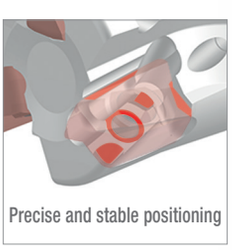
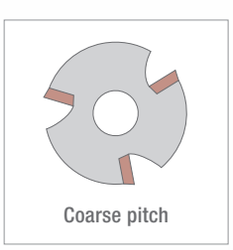
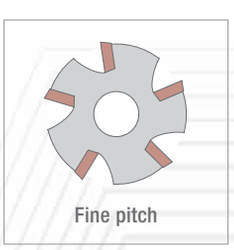
DOUBLEREK ACTION

Per spallamenti di elevata precisione con accuratezza superiore


Precise and stable positioning


Coarse pitch


Fine pitch

Acquista 30 inserti e ottieni il corpo fresa allo sconto speciale del 60%

Inserti: NT-DRK10
Corpi fresa: NT-DRK10

Inserti: NT-DRK17
Corpi fresa: NT-DRK17

nikkoTOOLS

uemme TOOLS and EQUIPMENT

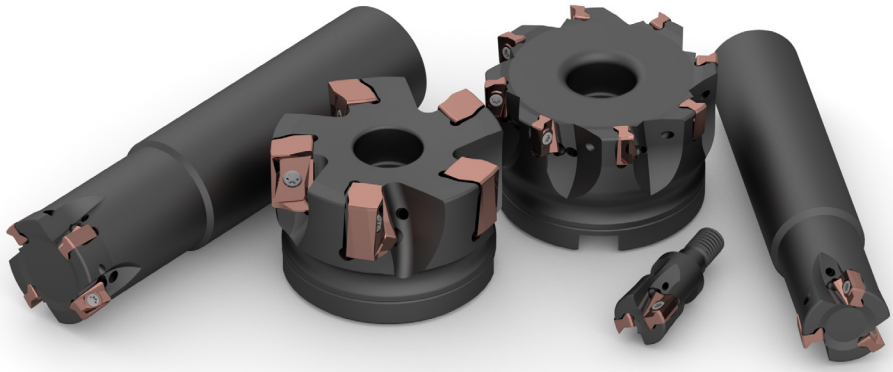
VALIDITA': 31/12/2023

DOUBLEREK

High productivity high precision double sided shoulder milling system

APPLICATION

· Shoulder milling
· Shoulders with repeated passes
· Long overhang shoulder milling



ISO APPLICATION FIELDS

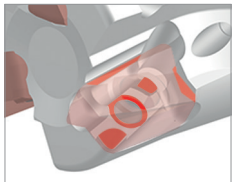
P M K

ADVANTAGES AND CHARACTERISTICS

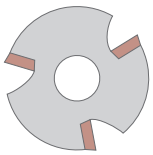
· Available in big and small dimensions allow axial removals up to 15 mm.
· Super positive rake with helical geometry, extremely smooth cutting action.
· Fully ground inserts for precision machining and excellent finishes.
· Thickness greater than conventional inserts of the same size ensures better heat dissipation and excellent mechanical strength
· Secure and reliable installation guarantees better precision especially at tough conditions

Cutter bodies

· Arbor type
· Cylindrical type
· Screw-in type
· Extension sleeves (steel/carbide 10xD)
· From D16 to D125



Precise and stable positioning



Coarse pitch

Fine pitch

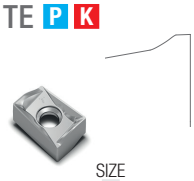
Inserts

· 4 cutting edges
· Edge length 10 and 17
· Cemented carbide grades with CVD and PVD coatings
· Geometries: GP, TE

GP P M K

SIZE
10 17

TE P K



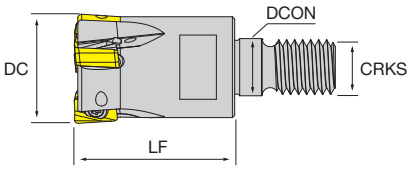
SIZE
17

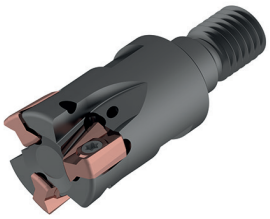
NT-DRK

DoubleRek

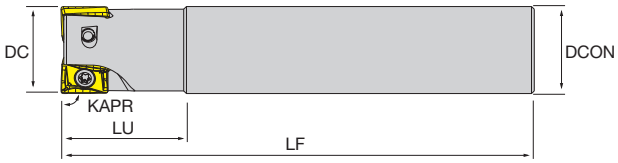
- Double-sided precision shoulder milling system, with coolant through
- Low resistance robust helical shoulder milling system, provides precision, good surface and reliability
- Tolerance of tool diameter (with Nikko inserts installed) 0/-0.2
- Steel and carbide arbors available for screw-in type holders

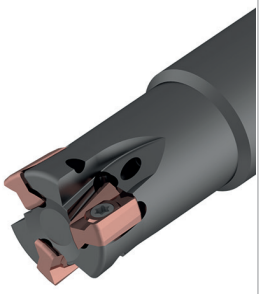
Screw-in



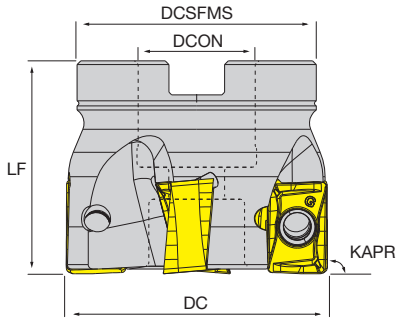


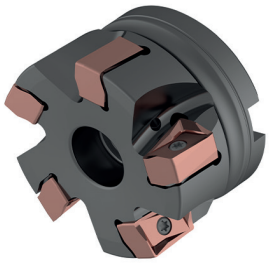
Cylindrical





Arbor





Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	KAPR	WT	MIID
SCREW-IN											
NT-DRK10 D016-M08-Z02	●	16	2	8.5	25	-	-	M8	90°	0.03 Kg	NT-DRK10
NT-DRK10 D020-M12-Z03	●	20	3	10.5	30	-	-	M10	90°	0.05 Kg	NT-DRK10
NT-DRK10 D025-M16-Z03	●	25	3	12.5	35	-	-	M12	90°	0.10 Kg	NT-DRK10
NT-DRK10 D032-M16-Z04	●	32	4	17	43	-	-	M16	90°	0.22 Kg	NT-DRK10
CYLINDRICAL											
NT-DRK10 D016-S16-Z02	●	16	2	16	100	25	-	-	90°	0.13 Kg	NT-DRK10
NT-DRK10 D020-S20-Z03	●	20	3	20	110	30	-	-	90°	0.23 Kg	NT-DRK10
NT-DRK10 D025-S25-Z03	●	25	3	25	120	35	-	-	90°	0.41 Kg	NT-DRK10
NT-DRK10 D032-S32-Z04	●	32	4	32	130	45	-	-	90°	0.74 Kg	NT-DRK10
NT-DRK17 D032-S32-Z02	●	32	2	32	130	45	-	-	90°	0.69 Kg	NT-DRK17
NT-DRK17 D040-S32-Z03	●	40	3	32	150	40	-	-	90°	0.89 Kg	NT-DRK17
ARBOR											
NT-DRK10 D032-F16-Z04	●	32	4	16	35	-	30	-	90°	0.10 Kg	NT-DRK10
NT-DRK10 D040-F16-Z05	●	40	5	16	40	-	30	-	90°	0.18 Kg	NT-DRK10
NT-DRK10 D050-F22-Z05	●	50	5	22	40	-	40	-	90°	0.31 Kg	NT-DRK10
NT-DRK10 D050-F22-Z07	●	50	7	22	40	-	40	-	90°	0.30 Kg	NT-DRK10
NT-DRK10 D063-F22-Z06	●	63	6	22	40	-	55	-	90°	0.62 Kg	NT-DRK10
NT-DRK10 D063-F22-Z08	●	63	8	22	40	-	55	-	90°	0.62 Kg	NT-DRK10
NT-DRK10 D080-F27-Z07	●	80	7	27	50	-	63	-	90°	1.26 Kg	NT-DRK10
NT-DRK10 D080-F27-Z10	●	80	10	27	50	-	63	-	90°	1.24 Kg	NT-DRK10
NT-DRK17 D050-F22-Z04	●	50	4	22	40	-	45	-	90°	0.29 Kg	NT-DRK17
NT-DRK17 D063-F22-Z05	●	63	5	22	40	-	56	-	90°	0.54 Kg	NT-DRK17
NT-DRK17 D063-F22-Z06	●	63	6	22	40	-	56	-	90°	0.51 Kg	NT-DRK17
NT-DRK17 D080-F27-Z06	●	80	6	27	50	-	63	-	90°	1.13 Kg	NT-DRK17
NT-DRK17 D080-F27-Z07	●	80	7	27	50	-	63	-	90°	1.10 Kg	NT-DRK17

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

Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	KAPR	WT	MIID
NT-DRK17 D100-F32-Z07	●	100	7	32	50	-	78	-	90°	1.71 Kg	NT-DRK17
NT-DRK17 D100-F32-Z09	●	100	9	32	50	-	78	-	90°	1.71 Kg	NT-DRK17
NT-DRK17 D125-F40-Z08	●	125	8	40	63	-	80	-	90°	3.20 Kg	NT-DRK17
NT-DRK17 D125-F40-Z10	●	125	10	40	63	-	80	-	90°	3.15 Kg	NT-DRK17

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

Spare parts	Insert screws	Flag wrenches
		
NT-DRK10 Dooo-ooo-Zoo	NT-ST25078P08	NT-FTP08
NT-DRK17 Dooo-ooo-Zoo	NT-ST45111T15	NT-FTB15

NT-DRK

DoubleRek

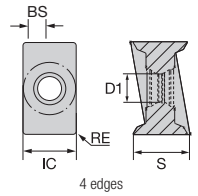
- GP and TE are both helical geometries with reduced cutting resistance
- Precise and enhanced positioning guarantees more reliability in machining
- Available in diverse grades covering wide application range

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

	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD
	JC7515	**JC8520**	**JC9540**	**JP5530**	**JP7525**	**JP8725**	**JP9535**	**JP9545**
Stable machining, light cut	●	●				○		
General machining, medium cut	●	○	●	●	●	●	●	○
Unstable machining, heavy cut			●	○	●		●	●

● 1st choice ○ suitable

Dimensions

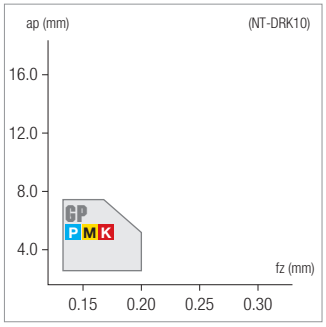


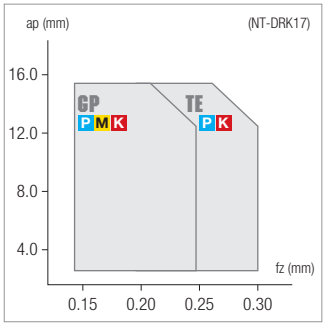
ISO — **Vc(m/min) - suggested cutting speed range** (bold: 1st choice)

ISO								
P		**130 300**		**100 260**		**100 280**		
M			**90 210**	60 180			**80 200**	**60 180**
K	**180 360**	160 320			**140 300**			
N								
S			**30 70**				**20 60**	**20 50**
H								

	Designation		RE	IC	S	D1	BS	Stock
GENERAL	GP P M K		**NT-DRK10R08K-GP**	0.8	5.82	5.45	2.9	0.9	● ● ● ● ● ● ●
	GP P M K		**NT-DRK17R08K-GP**	0.8	11.2	10.94	5.2	3.2	● ● ● ● ● ● ●
REINFORCED	TE P K		**NT-DRK17R12K-TE**	1.2	11.2	10.94	5.2	3.2	● ● ● ● ●

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





ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC8520 min	JC8520 start	JC8520 max	JP5530 min	JP5530 start	JP5530 max	JP8725 min	JP8725 start	JP8725 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100%	130	**180**	230	100	**140**	180	100	**150**	200
			30%	200	**240**	280	160	**200**	240	160	**210**	260
			10%	260	**280**	300	220	**240**	260	220	**250**	280
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	100	**140**	180	80	**120**	160	90	**130**	170
			30%	160	**200**	240	120	**160**	200	130	**170**	210
			10%	220	**240**	260	180	**200**	220	190	**210**	230
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%	70	**100**	130	60	**90**	120	80	**110**	140
			30%	120	**160**	200	100	**130**	160	120	**150**	180
			10%	200	**220**	240	140	**170**	200	160	**190**	220
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540 min	JC9540 start	JC9540 max	JP9535 min	JP9535 start	JP9535 max	JP9545 min	JP9545 start	JP9545 max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100%	90	**130**	170	80	**120**	160	60	**100**	140
			30%	110	**160**	210	100	**150**	200	80	**130**	180
			10%	130	**190**	250	120	**180**	240	100	**160**	220
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%	70	**100**	130	60	**90**	120	50	**80**	110
			30%	80	**110**	140	70	**100**	130	60	**90**	120
			10%	90	**120**	150	80	**110**	140	70	**100**	130
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	90	**120**	150	80	**110**	140	60	**90**	120
			30%	110	**150**	190	100	**140**	180	80	**120**	160
			10%	130	**170**	210	120	**160**	200	100	**140**	180
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%	80	**110**	140	70	**100**	130	60	**90**	120
			30%	90	**120**	150	80	**110**	140	70	**100**	130
				100	**130**	160	90	**120**	150	80	**110**	140
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC7515 min	JC7515 start	JC7515 max	JC8520 min	JC8520 start	JC8520 max	JP7525 min	JP7525 start	JP7525 max
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	180	**230**	280	160	**200**	240	140	**180**	220
			30%	200	**260**	320	180	**230**	280	160	**210**	260
			10%	220	**290**	360	200	**260**	320	180	**240**	300
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	120	**180**	240	120	**160**	200	100	**140**	180
			30%	160	**220**	280	140	**190**	240	120	**170**	220
			10%	200	**260**	320	160	**220**	280	140	**200**	260
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ ADI1000)	250 ÷ 500	100%	100	**140**	180	100	**130**	160	90	**120**	150
			30%	140	**180**	220	120	**160**	200	120	**150**	180
			10%	180	**220**	260	140	**190**	240	150	**180**	210
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540 min	JC9540 start	JC9540 max	JP9535 min	JP9535 start	JP9535 max	JP9545 min	JP9545 start	JP9545 max
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		100%	30	**40**	50	20	**30**	40	20	**25**	30
			30%	40	**50**	60	30	**40**	50	30	**35**	40
			10%	50	**60**	70	40	**50**	60	40	**45**	50
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		100%				40	**50**	60	30	**40**	50
			30%				50	**60**	70	40	**50**	60
			10%				60	**70**	80	50	**60**	70

ae: radial depth of cut; DC: milling cutter diameter

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

DESIGNATION	ae/Dc	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
NT-DRK10R08K-GP	100%	1.00	**2.50**	4.00	0.08	**0.10**	0.12
	30%	1.00	**4.00**	7.00	0.10	**0.13**	0.16
	10%	1.00	**4.00**	7.00	0.12	**0.16**	0.20
NT-DRK17R08K-GP	100%	1.00	**4.00**	7.00	0.11	**0.18**	0.21
	30%	1.00	**8.00**	15.00	0.14	**0.20**	0.26
	10%	1.00	**8.00**	15.00	0.16	**0.23**	0.30
NT-DRK17R12K-TE	100%	1.00	**4.00**	7.00	0.13	**0.19**	0.25
	30%	1.00	**8.00**	15.00	0.16	**0.23**	0.30
	10%	1.00	**8.00**	15.00	0.20	**0.27**	0.34