

REKPLUS

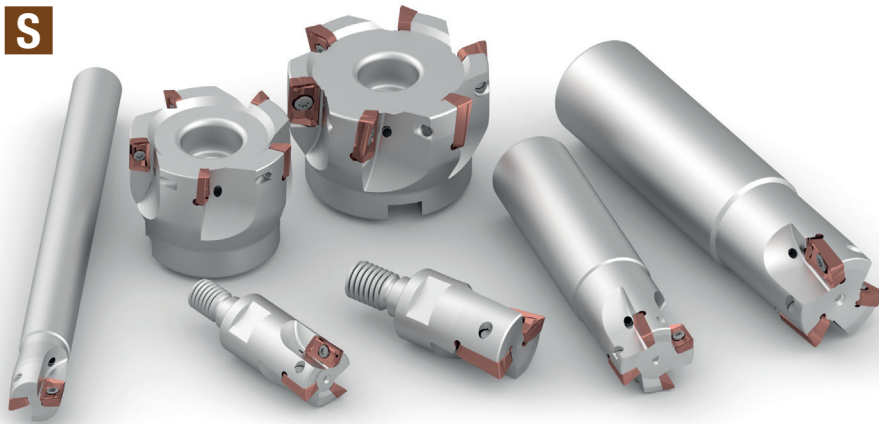
Positive shoulder milling system

Application

- Shoulder milling
 - Long overhang milling
 - Profiling and Pocketing
 - Linear and helical ramping
- Eckfräser
 - Fräsen mit langen Überständen
 - Profilierung und Taschenbildung
 - Lineare und spiralförmige Rampenbearbeitung
- Fresatura di spallamento
 - Fresatura con lunghe sporgenze
 - Profilatura ed esecuzione di tasche
 - Lavorazioni in rampa lineare ed elicoidale
- Surfaçage Dressage
 - Usinage avec longs porte à faux
 - Rainurage et usinage de poches
 - Usinages en ramping et interpolation hélicoïdale

Application range - ISO 513

P M K N S



Features and benefits

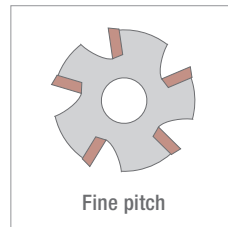
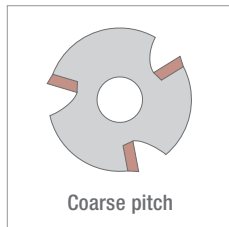
- Inserts with helical geometry produce high precision 90° souldering.
 - The straight geometries are suitable for roughing without special finishing needs and ensure excellent competitiveness.
 - Wide range of coolant through milling holders: shell mill type, cylindrical shank (weldon also available) type up to 10xD length, screw-on type with 10xD carbide and steel extension arbors
- Wendeschneidplatten mit spiralförmiger Geometrie ermöglichen die Herstellung hochpräziser gerader Eckfräsungen.
 - Die geraden Geometrien werden für die Schruppbearbeitung ohne besondere Anforderungen an die Feinbearbeitung empfohlen und gewährleisten eine hervorragende Produktivität.
 - Umfangreiches Sortiment an Fräskörpern mit zylindrischer Aufnahme (einschließlich Weldon-Typ), Standardlängen und 10xD, mit Schraubaufnahme und 10xD- Erweiterungen, alle mit innerer Kühlmittelzuführung.
- Inserti con geometria elicoidale possono produrre spallamenti retti di elevata precisione.
 - Le geometrie dritte sono consigliate per sgrossatura senza particolari requisiti di finitura e assicurano un costo/tagliante competitivo.
 - Vasta gamma di corpi fresa con refrigerazione interna: a manicotto, stelo cilindrico (anche Weldon disponibile) con lunghezze fino a 10xD e testine filettate con prolunghe in metallo duro e acciaio fino a 10xD
- Des plaquettes à géométrie hélicoïdale pour un usinage de haute précision à 90°
 - Les géométries droites sont recommandées pour l'ébauche sans exigences particulières de finition et assurent une excellente compétitivité.
 - Gamme extrêmement complète de corps de fraises avec type de montage mandrin, queue cylindrique (y compris de type Weldon), jusqu'à 10xD, avec embout vissé et rallonges 10xD, tous dotés de refroidissement interne.

REKPLUS

Positive shoulder milling system

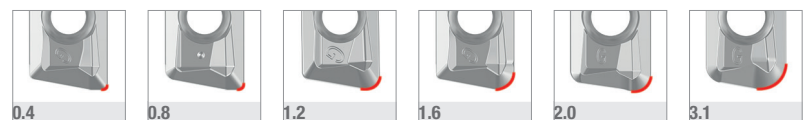
Milling holders

- Arbor type
 - Cylindrical shank type (up to 10xD)
 - Screw-on type
 - Extension arbors (steel/carbide 10xD)
 - From D16 to D100
- Hülsenaufnahme
 - Aufnahme zylindrisch (bis 10xD)
 - Gewindeaufnahme
 - Erweiterungshülsen (Stahl/Hartmetall 10xD)
 - D16 bis D100
- Attacco a manicotto
 - Attacco cilindrico (fino a 10xD)
 - Attacco filettato
 - Porlunghe (acciaio/metallo duro 10xD)
 - Da D16 a D100
- type mandrin
 - queue cylindrique (jusqu'à 10xD)
 - embout vissé
 - Rallonges (acier/carbure 10xD)
 - De D16 à D100



Inserts

- 2 cutting edges
 - Edge length 11 and 16
 - Gradi di metallo duro nudo e rivestito CVD e PVD
 - Geometries: HSC, HGP, GP, TE, AL
- 2 Schneidkanten
 - Länge der Schneidkante 11 und 16
 - CVD- und PVD-beschichtete Hartmetallqualitäten
 - Geometrien: HSC, HGP, GP, TE, AL
- 2 taglienti
 - Lunghezza del tagliente 11 e 16
 - CVD and PVD coated and uncoated carbide grades
 - Geometrie: HSC, HGP, GP, TE, AL
- 2 arêtes de coupe
 - Taille de plaquettes 11 et 16
 - Nuances carbure revêtues CVD et PVD
 - Géométries : HSC, HGP, GP, TE, AL



- Helical geometries are available with a wide range of radii
- Geometrie elicoidali disponibili in un'ampia gamma di raggi.
- Spiralförmige Geometrien in einer Vielzahl von Radien erhältlich.
- Géométries hélicoïdales disponibles dans une large gamme de rayons.

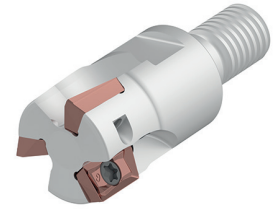
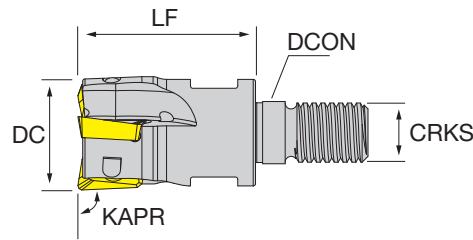


NT-RKP

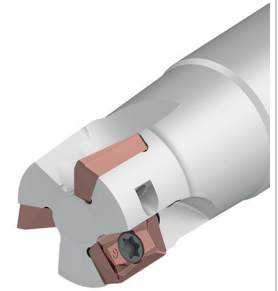
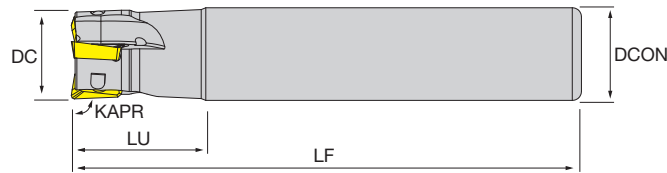
RekPlus

- Positive type precision shoulder milling system, with coolant through
- Tolerance of tool diameter (with Nikko inserts installed) 0/-0.2
- 10xD cylindrical body and screw-in type for applications that need long-overhang
- Reliable machining process guaranteed by high quality Swiss screws

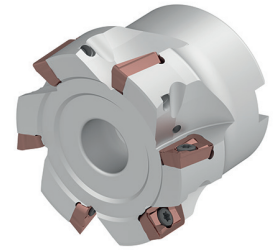
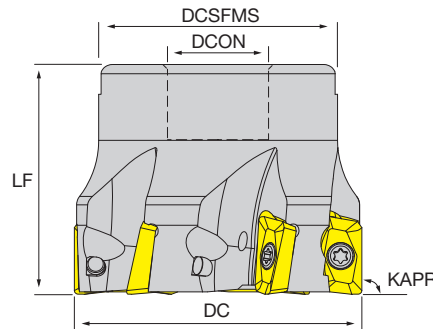
Screw-in



Cylindrical



Arbor



Designation	DC	CIC	DCON	LF	LU	DCSFMS	CRKS	WT	MIID	Stock
SCREW-IN										
NT-RKP11 D016-M08-Z02	16	2	8.5	25	-	-	M8	0.03	NT-RKP11	●
NT-RKP11 D020-M10-Z03	20	3	10.5	38	-	-	M10	0.07	NT-RKP11	●
NT-RKP11 D025-M12-Z03	25	3	12.5	38	-	-	M12	0.12	NT-RKP11	●
NT-RKP11 D025-M12-Z04	25	4	12.5	38	-	-	M12	0.11	NT-RKP11	●
NT-RKP11 D032-M16-Z04	32	4	17	43	-	-	M16	0.23	NT-RKP11	●
NT-RKP11 D032-M16-Z05	32	5	17	43	-	-	M16	0.22	NT-RKP11	●
NT-RKP16 D025-M12-Z02	25	2	12.5	38	-	-	M12	0.11	NT-RKP16	●
NT-RKP16 D032-M16-Z03	32	3	17	43	-	-	M16	0.19	NT-RKP16	●
NT-RKP16 D040-M16-Z04	40	4	17	43	-	-	M16	0.24	NT-RKP16	●
CYLINDRICAL SHANK										
NT-RKP11 D016-S16-Z02	16	2	16	100	25	-	-	0.13	NT-RKP11	●
NT-RKP11 D020-S16-Z03	20	3	16	110	30	-	-	0.15	NT-RKP11	●
NT-RKP11 D020-S20-Z03	20	3	20	110	30	-	-	0.23	NT-RKP11	●
NT-RKP11 D025-S25-Z03	25	3	25	120	35	-	-	0.41	NT-RKP11	●
NT-RKP11 D025-S25-Z04	25	4	25	120	35	-	-	0.4	NT-RKP11	●
NT-RKP11 D028-S25-Z04	28	4	25	120	35	-	-	-	NT-RKP11	○
NT-RKP11 D030-S25-Z04	30	4	25	130	35	-	-	-	NT-RKP11	○
NT-RKP11 D032-S32-Z04	32	4	32	130	35	-	-	0.74	NT-RKP11	●
NT-RKP11 D032-S32-Z05	32	5	32	130	35	-	-	0.73	NT-RKP11	●
NT-RKP16 D025-S25-Z02	25	2	25	120	35	-	-	0.4	NT-RKP16	●
NT-RKP16 D032-S32-Z03	32	3	32	130	45	-	-	0.71	NT-RKP16	●

★ 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
CYLINDRICAL SHANK - REDUCED SHANK										
NT-RKP11 D025-S20-Z03	25	3	20	120	35	-	-	0.28	NT-RKP11	●
NT-RKP11 D032-S25-Z04	32	4	25	130	35	-	-	0.49	NT-RKP11	●
NT-RKP16 D040-S32-Z04	40	4	32	150	45	-	-	0.89	NT-RKP16	◎
CYLINDRICAL SHANK - LONG TYPE (10XD)										
NT-RKP11 D016-S15-Z02-L	16	2	15	160	25	-	-	0.19	NT-RKP11	●
NT-RKP11 D016-S16-Z02-L	16	2	16	160	25	-	-	0.21	NT-RKP11	●
NT-RKP11 D017-S16-Z02-L	17	2	16	170	25	-	-	0.23	NT-RKP11	●
NT-RKP11 D020-S19-Z03-L	20	3	19	200	30	-	-	0.39	NT-RKP11	●
NT-RKP11 D020-S20-Z03-L	20	3	20	200	30	-	-	0.43	NT-RKP11	●
NT-RKP11 D021-S20-Z03-L	21	3	20	210	30	-	-	0.46	NT-RKP11	●
NT-RKP11 D025-S24-Z03-L	25	3	24	250	35	-	-	0.82	NT-RKP11	●
NT-RKP11 D025-S25-Z03-L	25	3	25	250	35	-	-	0.89	NT-RKP11	●
NT-RKP11 D026-S25-Z03-L	26	3	25	260	35	-	-	0.94	NT-RKP11	●
WELDON SHANK										
NT-RKP11 D016-W16-Z02	16	2	16	80	25	-	-	0.1	NT-RKP11	●
NT-RKP11 D020-W20-Z03	20	3	20	90	30	-	-	0.18	NT-RKP11	●
NT-RKP11 D025-W25-Z04	25	4	25	100	35	-	-	0.32	NT-RKP11	●
ARBOR MOUNTING										
NT-RKP11 D032-F16-Z04	32	4	16	40	-	28	-	0.11	NT-RKP11	●
NT-RKP11 D040-F16-Z05	40	5	16	40	-	35	-	0.22	NT-RKP11	●
NT-RKP11 D040-F16-Z06	40	6	16	40	-	35	-	0.3	NT-RKP11	●
NT-RKP11 D050-F22-Z05	50	5	22	40	-	40	-	0.33	NT-RKP11	●
NT-RKP11 D050-F22-Z07	50	7	22	40	-	40	-	0.37	NT-RKP11	●
NT-RKP11 D063-F22-Z06	63	6	22	40	-	50	-	0.59	NT-RKP11	●
NT-RKP11 D063-F22-Z08	63	8	22	40	-	50	-	0.57	NT-RKP11	●
NT-RKP11 D080-F27-Z07	80	7	27	50	-	60	-	1.21	NT-RKP11	●
NT-RKP11 D080-F27-Z10	80	10	27	50	-	60	-	1.07	NT-RKP11	●
NT-RKP16 D040-F16-Z04	40	4	16	40	-	35	-	0.19	NT-RKP16	●
NT-RKP16 D040-F16-Z05	40	5	16	40	-	35	-	0.18	NT-RKP16	●
NT-RKP16 D050-F22-Z04	50	4	22	40	-	40	-	0.29	NT-RKP16	●
NT-RKP16 D050-F22-Z05	50	5	22	40	-	40	-	0.27	NT-RKP16	●
NT-RKP16 D063-F22-Z05	63	5	22	40	-	50	-	0.53	NT-RKP16	●
NT-RKP16 D063-F22-Z06	63	6	22	40	-	50	-	0.51	NT-RKP16	●
NT-RKP16 D080-F27-Z06	80	6	27	50	-	60	-	1.09	NT-RKP16	●
NT-RKP16 D080-F27-Z08	80	8	27	50	-	60	-	1.06	NT-RKP16	●
NT-RKP16 D100-F32-Z07	100	7	32	50	-	80	-	1.9	NT-RKP16	●
NT-RKP16 D100-F32-Z09	100	9	32	50	-	80	-	1.85	NT-RKP16	●

★ 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-RKP11 D000-000-Z00	NT-ST25056T08HQ	NT-FTB08
NT-RKP16 D000-000-Z00	NT-ST40095T15HQ	NT-FTB15

INDEXABLE

A - TURNING

B - THREADING

C - GROOVING

D - MILLING

E - DRILLING

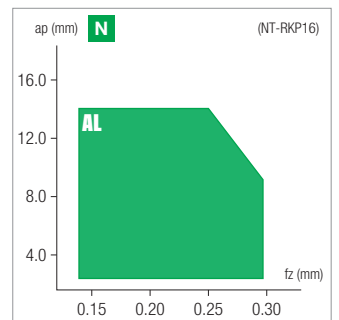
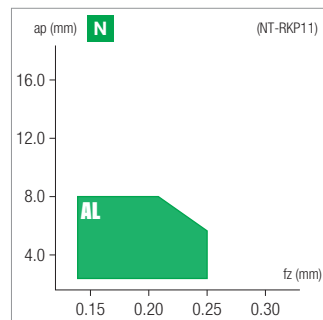
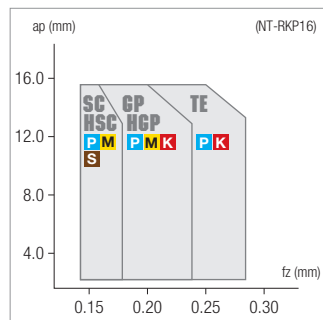
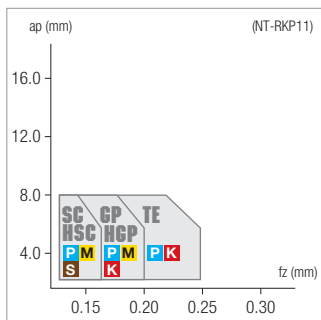
F - ACCESSORIES

G - SPARE PARTS

<h1>RKP</h1> <h2>RekPlus</h2>	HF: Micrograin tungstein carbide HT: Cermet HC: Coated tungstein carbide PVD: Physical vapor deposition CVD: Chemical vapor deposition											
	HC	HF	HF	HF	HF	HF	HF	HF	HF	HF	HT	HF
	CVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD			
	JP7515	JP5520	JP5530	JP7525	JP7515	JP8625	JP8725	JP9535	JP9635	JU4525	JU6520	
Stable machining, light cut General machining, medium cut Unstable machining, heavy cut	● 1 st choice ○ suitable ● 1 st choice ○ suitable ⚡ 1 st choice ⚡ suitable	●	○			○	○	○		●	●	
	●	●	●	●	●	●	●	●	●		●	
			⚡	⚡				⚡	⚡			
Dimensions 	ISO											
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)											
P	100 260	100 260			100 260	100 280			130 300			
M	60 180	60 180						80 200	80 180			
K	180 360		140 300	140 300								
N										300 1100		
S								20 60	20 50			
H												

	Designation	RE	IC	S	D1	BS	Stock					
							●	⊙	○	▲	▽	
REINFORCED 	TE P K NT-RKP11R08M-TE	0.80	6.35	3.5	2.8	1.9		●	⊙		●	
	NT-RKP16R08M-TE	0.80	9.525	4.76	4.5	2.2		⊙	⊙		●	
ALUMINIUM polished surface periphery ground	AL N NT-RKP11R04G-AL	0.40	6.35	3.5	2.8	1.9						●
	NT-RKP11R08G-AL	0.80	6.35	3.5	2.8	1.9						●
	NT-RKP16R08G-AL	0.80	9.525	4.76	4.5	2.2						●

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



INDEXABLE

A - TURNING

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D - MILLING

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ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5530			JP8625			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%	100	140	180	100	140	180	100	150	200
			30%	160	200	240	160	200	240	160	210	260
			10%	220	240	260	220	240	260	220	250	280
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	80	120	160	80	120	160	90	130	170
			30%	120	160	200	120	160	200	130	170	210
			10%	180	200	220	180	200	220	190	210	230
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%	60	90	120	60	90	120	80	110	140
			30%	100	130	160	100	130	160	120	150	180
			10%	140	170	200	140	170	200	160	190	220
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5530			JP9535			JP9635		
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%	60	100	140	80	120	160	80	110	140
			30%	80	130	180	100	150	200	100	140	180
			10%	100	160	220	120	180	240	120	170	220
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%				60	90	120	60	80	100
			30%				70	100	130	70	90	110
			10%				80	110	140	80	100	120
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	60	90	120	80	110	140	80	100	120
			30%	80	120	160	100	140	180	100	130	160
			10%	100	140	180	120	160	200	120	150	180
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%				70	100	130	70	90	110
			30%				80	110	140	80	100	120
							90	120	150	90	110	130
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP7525			JP7615					
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%	140	180	220	140	180	220			
			30%	160	210	260	160	210	260			
			10%	180	240	300	180	240	300			
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	100	140	180	100	140	180			
			30%	120	170	220	120	170	220			
			10%	140	200	260	140	200	260			
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ADI1000)	250 ÷ 500	100%	90	120	150	90	120	150			
			30%	120	150	180	120	150	180			
			10%	150	180	210	150	180	210			
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JU6520								
min	start	max	min	start	max	min	start	max	min	start	max	
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGA)		100%	300	400	500						
			30%	400	600	800						
			10%	500	800	1100						
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		100%	200	250	300						
			30%	300	350	400						
			10%	400	450	500						
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP9535			JP9635					
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%	20	30	40	20	25	30			
			30%	30	40	50	30	35	40			
			10%	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.

DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
NT-RKP11R00M-HGP	100%	1.00	2.50	4.00	0.06	0.09	0.12
	30%	1.00	4.50	8.00	0.08	0.11	0.14
	10%	1.00	4.50	8.00	0.10	0.15	0.20
NT-RKP16R00M-HGP	100%	1.00	4.00	7.00	0.10	0.13	0.16
	30%	1.00	8.00	15.00	0.12	0.16	0.20
	10%	1.00	8.00	15.00	0.16	0.20	0.24
NT-RKP11R00M-HSC	100%	1.00	2.50	4.00	0.04	0.07	0.10
	30%	1.00	4.50	8.00	0.06	0.09	0.12
	10%	1.00	4.50	8.00	0.08	0.12	0.16
NT-RKP16R00M-HSC	100%	1.00	4.00	7.00	0.06	0.10	0.14
	30%	1.00	8.00	15.00	0.10	0.13	0.16
	10%	1.00	8.00	15.00	0.12	0.15	0.18

DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
NT-RKP11R08M-GP	100%	1.00	2.50	4.00	0.06	0.09	0.12
	30%	1.00	4.50	8.00	0.08	0.11	0.14
	10%	1.00	4.50	8.00	0.10	0.15	0.20
NT-RKP16R08M-GP	100%	1.00	4.00	7.00	0.10	0.13	0.16
	30%	1.00	8.00	15.00	0.12	0.16	0.20
	10%	1.00	8.00	15.00	0.16	0.20	0.24
NT-RKP11R08M-SC	100%	1.00	2.50	4.00	0.04	0.07	0.10
	30%	1.00	4.50	8.00	0.06	0.09	0.12
	10%	1.00	4.50	8.00	0.08	0.12	0.16
NT-RKP11R08M-TE	100%	1.00	2.50	4.00	0.08	0.11	0.14
	30%	1.00	4.50	8.00	0.10	0.14	0.18
	10%	1.00	4.50	8.00	0.12	0.17	0.22
NT-RKP16R08M-TE	100%	1.00	4.00	7.00	0.12	0.15	0.18
	30%	1.00	8.00	15.00	0.14	0.18	0.22
	10%	1.00	8.00	15.00	0.18	0.23	0.28
NT-RKP11R00G-AL	100%	1.00	2.50	4.00	0.08	0.14	0.20
	30%	1.00	4.50	8.00	0.10	0.17	0.24
	10%	1.00	4.50	8.00	0.12	0.20	0.28
NT-RKP16R00G-AL	100%	1.00	4.00	7.00	0.11	0.18	0.25
	30%	1.00	8.00	15.00	0.14	0.22	0.30
	10%	1.00	8.00	15.00	0.16	0.25	0.34

Parameters for ramping

DC	NT-RKP11			NT-RKP16		
	RMPX	L		RMPX	L	
16	4.2°	10.8		25	5.0°	9.0
17	3.9°	11.5		32	1.7°	24.3
20	2.9°	15.4		40	1.1°	36.5
21	2.7°	16.6				
25	2.0°	21.5				
26	1.9°	22.4				
32	1.4°	29.5				
40	1.0°	39.3				

RMPX: max. ramping angle; L: max. ramping path

Parameters for helical milling

DC	NT-RKP11 R0.4		NT-RKP11 R0.8/1.2/1.6					
	DH min.	DH max.	DC	DH min.	DH max.			
16	20	32	16	21	31			
17	22	34	17	23	33			
20	28	40	20	29	39			
21	30	42	21	31	41			
25	38	50	25	39	49			
26	40	52	26	41	51			
32	52	64	32	53	63			
40	68	80	40	69	79			
DC	NT-RKP16 R0.8		NT-RKP16 R1.2/1.6/2.0			NT-RKP16 R3.1		
	DH min.	DH max.	DC	DH min.	DH max.	DC	DH min.	DH max.
25	32	49	25	33	49	25	35	47
32	46	63	32	47	63	32	49	61
40	62	79	40	63	79	40	65	77

DH min.: min. cutting dia.; DH max.: max. cutting dia.