HF4PLUS

High feed milling system, high productivity

Application

- High feed milling
- Profiling and contouring
- Linear or helical ramping
- Pocketing

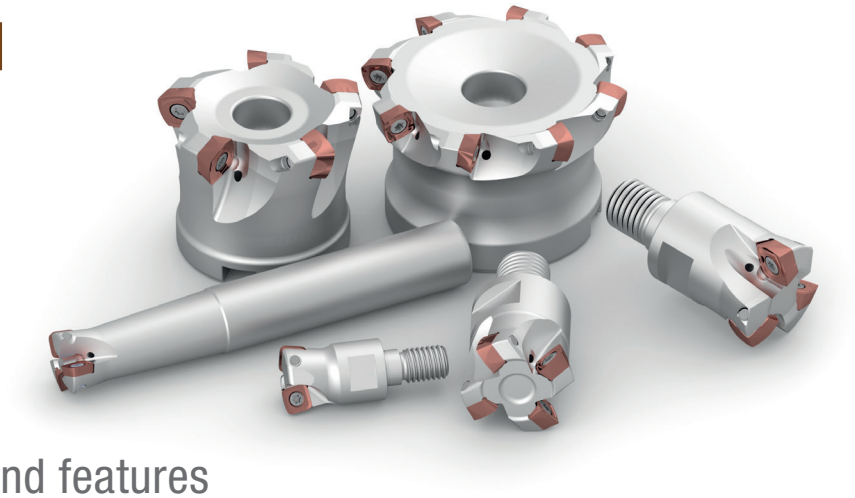
- Schruppschlichtfräsen oder Schruppfräsen von Oberflächen
- Profilierung und Konturierung
- Lineare und spiralförmige Rampenbearbeitung
- Taschenfraesen

- Fresatura ad alto avanzamento
- Profilatura e contornatura
- Lavorazioni in rampa lineare e elicoidale
- Esecuzione di tasche

- Fraisage grande avance
- Rainurage et contournage
- Ramping rectiligne et hélicoïdale
- Usinage de poches

Application range - ISO 513

P M K S



Advantages and features

- High feed machining that effectively reduces cycle time and improves efficiency.
- Versatile in operations and simplifies the process (suitable for face milling, ramping, helical pocketing, vertical milling)
- Multiple-curve edge design improves strenght and reliability.
- Insert sizes from small to large: 07, 10, 12 and 15

- Bearbeitung mit hohem Vorschub, wodurch die Zykluszeit effektiv reduziert und die Prozesseffizienz verbessert wird.
- Vielseitiges System, das Prozesse vereinfacht (kann Planfräsen, Rampenbearbeitung, Spiralschlichten von Taschen, Ausbohrungen und Ansenkungen ausführen, kombiniert Schruppen und Schruppschlichten).
- Die Ausführung mit mehrfach gekrümmter Schneidkante erhöht die Robustheit und Zuverlässigkeit.
- Erhältlich in den Größen 07 (Mini), 10 (gängigste), 12 (häufiger Gebrauch) und 15 (größte).

- Sistema ad alto avanzamento per ridurre il tempo ciclo e migliorare l'efficienza.
- Sistema versatile, semplifica i processi (adatto per spianatura, rampa, esecuzione elicoidale di tasche, fresatura a tuffo).
- Design con tagliente multicurva che migliora robustezza e affidabilità.
- Dimensioni inserti disponibili: 07, 10, 12, 15

- Usinage à avance élevée qui réduit efficacement le temps de cycle et améliore l'efficacité du processus.
- Système polyvalent qui simplifie les process (possibilité de réaliser du surfaçage, ramping, interpolation hélicoïdale, tréflage)
- Conception de l'arête multi-courbe améliorant résistance et fiabilité.
- Tailles de plaquettes disponibles 07, 10 , 12 et 15

SORMA DIAMOND & CUTTING TOOLS

HF4PLUS

High feed milling system, high productivity

Milling holders

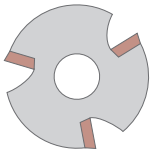
- Shell mill type
- Cylindrical shank type
- Screw-in type
- Extension arbors (steel/carbide 10xD)
- From D20 to D125

- Hülsenaufnahme
- Aufnahme zylindrisch
- Aufschraubsystem
- Erweiterungshülsen (Stahl/Hartmetall 10xD)
- D20 bis D125

- Attacco a manicotto
- Attacco cilindrico
- Attacco filettato
- Prolunghe (acciaio/metallo duro 10xD)
- Da D20 a D125

- Type mandrin
- Queue cylindrique
- Embout vissé
- Rallonge (acier/carbure 10xD)
- Du D20 à D125

Extension arbors



Coarse pitch

Fine pitch

Inserts

- 4 edges
- Edge length 07, 10, 12 and 15
- CVD and PVD coated carbide grades
- Geometries: SC, GP, SS, TE

- 4 Schneidkanten
- Länge der Schneidkante 07, 10, 12 und 15
- PVD- und CVD-beschichtete Hartmetallqualitäten
- Geometrien: SC, GP, SS, TE

- 4 taglienti
- Lunghezza del tagliente 07, 10, 12 e 15
- Gradi in metallo duro rivestito CVD e PVD
- Geometrie: SC, GP, SS, TE

- 4 arêtes de coupe
- Taille de plaquette 07, 10, 12 et 15
- Nuances carbure revêtues PVD et CVD
- Géométries : SC, GP, SS, TE

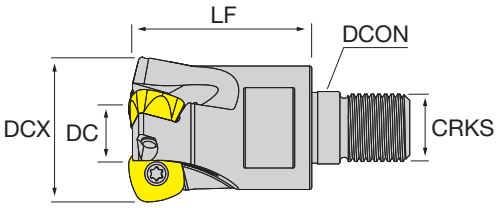
SORMA DIAMOND & CUTTING TOOLS

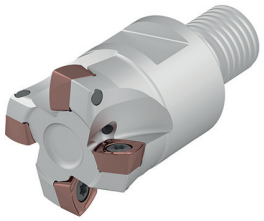
NT-SD

HF4Plus SD

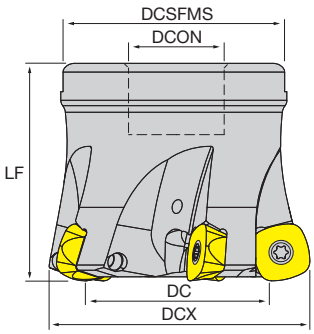
- High feed milling system with positive square inserts, with coolant through
- Diverse combination of diameters and pitches, available with different insert sizes
- Tolerance of tool diameter (with Nikko inserts installed) 0/-0.2
- Steel and carbide arbors available for screw in type holders

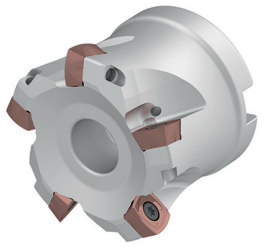
Screw-in





Arbor





MEDIUM | ROUGHING | FACING | LONG OVERHANG | POCKETING | RAMPING | HELICAL | LONG | MULTIPLE

Designation	DCX	CICT	DC	DCON	LF	CRKS	WT	MIID			Stock
SCREW-IN											
NT-SD10HF D035-M16-Z04	35	4	20	17	40	M16	0.18	SDMT1004			●
NT-SD10HF D042-M16-Z05	42	5	27	17	40	M16	0.23	SDMT1004			●
NT-SD12HF D032-M16-Z02	32	2	12.5	17	43	M16	0.18	SDMT1205			◉
NT-SD12HF D035-M16-Z03	35	3	15.5	17	43	M16	0.19	SDMT1205			●
NT-SD12HF D040-M16-Z04	40	4	20.5	17	43	M16	0.2	SDMT1205			○
NT-SD12HF D042-M16-Z04	42	4	22.5	17	43	M16	0.22	SDMT1205			●
ARBOR MOUNTING											
NT-SD10HF D050-F22-Z06	50	6	35	22	50	-	0.38	SDMT1004			●
NT-SD10HF D052-F22-Z06	52	6	37	22	50	-	0.39	SDMT1004			●
NT-SD10HF D063-F27-Z07	63	7	48	27	50	-	0.65	SDMT1004			●
NT-SD10HF D066-F27-Z07	66	7	51	27	50	-	0.72	SDMT1004			●
NT-SD10HF D080-F27-Z08	80	8	65	27	50	-	1	SDMT1004			●
NT-SD12HF D042-F16-Z04	42	4	22.5	16	40	-	0.19	SDMT1205			●
NT-SD12HF D050-F22-Z04	50	4	30.5	22	50	-	0.37	SDMT1205			●
NT-SD12HF D050-F22-Z05	50	5	30.5	22	50	-	0.35	SDMT1205			●
NT-SD12HF D052-F22-Z04	52	4	32.5	22	50	-	0.39	SDMT1205			●
NT-SD12HF D052-F22-Z05	52	5	32.5	22	50	-	0.37	SDMT1205			●
NT-SD12HF D063-F22-Z04	63	4	43.5	22	50	-	0.56	SDMT1205			●
NT-SD12HF D063-F27-Z04	63	4	43.5	27	50	-	0.58	SDMT1205			◉
NT-SD12HF D063-F22-Z05	63	5	43.5	22	50	-	0.54	SDMT1205			●
NT-SD12HF D063-F27-Z05	63	5	43.5	27	50	-	0.56	SDMT1205			●
NT-SD12HF D066-F27-Z06	66	6	46.5	27	50	-	0.68	SDMT1205			●
NT-SD12HF D080-F27-Z06	80	6	60.5	27	50	-	0.94	SDMT1205			●
NT-SD12HF D080-F27-Z07	80	7	60.5	27	50	-	0.99	SDMT1205			●
NT-SD12HF D100-F32-Z07	100	7	60.5	32	50	-	1.6	SDMT1205			●
NT-SD15HF D080-F27-Z05	80	5	61	27	50	-	0.8	SDMT1505			●
NT-SD15HF D080-F27-Z06	80	6	61	27	50	-	0.6	SDMT1505			●
NT-SD15HF D100-F32-Z06	100	6	81	32	50	-	1.2	SDMT1505			▲
NT-SD15HF D125-F40-Z07	125	7	106	40	63	-	2.28	SDMT1505			▲
NT-SD15HF-EX D160-F40-Z08	160	8	141	-	63	-	-	SDMT1505			◉
NT-SD15HF D200-F60-Z10	200	10	181	-	63	-	-	SDMT1505			◉

★ 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-SD10HF Dooo-ooo-Zoo	NT-ST35095T15HQ	NT-FTB15
NT-SD12HF Dooo-ooo-Zoo	NT-ST40110T15HQ	NT-FTB15
NT-SD15HF Dooo-ooo-Zoo	NT-ST50110T20	NT-FTB20

SORMA DIAMOND & CUTTING TOOLS

SD

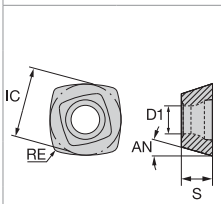
HF4Plus

- GP geometry is for general purpose use
- SC and SS geometries are sharper, for M and S materials
- TE edge is reinforced and stronger
- Available with Several carbide grades covering PMKS applications
- For the program radius and various other parameters for CNC program please go to the technical instruction page, it varies with sizes and geometries

HC: Coated tungstein carbide
HF: Micrograin tungstein carbide
CVD: Chemical vapor deposition
PVD: Physical vapor deposition

		JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JP9545
		HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HC PVD
Stable machining, light cut	● 1st choice ○ suitable	●				○		
General machining, medium cut	● 1st choice ○ suitable	○	●	●	●	●	●	○
Unstable machining, heavy cut	✱ 1st choice ✱ suitable		✱	✱	✱		✱	✱

Dimensions

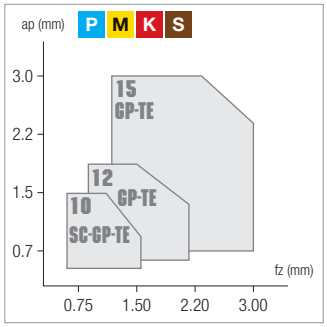


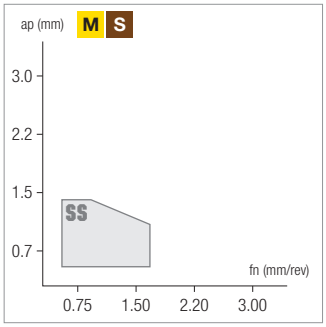
4 edges

ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)						
P	**130 300**		**100 260**		**100 280**		
M		**90 210**	60 180			**80 200**	**60 180**
K	160 320			**140 300**			
N							
S		**30 70**				**20 60**	**20 50**
H							

		Designation	RE	IC	S	D1	AN	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JP9545
GENERAL	GP P M K S	SDMT100410R-GP	1.00	10	4.76	4	15°	●	●	●	●	●	●	●
		SDMT120512R-GP	1.20	12.7	5.56	4.4	15°	●	●	●	●	●	●	
		SDMT150512R-GP	1.20	15.875	5.56	5.5	15°	●	●			●	●	
BASSI SFORZI	SC P M S	SDMT100410R-SC	1.00	10	4.76	4	15°			●			●	
SHARP	SS M S	SDMT120512R-SS	1.20	12.7	5.56	4.4	15°		●				○	
REINFORCED	TE P M S	SDMT100410R-TE	1.00	10	4.76	4	15°			●		●	◉	
		SDMT120512R-TE	1.20	12.7	5.56	4.4	15°	●		●		●		
		SDMT150512R-TE	1.20	15.875	5.56	5.5	15°	●				●		

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





Rp SUGGESTED PROGRAMMING RADIUS

SDMT 10	2.5
SDMT 12	3.5
SDMT 15	5.0

more details at page D83

SDMT12-SS

SS geometry generates a bigger milling cutter diameter compared to GP and TE types.

Please add **0.85 mm** to DCX values and **0.40 mm** to LF values, shown on page D78.

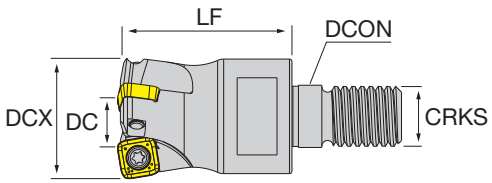
SORMA DIAMOND & CUTTING TOOLS

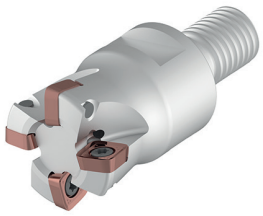
NT-SP

HF4Plus SP

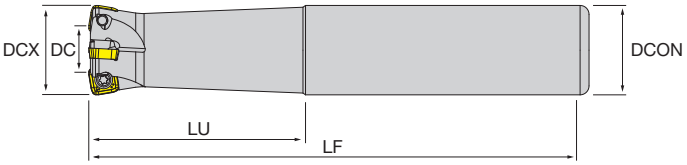
- High feed milling system with positive square inserts, with coolant through
- Diverse combination of diameters and pitches available, focus on small diameters
- Tolerance of tool diameter (with Nikko inserts installed) 0/-0.2
- Steel and carbide arbors available for screw in type holders

Screw-in

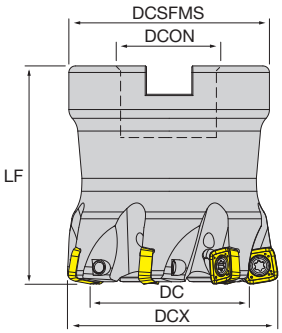


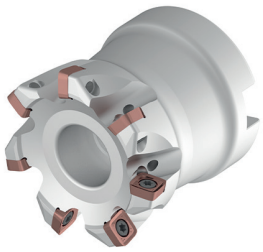


Cylindrical



Arbor





MEDIUM | ROUGHING | FACING | LONG OVERHANG | POCKETING | RAMPING | HELICAL | LONG | MULTIPLE

Designation	DCX	CICT	DC	DCON	LF	LU	CRKS	WT	MIID		Stock
SCREW-IN											
NT-SP07HF D020-M10-Z02	20	2	7.3	10.5	30	-	M10	0.05	SPMT07T2		⦿
NT-SP07HF D020-M10-Z03	20	3	7.3	10.5	30	-	M10	0.04	SPMT07T2		●
NT-SP07HF D025-M12-Z03	25	3	12.3	12.5	35	-	M12	0.1	SPMT07T2		●
NT-SP07HF D025-M12-Z04	25	4	12.3	12.5	35	-	M12	0.1	SPMT07T2		●
NT-SP07HF D032-M16-Z04	32	4	19.3	17	40	-	M16	0.19	SPMT07T2		●
NT-SP07HF D032-M16-Z05	32	5	19.3	17	40	-	M16	0.17	SPMT07T2		●
NT-SP07HF D035-M16-Z05	35	5	22.3	17	40	-	M16	0.2	SPMT07T2		●
NT-SP07HF D042-M16-Z06	42	6	29.3	17	40	-	M16	0.24	SPMT07T2		⦿
CYLINDRICAL SHANK											
NT-SP07HF D020-S20-Z03	20	3	7.3	20	130	50	-	0.26	SPMT07T2		●
NT-SP07HF D025-S25-Z03	25	3	12.3	25	140	60	-	0.44	SPMT07T2		●
NT-SP07HF D025-S25-Z04	25	4	12.3	25	140	60	-	0.4	SPMT07T2		●
NT-SP07HF D032-S32-Z05	32	5	19.3	32	150	70	-	0.79	SPMT07T2		●
ARBOR MOUNTING											
NT-SP07HF D040-F16-Z05	40	5	27.3	16	40	-	35	0.21	SPMT07T2		●
NT-SP07HF D040-F16-Z06	40	6	27.3	16	40	-	35	0.2	SPMT07T2		●
NT-SP07HF D042-F16-Z05	42	5	29.3	16	40	-	35	0.22	SPMT07T2		●
NT-SP07HF D042-F16-Z06	42	6	29.3	16	40	-	35	0.21	SPMT07T2		●
NT-SP07HF D050-F22-Z07	50	7	37.3	22	50	-	46	0.41	SPMT07T2		●
NT-SP07HF D052-F22-Z07	52	7	39.3	22	50	-	46	0.44	SPMT07T2		●

★ 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-SP07HF Dooo-ooo-Zoo	NT-ST30070T10HQ	NT-FTB10

SP

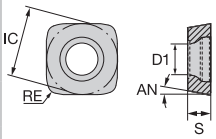
HF4Plus

- GP geometry is for general purpose use
- SC is sharper for M and S materials
- Available with several carbide grades covering PMKS applications
- For the program radius and various other parameters for CNC program please go to the technical instruction page

HF: Micrograin tungstein carbide
HC: Coated tungstein carbide
PVD: Physical vapor deposition
CVD: Chemical vapor deposition

		JC8520	JC9540	JP5530	JP7525	JP9535	JP9545
		HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HC PVD
Stable machining, light cut	● 1st choice ◯ suitable	●					
General machining, medium cut	● 1st choice ◯ suitable	◯	●	●	●	●	◯
Unstable machining, heavy cut	✱ 1st choice ✲ suitable		✱	✲	✱	✱	✱

Dimensions



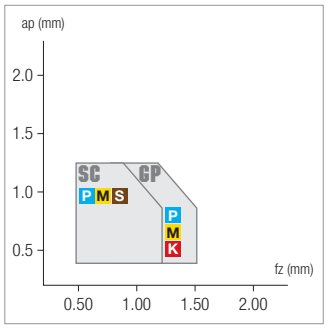
4 edges

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

ISO	JC8520	JC9540	JP5530	JP7525	JP9535	JP9545
P	**130 300**		**100 260**			
M		**90 210**	60 180		**80 200**	**60 180**
K	160 320			**140 300**		
N						
S		**30 70**			**20 60**	**20 50**
H						

	Designation		RE	IC	S	D1	AN	Stock						
GENERAL	GP PMKS	SPMT07T210R-GP	1.00	7.8	2.8	3.5	11°	●	●	●	●	●	●	●
LOW FORCE	SC PMS	SPMT07T210R-SC	1.00	7.8	2.8	3.5	11°			●			●	

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



Rp SUGGESTED PROGRAMMING RADIUS

SPMT 07	2.0

more details at page D83

SORMA DIAMOND & CUTTING TOOLS

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	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%	160	**200**	240	140	**180**	220			
			30%	180	**230**	280	160	**210**	260			
			10%	200	**260**	320	180	**240**	300			
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	120	**160**	200	100	**140**	180			
			30%	140	**190**	240	120	**170**	220			
			10%	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	**130**	160	90	**120**	150			
			30%	120	**160**	200	120	**150**	180			
			10%	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

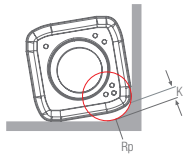
ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. **M**1.

DESIGNATION	ae/DCX	DEPTH OF CUT ap (mm)			FEED RATE fz (mm)		
		min	start	max	min	start	max
SPMT07T210R-GP	100%	0.20	**0.60**	1.00	0.40	**0.70**	1.00
	30%	0.20	**0.60**	1.00	0.50	**0.90**	1.30
	10%	0.20	**0.60**	1.00	0.60	**1.10**	1.60
SDMT100410R-GP	100%	0.30	**0.90**	1.50	0.40	**0.75**	1.10
	30%	0.30	**0.90**	1.50	0.50	**1.00**	1.50
	10%	0.30	**0.90**	1.50	0.60	**1.20**	1.60
SDMT120512R-GP	100%	0.40	**1.20**	2.00	0.60	**0.90**	1.20
	30%	0.40	**1.20**	2.00	0.70	**1.10**	1.50
	10%	0.40	**1.20**	2.00	0.80	**1.30**	1.80
SDMT150512R-GP	100%	0.60	**1.80**	3.00	0.60	**1.00**	1.40
	30%	0.60	**1.80**	3.00	0.80	**1.30**	1.80
	10%	0.60	**1.80**	3.00	0.90	**1.50**	2.10
SPMT07T210R-SC	100%	0.20	**0.60**	1.00	0.30	**0.60**	0.90
	30%	0.20	**0.60**	1.00	0.40	**0.80**	1.20
	10%	0.20	**0.60**	1.00	0.50	**0.90**	1.40
SDMT100410R-SC	100%	0.30	**0.90**	1.50	0.30	**0.70**	1.10
	30%	0.30	**0.90**	1.50	0.40	**0.90**	1.40
	10%	0.30	**0.90**	1.50	0.50	**1.00**	1.50

DESIGNATION	ae/DCX	DEPTH OF CUT ap (mm)			FEED RATE fz (mm)		
		min	start	max	min	start	max
SDMT100410R-TE	100%	0.30	**0.90**	1.50	0.60	**0.90**	1.20
	30%	0.30	**0.90**	1.50	0.70	**1.20**	1.60
	10%	0.30	**0.90**	1.50	0.80	**1.40**	1.60
SDMT120512R-TE	100%	0.40	**1.20**	2.00	0.70	**1.00**	1.30
	30%	0.40	**1.20**	2.00	0.90	**1.30**	1.70
	10%	0.40	**1.20**	2.00	1.00	**1.50**	2.00
SDMT150512R-TE	100%	0.60	**1.80**	3.00	0.80	**1.20**	1.60
	30%	0.60	**1.80**	3.00	1.00	**1.50**	2.00
	10%	0.60	**1.80**	3.00	1.20	**1.80**	2.40
SDMT120512R-SS	100%	0.40	**0.70**	1.00	0.50	**0.80**	1.10
	30%	0.40	**0.70**	1.00	0.60	**1.00**	1.40
	10%	0.40	**0.70**	1.00	0.70	**1.20**	1.70

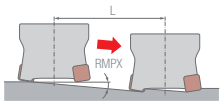
Approximate programming radius adjustment (Rp)



SPMT07			SDMT10			SDMT12 *			SDMT15		
Rp	undercut K	overcut r	Rp	undercut K	overcut r	Rp	undercut K	overcut r	Rp	undercut K	overcut r
1.5	0.69	0	2	1.18	0	3	1.28	0	4.5	1.15	0
2	**0.61**	**0**	**2.5**	**1.02**	**0**	**3.5**	**1.11**	**0**	**5**	**0.99**	**0**
2.5	0.54	0.08	3	0.86	0.02	4	0.95	0.02	5.5	0.82	0.14
3	0.46	0.24	3.5	0.70	0.13	4.5	0.79	0.14	6	0.67	0.03

*for SDMT12-SS programming radius adjustment please see next page. Green background are suggested values.

Parameters for ramping

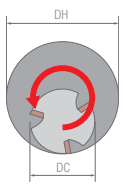


SPMT07			SDMT10			SDMT12 *			SDMT15		
DCX	RMPX	L	DCX	RMPX	L	DCX	RMPX	L	DCX	RMPX	L
20	3.5°	2.5	35	1.6°	2	32	4.0°	4.5	80	1°	
25	3.0°	1.6	42	1.5°	1.7	40	2.4°	3.4	100	0.7°	
32	1.2°	1.4	50	0.8°	1.5	42	2.1°	3.2	125	0.5°	
35	1.2°	1.5	52	1.0°	2	50	1.5°	2.9			
40	1.0°	1.3	63	0.6°	1.8	52	1.0°	2			
42	0.9°	1.3	66	0.6°	1.8	63	1.0°	2.5			
52	0.6°	1.2	80	0.4°	1.6	66	0.9°	2.5			
						80	0.7°	2.2			
						100					

*for SDMT12-SS guide for ramping please see next page.

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

Parameters for helical milling

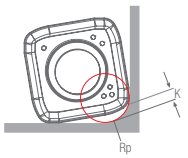


SPMT07			SDMT10			SDMT12 *			SDMT15		
DCX	DH min.	DH max.	DCX	DH min.	DH max.	DCX	DH min.	DH max.	DCX	DH min.	DH max.
20	28	40	35	54	70	32	46	64	80	136	157
25	38	50	42	68	84	40	62	80	100	176	197
32	52	64	50	84	100	42	66	84	125	226	247
35	58	70	52	88	104	50	82	100			
40	68	80	63	110	126	52	86	104			
42	72	84	66	116	132	63	108	126			
52	92	104	80	144	160	66	114	132			
						80	142	160			
						100					

*for SDMT12-SS guide for helical milling please see next page.

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

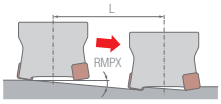
Approximate programming radius adjustment (Rp)



SDMT12-SS		
Rp	undercut K	overcut r
3	1.52	0
3.5	**1.45**	**0**
4	1.28	0.07

Green background are suggested values.

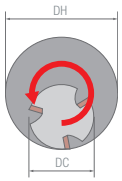
Parameters for ramping



SDMT12-SS		
DCX	RMPX	L
32	5.5°	6
40	3.7°	5.2
42	3.3°	5
50	2.4°	4.4
52	2.2°	4.2
63	1.5°	3.7
66	1.4°	3.5
80	1.0°	3.3

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

Parameters for helical milling



SDMT12-SS		
DCX	DH min.	DH max.
32	42	64
40	58	80
42	62	84
50	78	100
52	82	104
63	104	126
66	110	132
80	138	160

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