

# DOUBLEREK

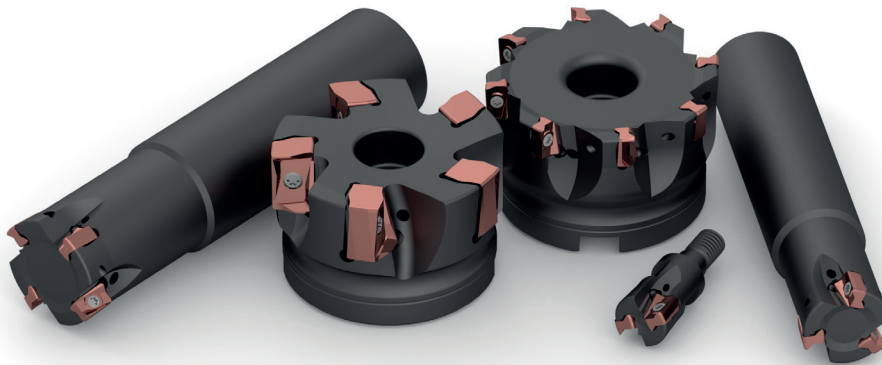
Double sided shoulder milling system for high productivity

## Application

- Shoulder milling
- Shoulder milling with high precision multiple passes
- Long overhang shoulder milling
- Eckfräser
- Bund mit wiederholten Arbeitsgängen
- Bund mit großen Überständen
- Fresatura di spallamento
- Spallamento preciso multi-passata
- Spallamento con elevate sporgenze
- Surfaçage Dressage
- Passes multiples de haute précision
- Usinage avec longs porte à faux

## Application range - ISO 513

**P M K**



## Features and benefits

- Very robust system allowing the use of the entire side cutting edge (up to 15 mm with the DRK17 insert)
- Super positive rake with helical geometry, extremely smooth cutting action.
- Fully ground inserts for precision machining and excellent finishes.
- Thick and strong insert ensures better heat dissipation and excellent mechanical strength.
- Secure and reliable positioning in seats guarantees better precision especially in tough conditions.
- Erhältlich in großen und kleinen Größen, ermöglicht die axiale Entfernungen von bis zu 15 mm.
- Super positiver Spanwinkel mit spiralförmiger Geometrie, extrem sanftes Schneidverhalten.
- Geschliffene Wendeschneidplatten für Präzisionsbearbeitungen und hervorragende Feinbearbeitung.
- Dicker als herkömmliche Wendeschneidplatten gleicher Größe; gewährleistet eine bessere Wärmeableitung und ausgezeichnete mechanische Festigkeit.
- Sichere und zuverlässige Installation, die vor allem bei hoher Belastung eine bessere Genauigkeit gewährleistet.
- Sistema molto robusto che permette di utilizzare intera altezza del tagliente laterale (fino a 15 mm con l'inserto DRK17)
- Angolo di spoglia super positivo con geometria elicoidale, azione di taglio estremamente dolce.
- Inserti rettificati per lavorazioni di precisione e finiture eccellenti.
- Spessore più elevato rispetto agli inserti convenzionali della stessa dimensione; assicurano migliore dissipazione del calore ed eccellente resistenza meccanica.
- Posizionamento in sede sicuro e affidabile che garantisce una migliore precisione, specialmente in condizoini di carico gravose.
- Disponible en deux tailles de plaquettes, permet de prendre des profondeurs de passe jusqu'à 15 mm.
- Angle de dépouille super positif à géométrie hélicoïdale, action de coupe extrêmement douce.
- Plaquettes rectifiées pour usinages de précision et excellentes finitions.
- Plaquettes épaisses et robustes; garantissent une meilleure dissipation thermique ainsi qu'une excellente résistance mécanique.
- Montage fiable et sécurisé qui garantit une meilleure précision, notamment dans des conditions difficiles.

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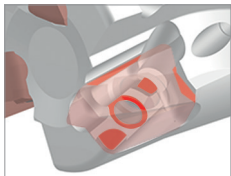
## Milling holders

- Shell mill type
- Cylindrical shank type
- Screw-in type
- Extension arbors (steel/carbide 10xD)
- From D16 to D125

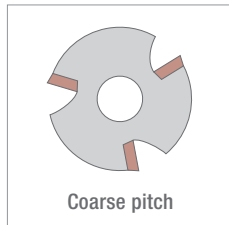
- Hülsenaufnahme
- Aufnahme zylindrisch
- Gewindeaufnahme
- Erweiterungshülsen (Stahl/Hartmetall 10xD)
- D16 bis D125

- Attacco a manicotto
- Attacco cilindrico
- Attacco filettato
- Prolunghe (acciaio/metallo duro 10xD)
- Da D16 a D125

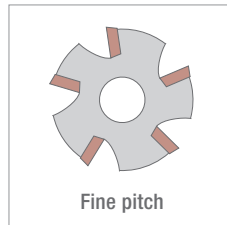
- type mandrin
- queue cylindrique
- embout vissé
- rallonge (acier/carbure 10xD)
- Du D16 au D125



Precise and stable positioning



Coarse pitch



Fine pitch

## Inserts

- 4 cutting edges
- Edge length 10 and 17
- CVD and PVD coated carbide grades
- Geometries: GP, TE

- 4 Schneidkanten
- Länge der Schneidkante 10 und 17
- CVD- und PVD-beschichtete Hartmetallqualitäten
- Geometrien: GP, TE

- 4 taglienti
- Lunghezza del tagliente 10 e 17
- Gradi in metallo duro rivestito CVD e PVD
- Geometrie: GP, TE

- 4 arêtes de coupe
- Taille de plaquettes 10 et 17
- Nuances carbure revêtues CVD et PVD
- Géométries : GP, TE

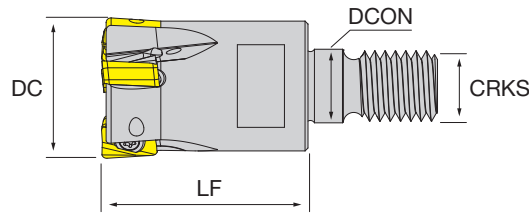


# NT-DRK

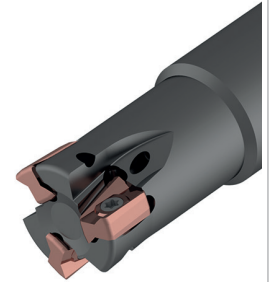
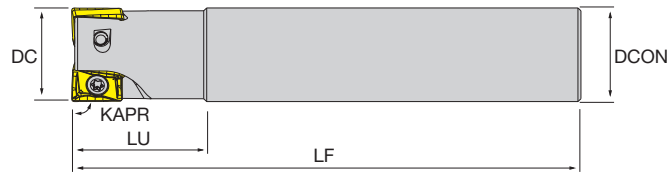
## DoubleRek

- 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

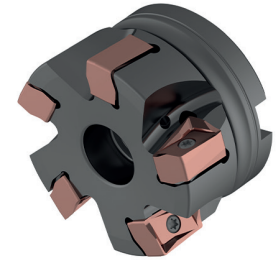
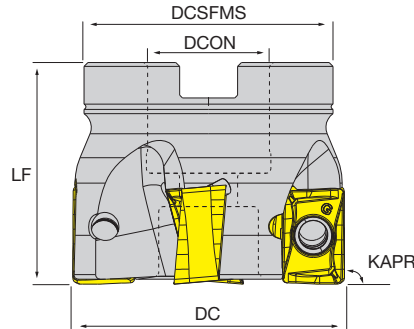
Screw-in



Cylindrical



Arbor





Designation	DC	CICr	DCON	LF	LU	DCSFMS	CRKS	WT	MIID	Stock
<b>SCREW-IN</b>										
NT-DRK10 D016-M08-Z02	16	2	8.5	25	-	-	M8	0.03	NT-DRK10	●
NT-DRK10 D020-M10-Z03	20	3	10.5	30	-	-	M10	0.05	NT-DRK10	●
NT-DRK10 D025-M12-Z03	25	3	12.5	35	-	-	M12	0.1	NT-DRK10	●
NT-DRK10 D032-M16-Z04	32	4	17	43	-	-	M16	0.22	NT-DRK10	●
<b>CYLINDRICAL SHANK</b>										
NT-DRK10 D016-S16-Z02	16	2	16	100	25	-	-	0.13	NT-DRK10	●
NT-DRK10 D020-S20-Z03	20	3	20	110	30	-	-	0.23	NT-DRK10	●
NT-DRK10 D025-S25-Z03	25	3	25	120	35	-	-	0.41	NT-DRK10	●
NT-DRK10 D032-S32-Z04	32	4	32	130	45	-	-	0.74	NT-DRK10	●
NT-DRK17 D032-S32-Z02	32	2	32	130	45	-	-	0.69	NT-DRK17	●
NT-DRK17 D040-S32-Z03	40	3	32	150	40	-	-	0.89	NT-DRK17	●
<b>ARBOR MOUNTING</b>										
NT-DRK10 D032-F16-Z04	32	4	16	35	-	30	-	0.1	NT-DRK10	●
NT-DRK10 D040-F16-Z05	40	5	16	40	-	30	-	0.18	NT-DRK10	●
NT-DRK10 D050-F22-Z05	50	5	22	40	-	40	-	0.31	NT-DRK10	●
NT-DRK10 D050-F22-Z07	50	7	22	40	-	40	-	0.3	NT-DRK10	●
NT-DRK10 D063-F22-Z06	63	6	22	40	-	55	-	0.62	NT-DRK10	●
NT-DRK10 D063-F22-Z08	63	8	22	40	-	55	-	0.62	NT-DRK10	●
NT-DRK10 D080-F27-Z07	80	7	27	50	-	63	-	1.26	NT-DRK10	●
NT-DRK10 D080-F27-Z10	80	10	27	50	-	63	-	1.24	NT-DRK10	⊙
NT-DRK17 D050-F22-Z04	50	4	22	40	-	45	-	0.29	NT-DRK17	●
NT-DRK17 D063-F22-Z05	63	5	22	40	-	56	-	0.54	NT-DRK17	●

★ 1st choice, ☆ suitable, ● stock standard, ⊙ non-stock standard (no MOQ), ○ non-stock standard (MOQ), ▲ upcoming product, ▽ stock exhaustion

Designation	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	WT	MIID		Stock
NT-DRK17 D063-F22-Z06	63	6	22	40	-	56	-	0.51	NT-DRK17		●
NT-DRK17 D080-F27-Z06	80	6	27	50	-	63	-	1.13	NT-DRK17		●
NT-DRK17 D080-F27-Z07	80	7	27	50	-	63	-	1.1	NT-DRK17		●
NT-DRK17 D100-F32-Z07	100	7	32	50	-	78	-	1.71	NT-DRK17		●
NT-DRK17 D100-F32-Z09	100	9	32	50	-	78	-	1.71	NT-DRK17		●
NT-DRK17 D125-F40-Z08	125	8	40	63	-	80	-	3.2	NT-DRK17		●
NT-DRK17 D125-F40-Z10	125	10	40	63	-	80	-	3.15	NT-DRK17		●

★ 1st choice, ☆ suitable, ● stock standard, ◎ non-stock standard (no MOQ), ○ non-stock standard (MOQ), ▲ upcoming product, ▽ stock exhaustion

Spare parts	Insert screw	Flag wrench
		
NT-DRK10 D○○○-○○-Z○○	NT-ST25078P08	NT-FTP08
NT-DRK17 D○○○-○○-Z○○	NT-ST45111T15	NT-FTB15



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

ae: radial depth of cut; DC: milling cutter diameter  
Complete workpiece materials p. H1.

INDEXABLE

A - TURNING

B - THREADING

C - GROOVING

D - MILLING

E - DRILLING

F - ACCESSORIES

G - SPARE PARTS

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