.20	
		D100-F32-Z7	●	100	7	32	50	-	-	1.70	
		D100-F32-Z9	●		9	32	50	-	-	1.70	

● stock standard, ▽ stock exhaustion

Spare Parts	INSERT SCREW	INSERT WRENCH
		
NT-RKP11 D□□□	NT-ST018N	NT-FTB08
NT-RKP16 D□□□	NT-ST017N	NT-FTB15

APKT

ISO
Shouldering - positive



2 edges

Size	IC	S	D1	AN
10	6.70	3.18	2.80	11°
16	9.525	4.76	4.40	11°

ISO513	HC-PVD JP5540	HC-PVD JP8525	HC-PVD JP9525	HC-CVD JC7530	HC-CVD JC8530	HW JU6520
P	60 220	80 250			100 320	
M	60 200		70 220			
K				100 300		
N						200 1000
S	40 100					
H						

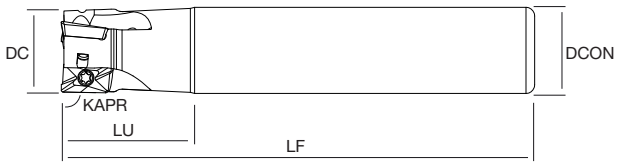
GRADE APPLICATION AREA		Hardness	Toughness
main application	Light cut, stable machining	+	–
applicable	Variable condition, general machining		
	Heavy cut, unstable machining	–	+

GENERAL	GP P M K	**APKT**	**1003PDSR-GP**	RE 0.5 BS 0.9	a_p ▸ f_z ▸	1.00 0.08	**4.00** **0.14**	7.00 0.20	●	●		●	●
		APKT	**1604PDSR-GP**	RE 1.0 BS 1.9	a_p ▸ f_z ▸	1.00 0.10	**7.00** **0.17**	13.00 0.25	●	●		●	●
REINFORCED	TE P K	**APKT**	**1003PDSR-TE**	RE 0.5 BS 0.9	a_p ▸ f_z ▸	1.00 0.10	**4.00** **0.16**	7.00 0.22	●	●		●	●
		APKT	**1604PDSR-TE**	RE 1.0 BS 1.3	a_p ▸ f_z ▸	1.00 0.12	**7.00** **0.20**	13.00 0.28	▲	●	▽	●	●
ALUMINIUM	AL N	**APKT**	**1003PDFR-AL**	RE 0.5 BS 1.6	a_p ▸ f_z ▸	1.00 0.10	**4.00** **0.17**	7.00 0.25					●
	polished surface	**APKT**	**1604PDFR-AL**	RE 1.0 BS 1.9	a_p ▸ f_z ▸	1.00 0.10	**7.00** **0.20**	13.00 0.30					●

● stock standard, ▲ upcoming introduction, ▽ stock exhaustion

CYLINDRICAL

INTERNAL COOLANT

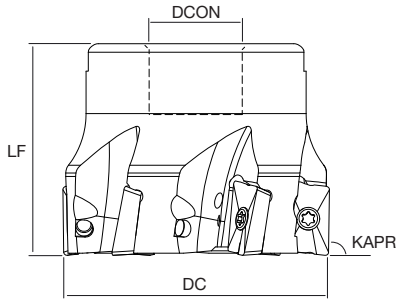


SHOULDERING 90°

P M K N

ARBOR

INTERNAL COOLANT

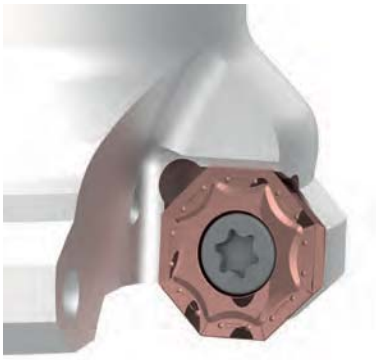


APKT ISO
Shouldering (KAPR 90°)

				DC	Z	DCON	LF	LU	CRKS	KG	MIID
CYLINDRICAL	NT-APK10H	D016-S16-Z2	●	16	2	16	100	28	-	0.15	APKT10
		D020-S20-Z3	●	20	3	20	110	30	-	0.25	
		D025-S25-Z3	●	25	3	25	120	30	-	0.45	
		D032-S32-Z4	●	32	4	32	130	40	-	0.75	
	NT-APK16H	D025-S25-Z2	●	25	2	25	120	40	-	0.45	APKT16
		D032-S32-Z3	●	32	3	32	130	45	-	0.75	
ARBOR	NT-APK10H	D040-F16-Z5	●	40	5	16	40	-	-	0.25	APKT10
		D050-F22-Z5	●	50	5	22	50	-	-	0.45	
		D050-F22-Z7	●		7	22	50	-	-	0.45	
	NT-APK16H	D040-F16-Z4	●	40	4	16	40	-	-	0.25	APKT16
		D050-F22-Z4	●	50	4	22	50	-	-	0.55	
		D050-F22-Z5	●		5	22	50	-	-	0.55	
		D063-F22-Z5	●	63	5	22	40	-	-	0.80	
		D063-F22-Z6	●		6	22	40	-	-	0.80	
		D080-F27-Z6	●	80	6	27	50	-	-	1.20	

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
NT-APK10H D□□□	NT-ST011	NT-FTB09
NT-APK16H D□□□	NT-ST019	NT-FTB15

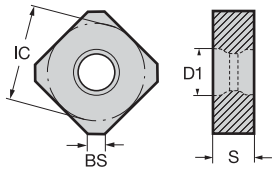


MILLING Facing

SN□X

DOUBLE4FACE

Facing 45° - double sided



8 edges

Size	IC	S	D1
12	12.70	6.35	5.90

GRADE APPLICATION AREA
- main application
- applicable

Light cut, stable machining
Variable condition, general machining
Heavy cut, unstable machining

Hardness + / − Toughness − / +

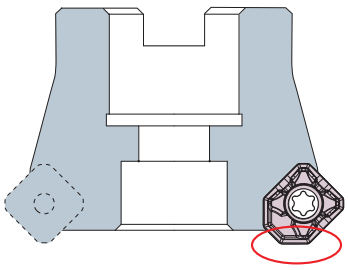
ISO513	HC-PVD JP5520	HC-PVD JP5530	HC-PVD JP7525	HC-PVD JP9535	HC-CVD JC7515	HW JU6520
P	80 250	60 230				
M	60 160	60 150		60 200		
K			100 240		120 350	
N						200 1000
S				40 100		
H						

SHARP	SC P M S	SNEX	1205ANEN-SC	BS 2.2	a_p ▸ 0.50 **2.00** 3.50 f_z ▸ 0.08 **0.16** 0.24	●	●	●	●	●			
GENERAL	GP P M K	SNEX	1205ANEN-GP	BS 2.2	a_p ▸ 1.00 **2.50** 4.00 f_z ▸ 0.10 **0.23** 0.36	●	●	●	●	●			
		SNMX	1205ANEN-GP	BS 2.2	a_p ▸ 1.00 **2.50** 4.00 f_z ▸ 0.10 **0.23** 0.36	●	●	▲	▲	●			
REINFORCED	TE P K	SNEX	1205ANSN-TE	BS 2.2	a_p ▸ 1.50 **3.00** 4.50 f_z ▸ 0.14 **0.27** 0.40	●	●	●		●			
		SNMX	1205ANSN-TE	BS 2.2	a_p ▸ 1.50 **3.00** 4.50 f_z ▸ 0.14 **0.27** 0.40	●	●	▲		▲			
WIPER	WU P K	SNEX	1205-WU	BS 5.6	a_p ▸ 0.50 **1.00** 1.50 f_z ▸ 0.08 **0.16** 0.24	●	●	●		●			
ALUMINIUM	AL N	SNEX	1205ANFN-AL	BS 2.2	a_p ▸ 0.50 **2.50** 4.50 f_z ▸ 0.10 **0.22** 0.35						●		

2 edges

polished surface

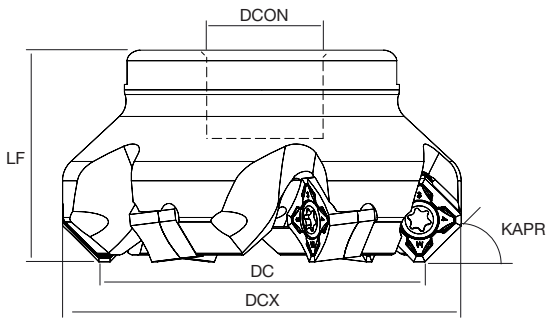
● stock standard, ▲ upcoming introduction



The wiper insert must be mounted face towards the centre of the holder.
Only 1 wiper insert per setup.

ARBOR

INTERNAL COOLANT



FACING

P M K
N S

DOUBLE4FACE
Facing (KAPR 45°)

				DC	DCX	Z	DCON	LF	KG	MIID	
ARBOR	NT-SX12H	D050-F22-Z4	●	50	64	4	22	40	0.60	SNEX12 SNMX12	
		D050-F22-Z5	●			5	22	40	0.60		
		D063-F22-Z5	●	63	77	5	22	50	0.80		
		D063-F22-Z6	●			6	22	50	0.80		
		D080-F27-Z6	●	80	94	6	27	50	1.40		
		D080-F27-Z7	●			7	27	50	1.40		
		D080-F27-Z8	●			8	27	50	1.40		
		D100-F32-Z7	●	100	114	7	32	50	1.80		
		D100-F32-Z8	●			8	32	50	1.80		
		D100-F32-Z9	●			9	32	50	1.80		
		D125-F40-Z10	●	125	139	10	40	63	3.10		
		D160-F40-Z12	●	160	174	12	40	63	4.60		

● stock standard

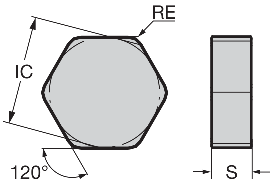
Spare Parts

	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
NT-SX12H D□□□	NT-SH009	NT-SR009	NT-WR040	NT-ST029	NT-FTB15

HN□□

DOUBLEHEX

Facing 60° - double sided



12 edges

Size	IC	S
09	16.20	5.56

ISO513	JP7525 (HC-PVD)	JC7515 (HC-CVD)	NSN400 (CN)	NBH550U (BH)
P				
M				
K	100 240	120 350	400 1000	800 2000
N				
S				
H				150 300

GRADE APPLICATION AREA	
■ main application	Light cut, stable machining
■ applicable	Variable condition, general machining
	Heavy cut, unstable machining

Hardness + / − ; Toughness − / +

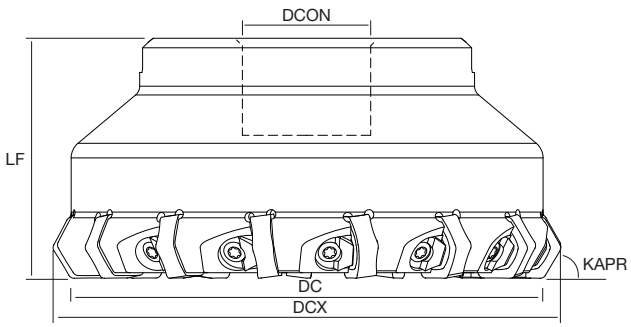
Type	Insert		Designation	RE		min	rec.	max	JP7525	JC7515	NSN400	NBH550U
CARBIDE	GL K – low cutting force	HNEX	090510-GL	RE 1.0	a_p▸	0.50	**2.50**	4.50	●	●		
					f_z▸	0.08	**0.15**	0.22				
			090520-GL	RE 2.0	a_p▸	0.50	**2.50**	4.50	●	●		
					f_z▸	0.10	**0.18**	0.26				
	GG K – general purpose	HNEX	090520-GG	RE 2.0	a_p▸	1.00	**3.00**	5.00	●	●		
					f_z▸	0.12	**0.23**	0.34				
		HNMX	090520-GG	RE 2.0	a_p▸	1.00	**3.00**	5.00	●	●		
					f_z▸	0.12	**0.23**	0.34				
	GH K – reinforced edge	HNEX	090516-GH	RE 1.6	a_p▸	1.00	**3.50**	6.00	●	●		
					f_z▸	0.14	**0.25**	0.36				
			090530-GH	RE 3.0	a_p▸	1.00	**3.50**	6.00	●	●		
					f_z▸	0.16	**0.28**	0.40				
		HNMX	090516-GH	RE 1.6	a_p▸	1.00	**3.50**	6.00	●	●		
					f_z▸	0.14	**0.25**	0.36				
PCBN	UE K H – solid	HNEN	090520S-UE	K RE 2.0	a_p▸	1.00	**2.00**	3.00				●
					f_z▸	0.10	**0.20**	0.30				
				H RE 2.0	a_p▸	0.50	**1.00**	1.50				
					f_z▸	0.05	**0.10**	0.15				
CERAMIC	T02020 K	HNEN	090520-GP	RE 2.0	a_p▸	1.00	**2.50**	4.00			●	
					f_z▸	0.08	**0.16**	0.24				
			090530-GP	RE 3.0	a_p▸	1.00	**2.50**	4.00			●	
					f_z▸	0.08	**0.16**	0.24				



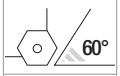


● stock standard

ARBOR



FACING



K

DOUBLEHEX
Facing (KAPR 60°)

				DC	DCX	Z	DCON	LF	KG	MIID	
ARBOR	NT-HN09	D080-F27-Z8	●	80	90	8	27	50	1.40	HNEX09 HNMX09	
		D080-F27-Z10	●			10	27	50	1.40		
		D100-F32-Z10	●	100	110	10	32	50	2.00		
		D100-F32-Z14	●			14	32	50	2.00		
		D125-F40-Z12	●	125	135	12	40	63	3.80		
		D125-F40-Z15	●			15	40	63	3.80		
		D160-F40-Z15	●	160	170	15	40	63	5.30		
		D160-F40-Z20	●			20	40	63	5.30		

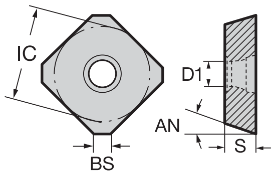
● stock standard

Spare Parts

	WEDGE	WEDGE SCREW	WRENCH
			
NT-HN09 D□□□	NT-WD090	NT-SC090	NT-WR030

SE□□

4FACEPLUS
Facing 45° - positive



4 edges

Size	IC	S	D1	AN
13	13.40	3.97	4.40	20°

ISO513	JP5520 (HC-PVD)	JP5530 (HC-PVD)	JP7525 (HC-PVD)	JP9535 (HC-PVD)	JC7515 (HC-CVD)	JC7530 (HC-CVD)	JU6520 (HW)	JU4525 (HT)
P	80 250	60 230						160 350
M	60 160	60 150		60 200				100 240
K			100 240		120 350	100 300		160 380
N							200 1000	
S				40 100				
H								

GRADE APPLICATION AREA	
main application	Light cut, stable machining
applicable	Variable condition, general machining
	Heavy cut, unstable machining

Hardness + / −, Toughness − / +

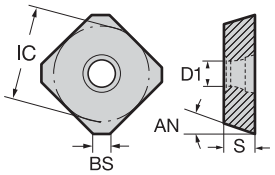
Family	Type	Code	BS		min	avg	max	JP5520	JP5530	JP7525	JP9535	JC7515	JC7530	JU6520	JU4525
SHARP — SC P M S 	SEET	13T3AGEN-SC	BS 1.7	a_p / f_z	0.50 / 0.08	**2.00** / **0.14**	3.50 / 0.20	●	●		●				
GENERAL — GP P M 	SEET	13T3AGEN-GP	BS 1.2	a_p / f_z	1.00 / 0.10	**2.50** / **0.20**	4.00 / 0.30	●	●		●				●
GENERAL — GP P M	SEMT	13T3AGEN-GP	BS 1.2	a_p / f_z	1.00 / 0.10	**2.50** / **0.20**	4.00 / 0.30	●	●		●				
GENERAL — GG K 	SEET	13T3AGSN-GG	BS 1.3	a_p / f_z	1.00 / 0.12	**2.50** / **0.22**	4.00 / 0.32			●		▽			
GENERAL — GG K	SEMT	13T3AGSN-GG	BS 1.3	a_p / f_z	1.00 / 0.12	**2.50** / **0.22**	4.00 / 0.32			▲					
REINFORCED — TE P 	SEET	13T3AGSN-TE	BS 1.2	a_p / f_z	1.50 / 0.14	**3.00** / **0.25**	4.50 / 0.36	●	●						
REINFORCED — TE P	SEMT	13T3AGSN-TE	BS 1.2	a_p / f_z	1.50 / 0.14	**3.00** / **0.25**	4.50 / 0.36	●	●						
REINFORCED — GH K 	SEET	13T3AGSN-GH	BS 1.3	a_p / f_z	1.50 / 0.16	**3.00** / **0.28**	4.50 / 0.40			●					
REINFORCED — GH K	SEMT	13T3AGSN-GH	BS 1.3	a_p / f_z	1.50 / 0.16	**3.00** / **0.28**	4.50 / 0.40			▲					
REINFORCED — Flat K 	SEEW	13T3AGSN	BS 2.0	a_p / f_z	1.50 / 0.20	**3.00** / **0.30**	4.50 / 0.40						●		
WIPER — WU P K  1 edge	SEET	13T3-WU	BS 7.5	a_p / f_z	0.50 / 0.08	**1.00** / **0.16**	1.50 / 0.24		●	▲					

● stock standard, ▲ upcoming introduction, ▽ stock exhaustion

SE□□

4FACEPLUS

Facing 45° - positive



4 edges

Size	IC	S	D1	AN
13	13.40	3.97	4.40	20°

ISO513	HC-PVD JP5520	HC-PVD JP5530	HC-PVD JP7525	HC-PVD JP9535	HC-CVD JC7515	HC-CVD JC7530	HW JU6520	HT JU4525
P	80 250	60 230						160 350
M	60 160	60 150		60 200				100 240
K			100 240		120 350	100 300		160 380
N							200 1000	
S				40 100				
H								

GRADE APPLICATION AREA		Hardness + / −	Toughness − / +
■ main application	Variable condition, general machining		
■ applicable	Heavy cut, unstable machining		

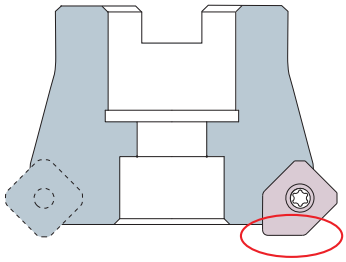
ALUMINIUM

AL N

polished surface

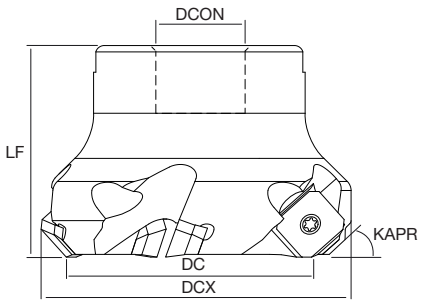
SEET	13T3AGFN-AL	BS 2.2				HW JU6520
			a_p ▸	0.50	**2.50**	4.50	●
			f_z ▸	0.10	**0.22**	0.35	

● stock standard



The wiper insert must be mounted face towards the centre of the holder.
Only 1 wiper insert per setup.

ARBOR



FACING

P M K
N S

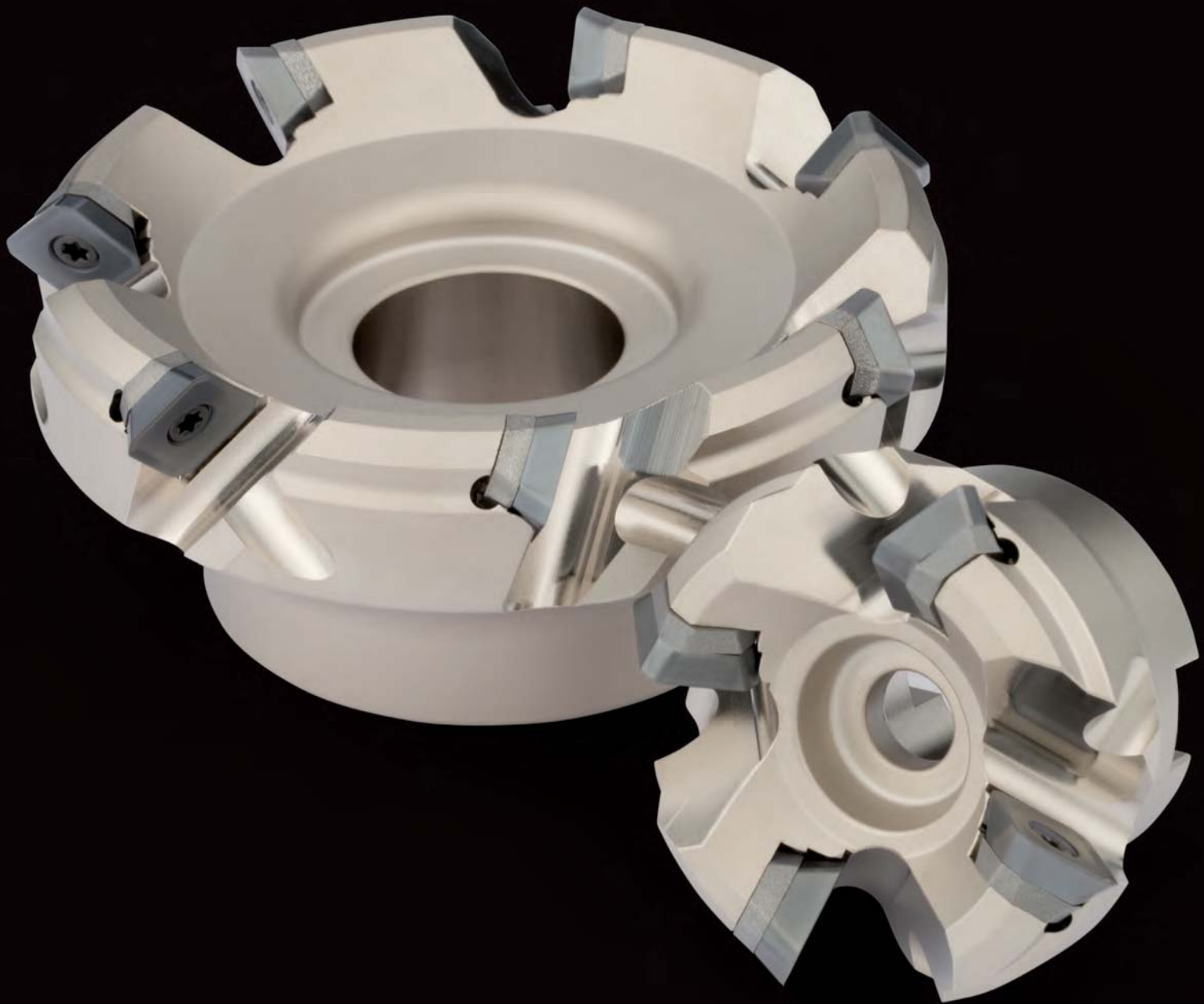
4FACEPLUS
Facing (KAPR 45°)

				DC	DCX	Z	DCON	LF	KG	MIID	
ARBOR	NT-SE13	D050-F22-Z4	●	50	63	4	22	40	0.50	SEET13 SEMT13	
		D050-F22-Z5	●			5	22	40	0.50		
		D063-F22-Z5	●	63	76	5	22	50	0.70		
		D063-F22-Z6	●			6	22	50	0.70		
		D080-F27-Z6	●	80	93	6	27	50	1.20		
		D080-F27-Z8	●			8	27	50	1.20		
		D100-F32-Z7	●	100	113	7	32	50	1.80		
		D100-F32-Z10	●			10	32	50	1.80		
		D125-F40-Z8	●	125	138	8	40	63	3.00		
		D125-F40-Z12	●			12	40	63	3.00		
		D160-F40-Z10	●	160	173	10	40	63	5.00		
		D200-F60-Z12	●	200	213	12	60	63	8.00		

● stock standard

Spare Parts

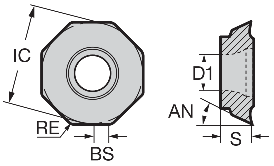
	SHIM	SHIM SCREW	SHIM WRENCH	INSERT SCREW	INSERT WRENCH
					
NT-SE13 D□□□	NT-SH004	NT-SR002	NT-WR035	NT-ST040	NT-FTB15



OFKT

OKTOPLUS

Facing 43° - positive



8 edges

Size	IC	S	D1	AN
05	12.70	3.97	4.40	26°

ISO513	JP8525 (HC-PVD)	JP9525 (HC-PVD)	JC7530 (HC-CVD)	JU6520 (HW)
P	80 250			
M		70 220		
K			100 300	
N				200 1000
S				
H				

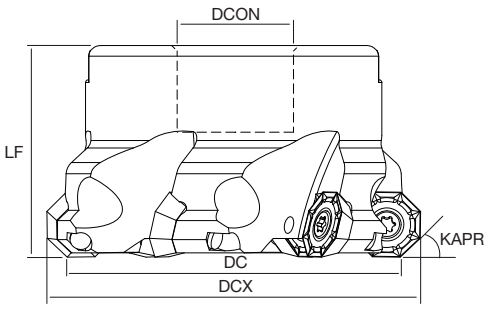
GRADE APPLICATION AREA		Hardness	Toughness
■ main application	Light cut, stable machining	+	–
■ applicable	Variable condition, general machining		
	Heavy cut, unstable machining	–	+

		Designation		Cutting data	JP8525	JP9525	JC7530	JU6520
GENERAL	GP P M K 	OFKT 05T305-GP	RE 0.5 BS 1.1	a_p ▸ 1.00 **2.00** 3.00 f_z ▸ 0.07 **0.16** 0.25	●	●	●	
ALUMINIUM	AL N  polished surface	OFKT 05T305-AL	RE 0.5 BS 1.1	a_p ▸ 0.50 **1.50** 2.50 f_z ▸ 0.10 **0.15** 0.20				●

● stock standard

ARBOR

INTERNAL COOLANT



FACING

43°

P M K N

OKTOPLUS - OF
Facing (KAPR 43°)

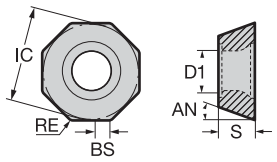
				DC	DCX	Z	DCON	LF	KG	MIID	
ARBOR	NT-OF05H	D050-F22-Z5	●	50	58	5	22	40	0.45	OFKT05	
		D063-F22-Z6	●	63	71	6	22	40	0.65		
		D080-F27-Z7	●	80	88	7	27	50	1.00		
		D100-F32-Z8	●	100	108	8	32	50	1.60		

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
NT-OF05H D□□□	NT-ST024	NT-FTB15

ODㅁT

OKTOPLUS
Facing 43° - positive



8 edges

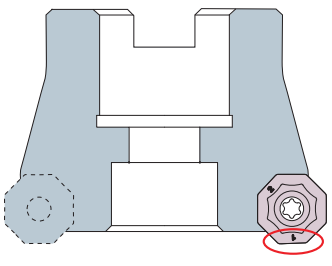
Size	IC	S	D1	AN
06	15.875	5.56	5.50	15°

ISO513	JP5520	JP5530	JP7525	JP9535	JC7515	JU6520
	HC-PVD				HC-CVD	HW
P	80 250	60 230				
M	60 160	60 150		60 200		
K			100 240		120 350	
N						200 1000
S				40 100		
H						

GRADE APPLICATION AREA	Light cut, stable machining	Hardness + / −	Toughness − / +
■ main application	Variable condition, general machining		
■ applicable	Heavy cut, unstable machining		

SHARP	SC P M S	ODKT	060508-SC	RE 0.8 BS 1.8	a_p ▸ f_z ▸	0.50 0.08	**1.50 0.15**	2.50 0.22	●	●		●		
GENERAL	GP P M K	ODKT	060508-GP	RE 0.8 BS 1.8	a_p ▸ f_z ▸	1.00 0.10	**2.00 0.21**	3.00 0.32	●	●	●	●		
		ODMT	060508-GP	RE 0.8 BS 1.8	a_p ▸ f_z ▸	1.00 0.10	**2.00 0.21**	3.00 0.32	●	●	●	●	●	
REINFORCED	TE P K	ODKT	060508-TE	RE 0.8 BS 1.8	a_p ▸ f_z ▸	1.50 0.14	**2.50 0.26**	3.50 0.38	●	●				
		ODMT	060508-TE	RE 0.8 BS 1.8	a_p ▸ f_z ▸	1.50 0.14	**2.50 0.26**	3.50 0.38	●	●	●		●	
WIPER	WU P K **2 edges**	ODKT	060508-WU	RE 0.8 BS 6.4	a_p ▸ f_z ▸	0.50 0.08	**1.00 0.16**	1.50 0.24	●	●	▲			
ALUMINIUM	AL N polished surface	ODKT	060508-AL	RE 0.8 BS 1.8	a_p ▸ f_z ▸	0.50 0.10	**2.00 0.22**	3.50 0.35					●	

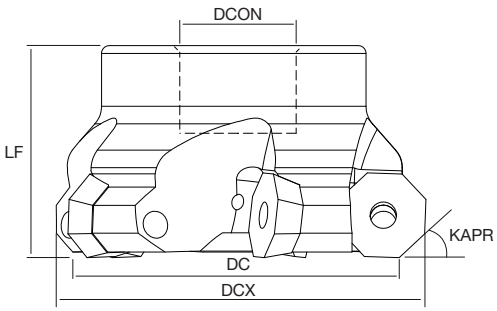
● stock standard, ▲ upcoming introduction



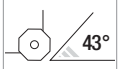
Please follow the clamping procedure shown in the picture.
Only 1 wiper insert per setup.

ARBOR

INTERNAL COOLANT



FACING



P M K
N S

OKTOPLUS - OD
Facing (KAPR 43°)

				DC	DCX	Z	DCON	LF	KG	MIID	
ARBOR	NT-OD06H	D050-F22-Z4	●	50	60	4	22	40	0.40	ODKT06 ODMT06	
		D063-F22-Z5	●	63	73	5	22	40	0.60		
		D080-F27-Z6	●	80	90	6	27	50	1.10		
		D100-F32-Z7	●	100	110	7	32	50	1.60		
		D125-F40-Z8	●	125	135	8	40	63	2.70		
		D160-F40-Z10	●	160	170	10	40	63	4.20		

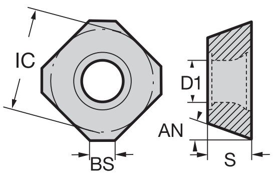
● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
		
NT-OD06H D□□□	NT-ST021	NT-FTB20

SEHX

ISO
Facing 45° - positive



4 edges

Size	IC	S	D1	AN
12	12.70	4.76	5.50	20°

ISO513	HC-PVD JP5520	HC-PVD JP8525	HC-PVD JP9525	HC-CVD JC7530	HC-CVD JC8530	HW JU6520	HT JU4525
P	80 250	80 250			100 320		160 350
M	60 160		70 220				100 240
K				100 300			160 380
N						200 1000	
S							
H							

GRADE APPLICATION AREA		Hardness	Toughness
	Light cut, stable machining	+	−
■ main application	Variable condition, general machining		
■ applicable	Heavy cut, unstable machining	−	+

Type	Insert	Designation	BS		Min	Rec.	Max	JP5520	JP8525	JP9525	JC7530	JC8530	JU6520	JU4525
SHARP	SC P M 	SEHX 1204AFEN-SC	BS 2.5	a_p ▸ f_z ▸	0.50 0.08	**2.00** **0.15**	3.50 0.22	●						●
GENERAL	GP P M 	SEHX 1204AFSN-GP	BS 1.8	a_p ▸ f_z ▸	1.00 0.10	**2.50** **0.20**	4.00 0.30		●	●		●		
REINFORCED	Flat K 	SEHX 1204AFSN	BS 1.8	a_p ▸ f_z ▸	1.50 0.20	**3.00** **0.30**	4.50 0.40				●			
ALUMINIUM	AL N  polished surface	SEHX 1204AFFN-AL	BS 2.5	a_p ▸ f_z ▸	0.50 0.10	**2.50** **0.22**	4.50 0.35						●	

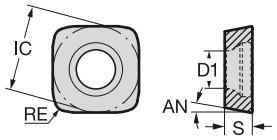
● stock standard

MILLING High Feed

HF4PLUS .224

SPMT

HF4PLUS
High Feed - positive



4 edges

Size	IC	S	D1	AN
07	7.80	2.80	3.50	11°

ISO513	HC-PVD JP5520	JP5530	JP7525	JP9535
P	80 250	60 230		
M	60 160	60 150		60 200
K			100 240	
N				
S				40 100
H				

GRADE APPLICATION AREA	
main application	Variable condition, general machining
applicable	Heavy cut, unstable machining

Hardness: − Light cut, stable machining + Heavy cut, unstable machining

Toughness: + Light cut, stable machining − Heavy cut, unstable machining

SHARP

SC P M S

		RE	a_p ▸			f_z ▸		
SPMT	07T210R-SC	RE1.0	0.20	**0.80**	1.40	0.50	**0.90**	1.30

JP5530 ●, JP9535 ●

GENERAL

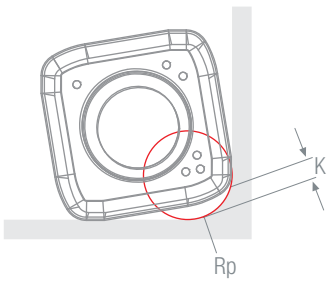
GP P M K

		RE	a_p ▸			f_z ▸		
SPMT	07T210R-GP	RE1.0	0.20	**0.80**	1.40	0.60	**1.00**	1.40

JP5530 ●, JP7525 ●, JP9535 ●

● stock standard

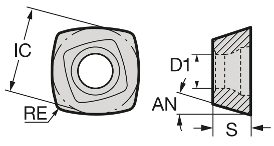
IMPORTANT NOTICE FOR CNC PROGRAMMING



	SPMT07T210
Rp THEORETICAL RADIUS FOR CNC PROGRAMMING	2.00
K UNCUT PORTION	0.68

SDMT

HF4PLUS
High Feed - positive



4 edges

Size	IC	S	D1	AN
10	10.00	4.76	4.00	15°
12	12.70	5.56	4.40	15°

ISO513	JP5520 (HC-PVD)	JP5530 (HC-PVD)	JP7525 (HC-PVD)	JP9535 (HC-PVD)
P	80 250	60 230		
M	60 160	60 150		60 200
K			100 240	
N				
S				40 100
H				

GRADE APPLICATION AREA	
main application	Light cut, stable machining
applicable	Variable condition, general machining
	Heavy cut, unstable machining

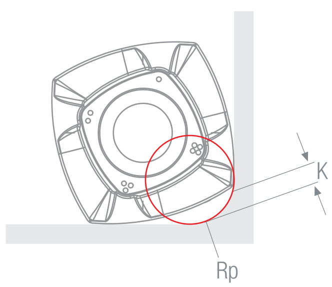
Hardness + / − ; Toughness − / +

Type	Designation		RE					JP5520	JP5530	JP7525	JP9535
SHARP – SC P M S	SDMT	100410R-SC	RE1.0	a_p▸ f_z▸	0.30 0.50	**1.00** **1.00**	1.70 1.50		●		●
GENERAL – GP P M K	SDMT	100410R-GP	RE1.0	a_p▸ f_z▸	0.30 0.60	**1.00** **1.10**	1.70 1.60		●	●	●
	SDMT	120512R-GP	RE1.2	a_p▸ f_z▸	0.50 0.80	**1.20** **1.30**	2.00 1.80	●	●	●	●
REINFORCED – TE P K	SDMT	100410R-TE	RE1.0	a_p▸ f_z▸	0.30 0.70	**1.00** **1.20**	1.70 1.70		●		●
	SDMT	120512R-TE	RE1.2	a_p▸ f_z▸	0.50 1.00	**1.20** **1.50**	2.00 2.00	●	●		



● stock standard

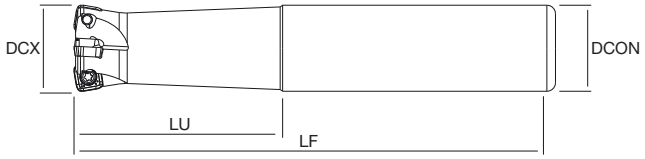
IMPORTANT NOTICE FOR CNC PROGRAMMING



	SDMT100410	SDMT120512
Rp THEORETICAL RADIUS FOR CNC PROGRAMMING	3.00	4.00
K UNCUT PORTION	0.76	0.85

CYLINDRICAL

INTERNAL COOLANT

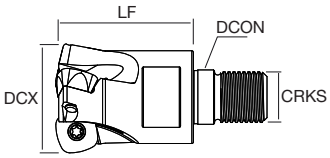


HIGH FEED

P M K S

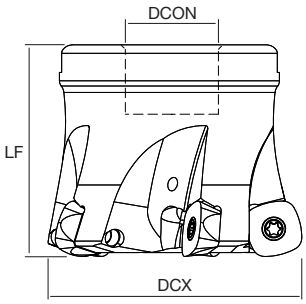
SCREW-IN

INTERNAL COOLANT



ARBOR

INTERNAL COOLANT



HF4PLUS
High Feed

				DCX	Z	DCON	LF	LU	CRKS	KG	MIID
CYLINDRICAL	NT-SP07HF	D020-S20-Z3	●	20	3	20	130	50	-	0.30	SPMT07
		D025-S25-Z4	●	25	4	25	140	60	-	0.50	
		D032-S32-Z5	●	32	5	32	150	70	-	1.00	
SCREW-IN	NT-SP07HF	D020-M10-Z2	●	20	2	10.5	30	-	M10	0.10	SPMT07
		D020-M10-Z3	●		3	10.5	30	-	M10	0.10	
		D025-M12-Z3	●	25	3	12.5	35	-	M12	0.15	
		D025-M12-Z4	●		4	12.5	35	-	M12	0.15	
		D032-M16-Z4	●	32	4	17	40	-	M16	0.30	
		D032-M16-Z5	●		5	17	40	-	M16	0.30	
		D035-M16-Z5	●	35	5	17	40	-	M16	0.30	
		D042-M16-Z6	●	42	6	17	40	-	M16	0.35	
	NT-SD10HF	D035-M16-Z4	●	35	4	17	40	-	M16	0.30	SDMT10
		D042-M16-Z5	●	42	5	17	40	-	M16	0.35	
	NT-SD12HF	D032-M16-Z2	●	32	2	17	43	-	M16	0.25	SDMT12
		D035-M16-Z3	●	35	3	17	43	-	M16	0.25	
		D040-M16-Z4	●	40	4	17	43	-	M16	0.25	
		D042-M16-Z4	●	42	4	17	43	-	M16	0.25	
ARBOR	NT-SP07HF	D040-F16-Z5	●	40	5	16	40	-	-	0.25	SPMT07
		D040-F16-Z6	●		6	16	40	-	-	0.25	
		D042-F16-Z5	●	42	5	16	40	-	-	0.25	
		D042-F16-Z6	●		6	16	40	-	-	0.25	
		D050-F22-Z7	●	50	7	22	50	-	-	0.55	
		D052-F22-Z7	●	52	7	22	50	-	-	0.55	

● stock standard

	HF4PLUS High Feed			DCX	Z	DCON	LF	LU	CRKS	KG	MIID
ARBOR	NT-SD10HF	D050-F22-Z6	●	50	6	22	50	-	-	0.55	SDMT10
		D052-F22-Z6	●	52	6	22	50	-	-	0.55	
		D063-F27-Z7	●	63	7	27	50	-	-	0.75	
		D066-F27-Z7	●	66	7	27	50	-	-	0.80	
		D080-F27-Z8	●	80	8	27	50	-	-	1.10	
	NT-SD12HF	D042-F16-Z4	●	42	4	16	40	-	-	0.25	SDMT12
		D050-F22-Z4	●	50	4	22	50	-	-	0.45	
		D050-F22-Z5	●		5	22	50	-	-	0.45	
		D052-F22-Z4	●	52	4	22	50	-	-	0.45	
		D052-F22-Z5	●		5	22	50	-	-	0.45	
		D063-F22-Z4	●	63	4	22	50	-	-	0.70	
		D063-F27-Z4	●		4	27	50	-	-	0.70	
		D063-F22-Z5	●		5	22	50	-	-	0.70	
		D063-F27-Z5	●		5	27	50	-	-	0.70	
		D066-F27-Z6	●	66	6	27	50	-	-	0.70	
		D080-F27-Z6	●	80	6	27	50	-	-	1.10	
		D080-F27-Z7	●		7	27	50	-	-	1.10	

● stock standard

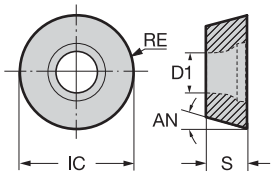
Spare Parts	INSERT SCREW	INSERT WRENCH
NT-SP07HF DCX ≤ 25	NT-ST034	NT-FTB10
NT-SP07HF DCX > 25	NT-ST033	
NT-SD10HF D□□□	NT-ST036	NT-FTB15
NT-SD12HF D□□□	NT-ST024	NT-FTB15

MILLING Copying

ROUNDPLUS .230

RD□□

ROUNDPLUS
Copying - positive



Size	IC	S	D1	AN
05	5.00	1.51	2.20	15°
07	7.00	2.38	2.80	15°
10	10.00	3.18	3.80	15°
12	12.00	4.76	4.40	15°
16	16.00	4.76	5.00	15°

ISO513	HC-PVD JP5520	HC-PVD JP5530	HC-PVD JP7525	HC-PVD JP9535	HT JU4525
P	80–250	60–230			160–350
M	60–160	60–150		60–200	100–240
K			100–240		160–380
N					
S				40–100	
H					

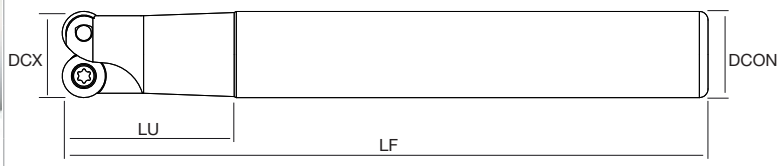
GRADE APPLICATION AREA		Hardness	Toughness
main application	Light cut, stable machining	+	−
applicable	Variable condition, general machining		
	Heavy cut, unstable machining	−	+

SHARP	SC P M	RDET	1003M0-SC	RE 5.0	a_p	0.50	**2.00**	3.50	▽	▽			
					f_z	0.10	**0.22**	0.34					
			1204M0-SC	RE 6.0	a_p	0.50	**2.50**	4.50	●	●			
					f_z	0.15	**0.30**	0.45					
			1604M0-SC	RE 8.0	a_p	1.00	**3.00**	5.00	●	●			
					f_z	0.22	**0.44**	0.62					
GENERAL	GP P M S	RDET	1003M0-GP	RE 5.0	a_p	0.50	**2.00**	3.50	●	●		●	
					f_z	0.12	**0.25**	0.38					
			1204M0-GP	RE 6.0	a_p	0.50	**2.50**	4.50	●	●		●	
					f_z	0.18	**0.35**	0.52					
			1604M0-GP	RE 8.0	a_p	1.00	**3.00**	5.00	●	●		●	
					f_z	0.25	**0.45**	0.65					
		RDMT	1204M0-GP	RE 6.0	a_p	0.50	**2.50**	4.50	●	●			
					f_z	0.18	**0.35**	0.52					
REINFORCED	TES P K	RDEW	0501M0-TES	RE 2.5	a_p	0.30	**1.00**	1.70	●	●	●	○	
					f_z	0.08	**0.15**	0.22					
			0702M0-TES	RE 3.5	a_p	0.30	**1.50**	2.70	●			○	▽
					f_z	0.08	**0.16**	0.24					
	TE P K	RDEW	0702M0-TE	RE 3.5	a_p	0.30	**1.50**	2.70	●	●	●		
					f_z	0.08	**0.19**	0.30					
			1003M0-TE	RE 5.0	a_p	0.50	**2.00**	3.50	●	●	●		
					f_z	0.14	**0.27**	0.40					
			1204M0-TE	RE 6.0	a_p	0.50	**2.50**	4.50	●	●	●		
					f_z	0.20	**0.40**	0.60					
			1604M0-TE	RE 8.0	a_p	1.00	**3.00**	5.00	●	●	●		
					f_z	0.30	**0.50**	0.70					
		RDMW	1604M0-TE	RE 8.0	a_p	1.00	**3.00**	5.00	●	●			
					f_z	0.30	**0.50**	0.70					
	TE-D6 P with **6 dots**	RDEW	1204M0-TE-D6	RE 6.0	a_p	0.50	**2.50**	4.50	●	●			
					f_z	0.20	**0.40**	0.60					
		RDMW	1204M0-TE-D6	RE 6.0	a_p	0.50	**2.50**	4.50	●				
					f_z	0.20	**0.40**	0.60					
	TE-D8 P with **8 dots**	RDEW	1204M0-TE-D8	RE 6.0	a_p	0.50	**2.50**	4.50	●	●			
					f_z	0.20	**0.40**	0.60					
		RDMW	1204M0-TE-D8	RE 6.0	a_p	0.50	**2.50**	4.50	○	●			
					f_z	0.20	**0.40**	0.60					

● stock standard, ○ non-standard stock, ▽ stock exhaustion

CYLINDRICAL

INTERNAL COOLANT

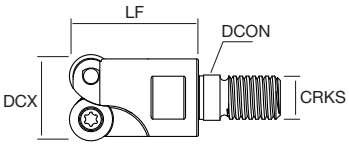


COPYING 360°

P M K S

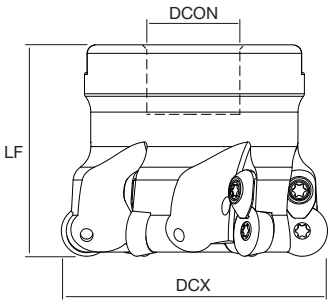
SCREW-IN

INTERNAL COOLANT



ARBOR

INTERNAL COOLANT



ROUNDPLUS - RD
Copying

				DCX	Z	DCON	LF	LU	CRKS	KG	MIID
CYLINDRICAL	NT-RD05H	D009-S08-Z2-L100	●*	9	2	8	100	12	-	0.10	RDEW05
		D010-S10-Z2-L100	●	10	2	10	100	18	-	0.10	
		D011-S10-Z2-L100	●*	11	2	10	100	15	-	0.10	
		D012-S12-Z3-L100	●	12	3	12	100	22	-	0.10	
		D013-S12-Z3-L100	●*	13	3	12	100	18	-	0.10	
		D016-S16-Z4-L150	●*	16	4	16	150	30	-	0.25	
		D017-S16-Z4-L150	●*	17	4	16	150	20	-	0.25	
	NT-RD07H	D016-S16-Z2-L150	●	16	2	16	150	25	-	0.25	RDEW07
		D017-S16-Z2-L150	●	17	2	16	150	20	-	0.25	
		D020-S20-Z3-L150	●*	20	3	20	150	35	-	0.40	
		D021-S20-Z3-L150	●*	21	3	20	150	25	-	0.40	
		D025-S25-Z5-L150	●*	25	5	25	150	40	-	0.60	
		D026-S25-Z5-L150	●*	26	5	25	150	25	-	0.60	
		D035-S32-Z6-L150	●*	35	6	32	150	30	-	1.00	
	NT-RD10H	D020-S20-Z2-L150	●	20	2	20	150	40	-	0.35	RDET10 RDEW10
		D021-S20-Z2-L150	●	21	2	20	150	25	-	0.35	
		D025-S25-Z3-L150	●	25	3	25	150	40	-	0.55	
		D026-S25-Z3-L150	●*	26	3	25	150	25	-	0.55	
		D030-S25-Z3-L150	●*	30	3	25	150	25	-	0.60	
		D032-S32-Z3-L150	●	32	3	32	150	40	-	0.90	
		D035-S32-Z4-L150	●*	35	4	32	150	35	-	0.90	

● stock standard

ITEMS MARKED WITH *
We will continue to supply the equivalent milling cutters without coolant holes until stock exhaustion

ROUNDPLUS - RD
Copying

				DCX	Z	DCON	LF	LU	CRKS	KG	MIID
SCREW-IN	NT-RD05H	D012-M06-Z2	●*	12	2	6.5	18	-	M6	0.10	RDEW05
		D012-M06-Z3	●*		3	6.5	18	-	M6	0.10	
		D013-M06-Z2	●*	13	2	6.5	18	-	M6	0.10	
		D013-M06-Z3	●*		3	6.5	18	-	M6	0.10	
		D016-M08-Z4	●*	16	4	8.5	23	-	M8	0.10	
		D017-M08-Z4	●*	17	4	8.5	23	-	M8	0.10	
	NT-RD07H	D016-M08-Z2	●*	16	2	8.5	23	-	M8	0.10	RDEW07
		D016-M08-Z3	●*		3	8.5	23	-	M8	0.10	
		D017-M08-Z2	●*	17	2	8.5	23	-	M8	0.10	
		D017-M08-Z3	●*		3	8.5	23	-	M8	0.10	
		D020-M10-Z3	●	20	3	10.5	30	-	M10	0.10	
		D021-M10-Z2	●*	21	2	10.5	30	-	M10	0.10	
		D021-M10-Z3	●*		3	10.5	30	-	M10	0.10	
		D025-M12-Z4	●	25	4	12.5	35	-	M12	0.15	
		D025-M12-Z5	●*		5	12.5	35	-	M12	0.15	
		D026-M12-Z4	●*	26	4	12.5	35	-	M12	0.15	
		D026-M12-Z5	●*		5	12.5	35	-	M12	0.15	
		D035-M16-Z5	●*	35	5	17	43	-	M16	0.25	
		D035-M16-Z6	●*		6	17	43	-	M16	0.25	
	NT-RD10H	D020-M10-Z2	●	20	2	10.5	30	-	M10	0.10	RDET10 RDEW10
		D021-M10-Z2	●*	21	2	10.5	30	-	M12	0.10	
		D025-M12-Z3	●	25	3	12.5	35	-	M12	0.15	
		D026-M12-Z3	●*	26	3	12.5	35	-	M12	0.15	
		D030-M12-Z3	●*	30	3	12.5	35	-	M12	0.20	
		D032-M16-Z3	●	32	3	17	43	-	M16	0.20	
		D035-M16-Z3	●	35	3	17	43	-	M16	0.25	
		D035-M16-Z4	●		4	17	43	-	M16	0.25	
		D040-M16-Z4	●	40	4	17	43	-	M16	0.30	
ARBOR	NT-RD10H	D042-F16-Z5	●	42	5	16	40	-	-	0.25	RDET10 RDEW10
		D052-F22-Z6	●	52	6	22	40	-	-	0.45	
	NT-RD12H	D042-F16-Z4	●	42	4	16	50	-	-	0.30	RDET12 RDEW12 RDMT12 RDMW12
		D050-F22-Z4	●*	50	4	22	50	-	-	0.40	
		D050-F22-Z5	●		5	22	50	-	-	0.40	
		D052-F22-Z4	●	52	4	22	50	-	-	0.45	
		D052-F22-Z5	●		5	22	50	-	-	0.45	
		D063-F22-Z5	●	63	5	22	50	-	-	0.65	
		D063-F22-Z6	●		6	22	50	-	-	0.65	
		D066-F22-Z6	●	66	6	22	50	-	-	0.80	
		D080-F27-Z6	▽*	80	6	27	50	-	-	1.00	
		D080-F27-Z7	●		7	27	50	-	-	1.00	
	NT-RD16H	D063-F22-Z5	●	63	5	22	50	-	-	0.60	RDET16 RDEW16 RDMW16
		D066-F22-Z5	▽*	66	5	22	50	-	-	0.60	
		D066-F27-Z5	●		5	27	50	-	-	0.60	
		D080-F27-Z5	●	80	5	27	50	-	-	0.90	
		D080-F27-Z6	●		6	27	50	-	-	0.90	
		D100-F32-Z7	●	100	7	32	50	-	-	1.60	
		D125-F40-Z8	●	125	8	40	63	-	-	2.90	

● stock standard, ▽ stock exhaustion

ITEMS MARKED WITH *
We will continue to supply the equivalent milling cutters without coolant holes until stock exhaustion

Spare Parts	CLAMP SET	INSERT SCREW	INSERT WRENCH
			
NT-RD05H DCX ≤ 10	-	NT-ST026	NT-FTB06
NT-RD05H DCX > 10		NT-ST009	
NT-RD07H D□□□	-	NT-ST018	NT-FTB08
NT-RD10H D□□□ DCX ≤ 26	-	NT-ST012	NT-FTB15
NT-RD10H D□□□ DCX = 30		NT-ST013	
NT-RD10H D□□□ DCX ≥ 32	NT-CS013		
NT-RD12H D□□□	NT-CS014	NT-ST017	NT-FTB15
NT-RD16H D□□□	NT-CS021	NT-ST023	NT-FTB20

RP□□

ROUNDPLUS
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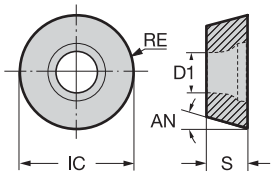


Size	IC	S	D1	AN
12	12.00	4.76	4.40	11°

ISO513	HC-PVD JP5520	HC-PVD JP5530	HC-PVD JP9535
P	80 250	60 230	
M	60 160	60 150	60 200
K			
N			
S			40 100
H			

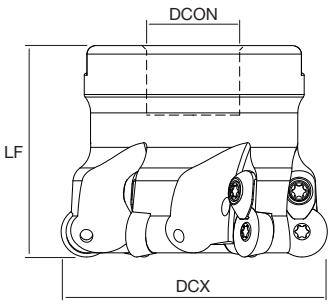
GRADE APPLICATION AREA		Hardness	Toughness
main application	Light cut, stable machining	+	–
applicable	Variable condition, general machining		
	Heavy cut, unstable machining	–	+

SHARP	SC P M	20–22°	RPET	1204M0-SC	RE 6.0	a_p ▸ 0.50 **2.50** 4.50 f_z ▸ 0.15 **0.30** 0.45	●	●	
GENERAL	GP P M S	14–18°	RPET	1204M0-GP	RE 6.0	a_p ▸ 0.50 **2.50** 4.50 f_z ▸ 0.18 **0.35** 0.52	●	●	●
			RPMT	1204M0-GP	RE 6.0	a_p ▸ 0.50 **2.50** 4.50 f_z ▸ 0.18 **0.35** 0.52	●	●	
REINFORCED	TE P		RPEW	1204M0-TE	RE 6.0	a_p ▸ 0.50 **2.50** 4.50 f_z ▸ 0.20 **0.40** 0.60	○	●	
			RPMW	1204M0-TE	RE 6.0	a_p ▸ 0.50 **2.50** 4.50 f_z ▸ 0.20 **0.40** 0.60	●	●	

● stock standard, ○ non-standard stock

ARBOR

INTERNAL COOLANT



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P M S

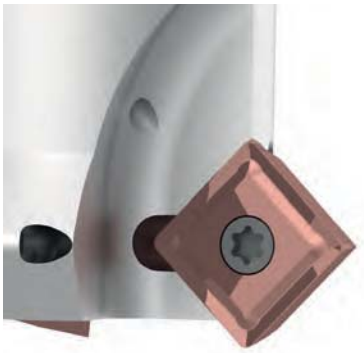
ROUNDPLUS - RP
Copying

				DCX	Z	DCON	LF	KG	MIID		
ARBOR	NT-RP12H	D042-F16-Z4	●	42	4	16	50	0.30	RPET12 RPEW12 RPMT12 RPMW12		
		D050-F22-Z5	●	50	5	22	50	0.45			
		D052-F22-Z5	●	52	5	22	50	0.50			
		D063-F22-Z6	●	63	6	22	50	0.70			
		D066-F22-Z6	●	66	6	22	50	0.80			
		D080-F27-Z7	●	80	7	27	50	1.00			

● stock standard

Spare Parts

	CLAMP SET	INSERT SCREW	INSERT WRENCH
			
NT-RP12H D□□□	NT-CS013	NT-ST017	NT-FTB15

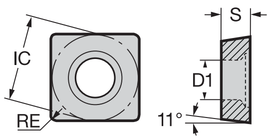


MILLING Chamfering

TURNING
THREADING
GROOVING
MILLING
DRILLING
ACCESSORIES

SP□X

CHAMFERSQUARE
Chamfering



4 edges

Size	IC	S	D1	AN
05	5.00	2.38	2.50	11°
07	7.94	3.97	2.80	11°
09	9.80	4.30	4.10	11°

ISO513	JP5625 (HC-PVD)	JP5530 (HC-PVD)	JP9635 (HC-PVD)	JU6520 (HW)
P	80 250	60 230		
M	60 160	60 150	60 200	
K	80 200			
N				200 1000
S			40 100	
H				

GRADE APPLICATION AREA	
■ main application	Light cut, stable machining
■ applicable	Variable condition, general machining
	Heavy cut, unstable machining

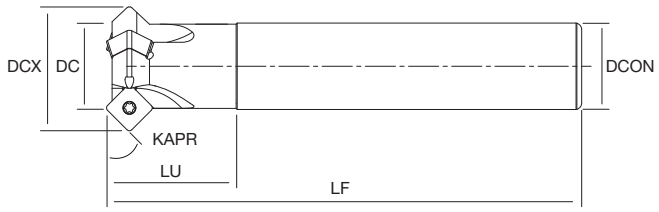
Hardness: + … − ; Toughness: − … +

	Type	Designation	RE	f_z			JP5625	JP5530	JP9635	JU6520
GENERAL GP P M K S	SPMX	050204-GP	RE 0.4	0.08	**0.10**	0.12	●	●	●	
	SPMX	07T308-GP	RE 0.8	0.10	**0.15**	0.20	●	●	●	
	SPMX	090408-GP	RE 0.8	0.10	**0.20**	0.30	●	●	●	
ALUMINIUM AL N (polished surface)	SPGX	050204-AL	RE 0.4	0.08	**0.10**	0.12				●
	SPGX	07T308-AL	RE 0.8	0.10	**0.15**	0.20				●
	SPGX	090408-AL	RE 0.8	0.10	**0.20**	0.30				●

● stock standard

CYLINDRICAL

INTERNAL COOLANT



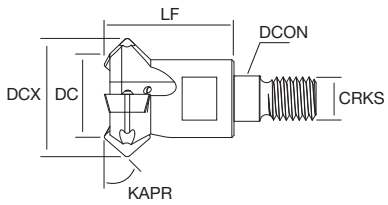
CHAMFERING

45°

P M K N S

SCREW-IN

INTERNAL COOLANT



CHAMFERSQUARE
Chamfering (KAPR 45°)

				DC	DCX	Z	DCON	LF	LU (CRKS)	KG	MIID
CYLINDRICAL	NT-CHS45	D12/19-S12-Z3-05	●	12	19	3	12	80	20		SP□X05
		D16/22-S16-Z4-05	●	16	22	4	16	100	25		
		D20/30-S20-Z3-07	●	20	30	3	20	110	30		SP□X07
		D25/37-S25-Z3-09	●	25	37	3	25	120	35		SP□X09
		D32/44-S32-Z4-09	●	32	44	4	32	130	40		
SCREW-IN	NT-CHS45	D12/19-M06-Z3-05	●	12	19	3	6.5	20	(M6)		SP□X05
		D16/22-M08-Z4-05	●	16	22	4	8.5	25	(M8)		
		D20/30-M10-Z3-07	●	20	30	3	10.5	30	(M10)		SP□X07
		D25/37-M12-Z3-09	●	25	37	3	12.5	35	(M12)		SP□X09
		D32/44-M16-Z4-09	●	32	44	4	17	40	(M16)		

● stock standard

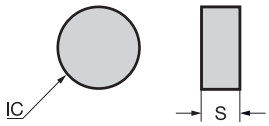
Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-CHS45 D12/19-S12-Z3-05	NT-ST059N	NT-FTB06
NT-CHS45 D16/22-S16-Z4-05		
NT-CHS45 D20/30-S20-Z3-07	NT-ST062N	NT-FTB07
NT-CHS45 D25/37-S25-Z3-09	NT-ST063N	NT-FTB15
NT-CHS45 D32/44-S32-Z4-09		
NT-CHS45 D12/19-M06-Z3-05	NT-ST059N	NT-FTB06
NT-CHS45 D16/22-M08-Z4-05		
NT-CHS45 D20/30-M10-Z3-07	NT-ST062N	NT-FTB07
NT-CHS45 D25/37-M12-Z3-09	NT-ST063N	NT-FTB15
NT-CHS45 D32/44-M16-Z4-09		

MILLING Advanced

RN

CERAMIC - PCBN
Negative



Size	IC	S
120400	12.70	4.76
120700	12.70	7.94

ISO513	CN NSA6000	BH NBH500C	BH NBH900U	BH NBH950U
P				
M				
K		800 2000	800 1500	600 1000
N				
S	800 1200			
H		150 300	100 250	80 180

GRADE APPLICATION AREA	
main application	Variable condition, general machining
applicable	Heavy cut, unstable machining
	Light cut, stable machining

Hardness + / − Toughness − / +

CERAMIC

T01020 S

RNGN	120400-CC	-	a_p ▸	0.50	**1.50**	2.50	●		
			f_z ▸	0.06	**0.15**	0.24			
RNGN	120700-CC	-	a_p ▸	0.50	**1.50**	2.50	●		
			f_z ▸	0.06	**0.15**	0.24			

PCBN

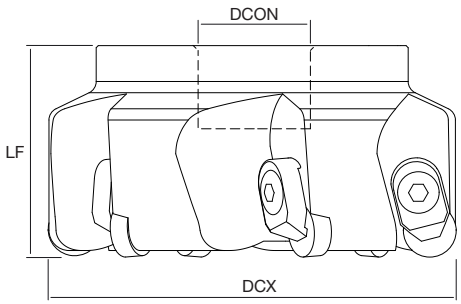
UE H

solid

RNGN	120400S-UE	-	a_p ▸	0.20	**0.50**	1.00		●	● ●
			f_z ▸	0.05	**0.10**	0.15			

● stock standard

ARBOR



FACING

360°

S H

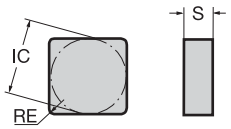
ROUND ADVANCED			DCX	Z	DCON	LF	KG	MIID		
ARBOR	NT-RN12	D050-F22-Z4	●	50	4	22	50	0.50	RNGN1204		
		D063-F22-Z4	●	63	4	22	50	0.70			
		D080-F27-Z5	●	80	5	27	50	1.20			
		D100-F32-Z6	●	100	6	32	50	1.60			
	NT-RN12X	D050-F22-Z4	●	50	4	22	50	0.50	RNGN1207		
		D063-F22-Z4	●	63	4	22	50	0.70			
		D080-F27-Z5	●	80	5	27	50	1.20			
		D100-F32-Z6	●	100	6	32	50	1.60			

● stock standard

Spare Parts	CLAMP	CLAMP SCREW	SPRING	WRENCH
				
NT-RN12 D□□□	NT-CS028	NT-ST028	NT-SG028	NT-WR030

SN

CERAMIC - PCBN
Negative



8 edges

Size	IC	S
12	12.70	4.76

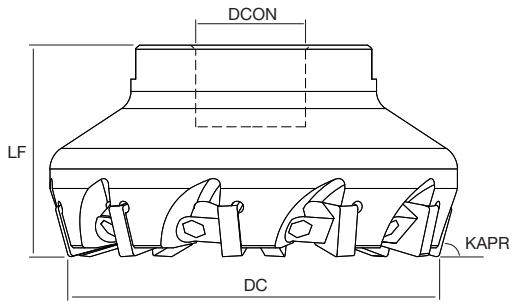
ISO513	CM	CN		BH	
	NAC200	NSN400	NSN450	NBH550U	NBH900U
P					
M					
K	300 600	600 1200	500 1000	800 2000	800 1500
N					
S					
H					

GRADE APPLICATION AREA	Light cut, stable machining	Hardness + / −	Toughness − / +
main application	Variable condition, general machining		
applicable	Heavy cut, unstable machining		

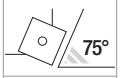
CERAMIC	T02020 K	SNGN	120412-GP	RE 1.2	Roughing a_p ▸ **>1.00**; f_z ▸ 0.15 **0.20** 0.25		●	●			
		SNMN	120416-GP	RE 1.6	Roughing a_p ▸ **>1.00**; f_z ▸ 0.15 **0.20** 0.25		●				
	T02020 K **only for 75°** milling cutter	SNXN	1204EN	BS 1.4	Finishing a_p ▸ **<1.00**; f_z ▸ 0.05 **0.10** 0.15	○					
					Roughing a_p ▸ **>1.00**; f_z ▸ 0.10 **0.20** 0.30		●				
	T02020 K **only for 88°** milling cutter	SNXN	1204HN	BS 1.8	Finishing a_p ▸ **<1.00**; f_z ▸ 0.06 **0.08** 0.10	○					
					Roughing a_p ▸ **>1.00**; f_z ▸ 0.10 **0.15** 0.20		●				
	S02020 K chip breaker, low cutting force	SNGX	120412-GS	RE 1.2	Roughing a_p ▸ **>1.00**; f_z ▸ 0.10 **0.15** 0.20		●				
PCBN	UE K solid	SNGN	120412S-UE	RE 1.2	Roughing a_p ▸ **>1.00**; f_z ▸ 0.15 **0.20** 0.25				●	●	
	EN K **only for 75°** milling cutter	SNXN	1204EN	BS 1.4	Finishing a_p ▸ **<1.00**; f_z ▸ 0.05 **0.10** 0.15				●		
					Roughing a_p ▸ **>1.00**; f_z ▸ 0.10 **0.20** 0.30						
	HN K **only for 88°** milling cutter	SNXN	1204HN	BS 1.8	Finishing a_p ▸ **<1.00**; f_z ▸ 0.06 **0.08** 0.10				●		
					Roughing a_p ▸ **>1.00**; f_z ▸ 0.10 **0.15** 0.20						

● stock standard

ARBOR

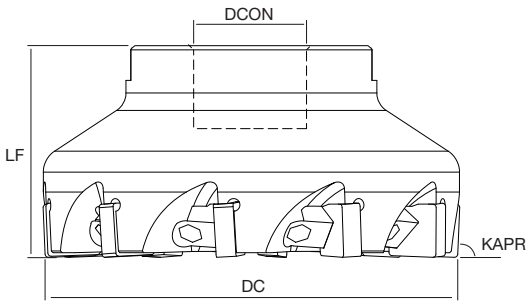


FACING

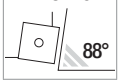


K

ARBOR



FACING



K

SQUARE ADVANCED
(KAPR 75° and 88°)

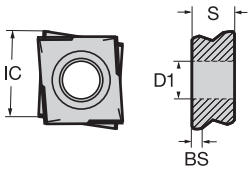
				DC	Z	DCON	LF	KG	MIID		
75°	NT-SN12-75°	D050-F22-Z5	●	50	5	22	40	0.50	SNGN12 SNGX12 SNMN12 SNXN12		
		D063-F22-Z6	●	63	6	22	40	0.70			
		D080-F27-Z8	●	80	8	27	50	1.40			
		D100-F32-Z10	●	100	10	32	50	1.80			
		D125-F40-Z12	●	125	12	40	63	4.00			
88°	NT-SN12-88°	D063-F22-Z6	●	63	6	22	40	0.70	SNGN12 SNGX12 SNMN12 SNXN12		
		D080-F27-Z8	●	80	8	27	50	1.40			
		D100-F32-Z10	●	100	10	32	50	1.80			
		D125-F40-Z12	●	125	12	40	63	4.00			

● stock standard

Spare Parts	WEDGE	WEDGE SCREW	WRENCH
			
NT-SN12 D□□□	NT-WD070	NT-SC060	NT-WR030

SP

CERAMIC
Tangential



8 edges

Size	IC	S	D1
12	11.70	5.50	5.10

ISO513	CN NSN350	CN NSN400
P		
M		
K	600 1200	600 1200
N		
S		
H		

GRADE APPLICATION AREA	
main application	Variable condition, general machining
applicable	Heavy cut, unstable machining
	Light cut, stable machining

Hardness: + / −
Toughness: − / +

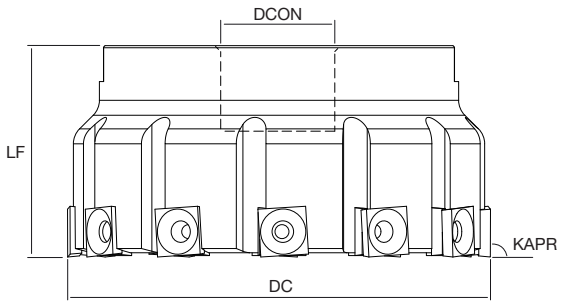
CERAMIC

GP **K**

SPHX	**1205PCTR-GP**	BS 0.7	Finishing	a_p ▸	**<1.00**	●	●
				f_z ▸ 0.08	**0.15** 0.22		
			Roughing	a_p ▸	**>1.00**		
				f_z ▸ 0.10	**0.20** 0.30		

● stock standard

ARBOR



TANGENTIAL

90°

K

TANGENTIAL ADVANCED
(KAPR 90°)

				DC	Z	DCON	LF	KG	MIID		
ARBOR	NT-SP12-TAN	D050-F22-Z5	●	50	5	22	50	0.40			
		D063-F22-Z7	●	63	7	22	50	0.60			
		D080-F27-Z8	●	80	8	27	50	1.20	SPHX12		
		D100-F32-Z12	●	100	12	32	50	2.00			
		D125-F40-Z15	●	125	15	40	50	3.40			

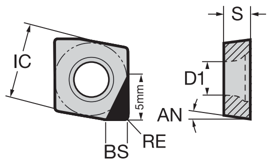
● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
		
NT-SP12 D□□□	NT-ST027	NT-FTB15

TURNING
THREADING
GROOVING
MILLING
DRILLING
ACCESSORIES

XP

DIAMOND - PCBN
Positive



DIAMOND 1 edge - PCBN 2 edges

Size	IC	S	D1	AN
08	7.91	2.38	3.60	11°

ISO513	DP ND120	DP ND150	BH NBH450U
P			
M			
K			600 1000
N	500 2000	500 2500	
S			
H			80 200

GRADE APPLICATION AREA		Hardness	Toughness
■ main application	Light cut, stable machining	+	−
■ applicable	Variable condition, general machining		
	Heavy cut, unstable machining	−	+

DIAMOND

SLANT TIP N

tip with carbide backed, tip angle: 3°

	Designation	RE / BS		min	rec.	max	ND120	ND150	NBH450U
XPGT	**080204F-1C**	RE 0.4	a_p ▸	0.50	**2.00**	3.50	●	●	
		BS 2.5	f_z ▸	0.05	**0.15**	0.25			
	080208F-1C	RE 0.8	a_p ▸	0.50	**2.00**	3.50	●	●	
		BS 2.5	f_z ▸	0.05	**0.15**	0.25			

PCBN

FLAT TIP K

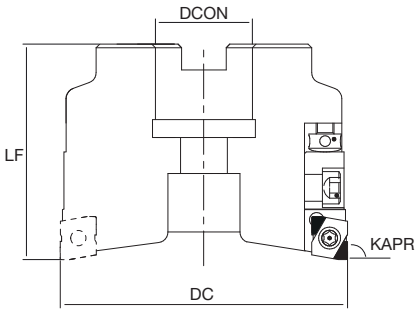
tip with carbide backed

	Designation	RE / BS		min	rec.	max	ND120	ND150	NBH450U
XPGW	**080204S-UE-2C**	RE 0.4	a_p ▸	0.50	**1.00**	1.50			●
		BS 2.5	f_z ▸	0.05	**0.10**	0.15			
	080208S-UE-2C	RE 0.8	a_p ▸	0.50	**1.00**	1.50			●
		BS 2.5	f_z ▸	0.05	**0.10**	0.15			

● stock standard

ARBOR

STEEL BODY

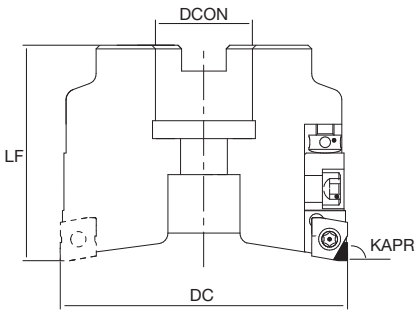


FACING

K

ARBOR

ALUMINIUM BODY



FACING

N

ADJUSTABLE ADVANCED
(KAPR 90°)

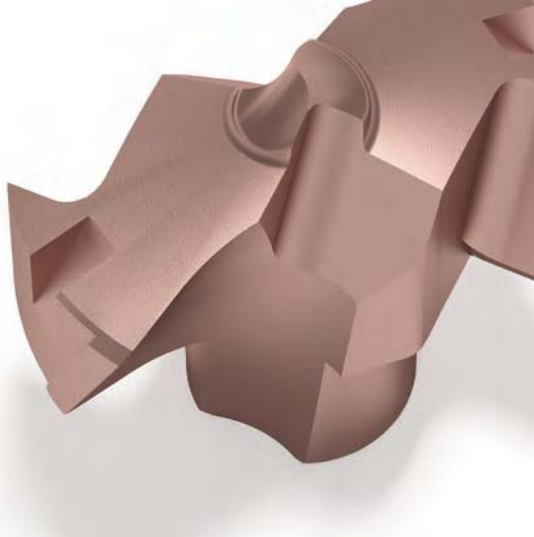
				DC	Z	DCON	LF	KG	MIID		
STEEL BODY	NT-XP08	D050-F16-Z5-ST	●	50	5	16	50		XPGW08		
		D063-F22-Z6-ST	●	63	6	22	50				
		D080-F27-Z7-ST	●	80	7	27	50				
		D100-F32-Z8-ST	●	100	8	32	50				
ALU BODY	NT-XP08	D063-F22-Z5-AL	●	63	5	22	50		XPGT08		
		D080-F27-Z7-AL	●	80	7	27	50				
		D100-F32-Z8-AL	●	100	8	32	50				
		D125-F40-Z10-AL	●	125	10	40	63				

● stock standard

Spare Parts	CARTRIDGE	CARTRIDGE SCREW	CARTRIDGE WRENCH	ADJUSTING SCREW	CHIP COVER	COVER SCREW	INSERT SCREW	INSERT WRENCH
NT-XP08 D□□□-F□□-Z□□-ST	NT-CRD-XP08	NT-CW040	NT-WR040	NT-AD040	-	-	NT-ST075	NT-FTB09
NT-XP08 D□□□-F□□-Z□□-AL					NT-CH030	NT-ST064		

DRILLING

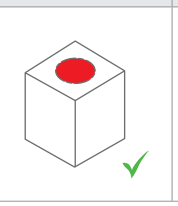
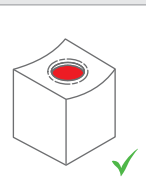
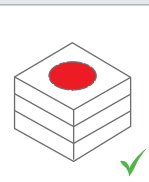
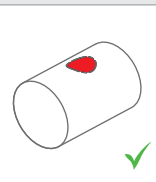
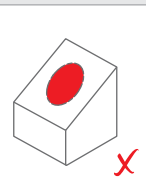
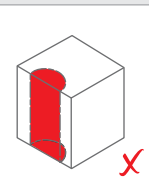
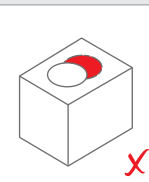
DRILLING DEXdrill



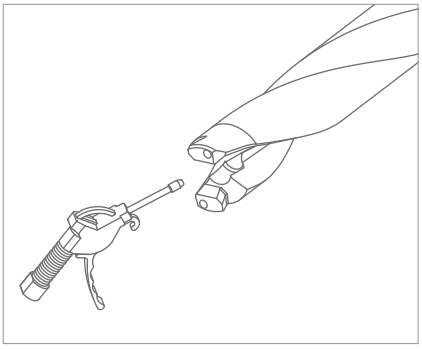
DEXDRILL 3XD 5XD

High performance drilling system with interchangeable heads

1. Where is DEXdrill applicable?

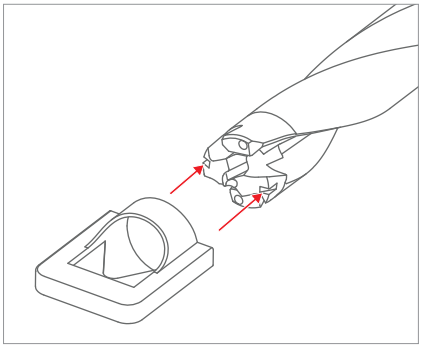
PLAIN SURFACE	CONCAVE SURFACE	STACKED PLATES	PIPES	SLANT SURFACE	HALF HOLE	HOLE EXPANSION
						

2. Drilling heads installation



Clean pocket with air blast.

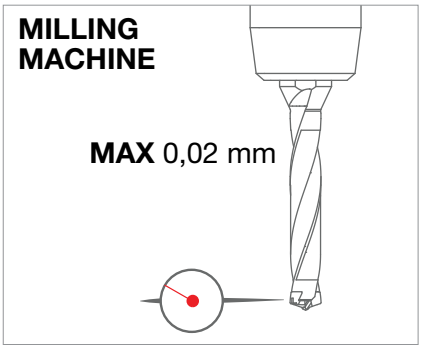
Put insert into drill holder.



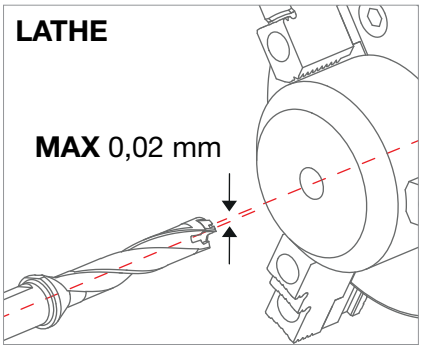
Set wrench into slots on insert flanks.

Slowly turn the wrench clockwise until stop.

3. Operation recommendations



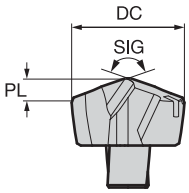
Center of arbor deviation must be under 0.02mm



Keep under 0.02mm the maximum deviation between drill and workpiece

DEX

Self-locking drilling head



DC tol.	SIG
k6	140°

ISO513	HC-PVD JP5625	HC-PVD JP7625
P	40 160	
M		
K	80 180	100 200
N		
S		
H		

GRADE APPLICATION AREA	
main application	General machining
applicable	Unstable machining

Hardness + / − Toughness − / +

GENERAL

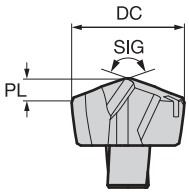
GP P K

DC		PL	f_n ▸			
DC 12.00	DEX1200-GP	PL 2.18	f_n ▸	0.12	**0.18**	0.26
DC 12.10	DEX1210-GP	PL 2.20	f_n ▸	0.12	**0.18**	0.26
DC 12.20	DEX1220-GP	PL 2.22	f_n ▸	0.12	**0.18**	0.26
DC 12.30	DEX1230-GP	PL 2.24	f_n ▸	0.12	**0.18**	0.26
DC 12.40	DEX1240-GP	PL 2.26	f_n ▸	0.12	**0.18**	0.26
DC 12.50	DEX1250-GP	PL 2.27	f_n ▸	0.12	**0.18**	0.26
DC 12.60	DEX1260-GP	PL 2.29	f_n ▸	0.12	**0.18**	0.26
DC 12.70	DEX1270-GP	PL 2.31	f_n ▸	0.12	**0.18**	0.26
DC 12.80	DEX1280-GP	PL 2.33	f_n ▸	0.12	**0.18**	0.26
DC 12.90	DEX1290-GP	PL 2.35	f_n ▸	0.12	**0.18**	0.26
DC 13.00	DEX1300-GP	PL 2.37	f_n ▸	0.14	**0.20**	0.28
DC 13.10	DEX1310-GP	PL 2.38	f_n ▸	0.14	**0.20**	0.28
DC 13.20	DEX1320-GP	PL 2.40	f_n ▸	0.14	**0.20**	0.28
DC 13.30	DEX1330-GP	PL 2.42	f_n ▸	0.14	**0.20**	0.28
DC 13.40	DEX1340-GP	PL 2.44	f_n ▸	0.14	**0.20**	0.28
DC 13.50	DEX1350-GP	PL 2.46	f_n ▸	0.14	**0.20**	0.28
DC 13.60	DEX1360-GP	PL 2.47	f_n ▸	0.14	**0.20**	0.28
DC 13.70	DEX1370-GP	PL 2.49	f_n ▸	0.14	**0.20**	0.28
DC 13.80	DEX1380-GP	PL 2.51	f_n ▸	0.14	**0.20**	0.28
DC 13.90	DEX1390-GP	PL 2.53	f_n ▸	0.14	**0.20**	0.28
DC 14.00	DEX1400-GP	PL 2.55	f_n ▸	0.16	**0.22**	0.30
DC 14.10	DEX1410-GP	PL 2.57	f_n ▸	0.16	**0.22**	0.30
DC 14.20	DEX1420-GP	PL 2.58	f_n ▸	0.16	**0.22**	0.30
DC 14.30	DEX1430-GP	PL 2.60	f_n ▸	0.16	**0.22**	0.30
DC 14.40	DEX1440-GP	PL 2.62	f_n ▸	0.16	**0.22**	0.30
DC 14.50	DEX1450-GP	PL 2.64	f_n ▸	0.16	**0.22**	0.30
DC 14.60	DEX1460-GP	PL 2.66	f_n ▸	0.16	**0.22**	0.30
DC 14.70	DEX1470-GP	PL 2.68	f_n ▸	0.16	**0.22**	0.30

● stock standard

DEX

Self-locking drilling head



DC tol.	SIG
k6	140°

ISO513	HC-PVD JP5625	HC-PVD JP7625
P	40 160	
M		
K	80 180	100 200
N		
S		
H		

GRADE APPLICATION AREA	
main application	General machining
applicable	Unstable machining

Stable machining

Hardness + / − Toughness − / +

GP P K

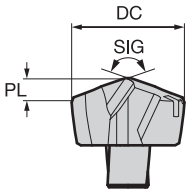
GENERAL

DC 14.80	DEX1480-GP	PL 2.69	f_n ▸	0.16	**0.22**	0.30	●	
DC 14.90	DEX1490-GP	PL 2.71	f_n ▸	0.16	**0.22**	0.30	●	
DC 15.00	DEX1500-GP	PL 2.73	f_n ▸	0.18	**0.25**	0.32	●	
DC 15.10	DEX1510-GP	PL 2.75	f_n ▸	0.18	**0.25**	0.32	●	
DC 15.20	DEX1520-GP	PL 2.77	f_n ▸	0.18	**0.25**	0.32	●	
DC 15.30	DEX1530-GP	PL 2.78	f_n ▸	0.18	**0.25**	0.32	●	
DC 15.40	DEX1540-GP	PL 2.80	f_n ▸	0.18	**0.25**	0.32	●	
DC 15.50	DEX1550-GP	PL 2.82	f_n ▸	0.18	**0.25**	0.32	●	
DC 15.60	DEX1560-GP	PL 2.84	f_n ▸	0.18	**0.25**	0.32	●	
DC 15.70	DEX1570-GP	PL 2.86	f_n ▸	0.18	**0.25**	0.32	●	
DC 15.80	DEX1580-GP	PL 2.88	f_n ▸	0.18	**0.25**	0.32	●	
DC 15.90	DEX1590-GP	PL 2.89	f_n ▸	0.18	**0.25**	0.32	●	
DC 16.00	DEX1600-GP	PL 2.91	f_n ▸	0.20	**0.26**	0.34	●	
DC 16.10	DEX1610-GP	PL 2.93	f_n ▸	0.20	**0.26**	0.34	●	
DC 16.20	DEX1620-GP	PL 2.95	f_n ▸	0.20	**0.26**	0.34	●	
DC 16.30	DEX1630-GP	PL 2.97	f_n ▸	0.20	**0.26**	0.34	●	
DC 16.40	DEX1640-GP	PL 2.98	f_n ▸	0.20	**0.26**	0.34	●	
DC 16.50	DEX1650-GP	PL 3.00	f_n ▸	0.20	**0.26**	0.34	●	
DC 16.60	DEX1660-GP	PL 3.02	f_n ▸	0.20	**0.26**	0.34	●	
DC 16.70	DEX1670-GP	PL 3.04	f_n ▸	0.20	**0.26**	0.34	●	
DC 16.80	DEX1680-GP	PL 3.06	f_n ▸	0.20	**0.26**	0.34	●	
DC 16.90	DEX1690-GP	PL 3.08	f_n ▸	0.20	**0.26**	0.34	●	
DC 17.00	DEX1700-GP	PL 3.09	f_n ▸	0.20	**0.28**	0.36	●	
DC 17.10	DEX1710-GP	PL 3.11	f_n ▸	0.20	**0.28**	0.36	●	
DC 17.20	DEX1720-GP	PL 3.13	f_n ▸	0.20	**0.28**	0.36	●	
DC 17.30	DEX1730-GP	PL 3.15	f_n ▸	0.20	**0.28**	0.36	●	
DC 17.40	DEX1740-GP	PL 3.17	f_n ▸	0.20	**0.28**	0.36	●	
DC 17.50	DEX1750-GP	PL 3.18	f_n ▸	0.20	**0.28**	0.36	●	

● stock standard

DEX

Self-locking drilling head



DC tol.	SIG
k6	140°

ISO513	HC-PVD JP5625	HC-PVD JP7625
P	40 160	
M		
K	80 180	100 200
N		
S		
H		

GRADE APPLICATION AREA	Stable machining	Hardness + / −	Toughness − / +
main application	General machining		
applicable	Unstable machining		

GENERAL

GP P K

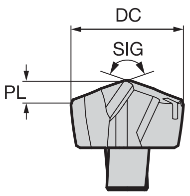
DC		PL	f_n ▸			JP5625	JP7625
DC 17.60	DEX1760-GP	PL 3.20	0.20	**0.28**	0.36	●	
DC 17.70	DEX1770-GP	PL 3.22	0.20	**0.28**	0.36	●	
DC 17.80	DEX1780-GP	PL 3.24	0.20	**0.28**	0.36	●	
DC 17.90	DEX1790-GP	PL 3.26	0.20	**0.28**	0.36	●	
DC 18.00	DEX1800-GP	PL 3.28	0.22	**0.30**	0.40	●	
DC 18.10	DEX1810-GP	PL 3.29	0.22	**0.30**	0.40	●	
DC 18.20	DEX1820-GP	PL 3.31	0.22	**0.30**	0.40	●	
DC 18.30	DEX1830-GP	PL 3.33	0.22	**0.30**	0.40	●	
DC 18.40	DEX1840-GP	PL 3.35	0.22	**0.30**	0.40	●	
DC 18.50	DEX1850-GP	PL 3.37	0.22	**0.30**	0.40	●	
DC 18.60	DEX1860-GP	PL 3.38	0.22	**0.30**	0.40	●	
DC 18.70	DEX1870-GP	PL 3.40	0.22	**0.30**	0.40	●	
DC 18.80	DEX1880-GP	PL 3.42	0.22	**0.30**	0.40	●	
DC 18.90	DEX1890-GP	PL 3.44	0.22	**0.30**	0.40	●	
DC 19.00	DEX1900-GP	PL 3.46	0.24	**0.32**	0.42	●	
DC 19.10	DEX1910-GP	PL 3.48	0.24	**0.32**	0.42	●	
DC 19.20	DEX1920-GP	PL 3.49	0.24	**0.32**	0.42	●	
DC 19.30	DEX1930-GP	PL 3.51	0.24	**0.32**	0.42	●	
DC 19.40	DEX1940-GP	PL 3.53	0.24	**0.32**	0.42	●	
DC 19.50	DEX1950-GP	PL 3.55	0.24	**0.32**	0.42	●	
DC 19.60	DEX1960-GP	PL 3.57	0.24	**0.32**	0.42	●	
DC 19.70	DEX1970-GP	PL 3.59	0.24	**0.32**	0.42	●	
DC 19.80	DEX1980-GP	PL 3.60	0.24	**0.32**	0.42	●	
DC 19.90	DEX1990-GP	PL 3.62	0.24	**0.32**	0.42	●	
DC 20.00	DEX2000-GP	PL 3.64	0.26	**0.35**	0.44	●	
DC 20.10	DEX2010-GP	PL 3.66	0.26	**0.35**	0.44	●	
DC 20.20	DEX2020-GP	PL 3.68	0.26	**0.35**	0.44	●	
DC 20.30	DEX2030-GP	PL 3.69	0.26	**0.35**	0.44	●	

● stock standard

nikkoTOOLS

DEX

Self-locking drilling head



DC tol.	SIG
k6	140°

ISO513	JP5625 (HC-PVD)	JP7625 (HC-PVD)
P	40 160	
M		
K	80 180	100 200
N		
S		
H		

GRADE APPLICATION AREA		Hardness	Toughness
main application	Stable machining	+	−
applicable	General machining		
	Unstable machining	−	+

GENERAL

GP P K

DC	Designation	PL	f_n			JP5625	JP7625
DC 20.40	DEX2040-GP	PL 3.71	0.26	**0.35**	0.44	●	
DC 20.50	DEX2050-GP	PL 3.73	0.26	**0.35**	0.44	●	
DC 20.60	DEX2060-GP	PL 3.75	0.26	**0.35**	0.44	●	
DC 20.70	DEX2070-GP	PL 3.77	0.26	**0.35**	0.44	●	
DC 20.80	DEX2080-GP	PL 3.79	0.26	**0.35**	0.44	●	
DC 20.90	DEX2090-GP	PL 3.80	0.26	**0.35**	0.44	●	

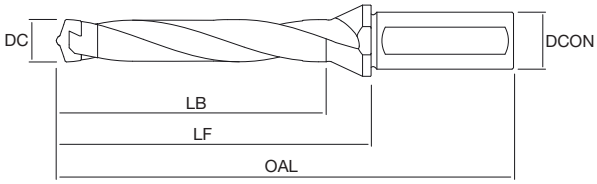
REINFORCED

TE K

high performance for cast iron
reinforced chamfer

DC	Designation	PL	f_n			JP5625	JP7625
DC 12.00	DEX1200-TE	PL 2.18	0.24	**0.28**	0.34		●
DC 12.50	DEX1250-TE	PL 2.27	0.24	**0.28**	0.34		●
DC 13.00	DEX1300-TE	PL 2.37	0.26	**0.30**	0.36		●
DC 13.50	DEX1350-TE	PL 2.46	0.26	**0.30**	0.36		●
DC 14.00	DEX1400-TE	PL 2.55	0.28	**0.32**	0.38		●
DC 14.50	DEX1450-TE	PL 2.64	0.28	**0.32**	0.38		●
DC 15.00	DEX1500-TE	PL 2.73	0.30	**0.34**	0.40		●
DC 15.50	DEX1550-TE	PL 2.82	0.30	**0.34**	0.40		●
DC 16.00	DEX1600-TE	PL 2.91	0.32	**0.36**	0.42		●
DC 16.50	DEX1650-TE	PL 3.00	0.32	**0.36**	0.42		●
DC 17.00	DEX1700-TE	PL 3.09	0.34	**0.38**	0.44		●
DC 17.50	DEX1750-TE	PL 3.18	0.34	**0.38**	0.44		●
DC 18.00	DEX1800-TE	PL 3.28	0.36	**0.40**	0.46		●
DC 18.50	DEX1850-TE	PL 3.37	0.36	**0.40**	0.46		●
DC 19.00	DEX1900-TE	PL 3.46	0.38	**0.42**	0.48		●
DC 19.50	DEX1950-TE	PL 3.55	0.38	**0.42**	0.48		●
DC 20.00	DEX2000-TE	PL 3.64	0.40	**0.44**	0.50		●
DC 20.50	DEX2050-TE	PL 3.73	0.40	**0.44**	0.50		●

● stock standard



	DEX DRILL			DC min	DC max	DCON	OAL	LF	LB	MIID
3xD	NT-DEX-3D	D12-S16F	●	12.00	12.99	16	108	60	48	DEX1200 ÷ DEX1290
		D13-S16F	●	13.00	13.99	16	112	64	51	DEX1300 ÷ DEX1390
		D14-S16F	●	14.00	14.99	16	117	69	55	DEX1400 ÷ DEX1490
		D15-S20F	●	15.00	15.99	20	123	73	58	DEX1500 ÷ DEX1590
		D16-S20F	●	16.00	16.99	20	127	77	61	DEX1600 ÷ DEX1690
		D17-S20F	●	17.00	17.99	20	132	82	65	DEX1700 ÷ DEX1790
		D18-S25F	●	18.00	18.99	25	142	86	68	DEX1800 ÷ DEX1890
		D19-S25F	●	19.00	19.99	25	146	90	71	DEX1900 ÷ DEX1990
		D20-S25F	●	20.00	20.99	25	150	94	74	DEX2000 ÷ DEX2090
5xD	NT-DEX-5D	D12-S16F	●	12.00	12.99	16	134	86	74	DEX1200 ÷ DEX1290
		D13-S16F	●	13.00	13.99	16	140	92	79	DEX1300 ÷ DEX1390
		D14-S16F	●	14.00	14.99	16	147	99	85	DEX1400 ÷ DEX1490
		D15-S20F	●	15.00	15.99	20	155	105	90	DEX1500 ÷ DEX1590
		D16-S20F	●	16.00	16.99	20	161	111	95	DEX1600 ÷ DEX1690
		D17-S20F	●	17.00	17.99	20	168	118	101	DEX1700 ÷ DEX1790
		D18-S25F	●	18.00	18.99	25	180	124	106	DEX1800 ÷ DEX1890
		D19-S25F	●	19.00	19.99	25	186	130	111	DEX1900 ÷ DEX1990
		D20-S25F	●	20.00	20.99	25	192	136	116	DEX2000 ÷ DEX2090

● stock standard

Spare Parts	WRENCH
DC ≤ 17	NT-WR1217
DC > 18	NT-WR1820

CUTTING SPEED [m/min]

	MATERIALS (HARDNESS/Rm)	W.-Nr	DIN	AISI-ASTM	TRADE MARK	JP5625	JP7625
P1	Free cutting steel and structural steel (< 500 N/mm²)	1.0715 1.0765	9 SMn 28 36 SMnPb 14	1213 A29	AVP PR80	100÷160	
P2	Carbon steel and low alloy steel (500-700 N/mm²)	1.7147 1.0511	20 MnCr 5 C 40	5120 1040	- -	80÷140	
P3	Medium alloy steel and heat treated steel (600-800 N/mm²)	1.1201 1.6511	42 CrMo 4 36 CrNiMo 4	4142, 4140 9840	- -	60÷100	
P4	High alloy steel (800-1000 N/mm²)	1.1663 1.3505	C 125 W 100 Cr 6	W1 52100	- -	50÷90	
P5	Tool steel (900-1200 N/mm²)	1.2080 1.2379	X 210 Cr 12 X 155 CrVMo 12 1	D3 -	K100 K110	40÷80	
K1	Grey cast iron (150-250 HB)	0.6020 0.6025	GG-20 GG-25	A48 30 B A48 35 B	- -	80÷180	100÷200
K2	Nodular cast iron (150-350 HB)	0.7050 0.7070	GGG-50 GGG-70	A536 80-55-6 A536 100-70-03	- -	80÷140	100÷160

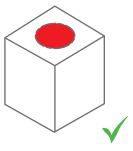
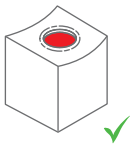
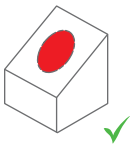
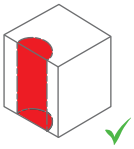
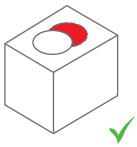
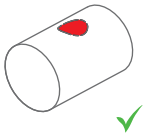
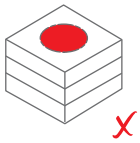
DRILLING DRSdrill

DRSDRILL

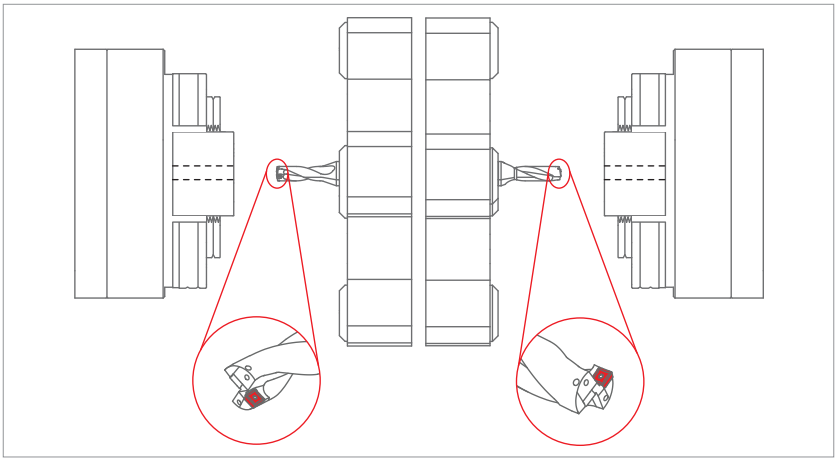
2XD
3XD
4XD
5XD

High performance drills for universal use

1. Where is DRSdrill applicable?

PLAIN SURFACE	CONCAVE SURFACE	SLANT SURFACE	HALF HOLE	HOLE EXPANSION	PIPES	STACKED PLATES
						

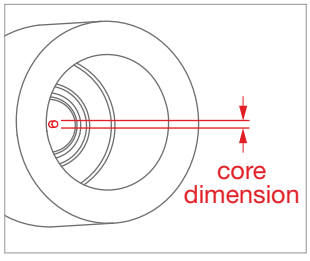
2. Lathe installation



It's recommended to set the outer insert facing the operator as shown in the drawing, both for main and sub-spindle to gain the best results.

Following this suggestion, generally, the inner insert will be set below the center which is the recommended situation for optimal operation.

3. Quick check of the center height

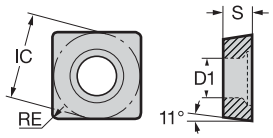


To check if the machine axis is correctly aligned, a test hole should be drilled checking the remaining core on the hole bottom.

Center-height adjustment** is necessary when **no core** remains or if the core diameter is **larger than 1mm.

SP□X

DRS
4 edges drilling inserts



4 edges

Size	IC	S	D1	RE
05	5.00	2.38	2.50	0.40
06	6.00	2.38	2.80	0.40
07	7.94	3.97	2.80	0.80
09	9.80	4.30	4.10	0.80
11	11.50	4.76	4.40	0.80
14	14.30	5.20	5.50	1.20

ISO513	HC-PVD JP5625	HC-PVD JP5530	HC-PVD JP9635	HW JU6520
P	80 300	80 300		
M			50 220	
K	120 250	120 250		
N				200 400
S				
H				

GRADE APPLICATION AREA	Stable machining	Hardness + / −	Toughness − / +
main application	General machining		
applicable	Unstable machining		

GENERAL

GP P M K S

			f_n			JP5625	JP5530	JP9635	JU6520
SPMX	050204-GP	2xD	▸	0.04	**0.08**	0.12	●	●	●	
		3xD	▸	0.04	**0.07**	0.10				
		4xD	▸	0.04	**0.06**	0.08				
		5xD	▸	0.04	**0.05**	0.06				
SPMX	060204-GP	2xD	▸	0.06	**0.10**	0.14	●	●	●	
		3xD	▸	0.06	**0.09**	0.12				
		4xD	▸	0.05	**0.07**	0.10				
		5xD	▸	0.04	**0.06**	0.08				
SPMX	07T308-GP	2xD	▸	0.06	**0.11**	0.16	●	●	●	
		3xD	▸	0.06	**0.10**	0.14				
		4xD	▸	0.06	**0.09**	0.12				
		5xD	▸	0.05	**0.07**	0.09				
SPMX	090408-GP	2xD	▸	0.08	**0.14**	0.20	●	●	●	
		3xD	▸	0.08	**0.13**	0.18				
		4xD	▸	0.06	**0.11**	0.16				
		5xD	▸	0.06	**0.09**	0.12				
SPMX	110408-GP	2xD	▸	0.08	**0.15**	0.22	●	●	●	
		3xD	▸	0.08	**0.14**	0.20				
		4xD	▸	0.07	**0.12**	0.18				
		5xD	▸	0.06	**0.12**	0.16				
SPMX	140512-GP	2xD	▸	0.10	**0.17**	0.24	●	●	●	
		3xD	▸	0.10	**0.16**	0.22				
		4xD	▸	0.08	**0.14**	0.20				
		5xD	▸	0.07	**0.12**	0.18				

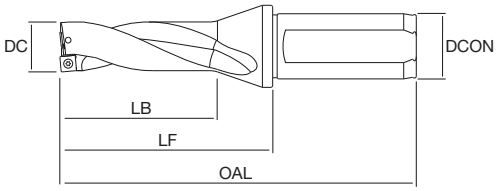
ALUMINIUM

AL N

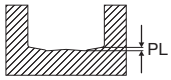
polished surface

			f_n			JP5625	JP5530	JP9635	JU6520
SPGX	050204-AL	2xD	▸	0.06	**0.09**	0.12				●
		3xD	▸	0.06	**0.09**	0.12				
		4xD	▸	0.04	**0.07**	0.10				
		5xD	▸	0.04	**0.06**	0.08				
SPGX	060204-AL	2xD	▸	0.08	**0.12**	0.16				●
		3xD	▸	0.08	**0.12**	0.16				
		4xD	▸	0.06	**0.09**	0.12				
		5xD	▸	0.06	**0.08**	0.10				
SPGX	07T308-AL	2xD	▸	0.10	**0.14**	0.18				●
		3xD	▸	0.10	**0.14**	0.18				
		4xD	▸	0.08	**0.11**	0.14				
		5xD	▸	0.08	**0.10**	0.12				
SPGX	090408-AL	2xD	▸	0.10	**0.15**	0.20				●
		3xD	▸	0.10	**0.15**	0.20				
		4xD	▸	0.09	**0.12**	0.15				
		5xD	▸	0.09	**0.11**	0.13				
SPGX	110408-AL	2xD	▸	0.11	**0.16**	0.21				●
		3xD	▸	0.11	**0.16**	0.21				
		4xD	▸	0.10	**0.14**	0.18				
		5xD	▸	0.10	**0.13**	0.16				
SPGX	140512-AL	2xD	▸	0.12	**0.17**	0.22				●
		3xD	▸	0.12	**0.17**	0.22				
		4xD	▸	0.10	**0.15**	0.20				
		5xD	▸	0.10	**0.14**	0.18				

● stock standard



HOLE TOLERANCE 0/+0.20mm

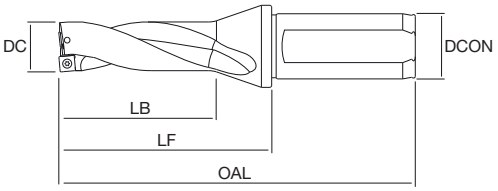


	DRS 2XD			DC	DCON	OAL	LF	LB	ADJLX max. radial offset	PL hole bottom shape	MIID
05	NT-DRS-2D	D13.00-S20-05	●	13	20	94	44	26	0.50	0.40	SPMX05 SPGX05
		D14.00-S20-05	●	14	20	96	46	28	0.50	0.40	
		D15.00-S20-05	●	15	20	99	49	30	0.50	0.40	
06	NT-DRS-2D	D16.00-S25-06	●	16	25	108	52	32	0.50	0.50	SPMX06 SPGX06
		D17.00-S25-06	●	17	25	110	54	34	0.50	0.50	
		D18.00-S25-06	●	18	25	113	57	36	0.50	0.50	
		D19.00-S25-06	●	19	25	115	59	38	0.50	0.50	
		D20.00-S25-06	●	20	25	119	63	40	0.50	0.50	
		D21.00-S25-06	●	21	25	121	65	42	0.25	0.50	
07	NT-DRS-2D	D22.00-S25-07	●	22	25	123	67	44	0.50	0.50	SPMX07 SPGX07
		D23.00-S32-07	●	23	32	131	71	46	0.50	0.50	
		D24.00-S32-07	●	24	32	134	74	48	0.50	0.50	
		D25.00-S32-07	●	25	32	137	77	50	0.50	0.50	
		D26.00-S32-07	●	26	32	139	79	52	0.25	0.60	
		D27.00-S32-07	●	27	32	141	81	54	0.25	0.60	
09	NT-DRS-2D	D28.00-S32-09	●	28	32	144	84	56	0.50	0.80	SPMX09 SPGX09
		D29.00-S32-09	●	29	32	146	86	58	0.50	0.80	
		D30.00-S32-09	●	30	32	151	91	60	0.50	0.80	
		D31.00-S32-09	●	31	32	154	94	62	0.25	0.80	
		D32.00-S32-09	●	32	32	156	96	64	0.25	0.80	
		D33.00-S32-09	●	33	32	159	99	66	0.25	0.80	
11	NT-DRS-2D	D34.00-S40-11	●	34	40	171	101	68	0.50	0.90	SPMX11 SPGX11
		D35.00-S40-11	●	35	40	174	104	70	0.50	0.90	
		D36.00-S40-11	●	36	40	177	107	72	0.50	0.90	
		D37.00-S40-11	●	37	40	180	110	74	0.50	0.90	
		D38.00-S40-11	●	38	40	183	113	76	0.50	0.90	
		D39.00-S40-11	●	39	40	185	115	78	0.50	0.90	
		D40.00-S40-11	●	40	40	188	118	80	0.25	0.90	
		D41.00-S40-11	●	41	40	191	121	82	0.25	0.90	
14	NT-DRS-2D	D42.00-S40-14	●	42	40	193	123	84	0.50	1.00	SPMX14 SPGX14
		D43.00-S40-14	●	43	40	196	126	86	0.50	1.00	
		D44.00-S40-14	●	44	40	198	128	88	0.50	1.00	
		D45.00-S40-14	●	45	40	202	132	90	0.50	1.00	
		D46.00-S40-14	●	46	40	205	135	92	0.50	1.00	
		D47.00-S40-14	●	47	40	207	137	94	0.50	1.00	
		D48.00-S40-14	●	48	40	210	140	96	0.25	1.00	
		D49.00-S40-14	●	49	40	212	142	98	0.25	1.00	
		D50.00-S40-14	●	50	40	215	145	100	0.25	1.00	

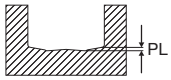
● stock standard

Spare Parts

	INSERT SCREW	INSERT WRENCH
NT-DRS-2D D□□.□□-S□□-05	NT-ST059	NT-FTB06
NT-DRS-2D D□□.□□-S□□-06	NT-ST061	NT-FTB06
NT-DRS-2D D□□.□□-S□□-07	NT-ST062	NT-FTB07
NT-DRS-2D D□□.□□-S□□-09	NT-ST063	NT-FTB15
NT-DRS-2D D□□.□□-S□□-11	NT-ST064	NT-FTB15
NT-DRS-2D D□□.□□-S□□-14	NT-ST066	NT-FTB20



HOLE TOLERANCE 0/+0.25mm



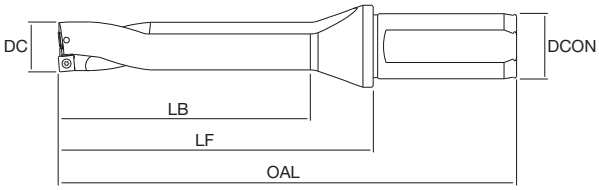
	DRS 3XD			DC	DCON	OAL	LF	LB	ADJLX max. radial offset	PL hole bottom shape	MIID
05	NT-DRS-3D	D12.50-S20-05	●	12.5	20	107	57	39	0.50	0.40	SPMX05 SPGX05
		D13.00-S20-05	●	13	20	107	57	39	0.50	0.40	
		D13.50-S20-05	●	13.5	20	110	60	42	0.50	0.40	
		D14.00-S20-05	●	14	20	110	60	42	0.50	0.40	
		D14.50-S20-05	●	14.5	20	114	64	45	0.50	0.40	
		D15.00-S20-05	●	15	20	114	64	45	0.50	0.40	
06	NT-DRS-3D	D15.50-S25-06	●	15.5	25	124	68	48	0.50	0.50	SPMX06 SPGX06
		D16.00-S25-06	●	16	25	124	68	48	0.50	0.50	
		D16.50-S25-06	●	16.5	25	127	71	51	0.50	0.50	
		D17.00-S25-06	●	17	25	127	71	51	0.50	0.50	
		D17.50-S25-06	●	17.5	25	131	75	54	0.50	0.50	
		D18.00-S25-06	●	18	25	131	75	54	0.50	0.50	
		D18.50-S25-06	●	18.5	25	134	78	57	0.50	0.50	
		D19.00-S25-06	●	19	25	134	78	57	0.50	0.50	
		D19.50-S25-06	●	19.5	25	139	83	60	0.50	0.50	
		D20.00-S25-06	●	20	25	139	83	60	0.50	0.50	
		D20.50-S25-06	●	20.5	25	142	86	63	0.25	0.50	
		D21.00-S25-06	●	21	25	142	86	63	0.25	0.50	
		D21.50-S25-06	●	21.5	25	145	89	66	0.25	0.50	
07	NT-DRS-3D	D22.00-S25-07	●	22	25	145	89	66	0.50	0.50	SPMX07 SPGX07
		D22.50-S32-07	●	22.5	32	154	94	69	0.50	0.50	
		D23.00-S32-07	●	23	32	154	94	69	0.50	0.50	
		D23.50-S32-07	●	23.5	32	158	98	72	0.50	0.50	
		D24.00-S32-07	●	24	32	158	98	72	0.50	0.50	
		D24.50-S32-07	●	24.5	32	162	102	75	0.50	0.50	
		D25.00-S32-07	●	25	32	162	102	75	0.50	0.50	
		D25.50-S32-07	●	25.5	32	165	105	78	0.50	0.60	
		D26.00-S32-07	●	26	32	165	105	78	0.25	0.60	
		D26.50-S32-07	●	26.5	32	168	108	81	0.25	0.60	
		D27.00-S32-07	●	27	32	168	108	81	0.25	0.60	
		D27.50-S32-07	●	27.5	32	172	112	84	0.25	0.60	
09	NT-DRS-3D	D28.00-S32-09	●	28	32	172	112	84	0.50	0.80	SPMX09 SPGX09
		D28.50-S32-09	●	28.5	32	175	115	87	0.50	0.80	
		D29.00-S32-09	●	29	32	175	115	87	0.50	0.80	
		D29.50-S32-09	●	29.5	32	181	121	90	0.50	0.80	
		D30.00-S32-09	●	30	32	181	121	90	0.50	0.80	
		D31.00-S32-09	●	31	32	185	125	93	0.25	0.80	
		D32.00-S32-09	●	32	32	188	128	96	0.25	0.80	
		D33.00-S32-09	●	33	32	192	132	99	0.25	0.80	

● stock standard

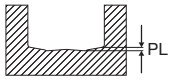
DRS 3XD				DC	DCON	OAL	LF	LB	ADJLX max. radial offset	PL hole bottom shape	MIID
11	NT-DRS-3D	D34.00-S40-11	●	34	40	205	135	102	0.50	0.90	SPMX11 SPGX11
		D35.00-S40-11	●	35	40	209	139	105	0.50	0.90	
		D36.00-S40-11	●	36	40	213	143	108	0.50	0.90	
		D37.00-S40-11	●	37	40	217	147	111	0.50	0.90	
		D38.00-S40-11	●	38	40	221	151	114	0.50	0.90	
		D39.00-S40-11	●	39	40	224	154	117	0.50	0.90	
		D40.00-S40-11	●	40	40	228	158	120	0.25	0.90	
		D41.00-S40-11	●	41	40	232	162	123	0.25	0.90	
14	NT-DRS-3D	D42.00-S40-14	●	42	40	235	165	126	0.50	1.00	SPMX14 SPGX14
		D43.00-S40-14	●	43	40	239	169	129	0.50	1.00	
		D44.00-S40-14	●	44	40	242	172	132	0.50	1.00	
		D45.00-S40-14	●	45	40	247	177	135	0.50	1.00	
		D46.00-S40-14	●	46	40	251	181	138	0.50	1.00	
		D47.00-S40-14	●	47	40	254	184	141	0.50	1.00	
		D48.00-S40-14	●	48	40	258	188	144	0.25	1.00	
		D49.00-S40-14	●	49	40	261	191	147	0.25	1.00	
		D50.00-S40-14	●	50	40	265	195	150	0.25	1.00	

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
NT-DRS-3D D□□.□□-S□□-05	NT-ST059	NT-FTB06
NT-DRS-3D D□□.□□-S□□-06	NT-ST061	NT-FTB06
NT-DRS-3D D□□.□□-S□□-07	NT-ST062	NT-FTB07
NT-DRS-3D D□□.□□-S□□-09	NT-ST063	NT-FTB15
NT-DRS-3D D□□.□□-S□□-11	NT-ST064	NT-FTB15
NT-DRS-3D D□□.□□-S□□-14	NT-ST066	NT-FTB20



HOLE TOLERANCE 0/+0.30mm



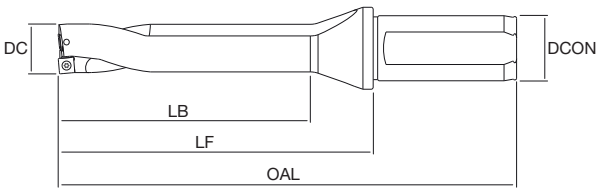
	DRS 4XD			DC	DCON	OAL	LF	LB	ADJLX max. radial offset	PL hole bottom shape	MIID
05	NT-DRS-4D	D12.50-S20-05	●	12.5	20	120	70	52	0.50	0.40	SPMX05 SPGX05
		D13.00-S20-05	●	13	20	120	70	52	0.50	0.40	
		D13.50-S20-05	●	13.5	20	124	74	56	0.50	0.40	
		D14.00-S20-05	●	14	20	124	74	56	0.50	0.40	
		D14.50-S20-05	●	14.5	20	129	79	60	0.50	0.40	
		D15.00-S20-05	●	15	20	129	79	60	0.50	0.40	
06	NT-DRS-4D	D15.50-S25-06	●	15.5	25	140	84	64	0.50	0.50	SPMX06 SPGX06
		D16.00-S25-06	●	16	25	140	84	64	0.50	0.50	
		D16.50-S25-06	●	16.5	25	144	88	68	0.50	0.50	
		D17.00-S25-06	●	17	25	144	88	68	0.50	0.50	
		D17.50-S25-06	●	17.5	25	149	93	72	0.50	0.50	
		D18.00-S25-06	●	18	25	149	93	72	0.50	0.50	
		D18.50-S25-06	●	18.5	25	153	97	76	0.50	0.50	
		D19.00-S25-06	●	19	25	153	97	76	0.50	0.50	
		D19.50-S25-06	●	19.5	25	159	103	80	0.50	0.50	
		D20.00-S25-06	●	20	25	159	103	80	0.50	0.50	
		D20.50-S25-06	●	20.5	25	163	107	84	0.25	0.50	
		D21.00-S25-06	●	21	25	163	107	84	0.25	0.50	
		D21.50-S25-06	●	21.5	25	167	111	88	0.25	0.50	
07	NT-DRS-4D	D22.00-S25-07	●	22	25	167	111	88	0.50	0.50	SPMX07 SPGX07
		D22.50-S32-07	●	22.5	32	177	117	92	0.50	0.50	
		D23.00-S32-07	●	23	32	177	117	92	0.50	0.50	
		D23.50-S32-07	●	23.5	32	182	122	96	0.50	0.50	
		D24.00-S32-07	●	24	32	182	122	96	0.50	0.50	
		D24.50-S32-07	●	24.5	32	187	127	100	0.50	0.50	
		D25.00-S32-07	●	25	32	187	127	100	0.50	0.50	
		D25.50-S32-07	●	25.5	32	191	131	104	0.50	0.60	
		D26.00-S32-07	●	26	32	191	131	104	0.25	0.60	
		D26.50-S32-07	●	26.5	32	195	135	108	0.25	0.60	
		D27.00-S32-07	●	27	32	195	135	108	0.25	0.60	
		D27.50-S32-07	●	27.5	32	200	140	112	0.25	0.60	
09	NT-DRS-4D	D28.00-S32-09	●	28	32	200	140	112	0.50	0.80	SPMX09 SPGX09
		D28.50-S32-09	●	28.5	32	204	144	116	0.50	0.80	
		D29.00-S32-09	●	29	32	204	144	116	0.50	0.80	
		D29.50-S32-09	●	29.5	32	211	151	120	0.50	0.80	
		D30.00-S32-09	●	30	32	211	151	120	0.50	0.80	
		D31.00-S32-09	●	31	32	216	156	124	0.25	0.80	
		D32.00-S32-09	●	32	32	220	160	128	0.25	0.80	
		D33.00-S32-09	●	33	32	225	165	132	0.25	0.80	

● stock standard

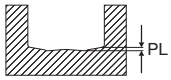
DRS 4XD				DC	DCON	OAL	LF	LB	ADJLX max. radial offset	PL hole bottom shape	MIID
11	NT-DRS-4D	D34.00-S40-11	●	34	40	239	169	136	0.50	0.90	SPMX11 SPGX11
		D35.00-S40-11	●	35	40	244	174	140	0.50	0.90	
		D36.00-S40-11	●	36	40	249	179	144	0.50	0.90	
		D37.00-S40-11	●	37	40	254	184	148	0.50	0.90	
		D38.00-S40-11	●	38	40	259	189	152	0.50	0.90	
		D39.00-S40-11	●	39	40	263	193	156	0.50	0.90	
		D40.00-S40-11	●	40	40	268	198	160	0.25	0.90	
		D41.00-S40-11	●	41	40	273	203	164	0.25	0.90	
14	NT-DRS-4D	D42.00-S40-14	●	42	40	277	207	168	0.50	1.00	SPMX14 SPGX14
		D43.00-S40-14	●	43	40	282	212	172	0.50	1.00	
		D44.00-S40-14	●	44	40	286	216	176	0.50	1.00	
		D45.00-S40-14	●	45	40	292	222	180	0.50	1.00	
		D46.00-S40-14	●	46	40	297	227	184	0.50	1.00	
		D47.00-S40-14	●	47	40	301	231	188	0.50	1.00	
		D48.00-S40-14	●	48	40	306	236	192	0.25	1.00	
		D49.00-S40-14	●	49	40	310	240	196	0.25	1.00	
		D50.00-S40-14	●	50	40	315	245	200	0.25	1.00	

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
NT-DRS-4D D□□.□□-S□□-05	NT-ST059	NT-FTB06
NT-DRS-4D D□□.□□-S□□-06	NT-ST061	NT-FTB06
NT-DRS-4D D□□.□□-S□□-07	NT-ST062	NT-FTB07
NT-DRS-4D D□□.□□-S□□-09	NT-ST063	NT-FTB15
NT-DRS-4D D□□.□□-S□□-11	NT-ST064	NT-FTB15
NT-DRS-4D D□□.□□-S□□-14	NT-ST066	NT-FTB20



HOLE TOLERANCE 0/+0.35mm



		DRS 5XD		DC	DCON	OAL	LF	LB	ADJLX max. radial offset	PL hole bottom shape	MIID
05	NT-DRS-5D	D13.00-S20-05	●	13	20	133	83	65	0.50	0.40	SPMX05 SPGX05
		D14.00-S20-05	●	14	20	138	88	70	0.50	0.40	
		D15.00-S20-05	●	15	20	144	94	75	0.50	0.40	
06	NT-DRS-5D	D16.00-S25-06	●	16	25	156	100	80	0.50	0.50	SPMX06 SPGX06
		D17.00-S25-06	●	17	25	161	105	85	0.50	0.50	
		D18.00-S25-06	●	18	25	167	111	90	0.50	0.50	
		D19.00-S25-06	●	19	25	172	116	95	0.50	0.50	
		D20.00-S25-06	●	20	25	179	123	100	0.50	0.50	
		D21.00-S25-06	●	21	25	184	128	105	0.25	0.50	
07	NT-DRS-5D	D22.00-S25-07	●	22	25	189	133	110	0.50	0.50	SPMX07 SPGX07
		D23.00-S32-07	●	23	32	200	140	115	0.50	0.50	
		D24.00-S32-07	●	24	32	206	146	120	0.50	0.50	
		D25.00-S32-07	●	25	32	212	152	125	0.50	0.50	
		D26.00-S32-07	●	26	32	217	157	130	0.25	0.60	
		D27.00-S32-07	●	27	32	222	162	135	0.25	0.60	
09	NT-DRS-5D	D28.00-S32-09	●	28	32	228	168	140	0.50	0.80	SPMX09 SPGX09
		D29.00-S32-09	●	29	32	233	173	145	0.50	0.80	
		D30.00-S32-09	●	30	32	241	181	150	0.50	0.80	
		D31.00-S32-09	●	31	32	247	187	155	0.25	0.80	
		D32.00-S32-09	●	32	32	252	192	160	0.25	0.80	
		D33.00-S32-09	●	33	32	258	198	165	0.25	0.80	
11	NT-DRS-5D	D34.00-S40-11	●	34	40	273	203	170	0.50	0.90	SPMX11 SPGX11
		D35.00-S40-11	●	35	40	279	209	175	0.50	0.90	
		D36.00-S40-11	●	36	40	285	215	180	0.50	0.90	
		D37.00-S40-11	●	37	40	291	221	185	0.50	0.90	
		D38.00-S40-11	●	38	40	297	227	190	0.50	0.90	
		D39.00-S40-11	●	39	40	302	232	195	0.50	0.90	
		D40.00-S40-11	●	40	40	308	238	200	0.25	0.90	
		D41.00-S40-11	●	41	40	314	244	205	0.25	0.90	
14	NT-DRS-5D	D42.00-S40-14	●	42	40	319	249	210	0.50	1.00	SPMX14 SPGX14
		D43.00-S40-14	●	43	40	325	255	215	0.50	1.00	
		D44.00-S40-14	●	44	40	330	260	220	0.50	1.00	
		D45.00-S40-14	●	45	40	337	267	225	0.50	1.00	
		D46.00-S40-14	●	46	40	343	273	230	0.50	1.00	
		D47.00-S40-14	●	47	40	348	278	235	0.50	1.00	
		D48.00-S40-14	●	48	40	354	284	240	0.25	1.00	
		D49.00-S40-14	●	49	40	359	289	245	0.25	1.00	
		D50.00-S40-14	●	50	40	365	295	250	0.25	1.00	

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
NT-DRS-5D D□□.□□-S□□-05	NT-ST059	NT-FTB06
NT-DRS-5D D□□.□□-S□□-06	NT-ST061	NT-FTB06
NT-DRS-5D D□□.□□-S□□-07	NT-ST062	NT-FTB07
NT-DRS-5D D□□.□□-S□□-09	NT-ST063	NT-FTB15
NT-DRS-5D D□□.□□-S□□-11	NT-ST064	NT-FTB15
NT-DRS-5D D□□.□□-S□□-14	NT-ST066	NT-FTB20

DRSDRILL

CUTTING SPEED [m/min]

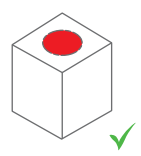
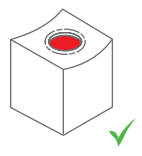
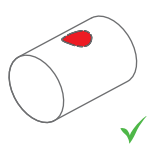
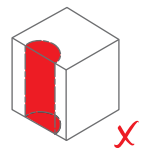
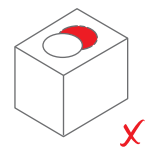
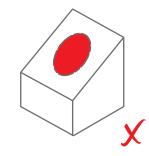
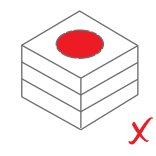
	MATERIALS	HARDNESS/Rm	W.-Nr	DIN	AISI-ASTM	TRADE MARK	JP5625	JP5530	JP9635	JU6520
P1	Free cutting steel and structural steel	< 500 N/mm²	1.0715 1.0765	9 SMn 28 36 SMnPb 14	1213 A29	AVP PR80	180÷300	180÷300		
P2	Carbon steel and low alloy steel	500-700 N/mm²	1.7147 1.0511	20 MnCr 5 C 40	5120 1040	- -	140÷240	140÷240		
P3	Medium alloy steel and heat treated steel	600-800 N/mm²	1.1201 1.6511	42 CrMo 4 36 CrNiMo 4	4142, 4140 9840	- -	100÷220	100÷220		
P4	High alloy steel	800-1000 N/mm²	1.1663 1.3505	C 125 W 100 Cr 6	W1 52100	- -	100÷180	100÷180		
P5	Tool steel	900-1200 N/mm²	1.2080 1.2379	X 210 Cr 12 X 155 CrVMo 12 1	D3 -	K100 K110	80÷150	80÷150		
M1	Ferritic stainless steel	400-700 N/mm²	1.4016 1.4104	X 6 Cr 17 X 12 CrMoS 17	430 430 F	- -			120÷220	
M2	Austenitic stainless steel (good machinability)	500-750 N/mm²	1.4305 1.4301	X 10 CrNiS 18 9 X 6 CrNi 18 10	303 304, 304 H	- -			80÷180	
M3	Austenitic stainless steel (medium machinability)	550-850 N/mm²	1.4401 1.4462	X 5 CrNiMo 17 12 2 X 2 CrNiMoN 22 5	316 F 51-329 A	- DUPLEX			60÷150	
M4	Martensitic stainless steel	650-950 N/mm²	1.4021 1.4410	X 20 Cr 13 X 2 CrNiMoN 25 7 4	420 F 53-329 S1	- SUPER DUPLEX			60÷150	
M5	PH stainless steel	800-1250 N/mm²	1.4540 1.4542	X 4 CrNiCuNb 16 4 X 5 CrNiNb 16 4	XM-12 631	15-5-PH 17-4-PH			50÷120	
K1	Grey cast iron	150-250 HB	0.6020 0.6025	GG-20 GG-25	A48 30 B A48 35 B	- -	180÷250	180÷250		
K2	Nodular cast iron	150-350 HB	0.7050 0.7070	GGG-50 GGG-70	A536 80-55-6 A536 100-70-03	- -	120÷180	120÷180		
N1	Aluminium alloys ≤ 12% Si		3.3547 3.2315	AlMg4.5Mn AlMgSi 1	5083 6082	Peraluman 440 Anticorodal 100				250÷400
N2	Aluminium alloys > 12% Si		3.2582	GD-AlSi12 G-AlSi6Cu4	A413.0 319					150÷300
N3	Copper		2.0940-01 2.1176	CuAl10Fe CuPb10Sn	CA952 CA937					200÷300
N4	Bronze and brass		2.0401	Cu Zn39Pb3		OT58 AMPCO 18				200÷300

DRILLING DRSpilot

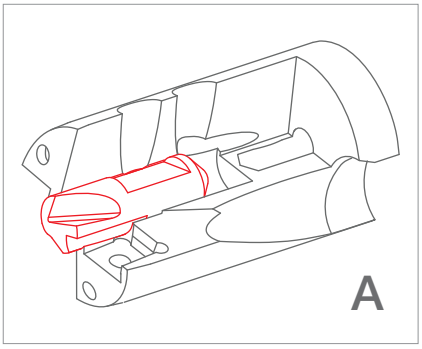
DRSPILOT 6XD 9XD

Perfect centering even on extra long holes

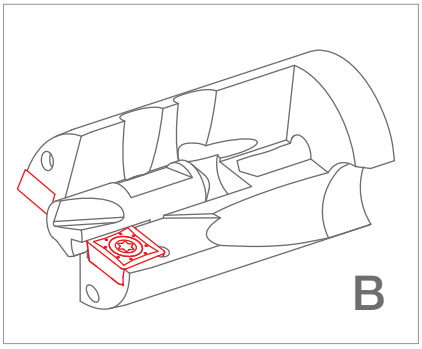
1. Where is DRSpilot applicable?

PLAIN SURFACE	CONCAVE SURFACE	PIPES	HALF HOLE	HOLE EXPANSION	SLANT SURFACE	STACKED PLATES
						

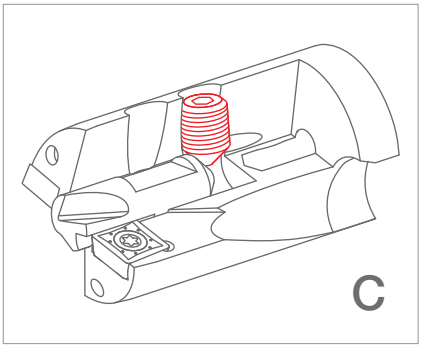
2. Installation of inserts and pilot drill



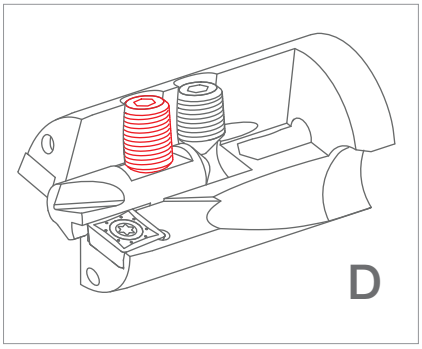
Insert DRSP pilot in the drilling body.



Install the SPMX/SPGX inserts.



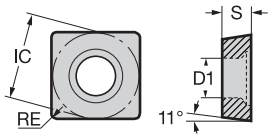
Adjust the DRSP pilot height using the setting grain as shown in the drawing, following the table at pag.273.



Screw tight the locking grain.

SP□X

DRS PILOT
4 edges drilling inserts



4 edges

Size	IC	S	D1	RE
05	5.00	2.38	2.50	0.40
06	6.00	2.38	2.80	0.40
07	7.94	3.97	2.80	0.80

ISO513	HC-PVD JP5625	HC-PVD JP5530	HC-PVD JP9635	HW JU6520
P	60 220	60 220		
M			40 160	
K	100 190	100 190		
N				150 300
S				
H				

GRADE APPLICATION AREA	Stable machining	+ Hardness –	– Toughness +
main application	General machining		
applicable	Unstable machining		

GENERAL

GP P M K

								JP5625	JP5530	JP9635	JU6520
SPMX	050204-GP	6xD	f_n	0.08	**0.10**	0.12		●	●	●	
		9xD	f_n	0.06	**0.08**	0.10					
SPMX	060204-GP	6xD	f_n	0.08	**0.10**	0.12		●	●	●	
		9xD	f_n	0.06	**0.08**	0.10					
SPMX	07T308-GP	6xD	f_n	0.09	**0.11**	0.13		●	●	●	
		9xD	f_n	0.07	**0.09**	0.11					

ALUMINIUM

AL N

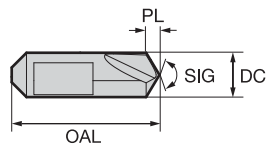
polished surface

							JP5625	JP5530	JP9635	JU6520
SPGX	050204-AL	6xD	f_n	0.05	**0.07**	0.09				●
		9xD	f_n	0.04	**0.06**	0.08				
SPGX	060204-AL	6xD	f_n	0.05	**0.07**	0.09				●
		9xD	f_n	0.04	**0.06**	0.08				
SPGX	07T308-AL	6xD	f_n	0.06	**0.08**	0.10				●
		9xD	f_n	0.05	**0.07**	0.09				

● stock standard

DRSP

DRS PILOT
interchangeable centering drill



Size	DC	OAL	PL	SIG
06	6	20	1.5	118°
08	8	25	2.1	118°

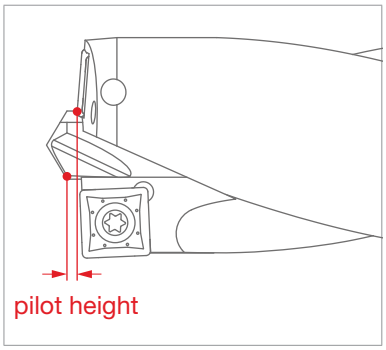
GENERAL

GP P M K N

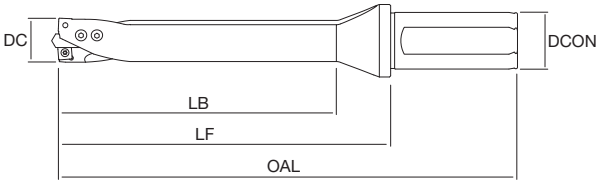
DRSP 06-GP HSS TIN	●
DRSP 08-GP HSS TIN	●

● stock standard

HEIGHT ADJUSTEMENT



MATERIAL	6xD	9xD
P M K	1.0 mm	1.4 mm
N	1.5 mm	1.7 mm

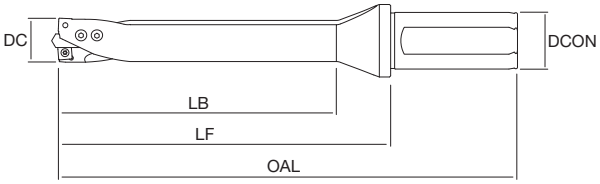


	DRS PILOT 6XD			DC	DCON	OAL	LF	LB	KG	MIID (insert)	MIID (pilot)
05	NT-DRS-6D	D18.00-S25-05P6	●	18	25	191	135	112		SPMX05 SPGX05	DRSP06
		D19.00-S25-05P6	●	19	25	197	141	118			
06	NT-DRS-6D	D20.00-S25-06P6	●	20	25	203	147	124		SPMX06 SPGX06	DRSP06
		D21.00-S25-06P6	●	21	25	209	153	130			
		D22.00-S25-06P6	●	22	25	215	159	136			
		D23.00-S32-06P6	●	23	32	228	168	142			
		D24.00-S32-06P6	●	24	32	234	174	148			
		D25.00-S32-06P6	●	25	32	240	180	154			
07	NT-DRS-6D	D26.00-S32-07P8	●	26	32	246	186	160		SPMX07 SPGX07	DRSP08
		D27.00-S32-07P8	●	27	32	252	192	166			
		D28.00-S32-07P8	●	28	32	258	198	172			
		D29.00-S32-07P8	●	29	32	264	204	178			
		D30.00-S32-07P8	●	30	32	270	210	184			

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
NT-DRS-6D D□□.□□-S□□-05P6	NT-ST059	NT-FTB06
NT-DRS-6D D□□.□□-S□□-06P6	NT-ST061	NT-FTB06
NT-DRS-6D D□□.□□-S□□-07P8	NT-ST062	NT-FTB07

Spare Parts	LOCKING GRAIN	SETTING GRAIN	GRAIN WRENCH
DC 18÷22	NT-ST042	NT-ST043	NT-WR025
DC 23÷25	NT-ST044	NT-ST045	
DC 26÷30	NT-ST046	NT-ST047	NT-WR030



	DRS PILOT 9XD			DC	DCON	OAL	LF	LB	KG	MIID (insert)	MIID (pilot)
05	NT-DRS-9D	D18.00-S25-05P6	●	18	25	245	189	166		SPMX05 SPGX05	DRSP06
		D19.00-S25-05P6	●	19	25	254	198	175			
06	NT-DRS-9D	D20.00-S25-06P6	●	20	25	263	207	184		SPMX06 SPGX06	DRSP06
		D21.00-S25-06P6	●	21	25	272	216	193			
		D22.00-S25-06P6	●	22	25	281	225	202			
		D23.00-S32-06P6	●	23	32	297	237	211			
		D24.00-S32-06P6	●	24	32	306	246	220			
		D25.00-S32-06P6	●	25	32	315	255	229			
07	NT-DRS-9D	D26.00-S32-07P8	●	26	32	324	264	238		SPMX07 SPGX07	DRSP08
		D27.00-S32-07P8	●	27	32	333	273	247			
		D28.00-S32-07P8	●	28	32	342	282	256			
		D29.00-S32-07P8	●	29	32	351	291	265			
		D30.00-S32-07P8	●	30	32	360	300	274			

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
		
NT-DRS-9D D□□.□□-S□□-05P6	NT-ST059	NT-FTB06
NT-DRS-9D D□□.□□-S□□-06P6	NT-ST061	NT-FTB06
NT-DRS-9D D□□.□□-S□□-07P8	NT-ST062	NT-FTB07

Spare Parts	LOCKING GRAIN	SETTING GRAIN	GRAIN WRENCH
			
DC 18÷22	NT-ST042	NT-ST043	NT-WR025
DC 23÷25	NT-ST044	NT-ST045	
DC 26÷30	NT-ST046	NT-ST047	NT-WR030

DRSPILOT

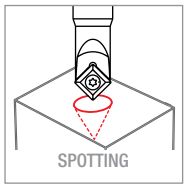
CUTTING SPEED [m/min]

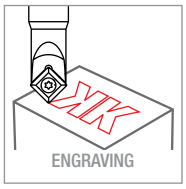
	MATERIALS	HARDNESS/Rm	W.-Nr	DIN	AISI-ASTM	TRADE MARK	JP5625	JP5530	JP9635	JU6520
P1	Free cutting steel and structural steel	< 500 N/mm²	1.0715 1.0765	9 SMn 28 36 SMnPb 14	1213 A29	AVP PR80	130÷220	130÷220		
P2	Carbon steel and low alloy steel	500-700 N/mm²	1.7147 1.0511	20 MnCr 5 C 40	5120 1040	- -	100÷180	100÷180		
P3	Medium alloy steel and heat treated steel	600-800 N/mm²	1.1201 1.6511	42 CrMo 4 36 CrNiMo 4	4142, 4140 9840	- -	80÷170	80÷170		
P4	High alloy steel	800-1000 N/mm²	1.1663 1.3505	C 125 W 100 Cr 6	W1 52100	- -	80÷140	80÷140		
P5	Tool steel	900-1200 N/mm²	1.2080 1.2379	X 210 Cr 12 X 155 CrVMo 12 1	D3 -	K100 K110	60÷120	60÷120		
M1	Ferritic stainless steel	400-700 N/mm²	1.4016 1.4104	X 6 Cr 17 X 12 CrMoS 17	430 430 F	- -			90÷160	
M2	Austenitic stainless steel (good machinability)	500-750 N/mm²	1.4305 1.4301	X 10 CrNiS 18 9 X 6 CrNi 18 10	303 304, 304 H	- -			60÷130	
M3	Austenitic stainless steel (medium machinability)	550-850 N/mm²	1.4401 1.4462	X 5 CrNiMo 17 12 2 X 2 CrNiMoN 22 5	316 F 51-329 A	- DUPLEX			50÷110	
M4	Martensitic stainless steel	650-950 N/mm²	1.4021 1.4410	X 20 Cr 13 X 2 CrNiMoN 25 7 4	420 F 53-329 S1	- SUPER DUPLEX			50÷110	
M5	PH stainless steel	800-1250 N/mm²	1.4540 1.4542	X 4 CrNiCuNb 16 4 X 5 CrNiNb 16 4	XM-12 631	15-5-PH 17-4-PH			40÷100	
K1	Grey cast iron	150-250 HB	0.6020 0.6025	GG-20 GG-25	A48 30 B A48 35 B	- -	130÷190	130÷190		
K2	Nodular cast iron	150-350 HB	0.7050 0.7070	GGG-50 GGG-70	A536 80-55-6 A536 100-70-03	- -	100÷140	100÷140		
N1	Aluminium alloys ≤ 12% Si		3.3547 3.2315	AlMg4.5Mn AlMgSi 1	5083 6082	Peraluman 440 Anticorodal 100				200÷300
N2	Aluminium alloys > 12% Si		3.2582	GD-AlSi12 G-AlSi6Cu4	A413.0 319					120÷240
N3	Copper		2.0940-01 2.1176	CuAl10Fe CuPb10Sn	CA952 CA937					150÷240
N4	Bronze and brass		2.0401	Cu Zn39Pb3		OT58 AMPCO 18				150÷240

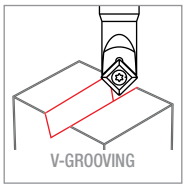
DRILLING SPOTdrill

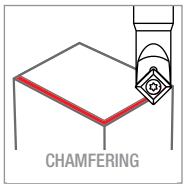
SPOTDRILL

Multipurpose system





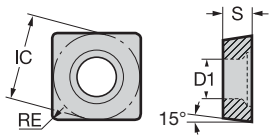




SPOT11

SPOTDRILL
Multipurpose system

Size	IC	S	D1
11	11	3.97	4.3



4 edges

ISO513	COATED HC-ISOP	COATED HC-ISOM	COATED HC-ISOK	UNCOATED HW-ISON
P	100 220			
M		60 140		
K			80 180	
N				150 300
S				
H				

GRADE APPLICATION AREA	Stable machining	Hardness + / −	Toughness − / +
■ main application	General machining		
■ applicable	Unstable machining		

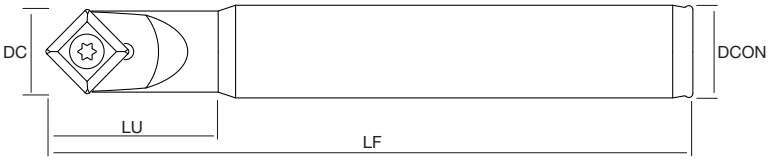
GENERAL	GP P M K 	SPOT	11R03-GP	RE 0.3	f_n ▸ 0.04 **0.07** 0.10 f_n ▸ 0.08 **0.15** 0.22	●	●	●	
			11R08-GP	RE 0.8	f_n ▸ 0.04 **0.07** 0.10 f_n ▸ 0.08 **0.15** 0.22	●	●	●	
ALUMINIUM	AL N  polished surface		11R04-AL	RE 0.4	f_n ▸ 0.06 **0.09** 0.12 f_n ▸ 0.14 **0.22** 0.30				●
			11R08-AL	RE 0.8	f_n ▸ 0.06 **0.09** 0.12 f_n ▸ 0.14 **0.22** 0.30				●

● stock standard feed rate for chamfering

CYLINDRICAL

DCX=14

DCN=2.4



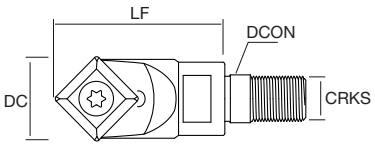
MULTI PURPOSE SYSTEM

P M K N

SCREW-IN

DCX=14

DCN=2.4



SPOT DRILL
Multipurpose system

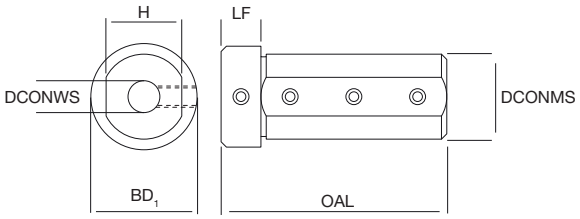
				DC (DCX)	Z	DCON	LF	LU	CRKS	KG	MIID
CYLINDRICAL	NT-SPOT	D14-S16-L100	●	15.4 (14)	1	16	100	30	-	0,13	SPOT11
SCREW-IN	NT-SPOT	D14-M08-L052	●	15.4 (14)	1	8.5	35	-	M8	0,03	SPOT11

● stock standard DCX = maximum cutting diameter DCN=minimum cutting diameter

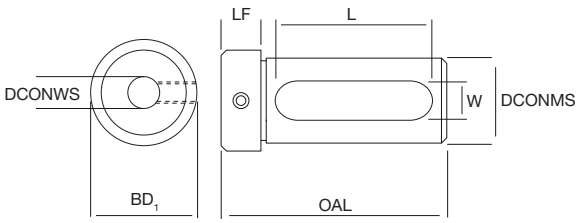
Spare Parts	INSERT SCREW	INSERT WRENCH
NT-SPOT11 D□□□	NT-ST063	NT-FTB15

ACCESSORIES

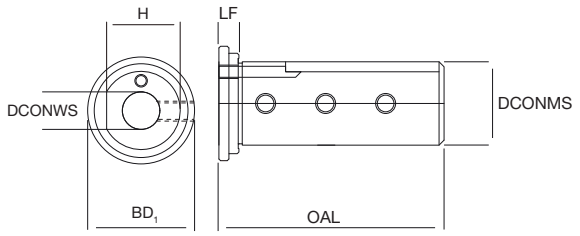
SCREWS



THROUGH HOLE



SCREWS + COOLANT



NT-SLB
Sleeves for boring bars

				DCONWS	DCONMS	OAL	LF	BD_1	H	L	W
SCREWS	NT-SLB S03	D16-L62	●	3	16	62	7	20	14.5	-	-
	NT-SLB S04	D16-L62	●	4	16	62	7	20	14.5	-	-
		D20-L67	●		20	67	7	27	17.5	-	-
		D32-L80	●		32	80	15	38	29.5	-	-
	NT-SLB S05	D16-L62	●	5	16	62	7	20	14.5	-	-
		D20-L67	●		20	67	7	27	17.5	-	-
		D32-L80	●		32	80	15	38	29.5	-	-
		D40-L100	●		40	100	15	46	38.0	-	-
	NT-SLB S06	D16-L62	●	6	16	62	7	20	14.5	-	-
		D20-L52	●		20	52	7	25	17.5	-	-
		D20-L67	●		20	67	7	27	17.5	-	-
		D32-L85	●		32	85	15	38	29.5	-	-
		D40-L100	●		40	100	15	46	38.0	-	-
	NT-SLB S07	D20-L67	●	7	20	67	7	27	17.5	-	-
		D32-L85	●		32	85	15	38	29.5	-	-
		D40-L100	●		40	100	15	46	38.0	-	-
	NT-SLB S08	D16-L62	●	8	16	62	7	20	14.5	-	-
		D20-L52	●		20	52	7	25	17.5	-	-
		D20-L67	●		20	67	7	27	17.5	-	-
		D32-L85	●		32	85	15	38	29.5	-	-
		D40-L100	●		40	100	15	46	38.0	-	-
		D50-L100	●		50	100	15	58	48.0	-	-

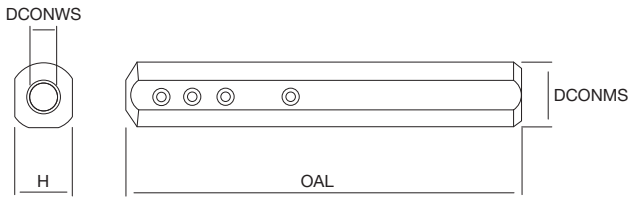
● stock standard

NT-SLB
Sleeves for boring bars

				DCONWS	DCONMS	OAL	LF	BD_1	H	L	W
SCREWS	NT-SLB S10	D20-L52	●	10	20	52	7	25	17.5	-	-
		D20-L67	●		20	67	7	27	17.5	-	-
		D32-L100	●		32	100	15	38	29.5	-	-
		D40-L100	●		40	100	15	46	38.0	-	-
		D50-L100	●		50	100	15	58	48.0	-	-
	NT-SLB S12	D20-L52	●	12	20	52	7	25	17.5	-	-
		D20-L67	●		20	67	7	27	17.5	-	-
		D32-L100	●		32	100	15	38	29.5	-	-
		D40-L100	●		40	100	15	46	38.0	-	-
		D50-L100	●		50	100	15	58	48.0	-	-
	NT-SLB S14	D32-L100	●	14	32	100	15	38	29.5	-	-
		D40-L100	●		40	100	15	46	38.0	-	-
		D50-L100	●		50	100	15	58	48.0	-	-
	NT-SLB S15	D32-L100	●	15	32	100	15	38	29.5	-	-
		D40-L100	●		40	100	15	46	38.0	-	-
	NT-SLB S16	D32-L100	●	16	32	100	15	38	29.5	-	-
		D40-L100	●		40	100	15	46	38.0	-	-
		D50-L100	●		50	100	15	58	48.0	-	-
	NT-SLB S18	D32-L100	●	18	32	100	15	38	29.5	-	-
		D40-L100	●		40	100	15	46	38.0	-	-
		D50-L100	●		50	100	15	58	48.0	-	-
	NT-SLB S20	D50-L100	●	20	50	100	15	58	48.0	-	-
	NT-SLB S25	D50-L100	●	25	50	100	15	58	48.0	-	-
THROUGH HOLE	NT-SLB S10	D16-L62	●	10	16	62	7	20	-	50	11
	NT-SLB S12	D16-L62	●	12	16	62	7	20	-	50	11
	NT-SLB S14	D20-L67	●	14	20	67	7	27	-	55	13
		D25-L64	●		25	64	6	35	-	51	12
	NT-SLB S15	D20-L67	●	15	20	67	7	27	-	55	13
		D25-L64	●		25	64	6	35	-	51	12
	NT-SLB S16	D20-L52	●	16	20	52	7	25	-	40	11
		D20-L67	●		20	67	7	27	-	55	13
		D25-L64	●		25	64	6	35	-	51	12
	NT-SLB S17	D25-L64	●	17	25	64	6	35	-	51	12
	NT-SLB S18	D25-L64	●	18	25	64	6	35	-	51	12
	NT-SLB S20	D25-L64	●	20	25	64	6	35	-	51	12
		D32-L100	●		32	100	15	38	-	77	14
		D40-L100	●		40	100	15	46	-	77	14
	NT-SLB S22	D25-L64	●	22	25	64	6	35	-	51	12
		D32-L100	●		32	100	15	38	-	77	14
		D40-L100	●		40	100	15	46	-	77	14
	NT-SLB S25	D32-L100	●	25	32	100	15	38	-	77	14
		D40-L100	●		40	100	15	46	-	77	14
	NT-SLB S32	D40-L100	●	32	40	100	15	46	-	77	14
		D50-L100	●		50	100	15	58	-	77	14
	NT-SLB S40	D50-L100	●	40	50	100	15	58	-	77	14
SCREWS + COOLANT	NT-SLB S04	D25-L64	●	4	25	64	6	35	23.5	-	-
	NT-SLB S05	D25-L64	●	5	25	64	6	35	23.5	-	-
	NT-SLB S06	D25-L64	●	6	25	64	6	35	23.5	-	-
	NT-SLB S07	D25-L64	●	7	25	64	6	35	23.5	-	-
	NT-SLB S08	D25-L64	●	8	25	64	6	35	23.5	-	-
	NT-SLB S09	D25-L64	●	9	25	64	6	35	23.5	-	-
	NT-SLB S10	D25-L64	●	10	25	64	6	35	23.5	-	-
	NT-SLB S11	D25-L64	●	11	25	64	6	35	23.5	-	-
	NT-SLB S12	D25-L64	●	12	25	64	6	35	23.5	-	-

● stock standard

Right-hand shown



NT-SLV

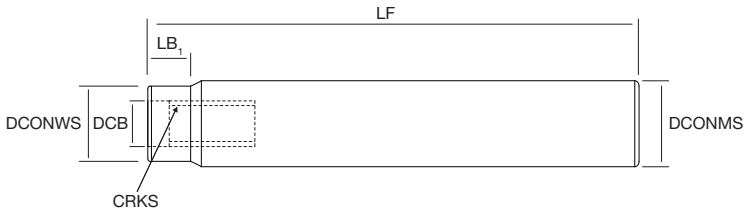
Sleeves for microboring bars

				DCONWS	DCONMS	OAL	H				
SCREWS	NT-SLV	S03-D16-L100	●	3	16	100	14				
		S04-D16-L100	●	4	16	100	14				
		S05-D16-L100	●	5	16	100	14				
		S06-D16-L100	●	6	16	100	14				

● stock standard

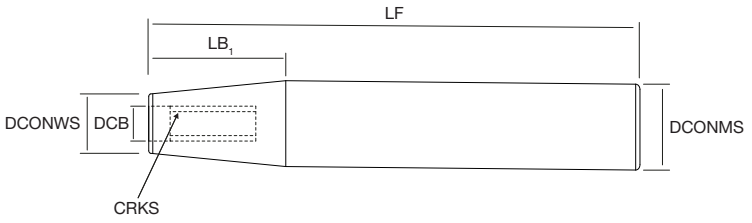
CYLINDRICAL STEEL

INTERNAL COOLANT



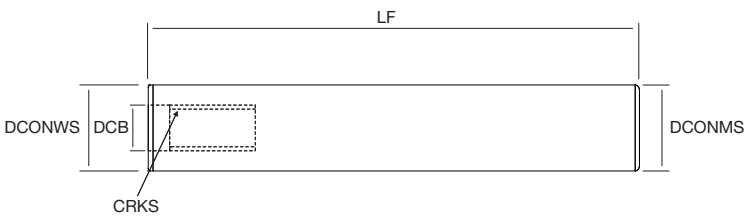
TAPERED STEEL

INTERNAL COOLANT



CYLINDRICAL CARBIDE

INTERNAL COOLANT



NT-ARB

Arbor for screw-in milling cutters

				DCONMS	CRKS	DCONWS	DCB	LF	LB1		
STEEL CYLINDRICAL	NT-ARB	D12-M06-120	●	12	M6	11	6.5	120	10		
		D16-M08-150	●	16	M8	14	8.5	150	10		
		D16-M08-200	●	16	M8	14	8.5	200	10		
		D20-M10-150	●	20	M10	18	10.5	150	12		
		D20-M10-250	●	20	M10	18	10.5	250	12		
		D25-M12-200	●	25	M12	23	12.5	200	15		
		D25-M12-300	●	25	M12	23	12.5	300	15		
		D32-M16-200	●	32	M16	29	17	200	18		
		D32-M16-350	●	32	M16	29	17	350	18		
STEEL TAPERED	NT-ARB	D16-M06-150T	●	16	M6	11	6.5	150	40		
		D16-M06-200T	●	16	M6	11	6.5	200	40		
		D20-M08-200T	●	20	M8	14	8.5	200	50		
		D20-M08-250T	●	20	M8	14	8.5	250	50		
		D25-M10-200T	●	25	M10	18	10.5	200	60		
		D25-M10-250T	●	25	M10	18	10.5	250	60		
		D32-M12-250T	●	32	M12	23	12.5	250	70		
		D32-M12-350T	●	32	M12	23	12.5	350	70		
CARBIDE CYLINDRICAL	NT-ARB-HM	D12-M06-100	●	12	M6	-	6.5	100	-		
		D12-M06-150	●	12	M6	-	6.5	150	-		
		D12-M06-200	●	12	M6	-	6.5	200	-		
		D16-M08-100	●	16	M8	-	8.5	100	-		
		D16-M08-150	●	16	M8	-	8.5	150	-		
		D16-M08-200	●	16	M8	-	8.5	200	-		
		D20-M10-100	●	20	M10	-	10.5	100	-		

● stock standard

	NT-ARB Arbor for screw-in milling cutters		DCONMS	CRKS	DCONWS	DCB	LF	LB1		
CARBIDE CYLINDRICAL	D20-M10-150	●	20	M10	-	10.5	150	-		
	D20-M10-200	●	20	M10	-	10.5	200	-		
	D20-M10-300	●	20	M10	-	10.5	300	-		
	D25-M12-100	●	25	M12	-	12.5	100	-		
	D25-M12-150	●	25	M12	-	12.5	150	-		
	D25-M12-200	●	25	M12	-	12.5	200	-		
	D25-M12-300	●	25	M12	-	12.5	300	-		

● stock standard

nikkotools

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