New products for machining technicians

NEW DHFC

Double-sided high-feed milling system

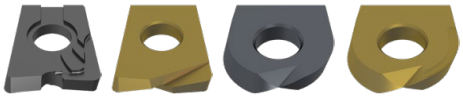
NEW HPC-04

PCD and CBN milling system Ø 20–40 mm

NEW CTCS245

New Dragonskin high-performance coating for the ISO S application range

NEW K2000 system grade update



New high-performance grades for mold & die production

NEW MaxiMill 270-19 addition

New system size with a 19 mm indexable insert for heavy machining

NEW MaxiMill 273 addition

Adjustable milling cutter with length adjustment

NEW MaxiMill 491 addition

Indexable insert range expansion to include the sizes SNHU 09.. RE 1.2 and RE 1.6 as well as additional grades for the ISO M and S application range

Solid drilling and bore machining

1 HSS drilling

2 Solid carbide drilling

3 Indexable insert drilling

4 Reaming and Countersinking

5 Spindle Tooling

Threading

6 Taps and thread formers

7 Circular and Thread Milling

8 Thread turning

Turning

9 Turning Tools

10 EcoCut

11 Grooving Tools

12 Miniature turning tools

Milling

13 HSS Milling Cutters

14 Solid Carbide milling cutters

15 Milling tools with indexable inserts

Tool Clamping

16 Adapters

17 Accessories

18 Material examples and article no. index

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CERATIZIT \ Performance

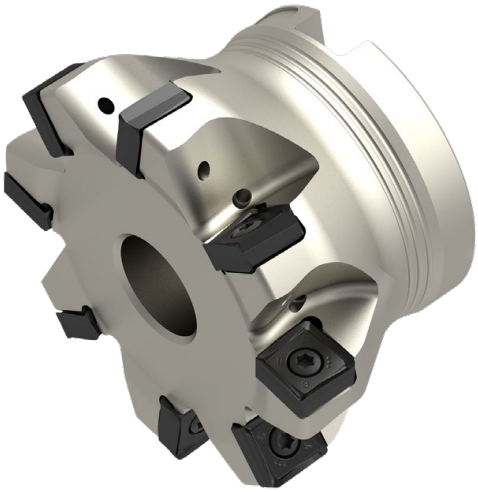
Premium quality tools for high performance.

The premium quality tools from the **CERATIZIT Performance** product line have been designed for specific applications and are distinguished by their outstanding performance. If you make high demands on the performance of your production and want to achieve the very best results, we recommend the Premium tools in this product line.

Symbol explanation

central internal coolant

lateral internal coolant

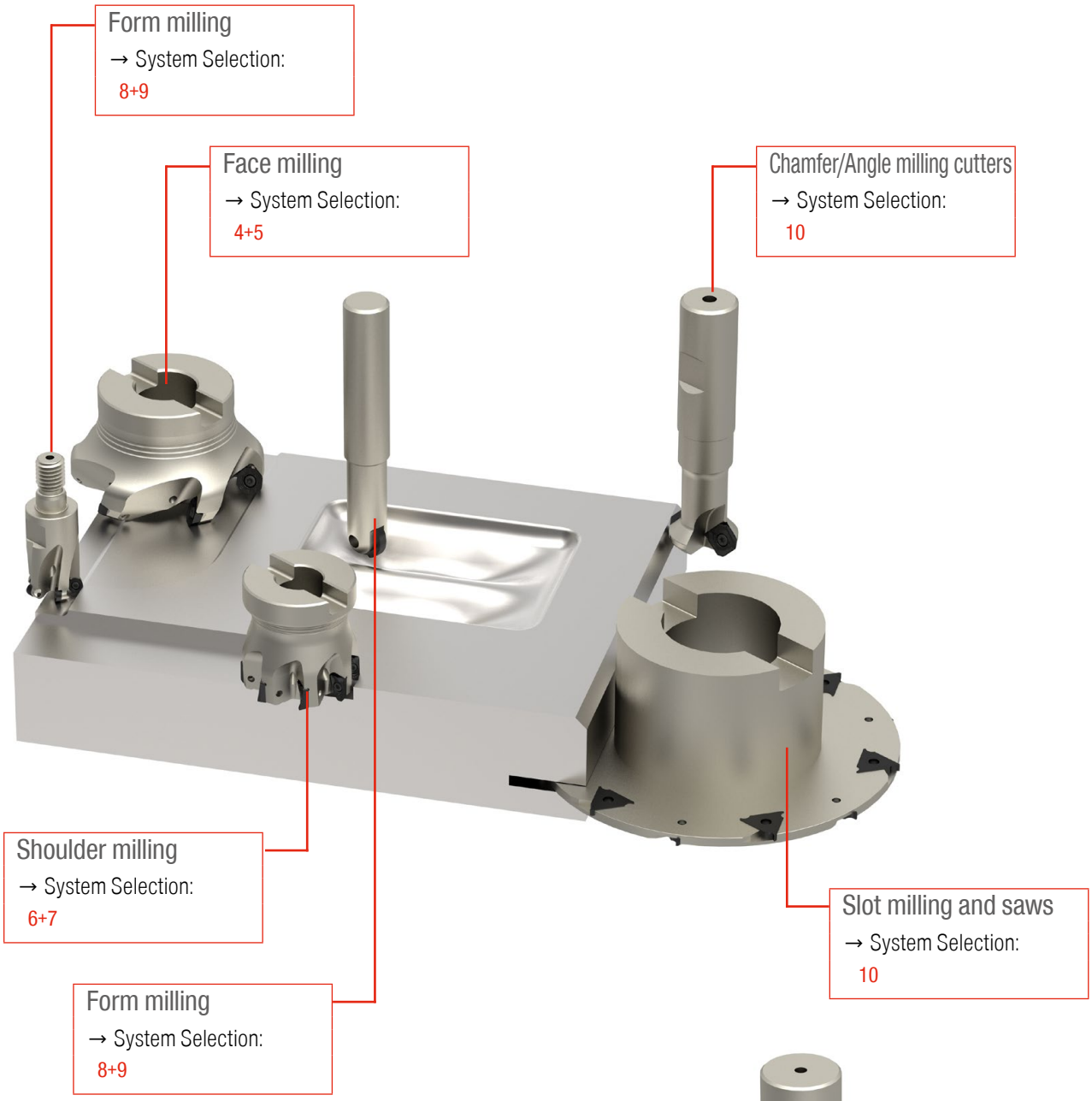


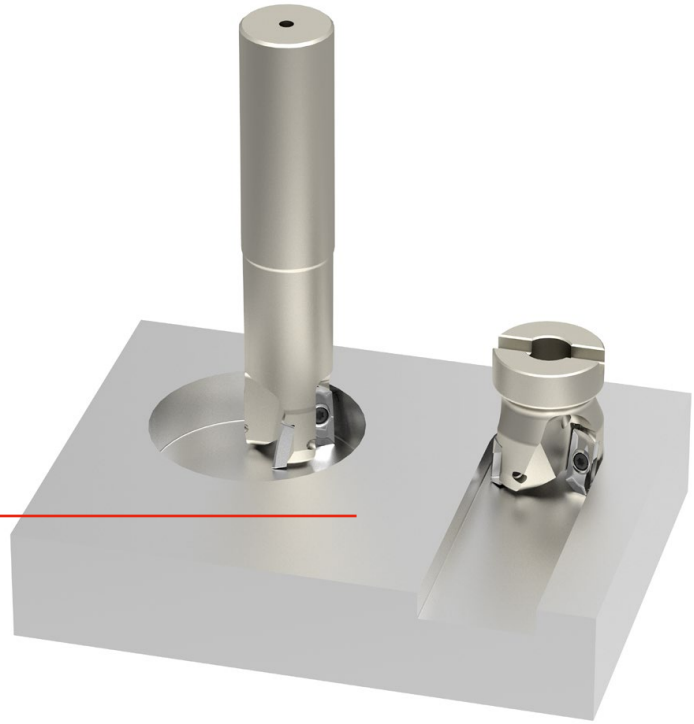
ZNF = Number of teeth

● = **Main Application**

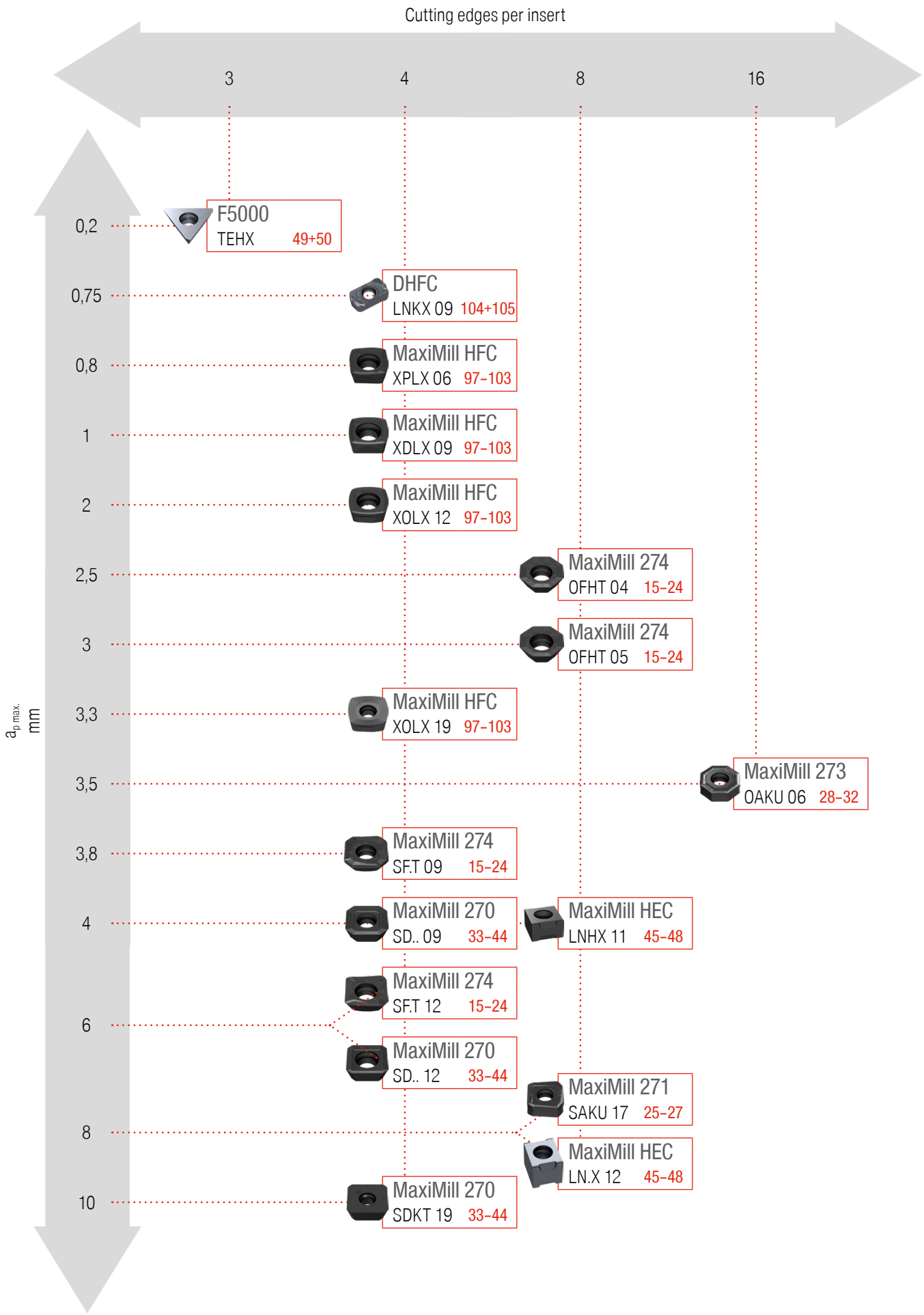
○ = Extended application

Toolfinder – Application Selection Guide





Toolfinder – Face Milling Cutters



Overview – Face Milling Cutters

System	Inserts	Cutting edges per insert	$a_{p\,max.}$ mm	Ø-range mm			Steel	Stainless steel	Cast iron	Non-ferrous metals	Heat resistant alloys	hardened materials	Pages
MaxiMill 274	OFH. 04.. / 05.. | SF.T 09.. / 12..	8 / 4	2,5–6	Ø 20–32	Ø 20–32	Ø 32–160	●	●	●	●	●		15–24
MaxiMill 271	SAKU 1706..	8	8,4			Ø 50–250	●	●	●		●		25–27
MaxiMill 273	OAKU 0605..	16	3,5		Ø 32–40	Ø 40–250	●	●	●		●		28–32
MaxiMill 270	SD.. 0903.. / 1204.. / 19..	4	4–10	Ø 16–32	Ø 6–32	Ø 32–315	●	●	●	●	●		33–44
MaxiMill HEC	LNHX 1106.. | LN.X 1210..	8	4–8			Ø 50–160	●	○	●				45–48
F 5000	TEHX 16T3..	3	0,2			Ø 42–100	●	○	●	○		●	49–50
MaxiMill HFC	X..X 06.. / 09.. / 12.. / 19..	4	0,8–3,3	Ø 16–42	Ø 16–35	Ø 32–160	●	●	●		●		97–103
DHFC	LNKX 09..	4	0,75	Ø 16–42	Ø 16–20		●	●	●		●	●	104–105

Additional diameters are available upon request

Indexable inserts for systems that are no longer listed here can be found in our online shop at cuttingtools.ceratizit.com

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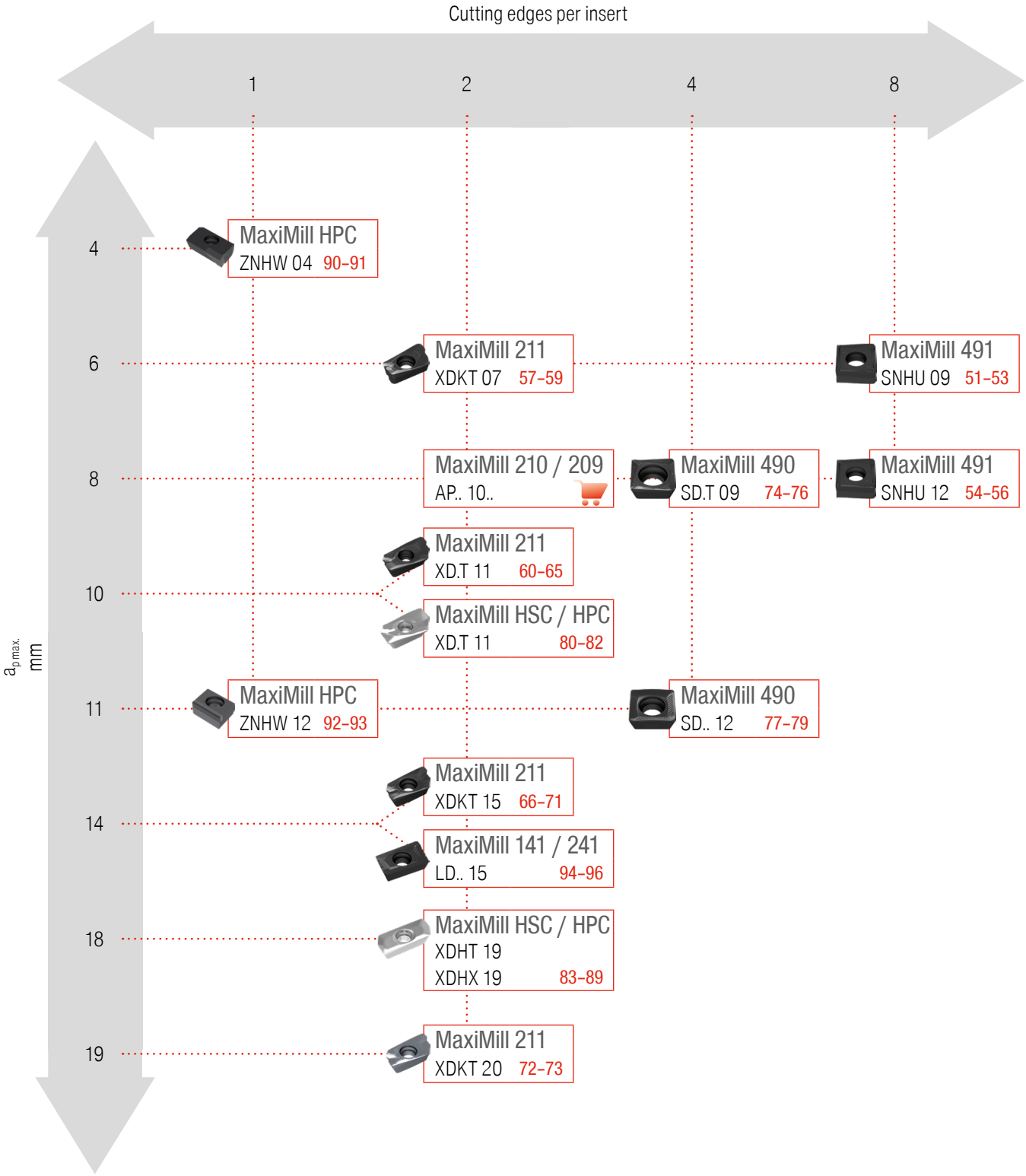
Toolfinder – shoulder milling



Overview – Shoulder Milling Cutters

System	Inserts	Cutting edges per insert	$a_{p\,max.}$ mm	Ø-range mm				Steel	Stainless steel	Cast iron	Non-ferrous metals	Heat resistant alloys	hardened materials	Pages
MaxiMill 491	SNHU 09T3.. / 1204..	8	6–8	Ø 25–32	Ø 25–32	Ø 40–160		●	●	●	●	●		51–56
MaxiMill 211	XD.T 0703.. / 11T3.. / 1505.. / 2007..	2	6–19	Ø 16–40	Ø 10–40	Ø 32–160		●	●	●	●	●	○	57–73
MaxiMill 211 K	XD.T 11T3.. / 1505.. / 2007..	2	27–75,5		Ø 25–50	Ø 40–50		●	●	●	●	●		57–73
MaxiMill 490	SD.. 09T3.. / 1205..	4	8–11	Ø 25–40	Ø 25–32	Ø 40–160		●	●	●	●	●		74–79
MaxiMill 490 K	SD.. 09T3..	4	41			Ø 40–63		●	●	●	●	●		74–79
MaxiMill HSC / HPC	XD.. 11T3.. / 1904..	2	10–18	Ø 16–40	Ø 16–32	Ø 40–125	Ø 25–50			○	●			80–89
MaxiMill HPC	ZNHW 04T3.. / 1205..	1	4–11	Ø 20–40	Ø 20–40	Ø 40–315	Ø 40–160			●	●		○	90–93
MaxiMill 141 / 241	LD.. 1504..	2	14	Ø 25–40	Ø 20–32	Ø 40–100		●	●	●	●			94–96
MaxiMill 210 / 209	AP.. 1003..	2	8	Ø 16,0–31,7	Ø 9,7–32	Ø 40–125		●	●	●	●	●	●	

Additional diameters are available upon request

Indexable inserts for systems that are no longer listed here can be found in our online shop at cuttingtools.ceratizit.com

This article can be found in our online shop at cuttingtools.ceratizit.com

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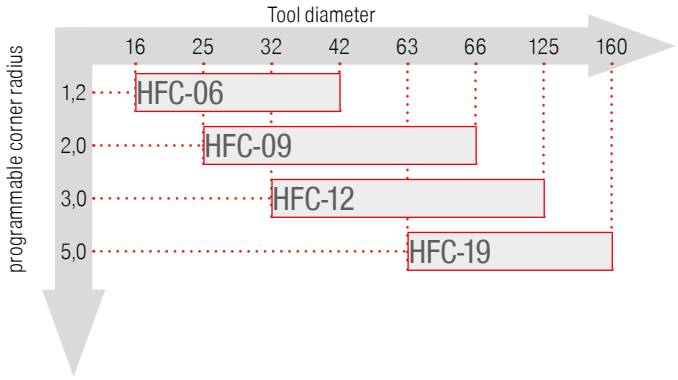
Toolfinder – form milling

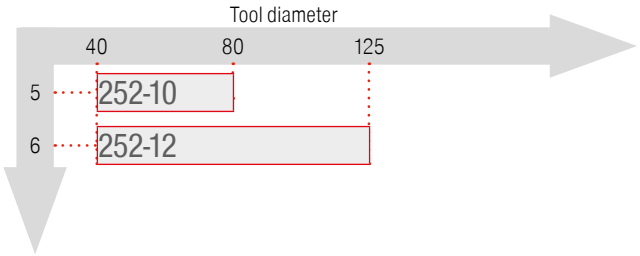
MaxiMill HFC

97–103



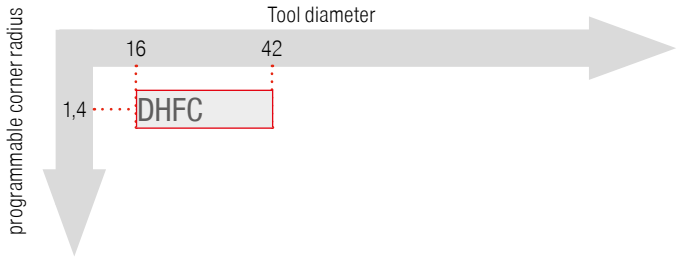
MaxiMill 252

119+120



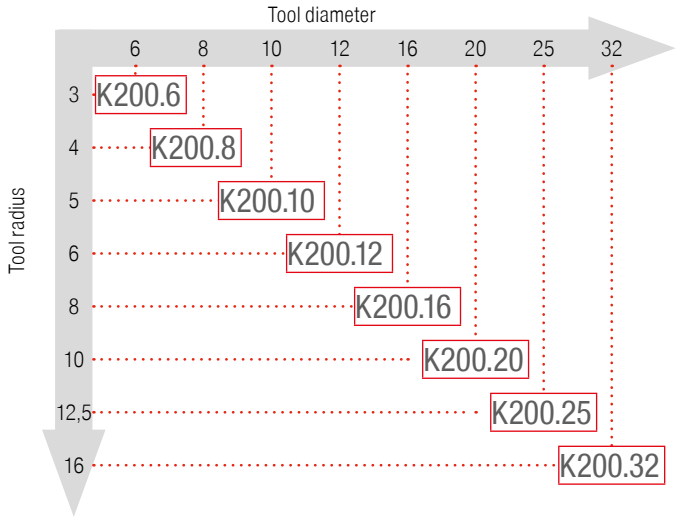
DHFC

104+105



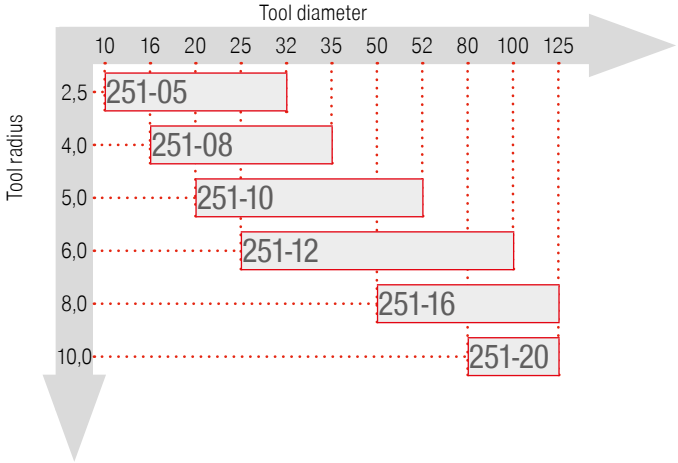
K200. Ball Nosed

121–125



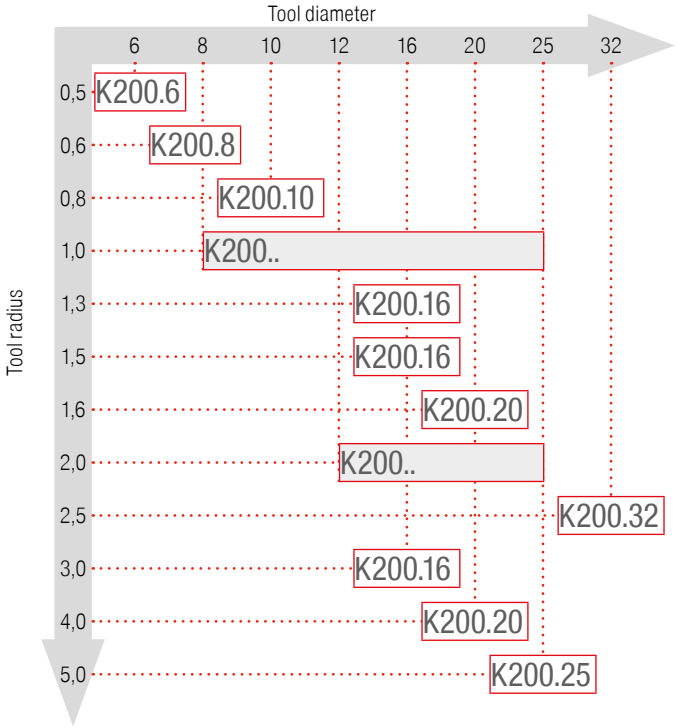
MaxiMill 251

106–113



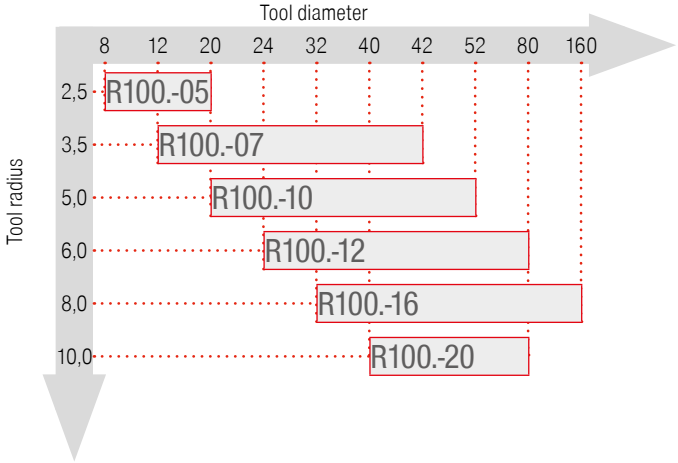
K200. Torus

126–129



R100.

114–118



Application range

Tool diameter

Overview – form milling

System	Inserts	Cutting edges per insert	$a_{p\,max.}$ mm	Ø-range mm			Steel	Stainless steel	Cast iron	Non-ferrous metals	Heat resistant alloys	hardened materials	Pages
MaxiMill HFC	X.LX 06.. / 09.. / 12.. / 19..	4	0,8–3,3	Ø 16–42	Ø 16–35	Ø 32–160	●	●	●		●		97–103
DHFC	LNKX 09..	4	0,75	Ø 16–42	Ø 16–20		●	●	●		○	○	104+105
MaxiMill 251	R..X 05.. / 08.. / 10.. / 12.. / 16.. / 20..	8	2,5–10	Ø 10–42	Ø 10–32	Ø 40–125	●	●	●	●	●		106–113
R100.	RD.X 05.. / 07.. / 10.. / 12.. / 16.. / 20..	8	5	Ø 12–42	Ø 8–20	Ø 42–160	●	●	●	●	○	●	114–118
MaxiMill 252	RNHU 10.. / 12..	8	3			Ø 40–125	●	●	○		●		119+120
K200. Ball Nosed	RO.X .... / XOHX	1	0,4–8	Ø 8–32	Ø 6–32		●	●	●	●	●	●	121–125
K200. Torus	XO.X	1	0,5–8	Ø 8–32	Ø 8–32		●	●	●	●	●	●	126–129

Additional diameters are available upon request

Indexable inserts for systems that are no longer listed here can be found in our online shop at cuttingtools.ceratizit.com

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Overview – Chamfer / Angle Milling Cutters

System	Inserts	Cutting edges per insert	$a_{p\,max.}$ mm	Ø-range mm		Steel	Stainless steel	Cast iron	Non-ferrous metals	Heat resistant alloys	hardened materials	Pages
MaxiMill 272	SD.. 0903..	4	4	Ø 6–25		●	●	○	●	●		35+36
4500	SD.. 09T3..	4	4	Ø 16–25		●	●	●	●	●		75+76
4500	SD.. 1205..	4	4	Ø 20–32	Ø 20–32	●	●	●	●	●		78+79
MaxiMill 242	LD.. 1504..	2			Ø 50–92	○	●			●		95+96

Additional diameters are available upon request.

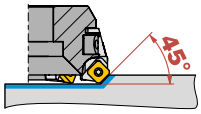
Overview – Slot / Multipurpose Milling Cutters

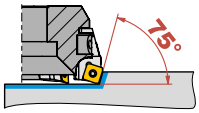
System	Inserts	Cutting edges per insert	$a_{p\,max.}$ mm	Ø-range mm		Steel	Stainless steel	Cast iron	Non-ferrous metals	Heat resistant alloys	hardened materials	Pages
FM	FM..	1	49	Ø 100–160		●	●	●	●			130+131
TX	TX.. R/L	3	64	Ø 80–160	Ø 100–200	●	●	●	●	●		132–134

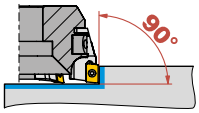
Additional diameters are available upon request.

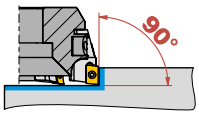
Overview – Combi Milling Cutters

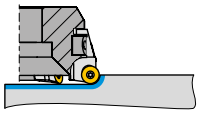
System	Ø-range mm	Pages
MaxiMill 260	80–400	135

	Cartridge no.	041	031			029		032		057		Pages
												136
				SD.. 0903..	SD.. 1204.. XD.. 1204..		SE.. 1204..		SD.. 1504..		OA.. 0605.. XA.. 0605..	

	Cartridge no.	018			Pages
					136
			SP.. 1204..		

	Cartridge no.	042		039		051		025		Pages
										136
			AP.. 1003..		SD.. 1205..		LD.. 1504..		TP.. 2204..	

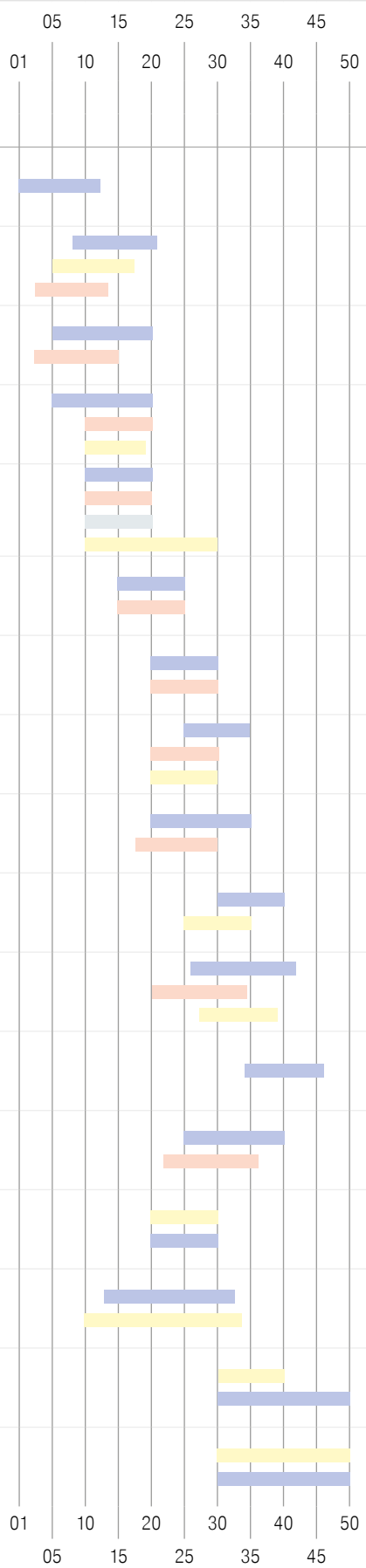
	Cartridge no.	055		054		056		Pages
								136
			SD.. 09T3		XD.. 11T3		XD.. 1505	

	Cartridge no.	052		053		Pages
						136
			RP.X 1204..		RP.X 1604..	

15

Toolfinder – Grade Selection

Grade designation	Standard designation	Steel (P)	Stainless steel (M)	Cast iron (K)	Non ferrous metals (N)	Heat resistant alloys (S)	hardened materials (H)
CTEP210 (DCC1210)	HE-P10	●					
TCM10 (CWC10)	HT-P15 HT-M10 HT-K10	●	●	○			
WTN1205	HC-P10 HC-K05	●	○	●	○		●
CTPP211	HC-P10 HC-K10 HC-M15	●	○	●			
CTPP216	HC-P15 HC-K15 HC-H15 HC-M20	●	○	●			●
CTCP220 (DCX1220)	HC-P20 HC-K20	●		●			
CTPP225 (DPX1225)	HC-P25 HC-K25	●		●			
CTCP230 (DCX1230)	HC-P30 HC-K25 HC-M25	●	○	●			
CTPP231	HC-P30 HC-K25	●		○			○
CTPP235 (DPX1235)	HC-P35 HC-M30	●	○				
CTPP236	HC-P35 HC-K30 HC-M35	●	○	●			
WAN1240	HC-P40	●	○	○		○	
WAX1240	HC-P30 HC-K25	●		○			○
CTPM225 (DPX2225)	HC-M25 HC-P25	○	●				
WAN2225	HC-P25 HC-M25	○	●			●	
CTCM235 (DCX2235)	HC-M35 HC-P40	○	●				
CTPM240 (DPX2240)	HC-M40 HC-P40	○	●				



● Main Application
○ Extended application

wear-resistant v_c+ ⬡ ⟷ ⬡ v_c− tough

Toolfinder – Grade Selection

Grade designation	Standard designation	ISO application range (01 10 20 30 40 50 / 05 15 25 35 45)	Steel P	Stainless steel M	Cast iron K	Non ferrous metals N	Heat resistant alloys S	hardened materials H
CTPM241	HC-M40 HC-P40		○	●			●	
CTPM245 (DPX2245)	HC-M45 HC-P50		○	●				
CTN3105 (CTS3105)	CN-K05				●			
CTL3215 (CWB3215)	BC-K10 BC-H10				●			
CTCK215 (DCX3215)	HC-K15				●			
CTPK220 (DPX3220)	HC-K20				●			
CTPK221	HC-K10 HC-M15			○	●		○	○
CTPK226	HC-K15 HC-H15 HC-P15		○		●			●
CTPK231	HC-P30 HC-K30		●		●			
CTD4205 (CWD4205)	DP-N05					●		
AMZ (AMZ)	HC-N10 HC-P10 HC-K10		○		○	●		
WUN4210	HT-N10 HT-M15			○		●		
CTCN211	HC-N10					●		
H216T	HW-N15 HW-K15 HW-S15				●	●	○	
CTC5240 (HCF5240)	HC-S35 HC-M35			●			●	
CTCS245	HC-S40						●	
CTP6215 (CCN6215)	HC-K15 HC-H15		○		●			●

● Main Application
○ Extended application

wear-resistant v_c+ ⟷ v_c– tough

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Toolfinder – Chip Former Type

Cutting edge

increasing wedge angle

			sharp		medium		stable	
			●		● ●		● ● ●	
			10	20	30	40	50	60
fine	F	▮	-F10	-F20		-F40	-F50	-33
medium	M	▮▮			-M31 -M30 -M32		-M50 -31	-29
rough	R	▮▮▮			-R30		-R50	-R60

A detailed overview of chip breakers can be found on → **Page 196–208**

Chip breaker code

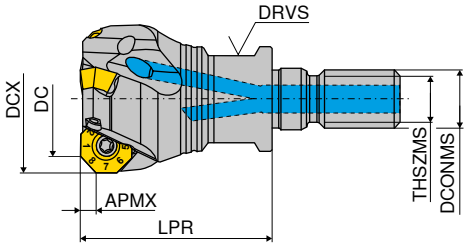
Application type			Cutting edge: sharp 10–20	medium 30–40	stable 50–60
light	F	▮	●	● ●	● ● ●
universal	M	▮▮	●	● ●	● ● ●
difficult	R	▮▮▮	●	● ●	● ● ●

Example: Chip breaker -M50

● ● ● = 50–60

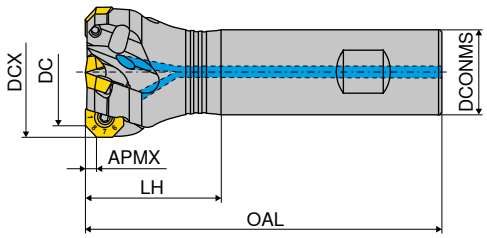
▬ = M

MaxiMill – Screw in cutter G 274-04/-09



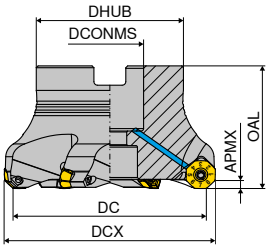
Designation	DC mm	DCX mm	ZNF	APMX mm	LPR mm	THSZMS	DCONMS mm	DRVS mm	torque moment Nm	Insert	2B/40 Article no. 50 742 ... EUR	
G274.20.R.03-09	20	25,5	3	3,8	35	M12	12,5	17	1,2	OF.. 0403 / SF.. 0903	268,10	020
G274.25.R.04-09	25	30,6	4	3,8	35	M12	12,5	17	1,2	OF.. 0403 / SF.. 0903	305,30	025
G274.32.R.05-09	32	37,6	5	3,8	35	M16	17,0	24	1,2	OF.. 0403 / SF.. 0903	342,70	032

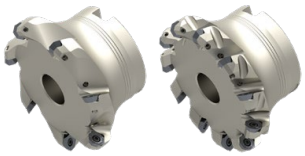
MaxiMill – End milling cutter C 274-04/-09



Designation	DC mm	DCX mm	ZNF	APMX mm	OAL mm	LH mm	DCONMS mm	torque moment Nm	Insert	A 2B/40 Article no. 50 743 ... EUR		B 2B/40 Article no. 50 743 ... EUR	
C274.20.R.03-09-A/B20-25	20	25,5	3	3,8	77	25	20	1,2	OF.. 0403 / SF.. 0903	268,10	020	268,10	120
C274.25.R.04-09-A/B20-32	25	30,6	4	3,8	84	32	20	1,2	OF.. 0403 / SF.. 0903	305,30	025	305,30	125
C274.32.R.05-09-A/B25-40	32	37,6	5	3,8	98	40	25	1,2	OF.. 0403 / SF.. 0903	342,70	032	342,70	132

MaxiMill – Shell mill A 274-04/-09

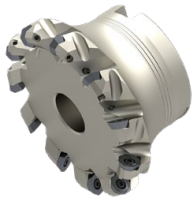




Designation	DC	DCX	ZNF	APMX	OAL	DHUB	DCONMS H6	torque moment	Insert	2B/40 Article no. 50 744 ...		2B/40 Article no. 50 744 ...	
	mm	mm		mm	mm	mm	mm	Nm		EUR		EUR	
A274.32.R.05-09	32	37,7	5	3,8	40	38	16	1,2	OF.. 0403 / SF.. 0903			342,70	032
A274.40.R.04-09	40	45,7	4	3,8	40	38	16	1,2	OF.. 0403 / SF.. 0903	342,70	040		
A274.40.R.06-09	40	45,7	6	3,8	40	38	16	1,2	OF.. 0403 / SF.. 0903			379,90	140
A274.50.R.05-09	50	55,7	5	3,8	40	48	22	1,2	OF.. 0403 / SF.. 0903	398,60	050		
A274.50.R.07-09	50	55,7	7	3,8	40	48	22	1,2	OF.. 0403 / SF.. 0903			417,40	150
A274.63.R.06-09	63	68,7	6	3,8	40	48	22	1,2	OF.. 0403 / SF.. 0903	454,70	063		
A274.63.R.09-09	63	68,7	9	3,8	40	48	22	1,2	OF.. 0403 / SF.. 0903			510,70	163
A274.80.R.07-09	80	85,7	7	3,8	50	58	27	1,2	OF.. 0403 / SF.. 0903	510,70	080		
A274.80.R.11-09	80	85,7	11	3,8	50	58	27	1,2	OF.. 0403 / SF.. 0903			585,30	180
A274.100.R.09-09	100	105,7	9	3,8	50	78	32	1,2	OF.. 0403 / SF.. 0903	629,80	100		
A274.100.R.13-09	100	105,7	13	3,8	50	78	32	1,2	OF.. 0403 / SF.. 0903			704,50	200
A274.125.R.12-09	125	130,7	12	3,8	63	88	40	1,2	OF.. 0403 / SF.. 0903	767,40	125		

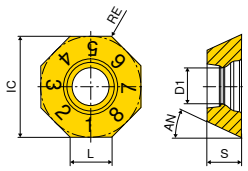
Spare parts DC	Y7 TORX® blade Article no. 80 950 ...		Y7 Clamping key – T Article no. 80 397 ...		Y7 Key D Article no. 80 950 ...		2A/28 Power Screw Article no. 70 950 ...		2A/28 Molykote Article no. 70 950 ...		2A/28 Clamping screw Article no. 70 950 ...		Y7 Torque screwdriver Article no. 80 950 ...	
	EUR		EUR		EUR		EUR		EUR		EUR		EUR	
20 - 25	4,76	043			10,20	125			4,38	303	4,09	133	118,90	191
32 - 40	4,76	043	3,91	040	10,20	125	12,48	151	4,38	303	4,09	133	118,90	191
50 - 125	4,76	043			10,20	125			4,38	303	4,09	133	118,90	191

Two insert types – ONE Cutter

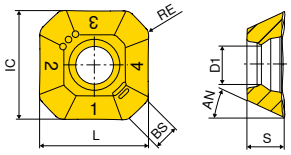


OFHT / OFHW / SFHT / SFKT

Designation	IC	D1	L	BS	S	AN
	mm	mm	mm	mm	mm	°
OFH. 0403..	9,52	3,35	3,94	-	3,18	25
SF.T 0903..	9,80	3,35	9,00	2,25	3,50	25



OF..

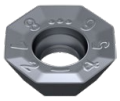
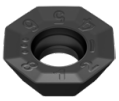


SF.T

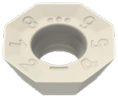
OFHT

		-F50 CTCP220		-F50 CTPP225		-F50 CTCP230		-M50 CTCP230		-F50 CTPP235		-M50 CTPP235	
		-F50 DCX1220		-F50 DPX1225		-F50 DCX1230		-M50 DCX1230		-F50 DPX1235		-M50 DPX1235	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
		OFHT		OFHT		OFHT		OFHT		OFHT		OFHT	
		1B/61		1B/61		1B/61		1B/61		1B/61		1B/61	
ISO	RE	**Article no.**		**Article no.**		**Article no.**		**Article no.**		**Article no.**		**Article no.**	
		51 002 ...		**51 002 ...**		**51 002 ...**		**51 003 ...**		**51 002 ...**		**51 003 ...**	
	mm	EUR		EUR		EUR		EUR		EUR		EUR	
040305SN	0,5	15,76	**255**	15,76	**055**	15,76	**005**	15,76	**005**	15,76	**105**	15,76	**105**
Steel				●		●		●		●		●	
Stainless steel						○		○		○		○	
Cast iron													
Non ferrous metals													
Heat resistant alloys													
hardened materials													

OFHT / OFHW

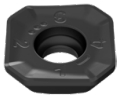
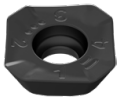
		-F50 CTPM225		-F50 CTCM235		-F50 CTPM240		-M50 CTPM240		-F50 CTPM245		CTPM245	
		-F50 DPX2225		-F50 DCX2235		-F50 DPX2240		-M50 DPX2240		-F50 DPX2245		DPX2245	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
													
		OFHT		OFHT		OFHT		OFHT		OFHT		OFHW	
		1B/61		1B/61		1B/61		1B/61		1H/17		1H/17	
ISO	RE	**Article no.**		**Article no.**		**Article no.**		**Article no.**		**Article no.**		**Article no.**	
		51 002 ...		**51 002 ...**		**51 002 ...**		**51 003 ...**		**51 002 ...**		**51 105 ...**	
	mm	EUR		EUR		EUR		EUR		EUR		EUR	
040302EN	0,2											17,37	**452**
040305SN	0,5	15,76	**205**	15,76	**305**	15,76	**405**	15,76	**405**	17,37	**455**		
Steel			○		○		○		○		●		●
Stainless steel			●		●		●		●		●		●
Cast iron													
Non ferrous metals													
Heat resistant alloys													
hardened materials													

OFHT / OFHW

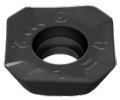
		-M50 CTCK215		-F10 CTWN215		-F50 CTC5240		CTC5240		-F50 CTCS245	
		-M50 DCX3215		-F10 CWK4615				HCF5240			
		DRAGONSKIN				DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
											
		OFHT		OFHT		OFHT		OFHW		OFHT	
		1B/61		1B/61		NEW 1H/D4		1H/D4		NEW 1H/D4	
ISO	RE	**Article no. 51 003 ...**		**Article no. 50 459 ...**		**Article no. 51 002 ...**		**Article no. 50 457 ...**		**Article no. 51 002 ...**	
	mm	EUR		EUR		EUR		EUR		EUR	
040302EN	0,2							17,37	**504**		
040305FN	0,5			16,71	**505**						
040305SN	0,5	15,76	**505**			17,37	**15500**			17,37	**555**

Steel		○				
Stainless steel						
Cast iron		●	○			
Non ferrous metals			●			
Heat resistant alloys				●	●	●
hardened materials						

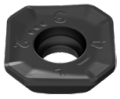
SFHT / SFKT

		-F50 CTCP220	-M50 CTCP220	-F50 CTPP225	-M50 CTPP225
		-F50 DCX1220	-M50 DCX1220	-F50 DPX1225	-M50 DPX1225
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
					
		SFHT	SFKT	SFHT	SFKT
		1B/61	1B/61	1B/61	1B/61
ISO	RE	Article no. 51 012 ...	Article no. 51 013 ...	Article no. 51 012 ...	Article no. 51 013 ...
	mm	EUR	EUR	EUR	EUR
0903AFSR	1,0	15,76 270	11,61 270	15,76 070	11,61 070
Steel		●	●	●	●
Stainless steel					
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

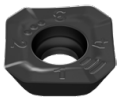
SFHT / SFKT

		-F50 CTCP230	-M50 CTCP230	-F50 CTPP235	-M50 CTPP235
		-F50 DCX1230	-M50 DCX1230	-F50 DPX1235	-M50 DPX1235
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
					
		SFHT	SFKT	SFHT	SFKT
		1B/61	1B/61	1B/61	1B/61
ISO	RE	Article no. 51 012 ...	Article no. 51 013 ...	Article no. 51 012 ...	Article no. 51 013 ...
	mm	EUR	EUR	EUR	EUR
0903AFSR	1,0	15,76 020	11,61 020	15,76 120	11,61 120
Steel		●	●	●	●
Stainless steel		○	○	○	○
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

SFHT / SFKT

		-F50 CTPM225	-M50 CTPM225	-F50 CTCM235	-F50 CTPM240	-M50 CTPM240	-F50 CTPM245
		-F50 DPX2225	-M50 DPX2225	-F50 DCX2235	-F50 DPX2240		-F50 DPX2245
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
							
		SFHT	SFKT	SFHT	SFHT	SFKT	SFHT
		1B/61	1B/61	1B/61	1B/61	NEW 1B/61	1H/17
ISO	RE	Article no. 51 012 ...	Article no. 51 013 ...	Article no. 51 012 ...	Article no. 51 012 ...	Article no. 51 013 ...	Article no. 51 012 ...
	mm	EUR	EUR	EUR	EUR	EUR	EUR
0903AFSR	1,0	15,76 220	11,61 220	15,76 320	15,76 420	11,61 42000	19,60 470
Steel		○	○	○	○	○	●
Stainless steel		●	●	●	●	●	●
Cast iron							
Non ferrous metals							
Heat resistant alloys							
hardened materials							

SFKT / SFHT

		-R50 CTCK215	-R50 CTPK220	-F10 CTWN215	-F40 CTC5240
		-R50 DCX3215	-R50 DPX3220	-F10 CWK4615	-F40 HCF5240
		DRAGONSKIN	DRAGONSKIN		DRAGONSKIN
					
		SFKT	SFKT	SFHT	SFHT
		1B/61	1B/61	1B/61	1H/D4
ISO	RE	Article no. 51 065 ...	Article no. 51 065 ...	Article no. 50 514 ...	Article no. 50 514 ...
	mm	EUR	EUR	EUR	EUR
0903AFFR	1,0			18,90 505	
0903AFSR	1,0	11,61 520	11,61 620		19,60 504
Steel		○	○		
Stainless steel					
Cast iron		●	●	○	
Non ferrous metals				●	
Heat resistant alloys					●
hardened materials					

Milling guide

Machining strategy	→ 140	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 140
Starting Parameter	→ 141		

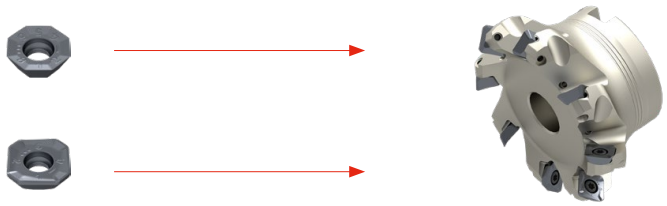
MaxiMill – Shell mill A 274-05/-12

Designation	DC mm	DCX mm	ZNF	APMX mm	OAL mm	DHUB mm	DCONMS H6 mm	torque moment Nm	Insert	2B/40 Article no. 50 772 ... EUR	
A274.40.R.03-12	40	48,0	3	6	40	38	16	3,2	OFHT 0504 / SFKT 1204	258,00	24000
A274.40.R.04-12	40	48,0	4	6	40	38	16	3,2	OFHT 0504 / SFKT 1204	338,50	04000
A274.50.R.05-12	50	58,0	5	6	40	43	22	3,2	OFHT 0504 / SFKT 1204	429,90	050
A274.50.R.04-12	50	58,1	4	6	40	43	22	3,2	OFHT 0504 / SFKT 1204	343,90	25000
A274.63.R.06-12	63	71,0	6	6	40	48	22	3,2	OFHT 0504 / SFKT 1204	515,90	063
A274.63.R.05-12	63	71,1	5	6	40	48	22	3,2	OFHT 0504 / SFKT 1204	440,40	26300
A274.80.R.06-12	80	88,0	6	6	50	58	27	3,2	OFHT 0504 / SFKT 1204	537,30	28000
A274.80.R.08-12	80	88,0	8	6	50	58	27	3,2	OFHT 0504 / SFKT 1204	687,90	080
A274.100.R.10-12	100	107,9	10	6	50	78	32	3,2	OFHT 0504 / SFKT 1204	849,00	100
A274.100.R.08-12	100	108,0	8	6	50	78	32	3,2	OFHT 0504 / SFKT 1204	709,40	30000
A274.125.R.12-12	125	132,9	12	6	63	88	40	3,2	OFHT 0504 / SFKT 1204	1.037,00	125
A274.125.R.09-12	125	133,0	9	6	63	88	40	3,2	OFHT 0504 / SFKT 1204	889,20	32500
A274.160.R.11-12	160	133,0	11	6	63	88	40	3,2	OFHT 0504 / SFKT 1204	1.081,00	36000 1)
A274.160.R.14-12	160	167,9	14	6	63	98	40	3,2	OFHT 0504 / SFKT 1204	1.376,00	16000 1)

1) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm

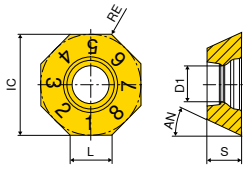
Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
40 - 160	5,26	054	11,89	128	4,38	303	4,61	340	131,90	193

Two insert types – ONE Cutter

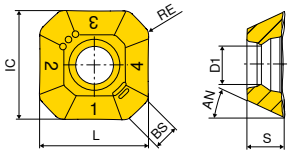


OFHT / SFHT / SFKT

Designation	IC	D1	L	BS	S	AN
	mm	mm	mm	mm	mm	°
OFHT 0504..	12,7	4,8	4,5	-	4,76	25
SF.T 1204..	12,7	4,8	12,7	1,42	4,76	25



OF..



SF.T

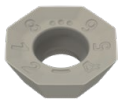
OFHT

ISO	RE	-F50 CTCP230	-M50 CTCP230	-F50 CTPP235	-M50 CTPP235
		-F50 DCX1230		-F50 DPX1235	
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
		OFHT 1B/61	OFHT NEW 1B/61	OFHT 1B/61	OFHT NEW 1B/61
		Article no. 51 002 ...	Article no. 51 003 ...	Article no. 51 002 ...	Article no. 51 003 ...
	mm	EUR	EUR	EUR	EUR
050410SN	1,0	17,33 010	17,33 01000	17,33 110	17,33 11000
Steel		●	●	●	●
Stainless steel		○	○	○	○
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

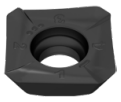
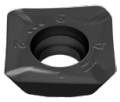
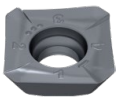
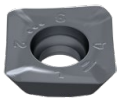
OFHT

ISO	RE	-F50 CTPM225	-M50 CTPM225	-F50 CTCM235	-F50 CTPM240	-M50 CTPM240	-F50 CTPM245
		-F50 DPX2225	-M50 DPX2225	-F50 DCX2235	-F50 DPX2240		-F50 DPX2245
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
		OFHT 1B/61	OFHT 1B/61	OFHT 1B/61	OFHT 1B/61	OFHT NEW 1B/61	OFHT 1H/17
		Article no. 51 002 ...	Article no. 51 003 ...	Article no. 51 002 ...	Article no. 51 002 ...	Article no. 51 003 ...	Article no. 51 002 ...
	mm	EUR	EUR	EUR	EUR	EUR	EUR
050410SN	1,0	17,33 210	17,33 210	17,33 310	17,33 410	17,33 41000	19,10 460
Steel		○	○	○	○	○	●
Stainless steel		●	●	●	●	●	●
Cast iron							
Non ferrous metals							
Heat resistant alloys							
hardened materials							

OFHT

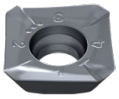
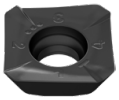
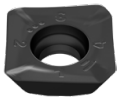
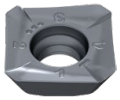
		-F10 CTWN215	-F50 CTC5240
			DRAGONSKIN
			
		OFHT	OFHT
		NEW 1B/61	NEW 1H/D4
ISO	RE	Article no. 51 122 ...	Article no. 51 002 ...
	mm	EUR	EUR
050410FN	1,0	20,79 36000	
050410SN	1,0		19,10 16000
Steel			
Stainless steel			
Cast iron		○	
Non ferrous metals		●	
Heat resistant alloys			●
hardened materials			

SFHT / SFKT

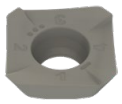
		-F50 CTCP230	-M50 CTCP230	-F50 CTPP235	-M50 CTPP235
			-M50 DCX1230		-M50 DPX1235
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
					
		SFHT	SFKT	SFHT	SFKT
		NEW 1B/61	1B/61	NEW 1B/61	1B/61
ISO	RE	Article no. 51 012 ...	Article no. 51 013 ...	Article no. 51 012 ...	Article no. 51 013 ...
	mm	EUR	EUR	EUR	EUR
1204AFSR	1,0	17,33 02500	12,77 025	17,33 12500	12,77 125
Steel		●	●	●	●
Stainless steel		○	○	○	○
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

15

SFHT / SFKT

		-F50 CTPM225	-M50 CTPM225	-F50 CTCM235	-M50 CTCM235	-F50 CTPM240	-M50 CTPM240	-F50 CTPM245
		-F50 DPX2225	-M50 DPX2225	-F50 DCX2235	-M50 DCX2235		-M50 DPX2240	
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
								
		SFHT	SFKT	SFHT	SFKT	SFHT	SFKT	SFHT
		1B/61	1B/61	1B/61	1B/61	NEW 1B/61	1B/61	NEW 1H/17
ISO	RE	Article no. 51 012 ...	Article no. 51 013 ...	Article no. 51 012 ...	Article no. 51 013 ...	Article no. 51 012 ...	Article no. 51 013 ...	Article no. 51 012 ...
	mm	EUR	EUR	EUR	EUR	EUR	EUR	EUR
1204AFSR	1,0	17,33 225	12,77 225	17,33 325	12,77 325	17,33 42500	12,77 425	21,15 47500
Steel		○	○	○	○	○	○	●
Stainless steel		●	●	●	●	●	●	●
Cast iron								
Non ferrous metals								
Heat resistant alloys								
hardened materials								

SFHT

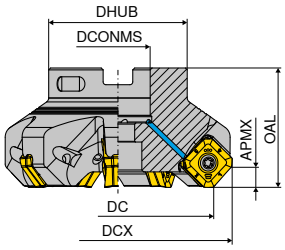
		-F10 CTWN215	-F40 CTC5240
			DRAGONSKIN
			
		SFHT	SFHT
		NEW 1B/61	NEW 1H/D4
ISO	RE	Article no. 51 123 ...	Article no. 50 514 ...
	mm	EUR	EUR
1204AFER	1,0		21,58 50900
1204AFFR	1,0	20,79 37000	
Steel			
Stainless steel			
Cast iron		○	
Non ferrous metals		●	
Heat resistant alloys			●
hardened materials			

Milling guide

Machining strategy	→ 142	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 142
Starting Parameter	→ 143		

MaxiMill – A 271 Face mill

▲ 8 cutting edges per insert



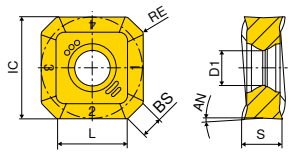
Designation	DC mm	DCX mm	ZNF	APMX mm	OAL mm	DCONMS mm	DHUB mm	torque moment Nm	Insert	2B/40 Article no. 50 767 ... EUR	
A271.50.R.04-17	50	66,1	4	8,4	40	22	43	5	SAKU 1706	397,70	**050**
A271.63.R.06-17	63	79,1	6	8,4	40	22	48	5	SAKU 1706	558,90	**063**
A271.80.R.07-17	80	96,1	7	8,4	50	27	58	5	SAKU 1706	639,50	**080**
A271.100.R.08-17	100	116,1	8	8,4	50	32	78	5	SAKU 1706	736,30	**100**
A271.125.R.10-17	125	141,1	10	8,4	63	40	88	5	SAKU 1706	849,00	**125**
A271.160.R.12-17	160	176,1	12	8,4	63	40	104	5	SAKU 1706	999,60	**16000** 1)
A271.200.R.13-17	200	216,1	13	8,4	63	60	134	5	SAKU 1706	1.236,00	**20000** 2)
A271.250.R.15-17	250	266,1	15	8,4	63	60	134	5	SAKU 1706	1.494,00	**25000** 2)

1) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm
2) With threaded holes M16 on the front face, pitch circle diameter = 101.6 mm

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
50 - 250	4,76	**037**	9,95	**114**	4,38	**303**	4,09	**302**	131,90	**193**

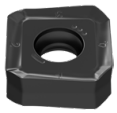
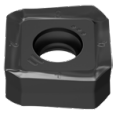
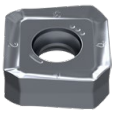
SAKU

Designation	IC	D1	L	BS	S	AN
	mm	mm	mm	mm	mm	°
SAKU 1706..	17	5,8	11,85	3,7	6,35	3

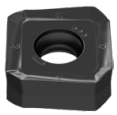
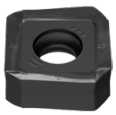
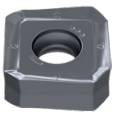
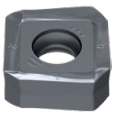


SAKU

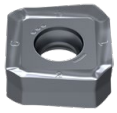
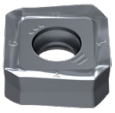
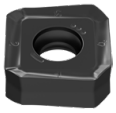
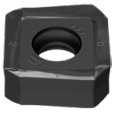
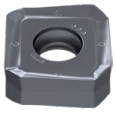
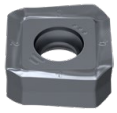
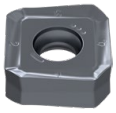
SAKU

ISO	RE	-F50 CTCP220	-M50 CTCP220	-F50 CTPP225	-M50 CTPP225
		-F50 DCX1220	-M50 DCX1220	-F50 DPX1225	-M50 DPX1225
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
					
		SAKU 1B/61	SAKU 1B/61	SAKU 1B/61	SAKU 1B/61
	mm	Article no. 51 004 ... EUR	Article no. 51 005 ... EUR	Article no. 51 004 ... EUR	Article no. 51 005 ... EUR
1706ABSR	0,8	29,13 270	29,13 270	29,13 070	29,13 070
Steel		●	●	●	●
Stainless steel					
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

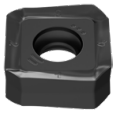
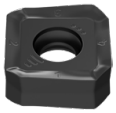
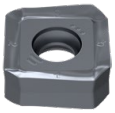
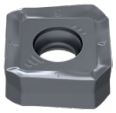
SAKU

ISO	RE	-F50 CTCP230	-M50 CTCP230	-F50 CTPP235	-M50 CTPP235
		-F50 DCX1230	-M50 DCX1230	-F50 DPX1235	-M50 DPX1235
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
					
		SAKU 1B/61	SAKU 1B/61	SAKU 1B/61	SAKU 1B/61
	mm	Article no. 51 004 ... EUR	Article no. 51 005 ... EUR	Article no. 51 004 ... EUR	Article no. 51 005 ... EUR
1706ABSR	0,8	29,13 020	29,13 020	29,13 120	29,13 120
Steel		●	●	●	●
Stainless steel		○	○	○	○
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

SAKU

		-F50 CTPM225	-M50 CTPM225	-F50 CTCM235	-M50 CTCM235	-F50 CTPM240	-M50 CTPM240	-F50 CTPM245
		-F50 DPX2225	-M50 DPX2225	-F50 DCX2235	-M50 DCX2235	-F50 DPX2240	-M50 DPX2240	-F50 DPX2245
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
								
		SAKU	SAKU	SAKU	SAKU	SAKU	SAKU	SAKU
		1B/61	1B/61	1B/61	1B/61	1B/61	1B/61	1H/17
ISO	RE	Article no. 51 004 ...	Article no. 51 005 ...	Article no. 51 004 ...	Article no. 51 005 ...	Article no. 51 004 ...	Article no. 51 005 ...	Article no. 51 004 ...
	mm	EUR	EUR	EUR	EUR	EUR	EUR	EUR
1706ABSR	0,8	29,13 220	29,13 220	29,13 320	29,13 320	29,13 420	29,13 420	35,84 470
Steel		○	○	○	○	○	○	●
Stainless steel		●	●	●	●	●	●	●
Cast iron								
Non ferrous metals								
Heat resistant alloys								
hardened materials								

SAKU

		-M50 CTCK215	-R50 CTCK215	-M50 CTPK220	-R50 CTPK220	-F50 CTC5240	-F50 CTCS245
		-M50 DCX3215	-R50 DCX3215	-M50 DPX3220	-R50 DPX3220	-F50 HCF5240	
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
							
		SAKU	SAKU	SAKU	SAKU	SAKU	SAKU
		1B/61	1B/61	1B/61	1B/61	1H/D4	NEW 1H/D4
ISO	RE	Article no. 51 005 ...	Article no. 51 058 ...	Article no. 51 005 ...	Article no. 51 058 ...	Article no. 50 306 ...	Article no. 51 004 ...
	mm	EUR	EUR	EUR	EUR	EUR	EUR
1706ABSR	0,8	29,13 520	29,13 520	29,13 620	29,13 620	35,84 520	35,84 570
Steel		○	○	○	○		
Stainless steel							
Cast iron		●	●	●	●		
Non ferrous metals							
Heat resistant alloys						●	●
hardened materials							

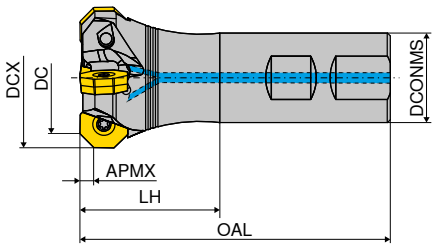
Milling guide

Starting Parameter	→ 144	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 144

15

MaxiMill – End milling cutter C 273

▲ 16 cutting edges per insert

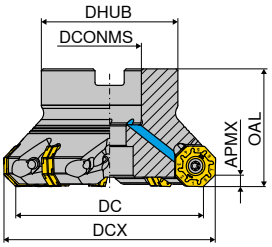


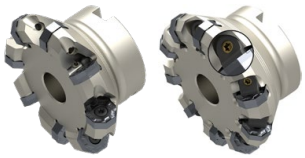
B

Designation	DC mm	DCX mm	ZNF	APMX mm	DCONMS h6 mm	LH mm	OAL mm	torque moment Nm	Insert	2B/40 Article no. 50 762 ... EUR	
C273.32.R.03-06-B-40	32	42,1	3	3,5	32	40	101	5	OAKU / XAHT 0605	387,10	032
C273.40.R.04-06-B32-50	40	50,1	4	3,5	32	50	111	5	OAKU / XAHT 0605	400,00	040

MaxiMill – Shell mill A 273

▲ 16 cutting edges per insert





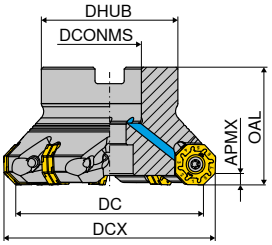
Designation	DC mm	DCX mm	ZNF	APMX mm	OAL mm	DCONMS H6 mm	DHUB mm	torque moment Nm	Insert	2B/40 Article no. 50 741 ... EUR		2B/40 Article no. 50 741 ... EUR	
A273.40.R.04-06	40	50,2	3	3,5	40	16	38	5	OAKU / XAHT 0605	381,40	040		
A273.40.R.04-06	40	50,2	4	3,5	40	16	38	5	OAKU / XAHT 0605	400,00	140 5)		
A273.50.R.05-06	50	60,2	5	3,5	40	22	43	5	OAKU / XAHT 0605	448,50	050		
A273.63.R.07-06	63	73,2	7	3,5	40	22	48	5	OAKU / XAHT 0605	538,40	063		
A273.80.R.08-06	80	90,2	8	3,5	50	27	58	5	OAKU / XAHT 0605	628,10	080		
A273.80.R.10-06	80	90,2	10	3,5	50	27	58	5	OAKU / XAHT 0605			957,10	180 1)
A273.100.R.10-06	100	110,2	10	3,5	50	32	78	5	OAKU / XAHT 0605	740,30	100		
A273.100.R.14-06	100	110,2	14	3,5	50	32	78	5	OAKU / XAHT 0605			1.223,00	200 1)
A273.125.R.12-06	125	135,2	12	3,5	63	40	88	5	OAKU / XAHT 0605	830,00	125		
A273.125.R.17-06	125	135,2	17	3,5	63	40	88	5	OAKU / XAHT 0605			1.419,00	225 1)
A273.160.R.14-06	160	170,2	14	3,5	63	40	104	5	OAKU / XAHT 0605	983,90	160 4)		
A273.160.R.20-06	160	170,2	20	3,5	63	40	104	5	OAKU / XAHT 0605			1.679,00	260 2)
A273.200.R.25-06	200	210,2	25	3,5	63	60	153	5	OAKU / XAHT 0605			2.099,00	300 3)
A273.250.R.31-06	250	260,2	31	3,5	63	60	153	5	OAKU / XAHT 0605			2.567,00	25031 3)

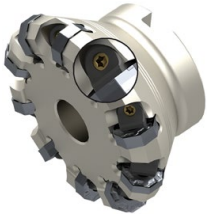
1) Version with Wedge, without internal coolant supply
2) Version with Wedge, without internal coolant supply / With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm
3) Version with Wedge, without internal coolant supply / With threaded holes M16 on the front face, pitch circle diameter = 101.6 mm
4) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm / Without Through Coolant
5) Without Through Coolant

Spare parts IDNR	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Clamping key – T Article no. 80 397 ... EUR		2A/28 Clamping wedge screw Article no. 70 950 ... EUR		2A/28 Clamping wedge Face mill Article no. 70 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Power Screw Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
50741040	4,76	037	3,91	040					9,95	114	12,48	151	4,09	302	131,90	193
50741050	4,76	037	4,24	050					9,95	114	17,14	154	4,09	302	131,90	193
50741063 - 50741125	4,76	037							9,95	114			4,09	302	131,90	193
50741140	4,76	037	3,91	040					9,95	114	12,48	151	4,09	302	131,90	193
50741160	4,76	037							9,95	114			4,09	302	131,90	193
50741180 - 50741300	4,76	036			5,90	844	23,55	845	9,28	113					131,90	193
50762032 - 50762040	4,76	037							9,95	114			4,09	302	131,90	193
5074125031	4,76	036			5,90	844	23,55	845	9,28	113					131,90	193

MaxiMill – Shell mill A 273

- 16 cutting edges per indexable insert
- Axially adjustable





Designation	DC mm	DCX mm	ZNF	APMX mm	OAL mm	DCONMS H6 mm	DHUB mm	torque moment Nm	Insert	NEW 2B/40 Article no. 50 777 ... EUR	
A273.80.R.10A10-06	80	90,2	10	3,5	50	27	58	5	OAKU / XAHT 0605	1.258,00	08010 1)
A273.100.R.14A14-06	100	110,2	14	3,5	50	32	78	5	OAKU / XAHT 0605	1.713,00	10014 1)
A273.125.R.17A17-06	125	135,2	17	3,5	63	40	88	5	OAKU / XAHT 0605	2.014,00	12517 1)
A273.160.R.20A20-06	160	170,2	20	3,5	63	40	104	5	OAKU / XAHT 0605	2.378,00	16020 2)
A273.200.R.25A25-06	200	210,2	25	3,5	63	60	153	5	OAKU / XAHT 0605	2.974,00	20025 3)
A273.250.R.31A31-06	250	260,2	31	3,5	63	60	153	5	OAKU / XAHT 0605	3.652,00	25031 3)

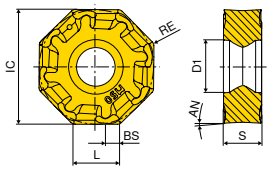
1) Version with Wedge, without internal coolant supply
2) Version with Wedge, without internal coolant supply / With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm
3) Version with Wedge, without internal coolant supply / With threaded holes M16 on the front face, pitch circle diameter = 101.6 mm

	Y7	2A/28	2A/28	Y7	2A/28	2A/28	Y7
	TORX® blade	Clamping wedge screw	Clamping wedge Face mill	Key D	Molykote	Wedge	Torque screwdriver
Spare parts DC	**Article no. 80 950 ...**	**Article no. 70 950 ...**	**Article no. 70 950 ...**	**Article no. 80 950 ...**	**Article no. 70 950 ...**	**Article no. 70 950 ...**	**Article no. 80 950 ...**
	EUR	EUR	EUR	EUR	EUR	EUR	EUR
80 - 250	4,76 036	5,90 844	23,55 845	9,28 113	4,38 303	36,80 199	131,90 193

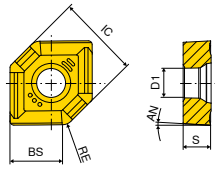
15

OAKU / XAHT

Designation	IC	D1	L	BS	S	AN
	mm	mm	mm	mm	mm	°
XAHT 0605..	17,08	6,0	-	11,95	5,56	3
OAKU 0605..	17,10	5,8	6	2,00	5,66	3

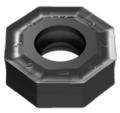
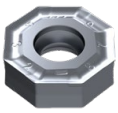


OAKU

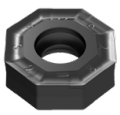
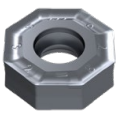


XAHT

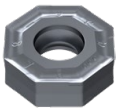
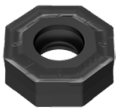
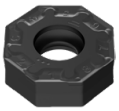
OAKU

ISO	RE	-F50 CTCP220		-M50 CTCP220		-F50 CTPP225		-M50 CTPP225	
		-F50 DCX1220		-M50 DCX1220		-F50 DPX1225		-M50 DPX1225	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
									
		OAKU		OAKU		OAKU		OAKU	
		1B/61		1B/61		1B/61		1B/61	
		Article no. 51 000 ...		Article no. 51 001 ...		Article no. 51 000 ...		Article no. 51 001 ...	
	mm	EUR		EUR		EUR		EUR	
060508SR	0,8	24,56	**258**	24,56	**258**	24,56	**058**	24,56	**058**
Steel			●		●		●		●
Stainless steel									
Cast iron									
Non ferrous metals									
Heat resistant alloys									
hardened materials									

OAKU

ISO	RE	-F50 CTCP230		-M50 CTCP230		-F50 CTPP235		-M50 CTPP235	
		-F50 DCX1230		-M50 DCX1230		-F50 DPX1235		-M50 DPX1235	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
									
		OAKU		OAKU		OAKU		OAKU	
		1B/61		1B/61		1B/61		1B/61	
		Article no. 51 000 ...		Article no. 51 001 ...		Article no. 51 000 ...		Article no. 51 001 ...	
	mm	EUR		EUR		EUR		EUR	
060508SL	0,8							24,56	**10900**
060508SR	0,8	24,56	**008**	24,56	**008**	24,56	**108**	24,56	**108**
Steel			●		●		●		●
Stainless steel			○		○		○		○
Cast iron									
Non ferrous metals									
Heat resistant alloys									
hardened materials									

OAKU

ISO	RE mm	-F50 CTPM225		-M50 CTPM225		-F50 CTCM235		-M50 CTCM235		-F50 CTPM240		-M50 CTPM240		-F40 CTPM245	
		-F50 DPX2225		-M50 DPX2225		-F50 DCX2235		-M50 DCX2235		-F50 DPX2240		-M50 DPX2240		-F40 DPX2245	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
															
		OAKU		OAKU		OAKU		OAKU		OAKU		OAKU		OAKU	
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		EUR		EUR		EUR		EUR		EUR		EUR		EUR	
060508ER	0,8													30,71	458
060508SR	0,8	24,56	208	24,56	208	24,56	308	24,56	308	24,56	408	24,56	408		
Steel			○		○		○		○		○		○		●
Stainless steel			●		●		●		●		●		●		●
Cast iron															
Non ferrous metals															
Heat resistant alloys															
hardened materials															

OAKU

ISO	RE mm	-M50 CTCK215		-R50 CTCK215		-M50 CTPK220		-R50 CTPK220		-F40 CTC5240	
		-M50 DCX3215		-R50 DCX3215		-M50 DPX3220		-R50 DPX3220		-F40 HCF5240	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
		OAKU		OAKU		OAKU		OAKU		OAKU	
		1B/61		1B/61		1B/61		1B/61		1H/D4	
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		EUR		EUR		EUR		EUR		EUR	
060508ER	0,8									30,71	550
060508SL	0,8	24,56	50900			24,56	60900				
060508SR	0,8	24,56	508	24,56	508	24,56	608	24,56	608		
Steel			○		○		○		○		
Stainless steel											
Cast iron			●		●		●		●		
Non ferrous metals											
Heat resistant alloys											●
hardened materials											

XAHT

ISO	RE mm	-M50 CTCP220	-M50 CTPP225	-M50 CTCP230	-M50 CTPP235
		-M50 DCX1220	-M50 DPX1225	-M50 DCX1230	-M50 DPX1235
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		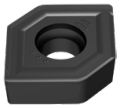	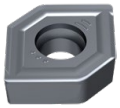	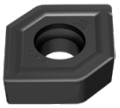	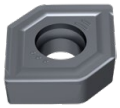
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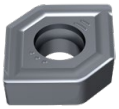
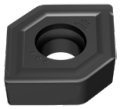
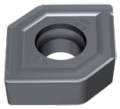
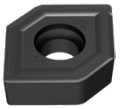
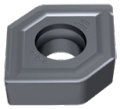
		EUR	EUR	EUR	EUR
060525SR	2,5	30,41 275	30,41 075	30,41 025	30,41 125
Steel		●	●	●	●
Stainless steel				○	○
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

XAHT

ISO	RE mm	-M50 CTPM225	-M50 CTCM235	-M50 CTPM240	-M50 CTCK215	-M50 CTPK220
		-M50 DPX2225	-M50 DCX2235	-M50 DPX2240	-M50 DCX3215	-M50 DPX3220
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
						
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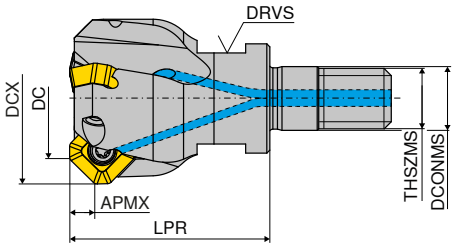
		Article no. 51 014 ...	Article no. 51 014 ...	Article no. 51 014 ...	Article no. 51 014 ...	Article no. 51 014 ...
		EUR	EUR	EUR	EUR	EUR
060525SL	2,5				30,41 52600	
060525SR	2,5	30,41 225	30,41 325	30,41 425	30,41 525	30,41 625
Steel		○	○	○	○	○
Stainless steel		●	●	●		
Cast iron					●	●
Non ferrous metals						
Heat resistant alloys						
hardened materials						

Milling guide

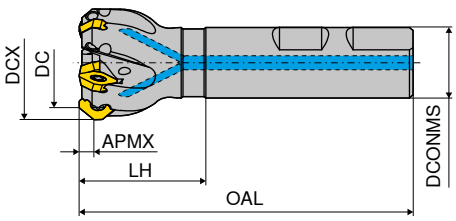
Starting Parameter	→ 145	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 145

MaxiMill – Screw in cutter 45° G 270-09



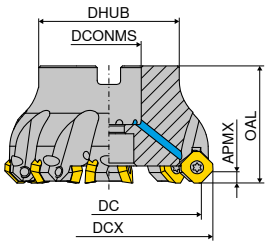
Designation	DC mm	DCX mm	ZNF	APMX mm	LPR mm	THSZMS	DCONMS mm	DRVS mm	torque moment Nm	Insert	2B Article no. 55 202 ... EUR	
G270.ESF.16.R.02-09	16	24,4	2	4	27	M8	8,5	10	1,8	SD.. 0903..	157,30	016
G270.ESF.20.R.03-09	20	28,4	3	4	33	M10	10,5	15	1,8	SD.. 0903..	184,50	020
G270.ESF.25.R.04-09	25	33,4	4	4	35	M12	12,5	17	1,8	SD.. 0903..	207,70	025
G270.ESF.32.R.05-09	32	40,4	5	4	35	M16	17,0	17	1,8	SD.. 0903..	228,50	032

MaxiMill – End milling cutter 45° C 270-09



Designation	DC mm	DCX mm	ZNF	APMX mm	OAL mm	LH mm	DCONMS mm	torque moment Nm	Insert	2B/40 Article no. 50 666 ... EUR	
C270.06.R.01-09	6	14,4	1	4	80	32	16	1,2	SD.. 0903..	135,80	006
C270.12.R.01-09	12	20,4	1	4	80	32	16	1,2	SD.. 0903..	150,00	012
C270.16.R.02-09	16	24,4	2	4	90	40	20	1,8	SD.. 0903..	170,80	016
C270.20.R.03-09	20	28,4	3	4	90	40	20	1,8	SD.. 0903..	217,30	020
C270.25.R.04-09	25	33,4	4	4	100	44	25	1,8	SD.. 0903..	307,90	025
C270.32.R.05-09	32	40,4	5	4	95	36	25	1,8	SD.. 0903..	362,20	032

MaxiMill – Shell mill 45° A 270-09



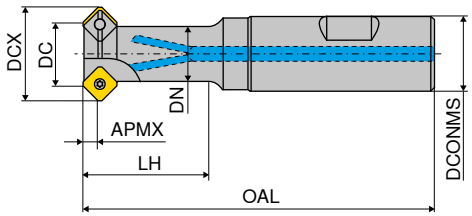
Designation	DC	DCX	ZNF	APMX	OAL	DHUB	DCONMS H6	torque moment	right 2B/40 Article no. 50 704 ...		right 2B/40 Article no. 50 705 ...		right 2B/40 Article no. 50 706 ...		left 2B Article no. 50 707 ...	
	mm	mm		mm	mm	mm	mm	Nm	EUR		EUR		EUR		EUR	
A270.32.R.05-09	32	40,4	5	4	40	34	16	1,8					346,60	532		
A270.40.R.04-09	40	48,4	4	4	40	38	16	1,8			355,70	540				
A270.40.R.06-09	40	48,4	6	4	40	38	16	1,8					401,10	540		
A270.42.R.06-09	42	50,4	6	4	40	38	16	1,8					415,20	542		
A270.50.R.06-09	50	58,4	6	4	40	43	22	1,8			412,70	550				
A270.50.R.08-09	50	58,4	8	4	40	43	22	1,8					494,20	550		
A270.50.L.08-09	50	58,4	8	4	40	43	22	1,8							511,70	550
A270.52.R.08-09	52	60,4	8	4	40	43	22	1,8					511,70	552		
A270.63.R.05-09	63	71,4	5	4	40	48	22	1,8	401,10	563						
A270.63.R.08-09	63	71,4	8	4	40	48	22	1,8			500,60	563				
A270.63.R.10-09	63	71,4	10	4	40	48	22	1,8					623,50	563		
A270.63.L.10-09	63	71,4	10	4	40	48	22	1,8							644,90	563
A270.66.R.10-09	66	74,4	10	4	40	48	22	1,8					644,90	566		
A270.80.R.06-09	80	88,4	6	4	50	58	27	1,8	454,00	580						
A270.80.R.10-09	80	88,4	10	4	50	58	27	1,8			632,50	580				
A270.80.R.12-09	80	88,4	12	4	50	58	27	1,8					750,10	580		
A270.80.L.12-09	80	88,4	12	4	50	58	27	1,8							776,00	580
A270.100.R.07-09	100	108,4	7	4	50	78	32	1,8	586,10	600						
A270.100.R.12-09	100	108,4	12	4	50	78	32	1,8			763,20	600				
A270.100.R.14-09	100	108,4	14	4	50	78	32	1,8					886,20	600		
A270.125.R.12-09	125	133,4	12	4	63	88	40	1,8			892,60	625				
A270.160.R.12-09	160	168,4	12	4	63	93	40	1,8	1.148,00	660 [1]						

1) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm

- 50 704 ... Open pitch for use on aluminum alloys, non-ferrous metals and plastics
- 50 705 ... Normal pitch for a broad spectrum of use on aluminum alloys, non-ferrous metals, and soft steel materials
- 50 706 ... Fine pitch for highest feed rates, predominantly used on steel and cast materials
- 50 707 ... As 50 706 ..., but **left hand** version

MaxiMill – Chamfer milling cutter C 272-09

▲ Usable on front and rear cutting edges



B

Designation	DC mm	DCX mm	ZNF	APMX mm	DN mm	OAL mm	LH mm	DCONMS mm	torque moment Nm	Insert	2B Article no. 50 669 ... EUR	
C272.06.R.01-09	6	14,4	1	4	10	91	24,0	16	1,2	SD.. 0903..	161,50	006
C272.08.R.01-09	8	16,4	1	4	10	91	25,5	16	1,2	SD.. 0903..	180,00	008
C272.12.R.01-09	12	20,4	1	4	12	91	26,0	16	1,2	SD.. 0903..	185,00	012
C272.16.R.02-09	16	24,4	2	4	15	97	30,0	20	1,8	SD.. 0903..	227,70	016
C272.18.R.02-09	18	26,4	2	4	16	97	30,0	20	1,8	SD.. 0903..	227,70	018
C272.25.R.03-09	25	33,4	3	4	21	109	35,0	25	1,8	SD.. 0903..	266,40	025

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
6 - 12	4,76	033	7,80	110	4,38	303	3,14	365	118,90	191
16 - 160	4,76	033	7,80	110	4,38	303	2,57	115	118,90	191

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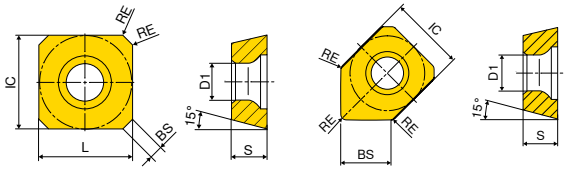
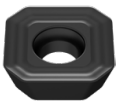
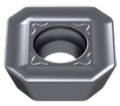
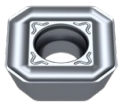
SDHW / SDNT / SDHT / XDHW

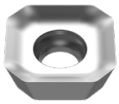
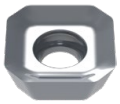
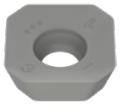
Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
XDHW 0903..	9,52	3,4	-	5,50	3,18
SD.. 0903..	9,52	3,4	9,52	1,68	3,18



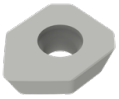
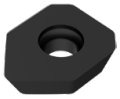
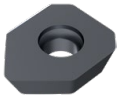
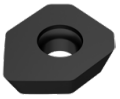
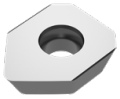
SDHW / SDNT / SDHT

		TCM10	-29 CTCP230	-29 CTPP235	-33 CTPM240	-33P CTPM240	-F50 CTPM245
		CWC10	-29 DCX1230	-29 DPX1235	-33 DPX2240	-33P DPX2240	-F50 DPX2245
			DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
							
		CERMET					
		SDHW	SDNT	SDNT	SDHT	SDHT	SDHT
		1B/79	1B/61	1B/61	1B/61	1B/61	1H/17
ISO	RE	**Article no.**	**Article no.**	**Article no.**	**Article no.**	**Article no.**	**Article no.**
		50 428 ...	**51 011 ...**	**51 011 ...**	**51 028 ...**	**51 086 ...**	**51 109 ...**
	mm	EUR	EUR	EUR	EUR	EUR	EUR
0903AESN	1,0	15,97 **898**	13,79 **020**	13,79 **120**	15,76 **420**	16,59 **420**	19,60 **470**
Steel		●	●	●	○	○	●
Stainless steel		●	○	○	●	●	●
Cast iron		○					
Non ferrous metals							
Heat resistant alloys							
hardened materials							

SDNT / SDHT

		-31 CTCK215	-27P H216T	-27P AMZ	-M31 CTC5240	-F50 CTCS245
		-31 DCX3215	-ALP CWK26	-ALP AMZ	-M31 HCF5240	
		DRAGONSKIN			DRAGONSKIN	DRAGONSKIN
						
		SDNT	SDHT	SDHT	SDHT	SDHT
		1B/61	1A/90	1A/90	1H/D4	NEW 1H/D4
ISO	RE	**Article no.**	**Article no.**	**Article no.**	**Article no.**	**Article no.**
		51 029 ...	**50 426 ...**	**50 426 ...**	**50 421 ...**	**51 109 ...**
	mm	EUR	EUR	EUR	EUR	EUR
0903AEFN	1,0		15,76 **548**	18,90 **848**		
0903AESN	1,0	13,20 **520**			19,60 **509**	19,60 **57100**
Steel		○				
Stainless steel						
Cast iron		●	○	○		
Non ferrous metals			●	●		
Heat resistant alloys					●	●
hardened materials						

XDHW

		TCM10		CTCP230		CTPP235		CTCK215		H216T	
		CWC10		DCX1230		DPX1235		DCX3215		CWK26	
				DRAGONSKIN		DRAGONSKIN		DRAGONSKIN			
											
		CERMET									
		XDHW		XDHW		XDHW		XDHW		XDHW	
		1B/79		1B/61		1B/61		1B/18		1B/61	
ISO	RE	**Article no.**		**Article no.**		**Article no.**		**Article no.**		**Article no.**	
		50 449 ...		**51 015 ...**		**51 015 ...**		**51 015 ...**		**50 449 ...**	
	mm	**EUR**		**EUR**		**EUR**		**EUR**		**EUR**	
0903AEEN	1							18,75	**520**		
0903AEFN	1									16,59	**548**
0903AESN	1	17,31	**898**	19,39	**020**	19,39	**120**				
Steel		●		●		●		○			
Stainless steel		●		○		○					
Cast iron		○						●		○	
Non ferrous metals										●	
Heat resistant alloys											
hardened materials											

Milling guide

Machining strategy	→ 146	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 146

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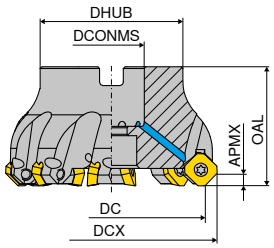
MaxiMill – Shell mill 45° A 270-12

- ▲ 50 705 ... Normal pitch for a broad spectrum of use on aluminum alloys, non-ferrous metals, up to soft steel materials
- ▲ 50 706 ... Predominantly fine pitch for highest feed rates, use on steel and cast materials



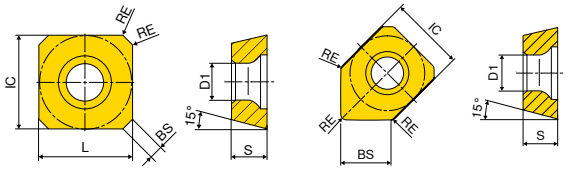
Designation	DC mm	DCX mm	ZNF	APMX mm	DCONMS H6 mm	OAL mm	DHUB mm	torque moment Nm	Insert	2B/40 Article no. 50 705 ... EUR		2B/40 Article no. 50 706 ... EUR	
A270.32.R.03-12	32	46	3	6	16	40	32	5	SD../XD.. 1204..	397,10	**032**		
A270.40.R.03-12	40	54	3	6	16	40	38	5	SD../XD.. 1204..	406,20	**040**		
A270.40.R.04-12	40	54	4	6	16	40	38	5	SD../XD.. 1204..			406,20	**040**
A270.50.R.04-12	50	64	4	6	22	40	43	5	SD../XD.. 1204..	459,20	**050**		
A270.50.R.05-12	50	64	5	6	22	40	43	5	SD../XD.. 1204..			459,20	**050**
A270.63.R.04-12	63	77	4	6	22	40	48	5	SD../XD.. 1204..	525,20	**063**		
A270.63.R.06-12	63	77	6	6	22	40	48	5	SD../XD.. 1204..			601,50	**063**
A270.80.R.05-12	80	94	5	6	27	50	58	5	SD../XD.. 1204..	609,30	**080**		
A270.80.R.08-12	80	94	8	6	27	50	58	5	SD../XD.. 1204..			750,10	**080**
A270.100.R.06-12	100	114	6	6	32	50	78	5	SD../XD.. 1204..	717,80	**100**		
A270.100.R.10-12	100	114	10	6	32	50	78	5	SD../XD.. 1204..			878,30	**100**
A270.125.R.07-12	125	139	7	6	40	63	88	5	SD../XD.. 1204..	877,00	**125**		
A270.125.R.12-12	125	139	12	6	40	63	88	5	SD../XD.. 1204..			1.186,00	**125**
A270.160.R.08-12	160	174	8	6	40	63	94	5	SD../XD.. 1204..	1.120,00	**160** [1]		

1) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Clamping key – T Article no. 80 397 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Power Screw Article no. 70 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
32 - 40	4,76	**037**	3,91	**040**	9,95	**114**	12,48	**151**	4,38	**303**	2,52	**280**	131,90	**193**
50 - 160	4,76	**037**			9,95	**114**			4,38	**303**	2,52	**280**	131,90	**193**

SDHT / SDHW / SDMT / XDHW

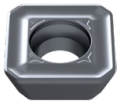
Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
XDHW 1204..	12,7	5,5	-	7,50	4,76
SD.. 1204..	12,7	5,5	12,7	1,74	4,76



SDHT / SDHW / SDMT

		TCM10	-R TCM10	-29R CTCP230	-R CTCP230	CTCP230
		CWC10	-R CWC10	-29R DCX1230	-R DCX1230	DCX1230
				DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
		CERMET	**CERMET**			
		SDHT	SDHW	SDMT	SDHT	SDHW
		1B/79	1B/79	1B/61	1B/61	1B/61
ISO	RE	**Article no.**	**Article no.**	**Article no.**	**Article no.**	**Article no.**
		50 426 ...	**50 428 ...**	**51 010 ...**	**51 006 ...**	**51 008 ...**
	mm	**EUR**	**EUR**	**EUR**	**EUR**	**EUR**
1204AESN	0,2	17,19 **900**				
1204AESN	1,0		17,91 **899**	14,65 **020**	16,71 **020**	17,19 **020**
Steel		●	●	●	●	●
Stainless steel		●	●	○	○	○
Cast iron		○	○			
Non ferrous metals						
Heat resistant alloys						
hardened materials						

SDMT / SDHT / SDHW

		-29 CTPP235	-R CTPP235	-R CTPP235	-F50 CTPM245	-33 CTPM240
		-29 DPX1235	-R DPX1235	-R DPX1235	-F50 DPX2245	-33 DPX2240
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
						
		SDMT	SDHT	SDHW	SDHT	SDHT
		1B/61	1B/61	1B/61	1H/17	1B/61
ISO	RE	**Article no.**	**Article no.**	**Article no.**	**Article no.**	**Article no.**
		51 010 ...	**51 006 ...**	**51 008 ...**	**51 109 ...**	**51 028 ...**
	mm	**EUR**	**EUR**	**EUR**	**EUR**	**EUR**
1204AESN	1,0	14,65 **120**	16,71 **120**	17,19 **120**	22,57 **475**	17,19 **425**
Steel		●	●	●	●	○
Stainless steel		○	○	○	●	●
Cast iron						
Non ferrous metals						
Heat resistant alloys						
hardened materials						

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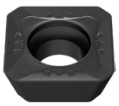
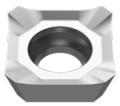
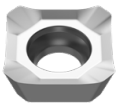
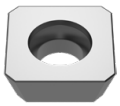
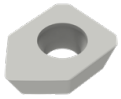
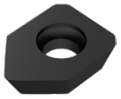
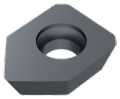
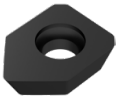
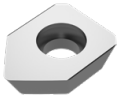
SDMT / SDHW / SDHT

		-31 CTCK215		-R CTCK215		-27 H216T		-27P H216T		H216T	
		-31 DCX3215		-R DCX3215		-AL CWK26		-ALP CWK26		CWK26	
		DRAGONSKIN		DRAGONSKIN							
											
		SDMT		SDHW		SDHT		SDHT		SDHW	
		1B/61		1B/61		1A/90		1A/90		1B/61	
ISO	RE	Article no. 51 059 ...		Article no. 51 008 ...		Article no. 50 426 ...		Article no. 50 426 ...		Article no. 50 428 ...	
	mm	EUR		EUR		EUR		EUR		EUR	
1204AEEN	1,0	14,28	520	17,19	520						
1204AEFN	0,2					17,19	504				
1204AEFN	1,0							17,19	554		
1204AESN	0,2									14,28	600
Steel				○		○					
Stainless steel											
Cast iron				●		●		○		○	
Non ferrous metals								●		●	
Heat resistant alloys											
hardened materials											

SDHT

		-M31 CTC5240		-F50 CTCS245	
		-M31 HCF5240			
		DRAGONSKIN		DRAGONSKIN	
		SDHT		SDHT	
		1H/D4		NEW 1H/D4	
ISO	RE	Article no. 50 421 ...		Article no. 51 109 ...	
	mm	EUR		EUR	
1204AESN	1,0	22,57	512	22,57	57600
Steel					
Stainless steel					
Cast iron					
Non ferrous metals					
Heat resistant alloys				●	●
hardened materials					

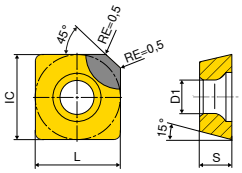
XDHW

		TCM10		CTCP230		CTPP235		CTCK215		H216T	
		CWC10		DCX1230		DPX1235		DCX3215		CWK26	
				DRAGONSKIN		DRAGONSKIN		DRAGONSKIN			
											
		CERMET									
		XDHW		XDHW		XDHW		XDHW		XDHW	
		1B/79		1B/61		1B/61		1B/61		1B/61	
ISO	RE	Article no. 50 449 ...		Article no. 51 015 ...		Article no. 51 015 ...		Article no. 51 015 ...		Article no. 50 449 ...	
	mm	EUR		EUR		EUR		EUR		EUR	
1204AEEN	1							22,64	525		
1204AEFN	1									21,42	600
1204AESN	1	22,64	900	23,74	025	23,74	125				
Steel			●		●		●		○		
Stainless steel			●		○		○				
Cast iron			○						●		○
Non ferrous metals											●
Heat resistant alloys											
hardened materials											

15

SDHW

Designation	IC	D1	L	S
	mm	mm	mm	mm
SDHW 1204..	12,7	5,5	12,7	4,76

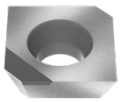


SDHW

SDHW

CTBS10U

PBC10



ISO	CBN SDHW V9 Article no. 51 900 ... EUR	
1204AETN-2	54,15	300 [1]

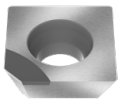
Steel	
Stainless steel	
Cast iron	●
Non ferrous metals	
Heat resistant alloys	●
hardened materials	

1) $a_{p\,max.}$ = 2.0 mm

SDHW

CTDPS30

PDC



ISO	DIAMOND SDHW V9 Article no. 51 900 ... EUR	
1204AEFN-2	59,03	100 [1]
1204AEFN-3	59,03	102 [2]

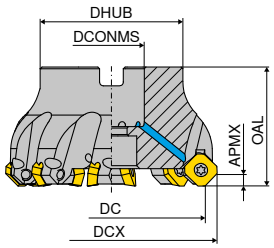
Steel	
Stainless steel	
Cast iron	
Non ferrous metals	●
Heat resistant alloys	
hardened materials	

1) $a_{p\,max.}$ = 2.0 mm
2) $a_{p\,max.}$ = 3,5 mm

Milling guide

Machining strategy	→ 147	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 147

MaxiMill – Shell mill 45° A 270-19



Designation	DC mm	DCX mm	ZNF	APMX mm	DCONMS H6 mm	OAL mm	DHUB mm	torque moment Nm	Insert	Left-hand NEW 2B/40 Article no. 50 698 ... EUR		Right-hand NEW 2B/40 Article no. 50 698 ... EUR	
A270.125.R.07-19	125	146,4	7	10	40	63	88	5	SD.. 1907..			786,50	**12507**
A270.160.R.09-19	160	181,4	9	10	40	63	104	5	SD.. 1907..			996,20	**16009** 1)
A270.200.R.11-19	200	221,1	11	10	60	63	134	5	SD.. 1907..			1.206,00	**20011** 2)
A270.250.L.14-19	250	271,4	14	10	60	63	134	5	SD.. 1907..	2.254,00	**75014** 2)		
A270.250.R.14-19	250	271,4	14	10	60	63	134	5	SD.. 1907..			2.254,00	**25014** 2)
A270.315.L.17-19	315	336,4	17	10	60	63	226	5	SD.. 1907..	2.670,00	**81517** 3)		
A270.315.R.17-19	315	336,4	17	10	60	63	226	5	SD.. 1907..			2.670,00	**31517** 3)

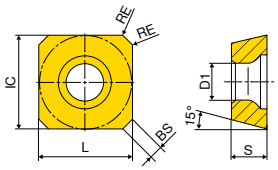
1) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm
2) With threaded holes M16 on the front face, pitch circle diameter = 101.6 mm
3) With 4 threaded holes M16 on the front face, pitch circle diameter = 101.6 mm and with 4 threaded holes M20 on the front face, pitch circle diameter = 177.8 mm

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
125 - 315	4,76	**037**	9,95	**114**	4,38	**303**	4,09	**302**	131,90	**193**

15

SDKT

Designation	IC	D1	L	BS	S	AN
	mm	mm	mm	mm	mm	°
SDKT 1907..	19,15	6	19,15	1,5	7,35	15
SDKT 1907..	19,15	6	19,15	1,5	7,16	15



SD..

SDKT

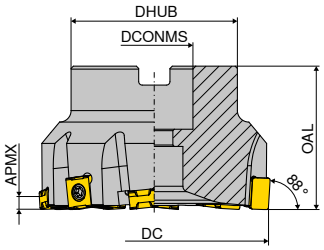
		-R50 CTCP230	-M50 CTPP235	-R50 CTPP235	-R50 CTPM225	-R50 CTCK215
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
		SDKT	SDKT	SDKT	SDKT	SDKT
		NEW 1B/61	NEW 1B/61	NEW 1B/61	NEW 1B/61	NEW 1B/61
ISO	RE	Article no. 51 132 ...	Article no. 51 131 ...	Article no. 51 132 ...	Article no. 51 132 ...	Article no. 51 132 ...
	mm	EUR	EUR	EUR	EUR	EUR
1907AESN	1,6	31,03 **02100**	31,03 **12000**	31,03 **12300**	31,03 **22200**	31,03 **52000**
Steel		●	●	●	○	○
Stainless steel		○	○	○	●	
Cast iron						●
Non ferrous metals						
Heat resistant alloys						
hardened materials						

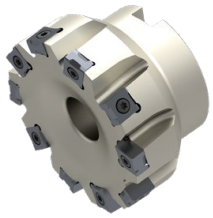
Milling guide

Grade description	→ 209	ISO Designation System	→ 194+195
Cutting data appoximate values	→ 148		

MaxiMill – Shell mill HEC 11

▲ not adjustable



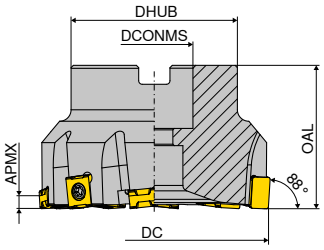


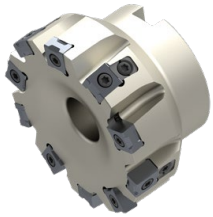
Designation	DC	ZNF	APMX	OAL	DHUB	DCONMS H6	RPMX	torque moment	Insert	2B/40 Article no. 50 725 ...	
	mm		mm	mm	mm	mm	1/min.	Nm		EUR	
AHEC.50.R.06-11	50	6	6	40	48	22	12700	3,2	LNHX 1106	542,80	**050**
AHEC.63.R.08-11	63	8	6	40	48	22	10100	3,2	LNHX 1106	651,60	**063**
AHEC.80.R.10-11	80	10	6	50	58	27	8000	3,2	LNHX 1106	796,60	**080**
AHEC.100.R.12-11	100	12	6	50	78	32	6400	3,2	LNHX 1106	929,60	**100**
AHEC.125.R.12-11	125	12	6	63	88	40	5100	3,2	LNHX 1106	1.062,00	**125**
AHEC.125.R.16-11	125	16	6	63	88	40	5100	3,2	LNHX 1106	1.070,00	**12516**
AHEC.160.R.20-11	160	20	6	63	100	40	4000	3,2	LNHX 1106	1.559,00	**160** [1]

1) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm

MaxiMill – Shell mill HEC 11

▲ Axially adjustable with same tooth pitch



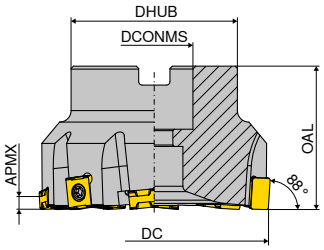


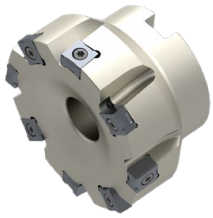
Designation	DC	ZNF	APMX	OAL	DHUB	DCONMS H6	RPMX	torque moment	Insert	2B/40 Article no. 50 733 ...	
	mm		mm	mm	mm	mm	1/min.	Nm		EUR	
AHEC.50.R.06A03-11	50	6	6	40	48	22	12700	3,2	LNHX 1106	822,50	**050**
AHEC.63.R.08A04-11	63	8	6	40	48	22	10100	3,2	LNHX 1106	1.024,00	**063**
AHEC.80.R.10A05-11	80	10	6	50	58	27	8000	3,2	LNHX 1106	1.263,00	**080**
AHEC.100.R.12A06-11	100	12	6	50	78	32	6400	3,2	LNHX 1106	1.490,00	**100**
AHEC.125.R.16A08-11	125	16	6	63	88	40	5100	3,2	LNHX 1106	2.016,00	**125**
AHEC.160.R.20A10-11	160	20	6	63	100	40	4000	3,2	LNHX 1106	2.491,00	**160** [1]

1) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm

MaxiMill – Shell mill HEC 11

▲ with irregular pitch, non adjustable





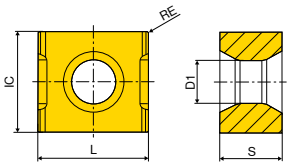
Designation	DC mm	ZNF	APMX mm	OAL mm	DHUB mm	DCONMS H6 mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 733 ... EUR	
AHEC.50.R.04B-11	50	4	6	40	48	22	12700	3,2	LNHX 1106	423,40	**550**
AHEC.63.R.06B-11	63	6	6	40	48	22	10100	3,2	LNHX 1106	526,20	**563**
AHEC.80.R.08B-11	80	8	6	50	58	27	8000	3,2	LNHX 1106	674,40	**580**
AHEC.100.R.10B-11	100	10	6	50	78	32	6400	3,2	LNHX 1106	866,80	**600**
AHEC.125.R.12B-11	125	12	6	63	88	40	5100	3,2	LNHX 1106	1.060,00	**625**
AHEC.160.R.14B-11	160	14	6	63	100	40	4000	3,2	LNHX 1106	1.316,00	**660** [1]

1) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Coolant Disc Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		2A/28 Wedge Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
50 - 63	4,76	**036**	4,38	**303**	25,18	**852**	3,14	**113**	36,80	**199**	131,90	**193**
80	4,76	**036**	4,38	**303**	25,73	**853**	3,14	**113**	36,80	**199**	131,90	**193**
100	4,76	**036**	4,38	**303**	28,32	**854**	3,14	**113**	36,80	**199**	131,90	**193**
125	4,76	**036**	4,38	**303**	37,33	**855**	3,14	**113**	36,80	**199**	131,90	**193**
160	4,76	**036**	4,38	**303**			3,14	**113**	36,80	**199**	131,90	**193**

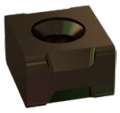
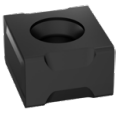
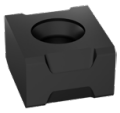
LNHX

Designation	IC	D1	L	S
	mm	mm	mm	mm
LNHX 1106..	10	4,27	11	6,35



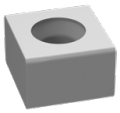
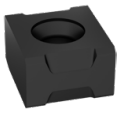
LNHX

LNHX

ISO	RE	CTEP210		CTCK215		-R50 CTCK215		-Q CTCK215	
		DCC1210		DCX3215		-R50 DCX3215		-Q DCX3215	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
									
		CERMET							
		LNHX		LNHX		LNHX		LNHX	
		1B/79		1B/61		1B/61		1B/61	
		Article no. 51 046 ...		Article no. 51 046 ...		Article no. 51 024 ...		Article no. 51 045 ...	
	mm	EUR		EUR		EUR		EUR	
1106PNEN	0,5			25,91	51600				
1106PNER	0,5			25,91	520	25,91	520		
1106PNER	0,8	30,04	820						
1106ZZER	0,5							25,91	520 [1]
Steel			●		○		○		○
Stainless steel									
Cast iron			●		●		●		●
Non ferrous metals									
Heat resistant alloys									
hardened materials									

1) -Q = Wiper insert

LNHX

ISO	RE	CTPK220		-R50 CTPK220		CTN3105		CTL3215		-Q CTL3215	
		DPX3220		-R50 DPX3220		CTS3105		CWB3215			
		DRAGONSKIN		DRAGONSKIN							
											
						CERAMIC		CBN		CBN	
		LNHX		LNHX		LNHX		LNHX		LNHX	
		1B/61		1B/61		1G/55		1G/21		1G/21	
		Article no. 51 046 ...		Article no. 51 024 ...		Article no. 50 500 ...		Article no. 51 046 ...		Article no. 51 045 ...	
	mm	EUR		EUR		EUR		EUR		EUR	
110608EN	0,8			25,91	608						
1106PNER	0,5	25,91	620	25,91	620						
1106PNSR	0,5					24,42	904				
1106PNSR								142,70	87200		
1106ZZER										142,70	87000 [1]
Steel		○		○							
Stainless steel											
Cast iron		●		●		●		●		●	
Non ferrous metals											
Heat resistant alloys											
hardened materials								○		○	

1) -Q = Wiper insert

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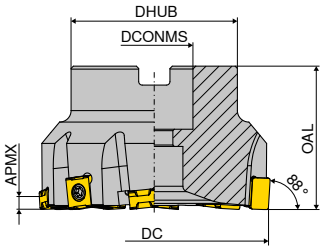
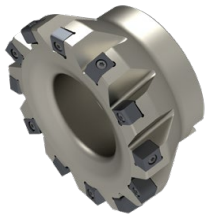
Milling guide

Grade description → 209+210
ISO Designation System → 194+195
Cutting data appoximate values → 148

MaxiMill – Shell mill HEC 12

▲ not adjustable





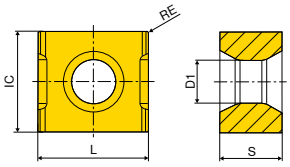
Designation	DC	ZNF	APMX	OAL	DHUB	DCONMS H6	RPMX	torque moment	Insert	NEW 2B/40 Article no. 50 725 ...	
	mm		mm	mm	mm	mm	1/min.	Nm		EUR	
AHEC.125.R.12-1210	125	12	8	63	88	40	5000	3,2	LN.. 1210..	1.062,00	**32512**
AHEC.160.R.16-1210	160	16	8	63	88	40	3900	3,2	LN.. 1210..	1.247,00	**36016** 1)

1) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm

Spare parts DC	Y7 Key D Article no. 80 950 ... EUR		2A/28 Coolant Disc Article no. 70 950 ... EUR	
125 - 160	7,05	**105**	37,33	**855**

LNHX / LNEX

Designation	IC	D1	L	S
	mm	mm	mm	mm
LN.X 1210..	10	4,4	12,7	10,00



LNHX

LNHX / LNEX

ISO	RE	CTCK215 LNHX NEW 1B/61 Article no. 51 135 ... EUR		CTPK220 LNEX NEW 1B/61 Article no. 51 133 ... EUR		-R50 CTPK220 LNHX NEW 1B/61 Article no. 51 134 ... EUR	
	mm						
121008EN	0,8					32,38	**60800**
121008SN	0,8	32,38	**50900**				
121020EN				29,79	**62000**		
121020SN	2,0	32,38	**52100**				

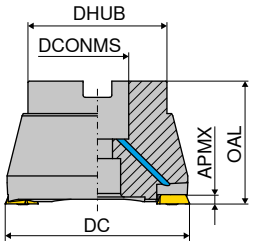
	CTCK215	CTPK220	-R50 CTPK220
Steel	○	○	○
Stainless steel			
Cast iron	●	●	●
Non ferrous metals			
Heat resistant alloys			
hardened materials			

Milling guide

Grade description → 209+210
ISO Designation System → 194+195
Cutting data appoximate values → 148

Finishing cutter F 5000 A

- With µm-adjustable inserts
- Adjust with screw (56 950 017) and set with Torx 20 key (80 950 114)



Designation	DC mm	ZNF	APMX mm	OAL mm	DCONMS mm	DHUB mm	torque moment Nm	Insert	WA Article no. 56 511 ... EUR	
F5000A.42.2.43.IK	42	2	0,2	43	16	35	3,2	TEHX 16T3..	321,90	421
F5000A.52.2.43.IK	52	2	0,2	43	22	48	3,2	TEHX 16T3..	389,10	521
F5000A.66.2.53.IK	66	2	0,2	53	27	60	3,2	TEHX 16T3..	454,00	661
F5000A.80.2.53.IK	80	2	0,2	53	27	60	3,2	TEHX 16T3..	520,10	801
F5000A.100.2.53	100	2	0,2	53	32	70	3,2	TEHX 16T3..	585,10	910 1)

1) Without Through Coolant

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key-T Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		WA Axial runout adjustment screw Article no. 56 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		WA Clamping screw Article no. 56 950 ... EUR		WA Grubscrew Article no. 56 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
42	4,76	036	4,46	088	9,95	114	3,84	017	4,38	303	3,54	028	24,12	121	131,90	193
52	4,76	036	4,46	088	9,28	113	3,84	017	4,38	303	3,54	028			131,90	193
66	4,76	036	4,46	088	9,28	113	3,84	017	4,38	303	3,54	028			131,90	193
80	4,76	036	4,46	088	9,28	113	3,84	017	4,38	303	3,54	028			131,90	193
100	4,76	036	4,46	088	9,28	113	3,84	017	4,38	303	3,54	028	24,12	121	131,90	193

Description of article

- Tightening torque of the indexable insert clamping screw 56 950 028 is 3.2 Nm.
- This tool produces surfaces with excellent surface quality Rz ≤ 2.5 µm with high axial run-out precision.
- The two precision adjustment screws make adjustment to µm accuracy possible.
- Additional grinding is therefore avoided, so machining time and costs are reduced.
- The tool is also well-suited for unstable workpieces and low power machines.

The screws for the adjustment of the axial run-out are mounted on every milling cutter and have to be tightened to a preset value. Otherwise there is the danger that the screws loosen during the machining operation. This can result in damage of the workpiece or tool and also cause danger for the machine operator. Should the screws for fine adjustment not be needed we recommend to remove them from the tool.

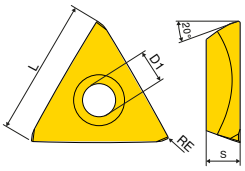
Material	v_c m/min	f_z mm	a_p mm
Steel	150–250*)	0,5–2	0,05–0,2
Cast iron	150–250*)	0,5–2	0,05–0,2
Hardened materials ≤ 56 HRC	35–200*)	0,2–1	0,05–0,1

*) Depending on the machining and structural state of the processed workpiece.

15

TEHX

Designation	L	S	D1
	mm	mm	mm
TEHX 16T3..	14,32	4,00	3,9



TEHX

WTN1205

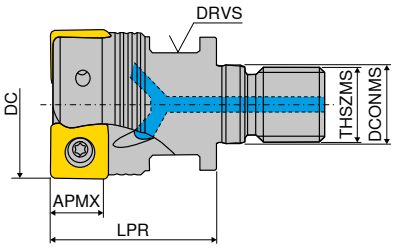
ISO	RE	TEHX WB Article no. 56 327 ... EUR	
	mm		
16T3ZF	0,2	21,18	**151**

Steel	●
Stainless steel	○
Cast iron	●
Non ferrous metals	○
Heat resistant alloys	
hardened materials	●

Milling guide

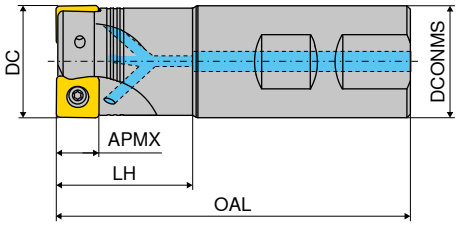
Grade description	→ 209+210	ISO Designation System	→ 194+195
Cutting data appoximate values	→ 49		

MaxiMill – Screw in cutter G 491



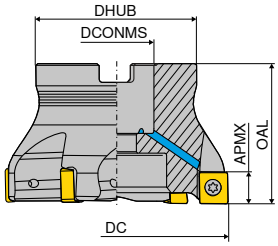
Designation	DC mm	ZNF	APMX mm	LPR mm	THSZMS	DCONMS mm	DRVS mm	torque moment Nm	Insert	2B/40 Article no. 50 773 ... EUR	
G491.25.R.03-09	25	3	6	35	M12	12,5	17	2	SNHU 09T3	351,30	125
G491.32.R.03-09	32	3	6	35	M16	17,0	24	2	SNHU 09T3	356,60	132
G491.32.R.04-09	32	4	6	35	M16	17,0	24	2	SNHU 09T3	398,40	232

MaxiMill – End milling cutter C 491



Designation	DC mm	ZNF	APMX mm	OAL mm	LH mm	DCONMS h6 mm	RPMX 1/min.	torque moment Nm	Insert	A 2B/40 Article no. 50 774 ... EUR		B 2B/40 Article no. 50 774 ... EUR	
C491.25.R.03-09-B-32	25	3	6	59	32	25	23500	2	SNHU 09T3			356,60	425
C491.25.R.03-09-A-50-225	25	3	6	225	50	25	23500	2	SNHU 09T3	356,60	325		
C491.32.R.03-09-B-40	32	3	6	101	40	32	19600	2	SNHU 09T3			367,00	632
C491.32.R.04-09-B-40	32	4	6	101	40	32	19600	2	SNHU 09T3			398,40	432
C491.32.R.03-09-A-63-250	32	3	6	250	63	32	19600	2	SNHU 09T3	367,00	532		
C491.32.R.04-09-A-63-250	32	4	6	250	63	32	19600	2	SNHU 09T3	398,40	332		

MaxiMill – Shell mill A 491

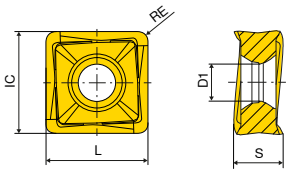


Designation	DC	ZNF	APMX	OAL	DHUB	DCONMS H6	RPMX	torque moment	Insert	2B/40 Article no. 50 776 ...		2B/40 Article no. 50 775 ...	
	mm		mm	mm	mm	mm	1/min.	Nm		EUR		EUR	
A491.40.R.03-09	40	3	6	40	38	16	16800	2	SNHU 09T3			387,90	240
A491.40.R.05-09	40	5	6	40	38	16	16800	2	SNHU 09T3	450,90	240		
A491.50.R.04-09	50	4	6	40	43	22	14600	2	SNHU 09T3			429,90	250
A491.50.R.06-09	50	6	6	40	43	22	14600	2	SNHU 09T3	492,80	250		
A491.63.R.05-09	63	5	6	40	48	22	12700	2	SNHU 09T3			513,80	263
A491.63.R.08-09	63	8	6	40	48	22	12700	2	SNHU 09T3	608,10	263		
A491.80.R.06-09	80	6	6	50	58	27	11100	2	SNHU 09T3			545,30	280
A491.80.R.10-09	80	10	6	50	58	27	11100	2	SNHU 09T3	671,10	280		
A491.100.R.07-09	100	7	6	50	78	32	9800	2	SNHU 09T3			692,00	300
A491.100.R.12-09	100	12	6	50	78	32	9800	2	SNHU 09T3	849,30	300		
A491.125.R.08-09	125	8	6	63	88	40	8700	2	SNHU 09T3			838,80	325
A491.125.R.15-09	125	15	6	63	88	40	8700	2	SNHU 09T3	1.028,00	325		

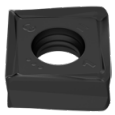
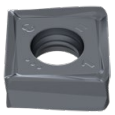
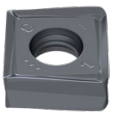
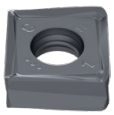
Spare parts DC	Y7 TORX® blade Article no. 80 950 ...		Y7 Clamping key – T Article no. 80 397 ...		Y7 Key D Article no. 80 950 ...		2A/28 Power Screw Article no. 70 950 ...		2A/28 Molykote Article no. 70 950 ...		2A/28 Clamping screw Article no. 70 950 ...		Y7 Torque screwdriver Article no. 80 950 ...	
	EUR		EUR		EUR		EUR		EUR		EUR		EUR	
25 - 32	5,26	053			8,91	119			4,38	303	3,09	710	131,90	193
40	5,26	053	3,91	040	8,91	119	12,48	151	4,38	303	3,09	710	131,90	193
50 - 125	5,26	053			8,91	119			4,38	303	3,09	710	131,90	193

SNHU

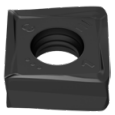
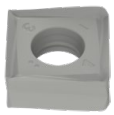
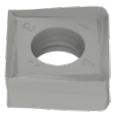
Designation	IC	L	S	D1
	mm	mm	mm	mm
SNHU 09T3..	9,15	9,15	3,70	3,85



SNHU

		-M50 CTCP230	-M50 CTPP235	-F50 CTPM240	-M50 CTPM240	-F40 CTPM245
		-M50 DCX1230	-M50 DPX1235	-F50 DPX2240	-M50 DPX2240	
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
						
		SNHU	SNHU	SNHU	SNHU	SNHU
		1B/61	1B/61	1B/61	1B/61	NEW 1H/17
ISO	RE	Article no. 51 120 ...	Article no. 51 120 ...	Article no. 51 119 ...	Article no. 51 120 ...	Article no. 51 126 ...
	mm	EUR	EUR	EUR	EUR	EUR
09T308ER	0,8					27,46 45800
09T308SR	0,8	21,95 008	21,95 108	21,95 408	21,95 408	
09T312SR	1,2	21,95 01200	21,95 11200	21,95 41200	21,95 41200	
09T316SR	1,6	21,95 01600	21,95 11600	21,95 41600	21,95 41600	
Steel		●	●	○	○	●
Stainless steel		○	○	●	●	●
Cast iron						
Non ferrous metals						
Heat resistant alloys						
hardened materials						

SNHU

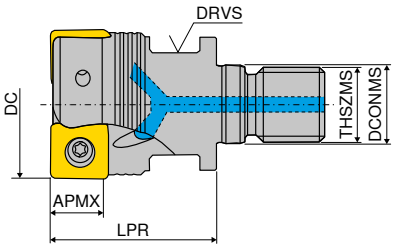
		-R50 CTCK215	-F10 CTWN215	-F40 CTC5240	-F40 CTCS245
		-R50 DCX3215	-F10 CWK4615		
		DRAGONSKIN		DRAGONSKIN	DRAGONSKIN
					
		SNHU	SNHU	SNHU	SNHU
		1B/61	1B/61	NEW 1H/D4	NEW 1H/D4
ISO	RE	Article no. 51 121 ...	Article no. 51 118 ...	Article no. 51 126 ...	Article no. 51 126 ...
	mm	EUR	EUR	EUR	EUR
09T308ER	0,8			27,46 15800	27,46 55800
09T308FR	0,8		21,95 358		
09T308SR	0,8	21,95 508			
09T312FR	1,2		21,95 36200		
09T312SR	1,2	21,95 51200			
09T316FR	1,6		21,95 36600		
09T316SR	1,6	21,95 51600			
Steel		○			
Stainless steel					
Cast iron		●	○		
Non ferrous metals			●		
Heat resistant alloys				●	●
hardened materials					

15

Milling guide

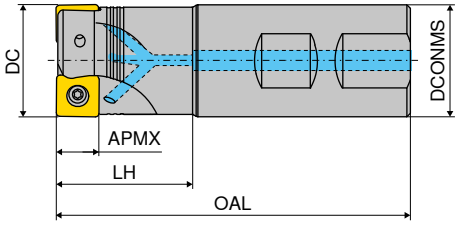
Starting Parameter → 150
ISO Designation System → 194+195
Grade description → 209+210
Cutting data appoximate values → 150

MaxiMill – Screw in cutter G 491



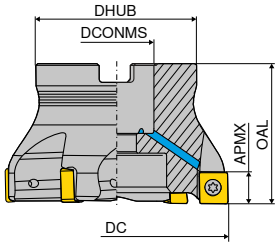
Designation	DC mm	ZNF	APMX mm	LPR mm	THSZMS	DCONMS mm	DRVS mm	torque moment Nm	Insert	2B/40 Article no. 50 773 ... EUR	
G491.32.R.02-12	32	2	8	35	M16	17	24	3,2	SNHU 1204	335,60	032

MaxiMill – End milling cutter C 491



Designation	DC mm	ZNF	APMX mm	OAL mm	LH mm	DCONMS h6 mm	RPMX 1/min.	torque moment Nm	Insert	A 2B/40 Article no. 50 774 ... EUR		B 2B/40 Article no. 50 774 ... EUR	
C491.32.R.02-12-B-40	32	2	8	102	40	32	13600	3,2	SNHU 1204			335,60	032
C491.32.R.02-12-A-63-250	32	2	8	250	63	32	10200	3,2	SNHU 1204	335,60	232		

MaxiMill – Shell mill A 491



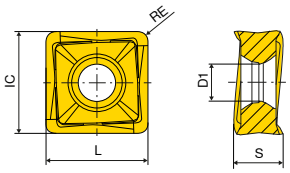
Designation	DC	ZNF	APMX	OAL	DHUB	DCONMS H6	RPMX	torque moment	Insert	2B/40 Article no. 50 776 ...		2B/40 Article no. 50 775 ...	
	mm		mm	mm	mm	mm	1/min.	Nm		EUR		EUR	
A491.40.R.03-12	40	3	8	40	38	16	11500	3,2	SNHU 1204			387,90	**040**
A491.40.R.04-12	40	4	8	40	38	16	11500	3,2	SNHU 1204	419,40	**040**		
A491.50.R.04-12	50	4	8	40	43	22	9800	3,2	SNHU 1204			429,90	**050**
A491.50.R.05-12	50	5	8	40	43	22	9800	3,2	SNHU 1204	461,40	**050**		
A491.63.R.05-12	63	5	8	40	48	22	8500	3,2	SNHU 1204			513,80	**063**
A491.63.R.06-12	63	6	8	40	48	22	8500	3,2	SNHU 1204	545,30	**063**		
A491.80.R.06-12	80	6	8	50	58	27	7400	3,2	SNHU 1204			545,30	**080**
A491.80.R.08-12	80	8	8	50	58	27	7400	3,2	SNHU 1204	629,10	**080**		
A491.100.R.07-12	100	7	8	50	78	32	6500	3,2	SNHU 1204			692,00	**100**
A491.100.R.10-12	100	10	8	50	78	32	6500	3,2	SNHU 1204	786,50	**100**		
A491.125.R.08-12	125	8	8	63	88	40	5700	3,2	SNHU 1204			838,80	**125**
A491.125.R.12-12	125	12	8	63	88	40	5700	3,2	SNHU 1204	964,70	**125**		
A491.160.R.09-12	160	9	8	63	98	40	5000	3,2	SNHU 1204			975,20	**160** [1]
A491.160.R.14-12	160	14	8	63	98	40	5000	3,2	SNHU 1204	1.133,00	**160** [1]		

1) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm

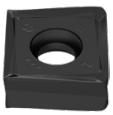
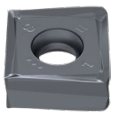
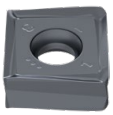
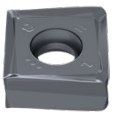
Spare parts DC	Y7 TORX® blade Article no. 80 950 ...		Y7 Clamping key – T Article no. 80 397 ...		Y7 Key D Article no. 80 950 ...		2A/28 Power Screw Article no. 70 950 ...		2A/28 Molykote Article no. 70 950 ...		2A/28 Clamping screw Article no. 70 950 ...		Y7 Torque screwdriver Article no. 80 950 ...	
	EUR		EUR		EUR		EUR		EUR		EUR		EUR	
32	5,26	**054**			11,89	**128**			4,38	**303**	3,14	**859**	131,90	**193**
40	5,26	**054**	3,91	**040**	11,89	**128**	12,48	**151**	4,38	**303**	3,14	**859**	131,90	**193**
50 - 160	5,26	**054**			11,89	**128**			4,38	**303**	3,14	**859**	131,90	**193**

SNHU

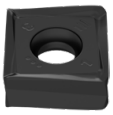
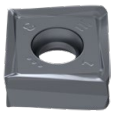
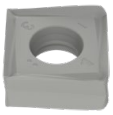
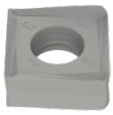
Designation	IC	L	S	D1
	mm	mm	mm	mm
SNHU 1204..	12,2	12,2	5,00	4,4



SNHU

		-M50 CTCP230		-M50 CTPP235		-F50 CTPM240		-M50 CTPM240		-F40 CTPM245	
		-M50 DCX1230		-M50 DPX1235		-F50 DPX2240		-M50 DPX2240			
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
											
		SNHU		SNHU		SNHU		SNHU		SNHU	
		1B/61		1B/61		1B/61		1B/61		NEW 1H/17	
ISO	RE	Article no. 51 100 ...		Article no. 51 100 ...		Article no. 51 102 ...		Article no. 51 100 ...		Article no. 51 128 ...	
	mm	EUR		EUR		EUR		EUR		EUR	
120408ER	0,8									32,97	45800
120408SR	0,8	26,81	008	26,81	108	26,81	408	26,81	408		
120412SR	1,2			26,81	112	26,81	412				
120416SR	1,6			26,81	116	26,81	416				
120420SR	2,0			26,81	120	26,81	420				
Steel		●		●		○		○		●	
Stainless steel		○		○		●		●		●	
Cast iron											
Non ferrous metals											
Heat resistant alloys											
hardened materials											

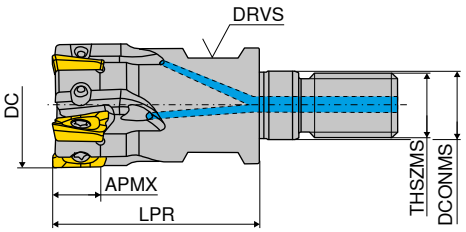
SNHU

		-R50 CTCK215		-R50 CTPK220		-F10 CTWN215		-F40 CTC5240		-F40 CTCS245	
		-R50 DCX3215		-R50 DPX3220		-F10 CWK4615					
		DRAGONSKIN		DRAGONSKIN				DRAGONSKIN		DRAGONSKIN	
											
		SNHU		SNHU		SNHU		SNHU		SNHU	
		1B/61		1B/61		1B/61		NEW 1H/D4		NEW 1H/D4	
ISO	RE	Article no. 51 103 ...		Article no. 51 103 ...		Article no. 51 101 ...		Article no. 51 128 ...		Article no. 51 128 ...	
	mm	EUR		EUR		EUR		EUR		EUR	
120408ER	0,8							32,97	15800	32,97	55800
120408FR	0,8					26,81	358				
120408SR	0,8	26,81	508	26,81	608						
120412FR	1,2					26,81	362				
120412SR	1,2	26,81	512								
120416FR	1,6					26,81	366				
120416SR	1,6	26,81	516								
120420FR	2,0					26,81	370				
120420SR	2,0	26,81	520								
Steel		○		○							
Stainless steel											
Cast iron		●		●		○					
Non ferrous metals						●					
Heat resistant alloys								●		●	
hardened materials											

Milling guide

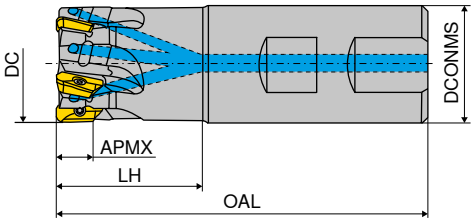
Starting Parameter	→ 151	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 151

MaxiMill – Screw in cutter G 211-07



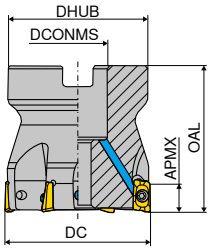
Designation	DC mm	ZNF	APMX mm	LPR mm	DCONMS mm	THSZMS	DRVS mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 751 ... EUR	
G211.16.R.04-07	16	4	6	27	8,5	M8	10	50400	1	XD.T 0703	268,00	016
G211.20.R.05-07	20	5	6	33	10,5	M10	15	44280	1	XD.T 0703	299,00	020
G211.25.R.06-07	25	6	6	35	12,5	M12	17	39480	1	XD.T 0703	348,80	025
G211.32.R.08-07	32	8	6	35	17,0	M16	24	36240	1	XD.T 0703	379,80	032

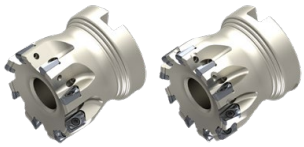
MaxiMill – End milling cutter C 211-07



Designation	DC mm	ZNF	APMX mm	OAL mm	LH mm	DCONMS mm	RPMX 1/min.	torque moment Nm	Insert	A 2B/40 Article no. 50 752 ... EUR		B 2B/40 Article no. 50 752 ... EUR	
C211.10.R.01-07-A-20	10	1	6	61,0	20	10	72000	1	XD.T 0703	212,00	010		
C211.12.R.02-07-A-20	12	2	6	66,5	20	12	66600	1	XD.T 0703	243,00	012		
C211.16.R.04-07-A/B-25	16	4	6	74,5	25	16	50400	1	XD.T 0703	268,00	016	268,00	216
C211.16.R.03-07-A-32-165	16	3	6	165,0	32	16	17760	1	XD.T 0703	249,20	116		
C211.20.R.05-07-A/B-25	20	5	6	77,0	25	20	44280	1	XD.T 0703	299,00	020	299,00	220
C211.20.R.04-07-A-40-200	20	4	6	200,0	40	20	12600	1	XD.T 0703	280,30	120		
C211.25.R.06-07-A/B20-32	25	6	6	84,0	32	20	39840	1	XD.T 0703	348,80	025	348,80	225
C211.25.R.05-07-A20-50-225	25	5	6	225,0	50	20	11280	1	XD.T 0703	311,50	125		
C211.32.R.08-07-A/B25-40	32	8	6	98,0	40	25	36240	1	XD.T 0703	379,80	032	379,80	232

MaxiMill – Shell mill A 211-07



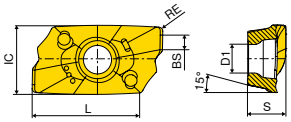


Designation	DC	ZNF	APMX	OAL	DCONMS H6	DHUB	RPMX	torque moment	Insert	2B/40 Article no. 50 753 ...		2B/40 Article no. 50 754 ...	
	mm		mm	mm	mm	mm	1/min.	Nm		EUR		EUR	
A211.32.R.06-07	32	6	6	40	16	38	36240	1	XD.T 0703	317,90	**032**		
A211.32.R.08-07	32	8	6	40	16	38	36240	1	XD.T 0703			355,10	**032**
A211.40.R.08-07	40	8	6	40	16	38	33240	1	XD.T 0703	392,50	**040**		
A211.40.R.10-07	40	10	6	40	16	38	33240	1	XD.T 0703			429,90	**040**
A211.50.R.10-07	50	10	6	40	22	43	30480	1	XD.T 0703	467,20	**050**		
A211.50.R.12-07	50	12	6	40	22	43	30480	1	XD.T 0703			504,50	**050**

Spare parts DC	Y7 TORX® blade Article no. 80 950 ...		Y7 Clamping key – T Article no. 80 397 ...		Y7 Key D Article no. 80 950 ...		2A/28 Power Screw Article no. 70 950 ...		2A/28 Molykote Article no. 70 950 ...		2A/28 Clamping screw Article no. 70 950 ...		Y7 Torque screwdriver Article no. 80 950 ...	
	EUR		EUR		EUR		EUR		EUR		EUR		EUR	
10 - 32	5,26	**051**			10,22	**124**			4,38	**303**	3,18	**137**	118,90	**191**
32	5,26	**051**	3,91	**040**	10,22	**124**	12,48	**151**	4,38	**303**	3,18	**137**	118,90	**191**
40 - 50	5,26	**051**			10,22	**124**			4,38	**303**	3,18	**137**	118,90	**191**

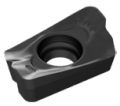
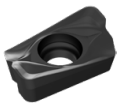
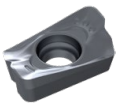
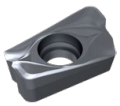
XDKT

Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
XDKT 0703..	4,9	2,5	7,8	1,2	3,18

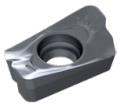
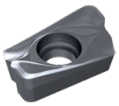
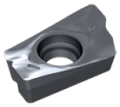
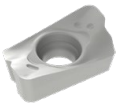


XDKT

XDKT

ISO	RE	-F50 CTCP230	-M50 CTCP230	-F50 CTPP235	-M50 CTPP235
		-F50 DCX1230	-M50 DCX1230	-F50 DPX1235	-M50 DPX1235
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
					
		XDKT	XDKT	XDKT	XDKT
		1B/61	1B/61	1B/61	1B/61
		Article no. 51 033 ...	Article no. 51 036 ...	Article no. 51 033 ...	Article no. 51 036 ...
	mm	EUR	EUR	EUR	EUR
070304SR	0,4	11,56 004	11,56 004	11,56 104	11,56 104
070308SR	0,8	11,56 008	11,56 008	11,56 108	11,56 108
Steel		●	●	●	●
Stainless steel		○	○	○	○
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

XDKT

ISO	RE	-F50 CTPM240	-M50 CTPM240	-F40 CTPM245	-F20 CTWN215	-F40 CTC5240	-F40 CTCS245
		-F50 DPX2240	-M50 DPX2240	-F40 DPX2245	-F20 CWK4615	-F40 HCF5240	
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		DRAGONSKIN	DRAGONSKIN
							
		XDKT	XDKT	XDKT	XDKT	XDKT	XDKT
		1B/61	1B/61	1H/17	1A/90	1H/D4	NEW 1H/D4
		Article no. 51 033 ...	Article no. 51 036 ...	Article no. 51 112 ...	Article no. 50 507 ...	Article no. 50 498 ...	Article no. 51 112 ...
	mm	EUR	EUR	EUR	EUR	EUR	EUR
070304ER	0,4			13,81 454		13,81 544	
070304FR	0,4				13,31 504		
070304SR	0,4	11,56 404	11,56 404				
070308ER	0,8			13,81 458		13,81 548	13,81 558
070308FR	0,8				13,31 508		
070308SR	0,8	11,56 408	11,56 408				
Steel		○	○	●			
Stainless steel		●	●	●			
Cast iron					○		
Non ferrous metals					●		
Heat resistant alloys						●	●
hardened materials							

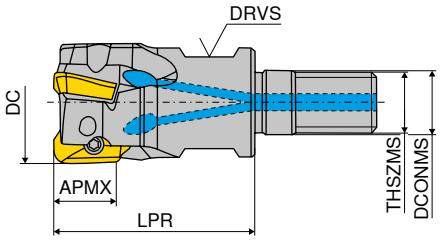
15

Milling guide

Machining strategy	→ 152	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 152
Starting Parameter	→ 152	Correction of the tooth load f_z	→ 157

MaxiMill – Screw in cutter G 211-11

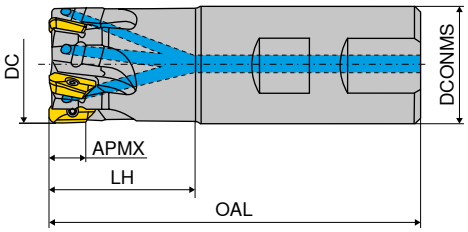
▲ Insert radius > 1,6 mm: Modify cutter body



Designation	DC	ZNF	APMX	LPR	DCONMS	THSZMS	DRVS	RPMX	torque moment	Insert	2B/40 Article no. 50 736 ...	
	mm		mm	mm	mm		mm	1/min.	Nm		EUR	
G211.16.R.02-11	16	2	10	27	8,5	M8	10	42000	1,2	XD.T 11T3	230,50	016
G211.20.R.03-11	20	3	10	33	10,5	M10	15	36900	1,2	XD.T 11T3	261,70	020
G211.25.R.03-11	25	3	10	35	12,5	M12	17	33200	1,2	XD.T 11T3	274,10	12500
G211.25.R.04-11	25	4	10	35	12,5	M12	17	33200	1,2	XD.T 11T3	292,90	025
G211.32.R.04-11	32	4	10	35	17,0	M16	24	30200	1,2	XD.T 11T3	305,30	13200
G211.32.R.05-11	32	5	10	35	17,0	M16	24	30200	1,2	XD.T 11T3	324,10	032
G211.40.R.06-11	40	6	10	35	17,0	M16	27	27700	1,8	XD.T 11T3	355,10	040

MaxiMill – End milling cutter C 211-11

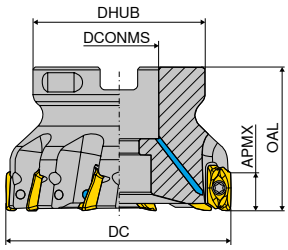
▲ Insert radius > 1,6 mm: Modify cutter body

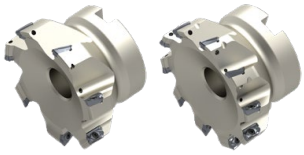


Designation	DC	ZNF	APMX	OAL	LH	DCONMS h6	RPMX	torque moment	Insert	A 2B/40 Article no. 50 737 ...		B 2B/40 Article no. 50 737 ...	
	mm		mm	mm	mm	mm	1/min.	Nm		EUR		EUR	
C211.12.R.01-11-B-20	12	1	10	75	20	16	55000	1,2	XD.T 11T3			205,60	012
C211.16.R.02-11-A/B-25	16	2	10	75	25	16	42000	1,2	XD.T 11T3	230,50	116	230,50	016
C211.16.R.02-11-A15-32-165	16	2	10	165	32	15	14800	1,2	XD.T 11T3	230,50	316		
C211.16.R.02-11-A-32-165	16	2	10	165	32	16	14800	1,2	XD.T 11T3	230,50	216		
C211.20.R.03-11-A-25	20	3	10	77	25	20	36900	1,2	XD.T 11T3	261,70	120		
C211.20.R.02-11-B-25	20	2	10	77	25	20	36900	1,2	XD.T 11T3			243,00	02002
C211.20.R.02-11-A-25	20	2	10	77	25	20	36900	1,2	XD.T 11T3	243,00	12002		
C211.20.R.03-11-B-25	20	3	10	77	25	20	36900	1,2	XD.T 11T3			261,70	020
C211.20.R.03-11-A-32-165	20	3	10	165	32	20	15800	1,2	XD.T 11T3	261,70	320		
C211.20.R.02-11-A-40-200	20	2	10	200	40	20	10500	1,2	XD.T 11T3	243,00	420		
C211.20.R.02-11-A19-40-200	20	2	10	200	40	19	10500	1,2	XD.T 11T3	243,00	620		
C211.25.R.03-11-A/B-32	25	3	10	90	32	25	33200	1,2	XD.T 11T3	274,20	625	274,20	725
C211.25.R.04-11-A/B-32	25	4	10	90	32	25	33200	1,2	XD.T 11T3	292,90	125	292,90	025
C211.25.R.04-11-A-40-165	25	4	10	165	40	25	19900	1,2	XD.T 11T3	292,90	325		
C211.25.R.03-11-A-50-225	25	3	10	225	50	25	9400	1,2	XD.T 11T3	274,20	425		
C211.25.R.02-11-A-50-225	25	2	10	225	50	25	9400	1,2	XD.T 11T3	255,60	02502		
C211.25.R.03-11-A24-50-225	25	3	10	225	50	24	9400	1,2	XD.T 11T3	274,20	825		
C211.32.R.04-11-A-40	32	4	10	102	40	32	30200	1,2	XD.T 11T3	305,30	13204		
C211.32.R.05-11-B5-40	32	5	10	102	40	25	30200	1,2	XD.T 11T3			324,10	73200
C211.32.R.04-11-B-25	32	4	10	102	40	32	30200	1,2	XD.T 11T3			305,30	83200
C211.32.R.04-11-A25-40	32	4	10	102	40	25	30200	1,2	XD.T 11T3	305,30	53204		
C211.32.R.05-11-A/B-40	32	5	10	102	40	32	30200	1,2	XD.T 11T3	324,10	132	324,10	032
C211.32.R.05-11-A-50-165	32	5	10	165	50	32	20900	1,2	XD.T 11T3	324,10	332		
C211.32.R.04-11-A-64-250	32	4	10	250	64	32	8500	1,2	XD.T 11T3	305,30	432		
C211.40.R.06-11-B32-50	40	6	10	110	50	32	27700	1,8	XD.T 11T3			355,10	04000
C211.40.R.06-11-B-50	40	6	10	122	50	40	27700	1,8	XD.T 11T3			355,10	14000

MaxiMill – Shell mill A 211-11

▲ Insert radius > 1,6 mm: Modify cutter body



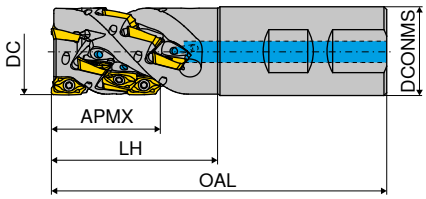


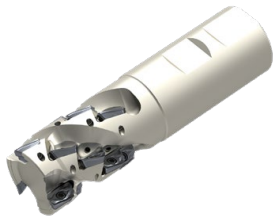
Designation	DC	ZNF	APMX	OAL	DCONMS H6	DHUB	RPMX	torque moment	Insert	2B/40 Article no. 50 738 ...		2B/40 Article no. 50 739 ...	
	mm		mm	mm	mm	mm	1/min.	Nm		EUR		EUR	
A211.40.R.04-11	40	4	10	40	16	38	27700	1,8	XD.T 11T3	317,90	**040**		
A211.40.R.06-11	40	6	10	40	16	38	27700	1,8	XD.T 11T3			355,10	**040**
A211.50.R.05-11	50	5	10	40	22	43	25400	1,8	XD.T 11T3	373,80	**050**		
A211.50.R.08-11	50	8	10	40	22	43	25400	1,8	XD.T 11T3			430,00	**050**
A211.63.R.06-11	63	6	10	40	22	48	23300	1,8	XD.T 11T3	430,00	**063**		
A211.63.R.10-11	63	10	10	40	22	48	23300	1,8	XD.T 11T3			504,70	**063**
A211.80.R.07-11	80	7	10	50	27	58	21300	1,8	XD.T 11T3	486,10	**080**		
A211.80.R.10-11	80	10	10	50	27	58	21300	1,8	XD.T 11T3			542,10	**180**
A211.100.R.08-11	100	8	10	50	32	78	19600	1,8	XD.T 11T3	542,10	**10000**		
A211.125.R.10-11	125	10	10	63	40	88	17900	1,8	XD.T 11T3	591,90	**12500**		

Spare parts DC	Y7 TORX® blade Article no. 80 950 ...		Y7 Clamping key – T Article no. 80 397 ...		Y7 Key D Article no. 80 950 ...		2A/28 Power Screw Article no. 70 950 ...		2A/28 Molykote Article no. 70 950 ...		2A/28 Clamping screw Article no. 70 950 ...		Y7 Torque screwdriver Article no. 80 950 ...	
	EUR		EUR		EUR		EUR		EUR		EUR		EUR	
12	4,76	**043**			10,20	**125**			4,38	**303**	2,57	**116**	118,90	**191**
16 - 32	4,76	**043**			10,20	**125**			4,38	**303**	4,09	**128**	118,90	**191**
40	4,76	**043**	3,91	**040**	10,20	**125**	12,48	**151**	4,38	**303**	4,09	**131**	118,90	**191**
50	4,76	**043**	4,24	**050**	10,20	**125**	17,14	**154**	4,38	**303**	4,09	**131**	118,90	**191**
63 - 125	4,76	**043**			10,20	**125**			4,38	**303**	4,09	**131**	118,90	**191**

MaxiMill – Extended flute cutter C 211-11K

▲ ZEFP = Number of inserts
▲ ZNP = Number of teeth





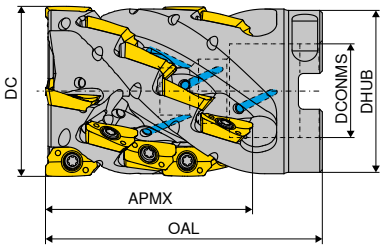
B

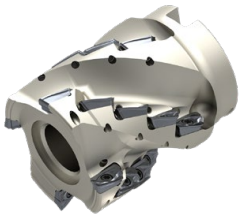
Designation	DC mm	ZNF	APMX mm	OAL mm	LH mm	DCONMS mm	ZEFP	ZNP	torque moment Nm	Insert	2B/40 Article no. 50 758 ... EUR	
C211.25.R.02K3-11-B-40	25	2	27,0	97	40	25	6	3	1,2	XD.T 11T3	635,30	025
C211.25.R.02K4-11-B-50	25	2	37,0	107	50	25	8	4	1,2	XD.T 11T3	672,60	125
C211.25.R.02K5-11-B-60	25	2	45,5	117	60	25	10	5	1,2	XD.T 11T3	717,40	225 1)
C211.32.R.02K4-11-B-50	32	2	37,0	111	50	32	8	4	1,2	XD.T 11T3	696,80	032
C211.32.R.03K5-11-B-60	32	3	45,5	121	60	32	15	5	1,2	XD.T 11T3	840,70	132
C211.40.R.03K4-11-B32-50	40	3	37,0	110	50	32	12	4	1,8	XD.T 11T3	799,60	040
C211.40.R.04K5-11-B32-60	40	4	45,5	120	60	32	20	5	1,8	XD.T 11T3	964,00	140

1) only for profile milling

MaxiMill – Extended flute cutter A 211-11K

▲ ZEFP = Number of inserts
▲ ZNP = Number of teeth





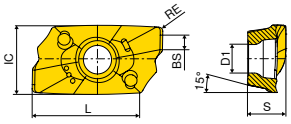
Designation	DC mm	ZNF	APMX mm	ZEFP	ZNP	OAL mm	DCONMS H6 mm	DHUB mm	torque moment Nm	Insert	2B/40 Article no. 50 757 ... EUR	
A211.40.R.03K4-11	40	3	37,0	12	4	56	16	38	1,8	XD.T 11T3	799,60	040
A211.40.R.04K4-11	40	4	37,0	16	4	55	16	38	1,8	XD.T 11T3	874,20	140
A211.40.R.04K5-11	40	4	45,5	20	5	65	16	38	1,8	XD.T 11T3	964,00	240 1)
A211.50.R.04K5-11	50	4	45,5	20	5	65	22	43	1,8	XD.T 11T3	1.054,00	150
A211.50.R.05K5-11	50	5	45,5	25	5	65	22	43	1,8	XD.T 11T3	1.148,00	050
A211.50.R.05K6-11	50	5	54,5	30	6	74	22	43	1,8	XD.T 11T3	1.258,00	250 1)

1) only for profile milling

Spare parts	2A/28 Cylindrical screw Article no. 70 950 ... EUR		Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		2A/28 Socket head screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
25 (50758...)			4,76	043	10,20	125	4,38	303	4,09	128			118,90	191
32 - 40 (50758...)			4,76	043	10,20	125	4,38	303	4,09	131			118,90	191
40 (50757...)	9,36	001	4,76	043	10,20	125	4,38	303	4,09	131	3,14	179	118,90	191
50 (50757...)	11,50	002	4,76	043	10,20	125	4,38	303	4,09	131	5,44	180	118,90	191

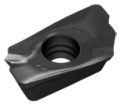
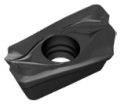
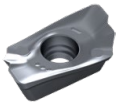
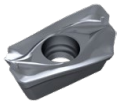
XDKT

Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
XDKT 11T302..	6,8	2,8	10,6	2	3,80
XDKT 11T304..	6,8	2,8	10,6	1,8	3,80
XDKT 11T308..	6,8	2,8	10,6	1,4	3,80
XDKT 11T312..	6,8	2,8	10,6	1,4	3,80
XDKT 11T316..	6,8	2,8	10,6	1,4	3,80
XDKT 11T320..	6,8	2,8	10,6	1,4	3,80
XDKT 11T325..	6,8	2,8	10,6	1,4	3,80
XDKT 11T332..	6,8	2,8	10,6	-	3,80
XDKT 11T332..	6,8	2,8	10,6	1,4	3,80
XDKT 11T332..	6,8	2,8	10,6	0,8	3,80
XDKT 11T340..	6,8	2,8	10,6	-	3,80



XDKT

XDKT

ISO	RE	-F50 CTCP220	-M50 CTCP220	-F50 CTPP225	-M50 CTPP225
		-F50 DCX1220	-M50 DCX1220	-F50 DPX1225	-M50 DPX1225
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
					
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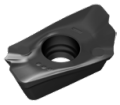
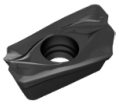
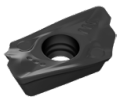
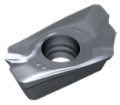
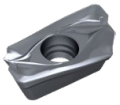
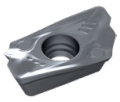
		Article no. 51 034 ...	Article no. 51 037 ...	Article no. 51 034 ...	Article no. 51 037 ...
	mm	EUR	EUR	EUR	EUR
11T308SR	0,8	14,06 258	14,06 258	14,06 058	14,06 058
Steel		●	●	●	●
Stainless steel					
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

XDKT

ISO	RE	-F50 CTCP230	-M50 CTCP230	-R50 CTCP230	-F50 CTPP235	-M50 CTPP235	-R50 CTPP235
		-F50 DCX1230	-M50 DCX1230	-R50 DCX1230	-F50 DPX1235	-M50 DPX1235	-R50 DPX1235
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
							
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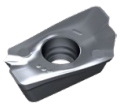
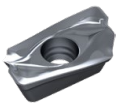
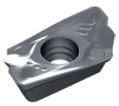
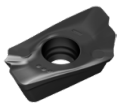
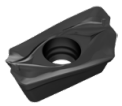
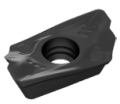
	mm	EUR	EUR	EUR	EUR	EUR	EUR
11T304SR	0,4	14,06 004	14,06 004	14,06 004	14,06 104	14,06 104	14,06 104
11T308SR	0,8	14,06 008	14,06 008	14,06 008	14,06 108	14,06 108	14,06 108
11T312SR	1,2		14,06 012			14,06 112	
11T320SR	2,0	14,06 020 1)	14,06 020 1)	14,06 020 1)	14,06 120 1)	14,06 120 1)	14,06 120 1)
11T325SR	2,5	14,06 025 1)	14,06 025 1)	14,06 025 1)	14,06 125 1)	14,06 125 1)	14,06 125 1)
11T332SR	3,2				14,06 13200		
11T340SR	4,0				14,06 14000		
Steel		●	●	●	●	●	●
Stainless steel		○	○	○	○	○	○
Cast iron							
Non ferrous metals							
Heat resistant alloys							
hardened materials							

1) Insert radius > 1.6 mm: Modify cutter body

15

XDKT

		-F50 CTPM225	-M50 CTPM225	-R50 CTPM225	-F50 CTCM235	-M50 CTCM235	-R50 CTCM235
		-F50 DPX2225	-M50 DPX2225	-R50 DPX2225	-F50 DCX2235	-M50 DCX2235	-R50 DCX2235
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
							
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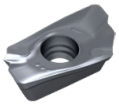
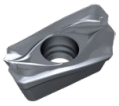
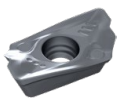
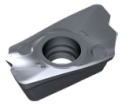
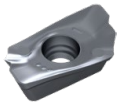
		1B/61	1B/61	1B/61	1B/61	1B/61	1B/61
ISO	RE	Article no. 51 034 ...	Article no. 51 037 ...	Article no. 51 039 ...	Article no. 51 034 ...	Article no. 51 037 ...	Article no. 51 039 ...
	mm	EUR	EUR	EUR	EUR	EUR	EUR
11T308SR	0,8	14,06 208	14,06 208	14,06 208	14,06 308	14,06 308	14,06 308
Steel		○	○	○	○	○	○
Stainless steel		●	●	●	●	●	●
Cast iron							
Non ferrous metals							
Heat resistant alloys							
hardened materials							

XDKT

		-F50 CTPM240	-M50 CTPM240	-R50 CTPM240	-F40 CTPM245	-F50 CTPM245
		-F50 DPX2240	-M50 DPX2240	-R50 DPX2240	-F40 DPX2245	-F50 DPX2245
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
						
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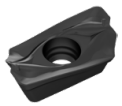
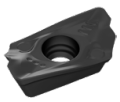
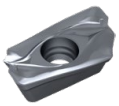
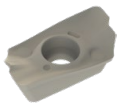
		1B/61	1B/61	1B/61	1H/17	1H/17
ISO	RE	Article no. 51 034 ...	Article no. 51 037 ...	Article no. 51 039 ...	Article no. 51 113 ...	Article no. 51 034 ...
	mm	EUR	EUR	EUR	EUR	EUR
11T304ER	0,4				18,09 454	
11T304SR	0,4		14,06 404			
11T308ER	0,8				18,09 458	
11T308SR	0,8	14,06 408	14,06 408	14,06 408		18,09 458
11T312ER	1,2				18,09 462	
11T312SR	1,2	14,06 412	14,06 412	14,06 412		
11T316ER	1,6				18,09 466	
11T320ER	2,0				18,09 470 1)	
11T320SR	2,0	14,06 420 1)	14,06 420 1)	14,06 420 1)		
11T325ER	2,5				18,09 475 1)	
11T332ER	3,2				18,09 482 1)	
11T332SR	3,2	14,06 432 1)	14,06 432 1)	14,06 432 1)		
11T340ER	4,0				18,09 490 1)	
Steel		○	○	○	●	●
Stainless steel		●	●	●	●	●
Cast iron						
Non ferrous metals						
Heat resistant alloys						
hardened materials						

1) Insert radius > 1.6 mm: Modify cutter body

XDKT

		-M50 CTCK215	-R50 CTCK215	-M50 CTPK220	-F20 CTWN215	-F40 CTC5240	-F40 CTCS245	-R60 CTP6215
		-M50 DCX3215	-R50 DCX3215	-M50 DPX3220	-F20 CWK4615	-F40 HCF5240		-R60 CCN6215
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		DRAGONSKIN	DRAGONSKIN	
								
		XDKT	XDKT	XDKT	XDKT	XDKT	XDKT	XDKT
		1B/61	1B/61	1B/61	1A/90	1H/D4	NEW 1H/D4	1B/61
ISO	RE	Article no. 51 037 ...	Article no. 51 039 ...	Article no. 51 037 ...	Article no. 50 478 ...	Article no. 50 463 ...	Article no. 51 113 ...	Article no. 50 464 ...
	mm	EUR	EUR	EUR	EUR	EUR	EUR	EUR
11T302FR	0,2				17,67 502			
11T304ER	0,4					18,09 504		
11T304FR	0,4				17,67 504			
11T304SR	0,4	14,06 504						
11T308ER	0,8					18,09 500	18,09 558	
11T308FR	0,8				17,67 508			
11T308SR	0,8	14,06 508	14,06 508	14,06 608				18,17 300
11T312ER	1,2					18,09 512	18,09 562	
11T316ER	1,6					18,09 516	18,09 566	
11T320ER	2,0					18,09 520 1)	18,09 570	
11T320FR	2,0				17,67 520 1)			
11T325ER	2,5					18,09 525 1)	18,09 57500 1)	
11T325FR	2,5				17,67 525 1)			
11T332ER	3,2					18,09 532 1)	18,09 582	
11T340ER	4,0					18,09 540 1)	18,09 59000 1)	

Steel	○	○	○					
Stainless steel								
Cast iron	●	●	●	○				●
Non ferrous metals				●				
Heat resistant alloys					●	●		
hardened materials								●

1) Insert radius > 1.6 mm: Modify cutter body

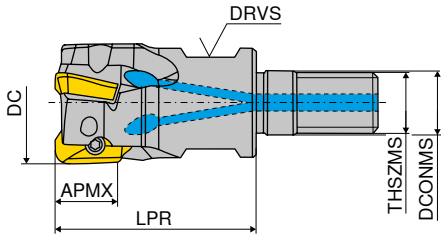
Milling guide

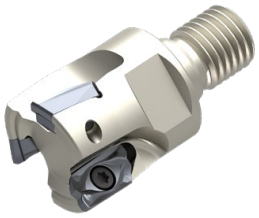
Machining strategy	→ 153	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 153
Starting Parameter	→ 155	Correction of the tooth load f_z	→ 157

15

MaxiMill – Screw in cutter G 211-15

▲ Insert radius > 2,5 mm: Modify cutter body

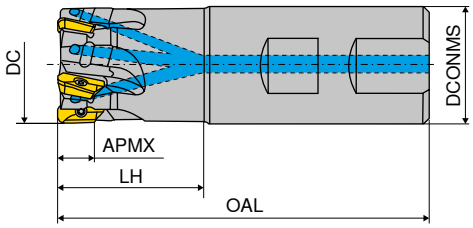




Designation	DC mm	ZNF	APMX mm	LPR mm	DCONMS mm	THSZMS	DRVS mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 746 ... EUR	
G211.25.R.02-15	25	2	14	35	12,5	M12	17	26560	3,2	XD.T 1505	264,70	025
G211.32.R.03-15	32	3	14	35	17,0	M16	24	30200	3,2	XD.T 1505	294,70	032
G211.40.R.04-15	40	4	14	40	17,0	M16	27	27700	3,2	XD.T 1505	325,00	040

MaxiMill – End milling cutter C 211-15

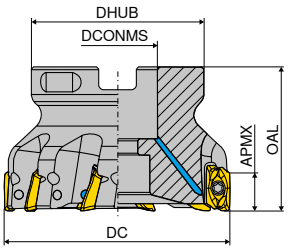
▲ Insert radius > 2,5 mm: Modify cutter body

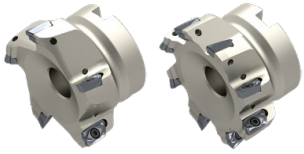


Designation	DC mm	ZNF	APMX mm	OAL mm	LH mm	DCONMS mm	RPMX 1/min.	torque moment Nm	Insert	A 2B/40 Article no. 50 747 ... EUR		B 2B/40 Article no. 50 747 ... EUR	
C211.25.R.02-15-B20-32	25	2	14	83	32	20	26560	3,2	XD.T 1505			264,70	125
C211.25.R.02-15-B/A-32	25	2	14	90	32	25	26560	3,2	XD.T 1505	264,70	225	264,70	025
C211.25.R.02-15-A-50-225	25	2	14	225	50	25	7520	3,2	XD.T 1505	246,70	325		
C211.32.R.03-15-B25-40	32	3	14	96	40	25	22160	3,2	XD.T 1505			294,70	132
C211.32.R.03-15-A-40	32	3	14	103	40	32	24160	3,2	XD.T 1505	294,70	232		
C211.32.R.03-15-B-40	32	3	14	103	40	32	24160	3,2	XD.T 1505			294,70	032
C211.32.R.03-15-A-63-250	32	3	14	250	63	32	6800	3,2	XD.T 1505	276,80	332		
C211.40.R.04-15-A-50	40	4	14	110	50	32	22160	3,2	XD.T 1505	325,00	240		
C211.40.R.04-15-B32-50	40	4	14	110	50	32	22160	3,2	XD.T 1505			325,00	040
C211.40.R.03-15-A-50-275	40	3	14	275	50	32	6120	3,2	XD.T 1505	306,70	340		

MaxiMill – Shell mill A 211-15

▲ Insert radius > 2,5 mm: Modify cutter body



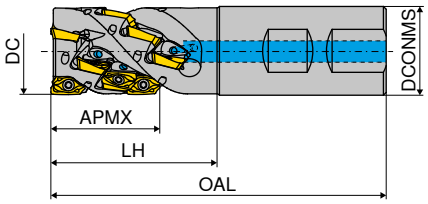


Designation	DC	ZNF	APMX	OAL	DCONMS H6	DHUB	RPMX	torque moment	Insert	2B/40 Article no. 50 748 ...		2B/40 Article no. 50 749 ...	
	mm		mm	mm	mm	mm	1/min.	Nm		EUR		EUR	
A211.40.R.03-15	40	3	14	40	16	38	22160	3,2	XD.T 1505	288,80	**040**		
A211.40.R.04-15	40	4	14	40	16	38	22160	3,2	XD.T 1505			325,00	**040**
A211.50.R.03-15	50	3	14	40	22	43	20320	3,2	XD.T 1505	342,90	**050**		
A211.50.R.05-15	50	5	14	40	22	43	20320	3,2	XD.T 1505			379,00	**050**
A211.63.R.04-15	63	4	14	45	22	48	18640	3,2	XD.T 1505	415,00	**063**		
A211.63.R.06-15	63	6	14	45	22	48	18640	3,2	XD.T 1505			451,50	**063**
A211.80.R.05-15	80	5	14	50	27	58	17040	3,2	XD.T 1505	469,20	**080**		
A211.80.R.08-15	80	8	14	50	27	58	17040	3,2	XD.T 1505			505,20	**080**
A211.100.R.06-15	100	6	14	50	32	78	15680	3,2	XD.T 1505	523,50	**100**		
A211.100.R.10-15	100	10	14	50	32	78	15680	3,2	XD.T 1505			559,50	**100**
A211.125.R.07-15	125	7	14	63	40	88	14320	3,2	XD.T 1505	553,40	**125**		
A211.125.R.11-15	125	11	14	63	40	88	14320	3,2	XD.T 1505			589,50	**125**
A211.160.R.08-15	160	8	14	63	40	93	13200	3,2	XD.T 1505	775,30	**160**		
A211.160.R.12-15	160	12	14	63	40	93	13200	3,2	XD.T 1505			811,40	**160**

Spare parts DC	Y7 TORX® blade Article no. 80 950 ...		Y7 Clamping key – T Article no. 80 397 ...		Y7 Key D Article no. 80 950 ...		2A/28 Power Screw Article no. 70 950 ...		2A/28 Molykote Article no. 70 950 ...		2A/28 Clamping screw Article no. 70 950 ...		Y7 Torque screwdriver Article no. 80 950 ...	
	EUR		EUR		EUR		EUR		EUR		EUR		EUR	
25 - 32	5,26	**054**			11,89	**128**			4,38	**303**	3,18	**839**	131,90	**193**
40	5,26	**054**	3,91	**040**	11,89	**128**	12,48	**151**	4,38	**303**	3,18	**839**	131,90	**193**
50	5,26	**054**	4,24	**050**	11,89	**128**	17,14	**154**	4,38	**303**	3,18	**839**	131,90	**193**
63 - 160	5,26	**054**			11,89	**128**			4,38	**303**	3,18	**839**	131,90	**193**

MaxiMill – Extended flute cutter C 211-15K

▲ ZEFP = Number of Inserts
▲ ZNP = Number of rows



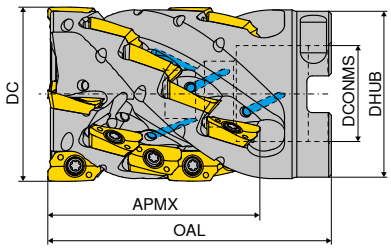
B

Designation	DC mm	ZNF	APMX mm	OAL mm	LH mm	DCONMS mm	ZEFP	ZNP	torque moment Nm	Insert	NEW 2B/40 Article no. 50 782 ... EUR	
C211.40.R.02K3-15-B32-60	40	2	38,0	120	60	32	6	3	3,2	XD.T 1505	773,60	04002
C211.50.R.03K4-15-B40-64	50	3	50,5	134	64	40	12	4	3,2	XD.T 1505	904,40	05003

Spare parts DC	Y7 Key D Article no. 80 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR	
40 - 50	9,15	120	3,18	839

MaxiMill – Extended flute cutter A 211-15K

▲ ZEFP = Number of Inserts
▲ ZNP = Number of rows

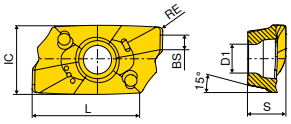


Designation	DC mm	ZNF	APMX mm	ZEFP	ZNP	OAL mm	DCONMS H6 mm	DHUB mm	torque moment Nm	Insert	2B/40 Article no. 50 759 ... EUR	
A211.50.R.03K4-15	50	3	50,5	12	4	74	22	43	3,2	XD.T 1505	904,40	050
A211.50.R.03K5-15	50	3	63,0	15	5	88	22	43	3,2	XD.T 1505	960,40	150
A211.63.R.03K4-15	63	3	50,5	12	4	74	27	58	3,2	XD.T 1505	986,00	063
A211.63.R.04K6-15	63	4	75,5	24	6	102	27	58	3,2	XD.T 1505	1.210,00	163
A211.80.R.04K5-15	80	4	63,0	20	5	88	32	78	3,2	XD.T 1505	1.216,00	080
A211.80.R.05K6-15	80	5	75,5	30	6	102	32	78	3,2	XD.T 1505	1.404,00	180

Spare parts DC	2A/28 Cylindrical screw Article no. 70 950 ... EUR		Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		2A/28 Socket head screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
50	11,50	002	5,26	054	11,89	128	4,38	303	3,18	839	5,44	180	131,90	193
63	15,95	003	5,26	054	11,89	128	4,38	303	3,18	839	8,45	181	131,90	193
80	25,73	004	5,26	054	11,89	128	4,38	303	3,18	839	11,50	234	131,90	193

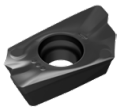
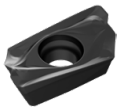
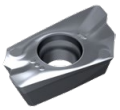
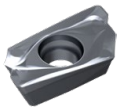
XDKT

Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
XDKT 150508..	9,3	4,4	14,8	1,6	5,56
XDKT 150512..	9,3	4,4	14,8	1,6	5,56
XDKT 150516..	9,3	4,4	14,8	1,6	5,56
XDKT 150520..	9,3	4,4	14,8	1,6	5,56
XDKT 150530..	9,3	4,4	14,8	1,6	5,56
XDKT 150532..	9,3	4,4	14,8	1,9	5,56
XDKT 150540..	9,3	4,4	14,8	1,2	5,56

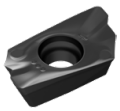
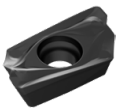
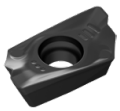
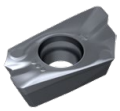
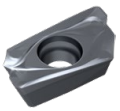
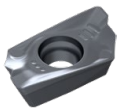


XDKT

XDKT

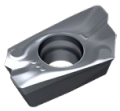
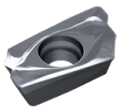
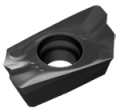
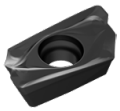
ISO	RE	-F50 CTCP220	-M50 CTCP220	-F50 CTPP225	-M50 CTPP225
		-F50 DCX1220	-M50 DCX1220	-F50 DPX1225	-M50 DPX1225
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
					
		XDKT 1B/61	XDKT 1B/61	XDKT 1B/61	XDKT 1B/61
		Article no. 51 035 ...	Article no. 51 038 ...	Article no. 51 035 ...	Article no. 51 038 ...
	mm	EUR	EUR	EUR	EUR
150508SR	0,8	18,75 258	18,75 258	18,75 058	18,75 058
Steel		●	●	●	●
Stainless steel					
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

XDKT

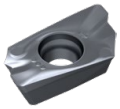
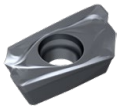
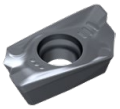
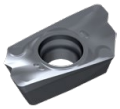
ISO	RE	-F50 CTCP230	-M50 CTCP230	-R50 CTCP230	-F50 CTPP235	-M50 CTPP235	-R50 CTPP235
		-F50 DCX1230	-M50 DCX1230	-R50 DCX1230	-F50 DPX1235	-M50 DPX1235	-R50 DPX1235
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
							
		XDKT 1B/61	XDKT 1B/61	XDKT 1B/61	XDKT 1B/61	XDKT 1B/61	XDKT 1B/61
		Article no. 51 035 ...	Article no. 51 038 ...	Article no. 51 040 ...	Article no. 51 035 ...	Article no. 51 038 ...	Article no. 51 040 ...
	mm	EUR	EUR	EUR	EUR	EUR	EUR
150508SR	0,8	18,75 008	18,75 008	18,75 008	18,75 108	18,75 108	18,75 108
150512SR	1,2		18,75 012			18,75 112	
150516SR	1,6		18,75 016			18,75 116	
150520SR	2,0			18,75 020		18,75 120	18,75 120
150530SR	3,0		18,75 030			18,75 130	
150540SR	4,0		18,75 040			18,75 140	
Steel		●	●	●	●	●	●
Stainless steel		○	○	○	○	○	○
Cast iron							
Non ferrous metals							
Heat resistant alloys							
hardened materials							

15

XDKT

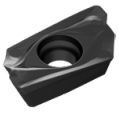
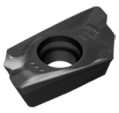
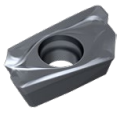
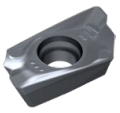
		-F50 CTPM225	-M50 CTPM225	-F50 CTCM235	-M50 CTCM235
		-F50 DPX2225	-M50 DPX2225	-F50 DCX2235	-M50 DCX2235
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
					
		XDKT	XDKT	XDKT	XDKT
		1B/61	1B/61	1B/61	1B/61
ISO	RE	Article no. 51 035 ...	Article no. 51 038 ...	Article no. 51 035 ...	Article no. 51 038 ...
	mm	EUR	EUR	EUR	EUR
150508SR	0,8	18,75 208	18,75 208	18,75 308	18,75 308
Steel		○	○	○	○
Stainless steel		●	●	●	●
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

XDKT

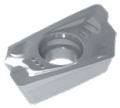
		-F50 CTPM240	-M50 CTPM240	-R50 CTPM240	-F40 CTPM245
		-F50 DPX2240	-M50 DPX2240	-R50 DPX2240	-F40 DPX2245
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
					
		XDKT	XDKT	XDKT	XDKT
		1B/61	1B/61	1B/61	1H/17
ISO	RE	Article no. 51 035 ...	Article no. 51 038 ...	Article no. 51 040 ...	Article no. 51 114 ...
	mm	EUR	EUR	EUR	EUR
150508ER	0,8				22,57 458
150508SR	0,8	18,75 408	18,75 408	18,75 408	
150512SR	1,2		18,75 412		
150516SR	1,6		18,75 416		
150530SR	3,0		18,75 430		
150532ER	3,2				22,57 482 1)
150540ER	4,0				22,57 490 1)
150540SR	4,0		18,75 440		
Steel		○	○	○	●
Stainless steel		●	●	●	●
Cast iron					
Non ferrous metals					
Heat resistant alloys					
hardened materials					

1) Insert radius >1.6 mm: Modify cutter body

XDKT

ISO	RE mm	-M50 CTCK215		-R50 CTCK215		-M50 CTPK220		-R50 CTPK220		-F20 CTWN215	
		-M50 DCX3215		-R50 DCX3215		-M50 DPX3220		-R50 DPX3220		-F20 CWK4615	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN			
											
		XDKT 1B/61		XDKT 1B/61		XDKT 1B/61		XDKT 1B/61		XDKT 1A/90	
		Article no. 51 038 ...		Article no. 51 040 ...		Article no. 51 038 ...		Article no. 51 040 ...		Article no. 50 479 ...	
		EUR		EUR		EUR		EUR		EUR	
150508FR	0,8									22,16	508
150508SR	0,8	18,75	508	18,75	508	18,75	608	18,75	608		
Steel			○		○		○		○		
Stainless steel											
Cast iron			●		●		●		●		○
Non ferrous metals											●
Heat resistant alloys											
hardened materials											

XDKT

ISO	RE mm	-F40 CTC5240		-F40 CTCS245		-R60 CTP6215	
		-F40 HCF5240				-R60 CCN6215	
		DRAGONSKIN		DRAGONSKIN			
							
		XDKT 1H/D4		NEW XDKT 1H/D4		XDKT 1B/61	
		Article no. 50 473 ...		Article no. 51 114 ...		Article no. 50 469 ...	
		EUR		EUR		EUR	
150508ER	0,8	22,57	508	22,57	558		
150508SR	0,8					18,75	300
150532ER	3,2	22,57	532 [1]				
150540ER	4,0	22,57	540 [1]	22,57	59000 [1]		
Steel							
Stainless steel							
Cast iron							●
Non ferrous metals							
Heat resistant alloys			●		●		
hardened materials							●

1) Insert radius >2.5 mm: Modify cutter body

Milling guide

Machining strategy	→ 154	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 154
Starting Parameter	→ 155	Correction of the tooth load f_z	→ 157

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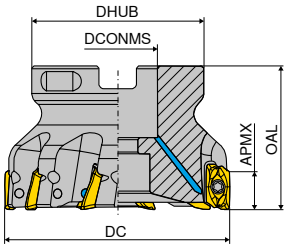
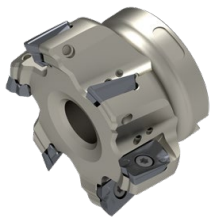
MaxiMill – Shell mill A 211-20

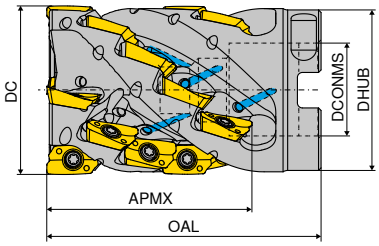




Designation	DC mm	ZNF	APMX mm	OAL mm	DCONMS H6 mm	DHUB mm	RPMX 1/min.	torque moment Nm	Insert	NEW 2B/40 Article no. 50 778 ... EUR	
A211.63.R.05-20	63	5	19	45	22	48	14400	5	XD.. 2007..	434,10	06305
A211.80.R.06-20	80	6	19	50	27	58	12400	5	XD.. 2007..	464,30	08006
A211.100.R.07-20	100	7	19	50	32	78	10900	5	XD.. 2007..	498,20	10007

MaxiMill – Extended flute cutter A 211-20K

▲ ZEFP = Number of Inserts
▲ ZNP = Number of rows

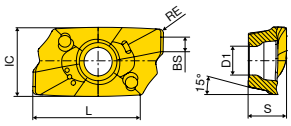


Designation	DC mm	ZNF	APMX mm	ZEFP	ZNP	OAL mm	DCONMS H6 mm	DHUB mm	torque moment Nm	Insert	NEW 2B/40 Article no. 50 780 ... EUR	
A211.63.R.04K4-20	63	4	68	16	4	92	27	58	3,2	XD.. 2007..	961,40	06304
A211.80.R.05K4-20	80	5	68	20	4	92	32	76	3,2	XD.. 2007..	1.078,00	08005

Spare parts DC	2A/28 Cylindrical screw Article no. 70 950 ... EUR		Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A Clamping screw Article no. 70 950 ... EUR		2A/28 Socket head screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
63	15,95	003	4,76	037	7,52	106	4,38	303	2,52	280	8,45	181	131,90	193
80	25,73	004	4,76	037	7,52	106	4,38	303	2,52	280	11,50	234	131,90	193
100			4,76	037	7,52	106	4,38	303	2,52	280			131,90	193

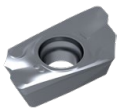
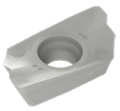
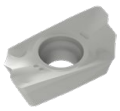
XDKT

Designation	IC	D1	L	S
	mm	mm	mm	mm
XDKT 200708..	12,5	5,5	18,8	6,93
XDKT 200732..	12,5	5,5	18,8	6,82



XDKT

XDKT

ISO	RE	-F40 CTPM245		-F40 CTC5240		-F40 CTCS245	
				DRAGONSKIN		DRAGONSKIN	
							
		XDKT		XDKT		XDKT	
		NEW 1H/17		NEW 1H/D4		NEW 1H/D4	
		Article no. 51 127 ...		Article no. 51 127 ...		Article no. 51 127 ...	
	mm	EUR		EUR		EUR	
200708ER	0,8	26,69	**45800**	26,69	**15800**	26,69	**55800**
200732ER	3,2			26,69	**18200**		

Steel	●		
Stainless steel	●		
Cast iron			
Non ferrous metals			
Heat resistant alloys		●	●
hardened materials			

Milling guide

Machining strategy	→ 156	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 156
Starting Parameter	→ 156	Correction of the tooth load f_z	→ 157

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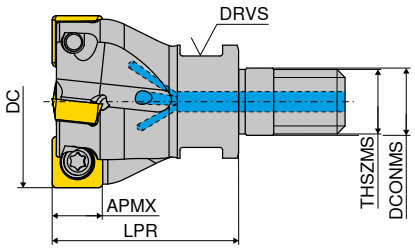
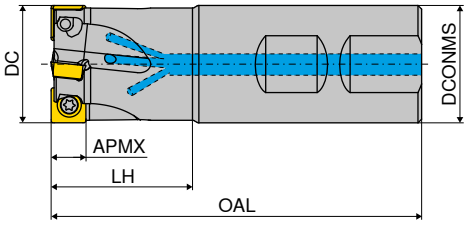
MaxiMill – Screw in cutter G 490-09



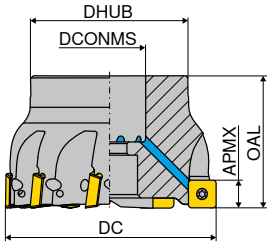
Designation	DC mm	ZNF	APMX mm	LPR mm	THSZMS	DCONMS mm	DRVS mm	torque moment Nm	Insert	2B/40 Article no. 50 726 ... EUR	
G490.25.R.03-09	25	3	8	35	M12	12,5	17	3,2	SD.. 09T3..	304,20	025
G490.32.R.04-09	32	4	8	35	M16	17,0	24	3,2	SD.. 09T3..	329,90	032

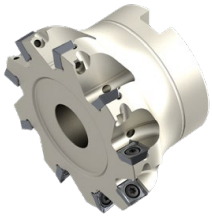
MaxiMill – End milling cutter C 490-09



Designation	DC mm	ZNF	APMX mm	DCONMS mm	OAL mm	LH mm	torque moment Nm	Insert	A 2B/40 Article no. 50 727 ... EUR		B 2B/40 Article no. 50 727 ... EUR	
C490.25.R.03-09-B-32	25	3	8	25	88	32	3,2	SD.. 09T3..			304,20	025
C490.25.R.02-09-A-20	25	2	8	20	165	40	3,2	SD.. 09T3..	280,50	225		
C490.25.R.02-09-A-40-165	25	2	8	25	165	40	3,2	SD.. 09T3..	291,00	125		
C490.32.R.04-09-B-25	32	4	8	25	100	40	3,2	SD.. 09T3..			317,90	132
C490.32.R.04-09-B-40	32	4	8	32	100	40	3,2	SD.. 09T3..			329,90	032

MaxiMill – Shell mill A 490-09

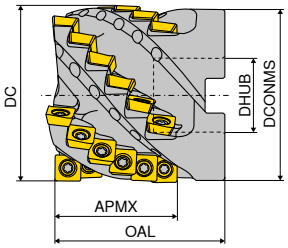


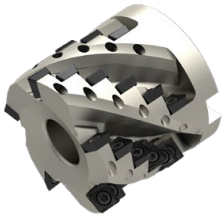


Designation	DC mm	ZNF	APMX mm	DHUB mm	DCONMS H6 mm	OAL mm	torque moment Nm	Insert	2B/40 Article no. 50 728 ... EUR	
A490.40.R.05-09	40	5	8	38	16	40	3,2	SD.. 09T3..	368,80	040
A490.42.R.06-09	42	6	8	38	16	40	3,2	SD.. 09T3..	394,50	042
A490.50.R.06-09	50	6	8	43	22	40	3,2	SD.. 09T3..	407,50	050
A490.52.R.07-09	52	7	8	43	22	40	3,2	SD.. 09T3..	433,30	052
A490.63.R.07-09	63	7	8	48	22	40	3,2	SD.. 09T3..	446,30	063
A490.66.R.08-09	66	8	8	48	22	40	3,2	SD.. 09T3..	472,10	066
A490.80.R.09-09	80	9	8	58	27	50	3,2	SD.. 09T3..	627,40	080
A490.100.R.10-09	100	10	8	78	32	50	3,2	SD.. 09T3..	685,60	100
A490.160.R.14-09	160	14	8	88	40	62	3,2	SD.. 09T3..	1.013,00	160

MaxiMill – Extended flute cutter A 490K

▲ ZEFP = Number of Inserts
▲ ZNP = Number of rows

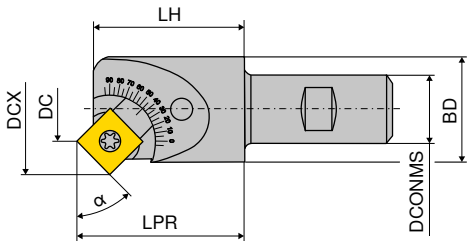




Designation	DC mm	ZNF	APMX mm	ZEFP	ZNP	OAL mm	DCONMS H6 mm	DHUB mm	torque moment Nm	Insert	2B/40 Article no. 50 761 ... EUR	
A490.40.R.03K6-09	40	3	41	18	6	55	16	38	3,2	SD.. 09T3..	1.022,00	040
A490.50.R.04K6-09	50	4	41	24	6	55	22	48	3,2	SD.. 09T3..	1.237,00	050
A490.63.R.05K6-09	63	5	41	30	6	60	27	61	3,2	SD.. 09T3..	1.398,00	063

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Clamping key – T Article no. 80 397 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Power Screw Article no. 70 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
25 - 32	4,76	036			9,28	113			4,38	303	3,14	110	128,60	192
40 - 42	4,76	036	3,91	040	9,28	113	12,48	151	4,38	303	3,14	110	128,60	192
50 - 160	4,76	036			9,28	113			4,38	303	3,14	110	128,60	192

Adjustable single angle milling cutter C 4500



B

Designation	DC mm	DCX mm	ZNF	LPR mm	DCONMS mm	LH mm	BD mm	torque moment Nm	Insert	2B Article no. 50 668 ... EUR	
C4500.16.R.01	3,0 - 20,8	20,3 - 23,9	1	33,0 - 35,0	16	32	18,65	3,2	SD.. 09T3..	151,00	116

Spare parts Insert	2A Cylindrical screw Article no. 70 950 ... EUR		2A Adjustment wedge Article no. 70 950 ... EUR		Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
SD.. 09T3..	3,38	709	15,10	708	4,76	036	9,28	113	4,38	303	3,14	110	128,60	192

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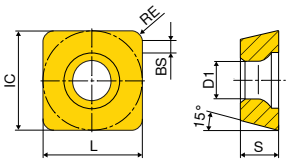
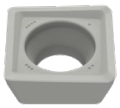
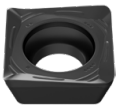
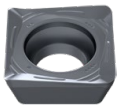
SDHT / SDNT

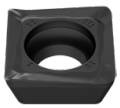
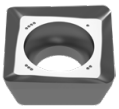
Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
SD.T 09T3..	9,52	4,4	9,52	2,5	3,97



SDHT / SDNT

		TCM10		-29 CTCP230		CTPP235		-29 CTPP235		-33 CTPM240		-F50 CTPM245	
		CWC10		-29 DCX1230		DPX1235		-29 DPX1235		-33 DPX2240		-F50 DPX2245	
				DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
													
		CERMET											
		SDHT		SDNT		SDNT		SDNT		SDNT		SDNT	
		1B/79		1B/61		1B/61		1B/61		1B/61		1H/17	
ISO	RE	Article no. 50 424 ...		Article no. 51 011 ...		Article no. 51 082 ...		Article no. 51 011 ...		Article no. 51 030 ...		Article no. 51 111 ...	
	mm	EUR		EUR		EUR		EUR		EUR		EUR	
09T308ER	0,8					11,61	108					13,00	458
09T308SR	0,8	15,76	900	11,61	008			11,61	108	11,61	408		
Steel		●		●		●		●		○		●	
Stainless steel		●		○		○		○		●		●	
Cast iron		○											
Non ferrous metals													
Heat resistant alloys													
hardened materials													

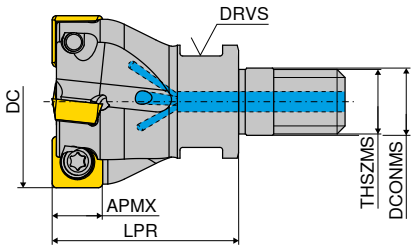
SDNT / SDHT

		-31 CTCK215		-27P H216T		-27P AMZ		-27 CTC5240		-M31 CTC5240		-F10 CTCS245	
		-31 DCX3215		-27P CWK26		-27P AMZ		-AL HCF5240		-M31 HCF5240			
		DRAGONSKIN						DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
													
		SDNT		SDHT		SDHT		SDHT		SDNT		SDHT	
		1B/61		1A/90		1A/90		1H/D4		1H/D4		NEW 1H/D4	
ISO	RE	Article no. 51 029 ...		Article no. 50 424 ...		Article no. 50 424 ...		Article no. 50 496 ...		Article no. 50 425 ...		Article no. 51 125 ...	
	mm	EUR		EUR		EUR		EUR		EUR		EUR	
09T308ER	0,8							21,73	508	13,00	508	21,73	55800
09T308FR	0,8			15,76	550	18,90	650						
09T308SR	0,8	11,61	508										
Steel		○											
Stainless steel													
Cast iron		●		○		○							
Non ferrous metals				●		●							
Heat resistant alloys								●		●		●	
hardened materials													

Milling guide

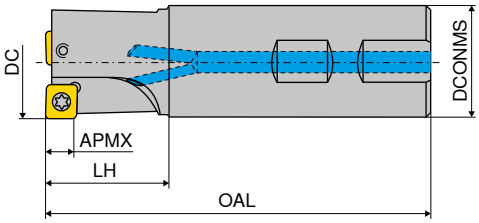
Machining strategy	→ 157+186	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 157+186
Starting Parameter	→ 157	Correction of the tooth load f_z	→ 157

MaxiMill – Screw in cutter G 490-12



Designation	DC mm	ZNF	APMX mm	LPR mm	THSZMS	DCONMS mm	DRVS mm	torque moment Nm	Insert	2B/40 Article no. 50 726 ... EUR	
G490.32.R.03-12	32	3	10,7	35	M16	17	24	3,2	SD.. 1205..	317,80	13200
G490.40.R.04-12	40	4	10,7	40	M16	17	24	3,2	SD.. 1205..	351,10	14000

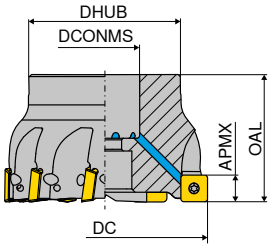
MaxiMill – End milling cutter C 490-12

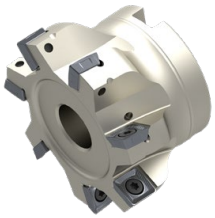


B

Designation	DC mm	ZNF	APMX mm	DCONMS mm	OAL mm	LH mm	torque moment Nm	Insert	2B Article no. 50 703 ... EUR	
C490.32.R.02	32	2	11	32	110	40	5	SD.. 1205..	210,70	032
C490.32.R.03-12-B-40	32	3	11	32	101	40	5	SD.. 1205..	317,80	13200
C490.40.R.03	40	3	11	32	115	45	5	SD.. 1205..	248,50	040
C490.40.R.04-12-B32-50	40	4	11	32	112	50	5	SD.. 1205..	351,10	14000

MaxiMill – Shell mill A 490-12





Designation	DC mm	ZNF	APMX mm	DHUB mm	DCONMS mm	OAL mm	torque moment Nm	Insert	2B/40 Article no. 50 703 ... EUR	
A490.40.R.04-12	40	4	11	38	16	40	5	SD.. 1205..	351,10	54000
A490.50.R.05-12	50	5	11	43	22	40	5	SD.. 1205..	389,90	550
A490.63.R.06-12	63	6	11	48	22	40	5	SD.. 1205..	428,90	563
A490.80.R.07-12	80	7	11	58	27	50	5	SD.. 1205..	592,30	580
A490.100.R.08-12	100	8	11	75	32	50	5	SD.. 1205..	650,60	600
A490.125.R.10-12	125	10	11	88	40	63	5	SD.. 1205..	697,30	625

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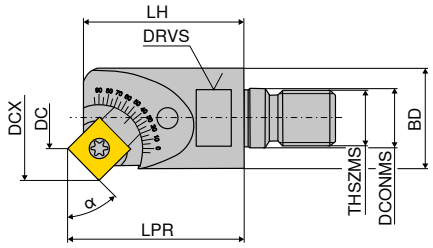
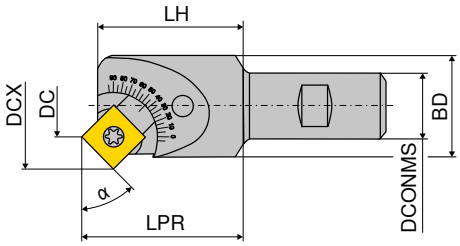
Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Clamping key – T Article no. 80 397 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Power Screw Article no. 70 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
32 - 40	4,76	037			9,95	114			4,38	303	2,52	280	131,90	193
50 - 125	4,76	037	3,91	040	9,95	114	12,48	151	4,38	303	2,52	280	131,90	193

Adjustable single angle milling cutter with threaded shank G 4500



Designation	DC mm	DCX mm	ZNF	LPR mm	THSZMS	DCONMS mm	LH mm	BD mm	DRVS mm	torque moment Nm	Insert	2B Article no. 55 210 ... EUR	
G4500.20.R.01	7,1 - 31,0	30,5 - 35,45	1	48 - 50	M16	17	46	28,5	24	5	SD.. 1205..	177,20	**020**

Adjustable single angle milling cutter C 4500



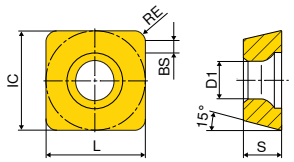
B

Designation	DC mm	DCX mm	ZNF	LPR mm	DCONMS mm	LH mm	BD mm	torque moment Nm	Insert	2B Article no. 50 668 ... EUR	
C4500.20.R.01	3,7 - 27,8	27,3 - 32,2	1	35,9 - 40,5	20	37	25	5	SD.. 1205..	159,40	**020**

	2A		2A		Y7		Y7		2A/28		2A		Y7	
	Cylindrical screw		Adjustment wedge		TORX® blade		Key D		Molykote		Clamping screw		Torque screwdriver	
Spare parts	**Article no. 70 950 ...**		**Article no. 70 950 ...**		**Article no. 80 950 ...**		**Article no. 80 950 ...**		**Article no. 70 950 ...**		**Article no. 70 950 ...**		**Article no. 80 950 ...**	
Insert	**EUR**		**EUR**		**EUR**		**EUR**		**EUR**		**EUR**		**EUR**	
SD.. 1205..	4,29	**706**	13,94	**705**	4,76	**037**	9,95	**114**	4,38	**303**	2,52	**280**	131,90	**193**

SDHW / SDMT / SDHT

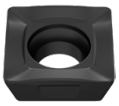
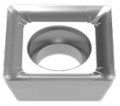
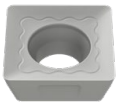
Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
SDH. 120508..	12,7	5,5	12,7	2,2	5,00
SDHT 120512..	12,7	5,5	12,7	1,8	5,00
SDHT 120520..	12,7	5,5	12,7	1,0	5,00
SDHT 120525..	12,7	5,5	12,7	1,5	5,00
SDMT 120508..	12,7	5,5	12,7	3,0	5,00
SDMT 1205ZZ..	12,7	5,5	12,7	0,9	5,00



SDHW / SDMT / SDHT

		TCM10	-29 CTCP230	-29 CTPP235	-29 CTPM240	-33 CTPM240	-F50 CTPM245
		CWC10	-29 DCX1230	-29 DPX1235	-29 DPX2240	-33 DPX2240	-F50 DPX2245
			DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
		CERMET					
		SDHW	SDMT	SDMT	SDMT	SDHT	SDMT
		1B/79	1B/61	1B/61	1B/61	1B/61	1H/17
ISO	RE	Article no. 50 428 ...	Article no. 51 081 ...	Article no. 51 081 ...	Article no. 51 081 ...	Article no. 51 028 ...	Article no. 51 110 ...
	mm	EUR	EUR	EUR	EUR	EUR	EUR
120508ER	0,8						18,43 458
120508SR	0,8	18,75 901					
120512SR	1,2					18,27 412	
120520SR	2,0					18,27 421	
1205ZZSN	0,8		15,76 020	15,76 120	15,26 420		
Steel		●	●	●	○	○	●
Stainless steel		●	○	○	●	●	●
Cast iron		○					
Non ferrous metals							
Heat resistant alloys							
hardened materials							

SDMT / SDHT

		-31 CTCK215	-27P H216T	-27P AMZ	-M31 CTC5240	-F50 CTCS245
		-31 DCX3215	-ALP CWK26	-ALP AMZ	-M31 HCF5240	
		DRAGONSKIN			DRAGONSKIN	DRAGONSKIN
						
		SDMT	SDHT	SDHT	SDMT	SDMT
		1B/61	1A/90	1A/90	1H/D4	NEW 1H/D4
ISO	RE	Article no. 51 059 ...	Article no. 50 426 ...	Article no. 50 426 ...	Article no. 50 580 ...	Article no. 51 110 ...
	mm	EUR	EUR	EUR	EUR	EUR
120508ER	0,8				18,43 508	18,43 55800
120508FR	0,8		18,27 555	22,64 655		
120525FR	2,5		18,27 559			
1205ZZSN	0,8	15,26 521				
Steel		○				
Stainless steel						
Cast iron		●	○	○		
Non ferrous metals			●	●		
Heat resistant alloys					●	●
hardened materials						

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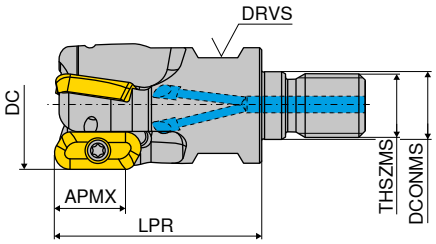
Milling guide

Machining strategy	→ 158+186	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 158+186
Starting Parameter	→ 158		

MaxiMill – Screw in cutter 90° G HSC-11

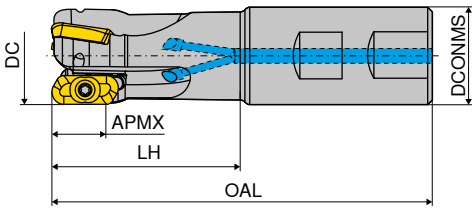
▲ Insert radius > 3.2 mm: Modify cutter body



Designation	DC mm	ZNF	APMX mm	DCONMS mm	LPR mm	THSZMS	RPMX 1/min.	DRVS mm	torque moment Nm	Insert	2B/40 Article no. 55 107 ... EUR	
GHSC.16.R.02-11	16	2	10	8,5	27	M8	56000	10	1,8	XDHT 11T3..	267,90	016
GHSC.18.R.02-11	18	2	10	8,5	27	M8	53100	10	1,8	XDHT 11T3..	274,30	018
GHSC.20.R.02-11	20	2	10	10,5	33	M10	50100	15	1,8	XDHT 11T3..	288,40	020
GHSC.25.R.03-11	25	3	10	12,5	35	M12	45000	17	1,8	XDHT 11T3..	324,90	025
GHSC.32.R.03-11	32	3	10	17,0	35	M16	39800	24	1,8	XDHT 11T3..	337,70	032
GHSC.40.R.03-11	40	3	10	17,0	35	M16	35500	24	1,8	XDHT 11T3..	354,50	040

MaxiMill – End milling cutter 90° C HSC-11

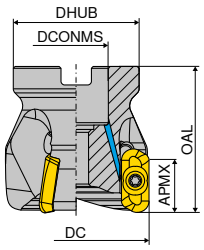
▲ Insert radius > 3.2 mm: Modify cutter body



Designation	DC mm	ZNF	APMX mm	DCONMS h6 mm	OAL mm	LH mm	RPMX 1/min.	torque moment Nm	Insert	A 2B/40 Article no. 50 675 ... EUR		B 2B/40 Article no. 50 675 ... EUR	
CHSC.16.R.02-11-B/A-25	16	2	10	16	75	25	56200	1,8	XDHT 11T3..	267,90	016	267,90	416
CHSC.16.R.02-11-A-32	16	2	10	16	165	32	18800	1,8	XDHT 11T3..	267,90	116		
CHSC.18.R.02-11-A-25	18	2	10	20	78	25	56100	1,8	XDHT 11T3..	274,30	018		
CHSC.18.R.02-11-A-32	18	2	10	20	165	32	23900	1,8	XDHT 11T3..	274,30	118		
CHSC.19.R.02-11-A-25	19	2	10	20	78	25	51700	1,8	XDHT 11T3..	280,70	019		
CHSC.19.R.02-11-A-32	19	2	10	20	165	32	25400	1,8	XDHT 11T3..	280,70	119		
CHSC.20.R.02-11-A-32	20	2	10	20	84	32	50100	1,8	XDHT 11T3..	288,40	020		
CHSC.20.R.03-11-B-32	20	3	10	20	84	32	50100	1,8	XDHT 11T3..			327,20	420
CHSC.20.R.02-11-A-40	20	2	10	20	165	40	26700	1,8	XDHT 11T3..	288,40	120		
CHSC.22.R.02-11-A-32	22	2	10	25	91	32	47800	1,8	XDHT 11T3..	296,40	022		
CHSC.22.R.02-11-A-40	22	2	10	25	165	40	30200	1,8	XDHT 11T3..	296,40	122		
CHSC.25.R.02-11-A-40	25	2	10	25	98	40	45000	1,8	XDHT 11T3..	310,40	025		
CHSC.25.R.03-11-A-40	25	3	10	25	98	40	45000	1,8	XDHT 11T3..	324,90	225		
CHSC.25.R.04-11-B-40	25	4	10	25	98	40	45000	1,8	XDHT 11T3..			357,10	425
CHSC.25.R.02-11-A-50	25	2	10	25	165	50	31700	1,8	XDHT 11T3..	310,40	125		
CHSC.25.R.03-11-A-50	25	3	10	25	165	50	31700	1,8	XDHT 11T3..	324,90	325		
CHSC.32.R.03-11-A-50	32	3	10	32	112	50	39800	1,8	XDHT 11T3..	337,70	032		
CHSC.32.R.05-11-B-50	32	5	10	25	112	50	39800	1,8	XDHT 11T3..			426,90	432
CHSC.32.R.03-11-A-63	32	3	10	32	165	63	33400	1,8	XDHT 11T3..	337,70	132		

MaxiMill – Shell mill 90° A HSC-11

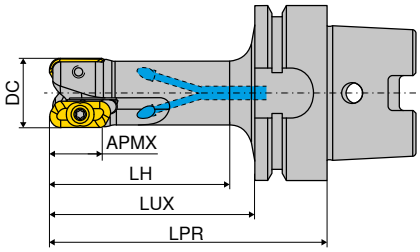
▲ Insert radius > 3.2 mm: Modify cutter body



Designation	DC mm	ZNF	APMX mm	DCONMS H6 mm	DHUB mm	OAL mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 718 ... EUR	
AHSC.40.R.04-11	40	4	10	16	38	50	35500	1,8	XDHT 11T3..	451,40	040
AHSC.50.R.04-11	50	4	10	22	43	50	31800	1,8	XDHT 11T3..	546,00	050
AHSC.63.R.05-11	63	5	10	22	43	50	28300	1,8	XDHT 11T3..	608,00	063
AHSC.80.R.05-11	80	5	10	27	58	50	25100	1,8	XDHT 11T3..	632,50	080
AHSC.100.R.05-11	100	5	10	32	78	50	22400	1,8	XDHT 11T3..	677,90	100

MaxiMill – Milling cutter 90° M HSC-11 with HSK 63-A

▲ balanced to G 6,3
▲ Insert radius > 3.2 mm: Modify cutter body

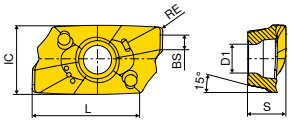


Designation	DC mm	ZNF	APMX mm	LPR mm	LH mm	LUX mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 722 ... EUR	
MHSC.25.R.03-11-H63A-50	25	3	10	90	50	64	45000	1,8	XDHT 11T3..	774,90	025
MHSC.25.R.03-11-H63A-63	25	3	10	100	63	74	42000	1,8	XDHT 11T3..	774,90	125
MHSC.32.R.03-11-H63A-63	32	3	10	100	63	74	39800	1,8	XDHT 11T3..	787,80	032
MHSC.32.R.03-11-H63A-80	32	3	10	120	80	94	37200	1,8	XDHT 11T3..	787,80	132
MHSC.40.R.04-11-H63A-63	40	4	10	100	63	74	35500	1,8	XDHT 11T3..	817,60	040
MHSC.40.R.04-11-H63A-80	40	4	10	120	80	94	35500	1,8	XDHT 11T3..	817,60	140
MHSC.50.R.04-11-H63A-63	50	4	10	100	63	74	31800	1,8	XDHT 11T3..	831,70	050
MHSC.50.R.04-11-H63A-100	50	4	10	140	100	114	31800	1,8	XDHT 11T3..	831,70	150

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Clamping key – T Article no. 80 397 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Power Screw Article no. 70 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
16 - 25	4,76	043			10,20	125			4,38	303	4,09	128	128,60	192
32	4,76	043			10,20	125			4,38	303	4,09	131	128,60	192
40	4,76	043	3,91	040	10,20	125	12,48	151	4,38	303	4,09	131	128,60	192
50 - 63	4,76	043	4,24	050	10,20	125	17,14	154	4,38	303	4,09	131	128,60	192
80 - 100	4,76	043			10,20	125			4,38	303	4,09	131	128,60	192

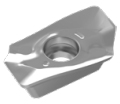
XDKT / XDHT

Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
XD.T 11T302FR	6,8	2,8	10,6	2	3,80
XD.T 11T304FR	6,8	2,8	10,6	1,8	3,80
XD.T 11T308FR	6,8	2,8	10,6	1,4	3,80
XD.T 11T320FR	6,8	2,8	10,6	1,4	3,80
XD.T 11T325FR	6,8	2,8	10,6	1,4	3,80
XDHT 11T312FR	6,8	2,8	10,6	1,4	3,80
XDHT 11T316FR	6,8	2,8	10,6	1,4	3,80
XDHT 11T332FR	6,8	2,8	10,6	0,8	3,80
XDHT 11T340FR	6,8	2,8	10,6	-	3,80
XDHT 11T350FR	6,8	2,8	10,6	-	3,80



XDKT

XDKT / XDHT

		-F20 CTWN215		-27P H216T	
		-F20 CWK4615		-ALP CWK26	
		XDKT		 XDHT	
		1A/90		1A/90	
ISO	RE	Article no. 50 478 ...		Article no. 50 477 ...	
	mm	EUR		EUR	
11T302FR	0,2	17,67	502	26,63	502
11T304FR	0,4	17,67	504	26,63	504
11T308FR	0,8	17,67	508	26,63	508
11T312FR	1,2			26,63	512
11T316FR	1,6			26,63	516
11T320FR	2,0	17,67	520 1)	26,63	520 1)
11T325FR	2,5	17,67	525 1)	26,63	525 1)
11T332FR	3,2			26,63	532 1)
11T340FR	4,0			26,63	540 1)
11T350FR	5,0			26,63	550 1)

Steel		
Stainless steel		
Cast iron	○	○
Non ferrous metals	●	●
Heat resistant alloys		
hardened materials		

1) Insert radius >1.6 mm: Modify cutter body

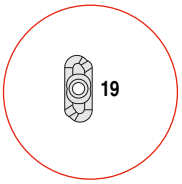
Milling guide

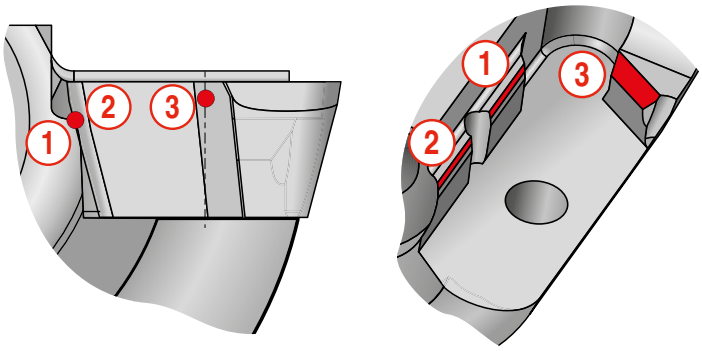
Machining strategy	→ 161–165	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 160+163
Safety advice	→ 159		

MaxiMill HSC-19

For medium – high number of revolutions

n_{max} = 34400 min^{-1}
$a_{p\,max}$ = 18 mm





(1) (2) Radial contact points

- Guaranteed 90° corner angles and exact radial run-out

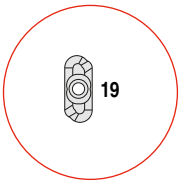
(3) Axial contact point

- guarantees precise axial run-out

MaxiMill HPC-19

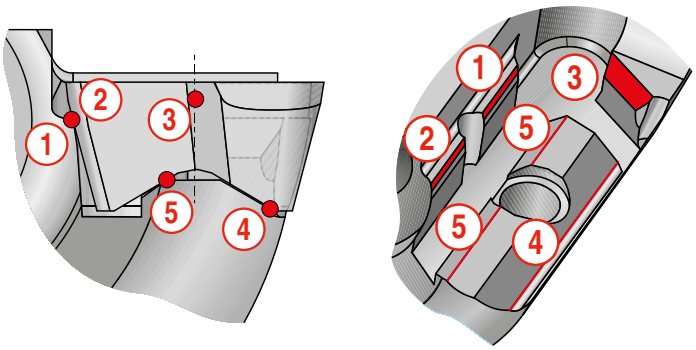
For maximum number of revolutions

n_{max} = 45200 min^{-1}
$a_{p\,max}$ = 18 mm



Roof-shaped surface, included angle 140°

- greater stability, higher security
- guaranteed positive connection between insert and tool



(1) (2) Radial contact points

- Guaranteed 90° corner angles and exact radial run-out

(3) Axial contact point

- guarantees precise axial run-out

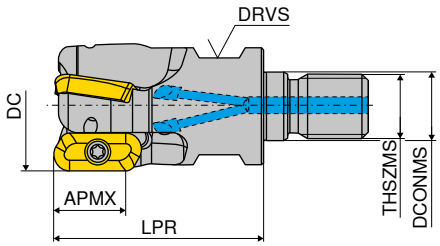
(4) (5) Contact Point

- resist machining and centrifugal forces

15

MaxiMill – Screw-in cutter 90° G HSC-19

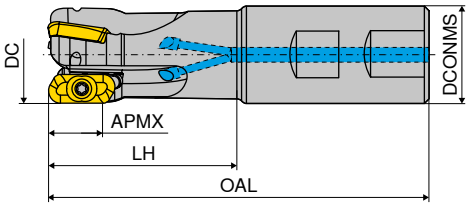
▲ Insert radius > 4.0 mm: Modify cutter body



Designation	DC mm	ZNF	APMX mm	DCONMS mm	LPR mm	THSZMS	DRVS mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 55 108 ... EUR	
GHSC.25.R.02-19	25	2	18	12,5	45	M12	17	34400	5	XDHT 1904..	315,60	025
GHSC.32.R.03-19	32	3	18	17,0	52	M16	24	29100	5	XDHT 1904..	408,80	032
GHSC.40.R.03-19	40	3	18	17,0	52	M16	24	24900	5	XDHT 1904..	434,70	040

MaxiMill – End milling cutter 90° C HSC-19

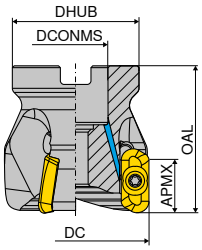
▲ Insert radius > 4.0 mm: Modify cutter body

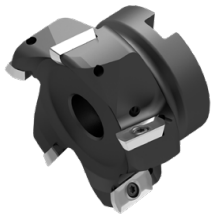


Designation	DC mm	ZNF	APMX mm	DCONMS h5 mm	OAL mm	LH mm	RPMX 1/min.	torque moment Nm	Insert	A 2B/40 Article no. 50 679 ... EUR		B 2B/40 Article no. 50 679 ... EUR	
CHSC.25.R.02-19-A-50	25	2	18	25	121	50	32400	5	XDHT 1904..	315,60	225		
CHSC.25.R.02-19	25	2	18	25	121	65	32400	5	XDHT 1904..			324,90	025
CHSC.25.R.02-19-A-63	25	2	18	25	165	63	24700	5	XDHT 1904..	315,60	325		
CHSC.32.R.02-19-A-63	32	2	18	32	125	63	28900	5	XDHT 1904..	331,20	232		
CHSC.32.R.03-19-A-63	32	3	18	32	125	63	28900	5	XDHT 1904..	408,80	432		
CHSC.32.R.03-19	32	3	18	32	125	65	28900	5	XDHT 1904..			416,50	033
CHSC.32.R.02-19	32	2	18	32	125	65	28900	5	XDHT 1904..			338,90	032
CHSC.32.R.02-19-A-80	32	2	18	32	165	80	24400	5	XDHT 1904..	331,20	332		
CHSC.32.R.03-19-A-80	32	3	18	32	165	80	24400	5	XDHT 1904..	408,80	532		

MaxiMill – Shell mill 90° A HSC-19

▲ Insert radius > 4.0 mm: Modify cutter body

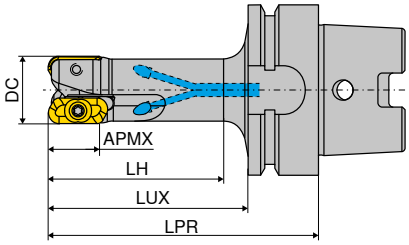




Designation	DC mm	ZNF	APMX mm	DCONMS H6 mm	DHUB mm	OAL mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 716 ... EUR	
AHSC.40.R.03-19	40	3	18	16	38	50	24900	5	XDHT 1904..	423,00	040
AHSC.50.R.04-19	50	4	18	22	43	50	21600	5	XDHT 1904..	531,60	050
AHSC.63.R.04-19	63	4	18	22	48	50	18800	5	XDHT 1904..	595,10	163
AHSC.63.R.05-19	63	5	18	22	48	50	18800	5	XDHT 1904..	608,00	063
AHSC.80.R.04-19	80	4	18	27	58	50	16400	5	XDHT 1904..	618,30	180
AHSC.80.R.05-19	80	5	18	27	58	50	16400	5	XDHT 1904..	632,50	080
AHSC.100.R.04-19	100	4	18	32	78	50	14500	5	XDHT 1904..	663,70	200
AHSC.100.R.05-19	100	5	18	32	78	50	14500	5	XDHT 1904..	677,90	100
AHSC.125.R.05-19	125	5	18	40	88	63	12800	5	XDHT 1904..	783,80	125
AHSC.125.R.06-19	125	6	18	40	88	63	12800	5	XDHT 1904..	796,80	225

MaxiMill – Milling cutter 90° M HSC-19 with HSK 63-A

▲ balanced to G 6,3
▲ Insert radius > 4.0 mm: Modify cutter body

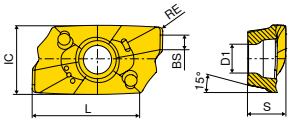


Designation	DC mm	ZNF	APMX mm	LPR mm	LH mm	LUX mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 720 ... EUR	
MHSC.25.R.02-19-H63A-50	25	2	18	90	50	64	35000	5	XDHT 1904..	763,20	525
MHSC.25.R.02-19-H63A-63	25	2	18	100	63	74	32700	5	XDHT 1904..	763,20	625
MHSC.32.R.02-19-H63A-63	32	2	18	100	63	74	29100	5	XDHT 1904..	778,90	532
MHSC.32.R.02-19-H63A-80	32	2	18	120	80	94	27200	5	XDHT 1904..	778,90	632
MHSC.32.R.03-19-H63A-63	32	3	18	100	63	74	29100	5	XDHT 1904..	791,80	732
MHSC.32.R.03-19-H63A-80	32	3	18	120	80	94	27200	5	XDHT 1904..	791,80	832
MHSC.40.R.03-19-H63A-63	40	3	18	100	63	74	24900	5	XDHT 1904..	807,30	540
MHSC.40.R.03-19-H63A-80	40	3	18	120	80	94	24900	5	XDHT 1904..	807,30	640
MHSC.50.R.03-19-H63A-100	50	3	18	140	100	114	21600	5	XDHT 1904..	807,30	550

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Clamping key – T Article no. 80 397 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Power Screw Article no. 70 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
25	4,76	036			9,28	113			4,38	303	2,86	172	131,90	193
32	4,76	036			9,28	113			4,38	303	3,40	173	131,90	193
40	4,76	036	3,91	040	9,28	113	12,48	151	4,38	303	3,40	173	131,90	193
50 - 63	4,76	036	4,24	050	9,28	113	17,14	154	4,38	303	3,40	174	131,90	193
80 - 125	4,76	036			9,28	113			4,38	303	3,40	174	131,90	193

XDHT

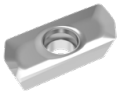
Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
XDHT 190402..	9,52	4,65	19	2	4,76
XDHT 190404..	9,52	4,65	19	2	4,76
XDHT 190408..	9,52	4,65	19	2	4,76
XDHT 190412..	9,52	4,65	19	2	4,76
XDHT 190416..	9,52	4,65	19	2	4,76
XDHT 190420..	9,52	4,65	19	2	4,76
XDHT 190425..	9,52	4,65	19	1,4	4,76
XDHT 190432..	9,52	4,65	19	1	4,76
XDHT 190440..	9,52	4,65	19	1	4,76
XDHT 190450..	9,52	4,65	19	-	4,76



XDKT

XDHT

	-27P H216T	
	-ALP CWK26	



ISO	RE	XDHT 1A/90 Article no. 50 487 ... EUR	
	mm		
190402FR	0,2	27,36	**552**
190404FR	0,4	27,36	**554**
190408FR	0,8	27,36	**556**
190412FR	1,2	27,36	**557**
190416FR	1,6	27,36	**558**
190420FR	2,0	27,36	**560**
190425FR	2,5	27,36	**562**
190432FR	3,2	27,36	**564**
190440FR	4,0	27,36	**566**
190450FR	5,0	27,36	**568** [1]

Steel	
Stainless steel	
Cast iron	○
Non ferrous metals	●
Heat resistant alloys	
hardened materials	

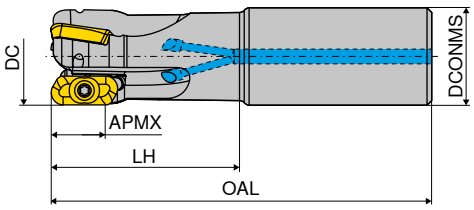
1) Insert radius >4.0 mm: Modify cutter body

Milling guide

Machining strategy	→ 161–165	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 160+163
Safety advice	→ 159		

MaxiMill – End milling cutter 90° C HPC-19

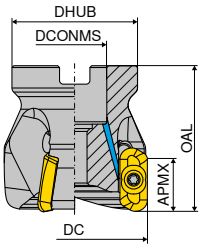
▲ Shank type to DIN 1835-A
▲ Insert radius > 4.0 mm: Modify cutter body



Designation	DC mm	ZNF	APMX mm	DCONMS h5 mm	OAL mm	LH mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 680 ... EUR	
CHPC.22.R.02-19-A-40	22	2	18	22	165	40	31900	5	XDHX 1904..	380,20	122
CHPC.25.R.02-19-A-50	25	2	18	25	121	50	41800	5	XDHX 1904..	393,30	125
CHPC.25.R.02-19-A-63	25	2	18	25	165	63	31900	5	XDHX 1904..	393,30	225
CHPC.32.R.02-19-A-63	32	2	18	32	125	63	39800	5	XDHX 1904..	408,80	132
CHPC.32.R.02-19-A-80	32	2	18	32	165	80	33500	5	XDHX 1904..	408,80	232
CHPC.32.R.03-19-A-63	32	3	18	32	125	63	39800	5	XDHX 1904..	485,10	332
CHPC.32.R.03-19-A-80	32	3	18	32	165	80	33500	5	XDHX 1904..	485,10	432

MaxiMill – Shell mill 90° A HPC-19

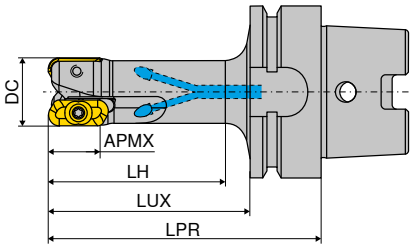
▲ Insert radius > 4.0 mm: Modify cutter body



Designation	DC mm	ZNF	APMX mm	DCONMS H6 mm	DHUB mm	OAL mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 717 ... EUR	
AHPC.40.R.03-19	40	3	18	16	38	50	35700	5	XDHX 1904..	494,20	040
AHPC.50.R.03-19	50	3	18	22	43	50	31900	5	XDHX 1904..	514,80	050
AHPC.63.R.03-19	63	3	18	22	48	50	28500	5	XDHX 1904..	539,50	063
AHPC.63.R.04-19	63	4	18	22	48	50	28500	5	XDHX 1904..	553,70	163

MaxiMill – Milling cutter 90° M HPC-19 with HSK 63-A

- balanced to G 6,3
- Insert radius > 4.0 mm: Modify cutter body

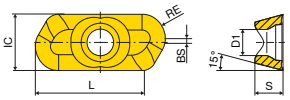


Designation	DC mm	ZNF	APMX mm	LPR mm	LH mm	LUX mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 721 ... EUR	
MHPC.25.R.02-19-H63A-50	25	2	18	90	50	64	45200	5	XDHX 1904..	984,40	025
MHPC.25.R.02-19-H63A-63	25	2	18	100	63	74	42300	5	XDHX 1904..	984,40	125
MHPC.25.R.02-19-H63A-80	25	2	18	120	80	94	38400	5	XDHX 1904..	984,40	225
MHPC.25.R.02-19-H63A-100	25	2	18	140	100	114	33900	5	XDHX 1904..	984,40	325
MHPC.32.R.02-19-H63A-63	32	2	18	100	63	74	40000	5	XDHX 1904..	1.001,00	032
MHPC.32.R.03-19-H63A-63	32	3	18	100	63	74	40000	5	XDHX 1904..	1.105,00	532
MHPC.32.R.02-19-H63A-80	32	2	18	120	80	94	37500	5	XDHX 1904..	1.001,00	132
MHPC.32.R.03-19-H63A-80	32	3	18	120	80	94	37500	5	XDHX 1904..	1.105,00	632
MHPC.32.R.02-19-H63A-100	32	2	18	140	100	114	34300	5	XDHX 1904..	1.001,00	232
MHPC.40.R.03-19-H63A-63	40	3	18	100	63	74	35700	5	XDHX 1904..	1.136,00	040
MHPC.40.R.03-19-H63A-80	40	3	18	120	80	94	35700	5	XDHX 1904..	1.136,00	140
MHPC.40.R.03-19-H63A-100	40	3	18	140	100	114	33500	5	XDHX 1904..	1.136,00	240
MHPC.50.R.03-19-H63A-63	50	3	18	100	63	74	31900	5	XDHX 1904..	1.155,00	050
MHPC.50.R.03-19-H63A-80	50	3	18	120	80	94	31900	5	XDHX 1904..	1.155,00	150
MHPC.50.R.03-19-H63A-100	50	3	18	140	100	114	31900	5	XDHX 1904..	1.155,00	250

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Clamping key – T Article no. 80 397 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Power Screw Article no. 70 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
22 - 25	4,76	036			9,28	113			4,38	303	2,86	172	131,90	193
32	4,76	036			9,28	113			4,38	303	3,40	173	131,90	193
40	4,76	036	3,91	040	9,28	113	12,48	151	4,38	303	3,40	173	131,90	193
50 - 63	4,76	036	4,24	050	9,28	113	17,14	154	4,38	303	3,40	174	131,90	193

XDHX

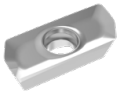
Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
XDHX 190402..	9,52	4,65	19	2	4,76
XDHX 190404..	9,52	4,65	19	2	4,76
XDHX 190408..	9,52	4,65	19	2	4,76
XDHX 190412..	9,52	4,65	19	2	4,76
XDHX 190416..	9,52	4,65	19	2	4,76
XDHX 190420..	9,52	4,65	19	2	4,76
XDHX 190425..	9,52	4,65	19	1,4	4,76
XDHX 190432..	9,52	4,65	19	1	4,76
XDHX 190440..	9,52	4,65	19	1	4,76
XDHX 190450..	9,52	4,65	19	-	4,76



XDHX

-27P
H216T

-ALP
CWK26



ISO	RE	XDHX 1H/D4 Article no. 50 488 ... EUR	
	mm		
190402FR	0,2	35,72	**552**
190404FR	0,4	35,72	**554**
190408FR	0,8	35,72	**556**
190412FR	1,2	35,72	**557**
190416FR	1,6	35,72	**558**
190420FR	2,0	35,72	**560**
190425FR	2,5	35,72	**562**
190432FR	3,2	35,72	**564**
190440FR	4,0	35,72	**566**
190450FR	5,0	35,72	**568** [1]

Steel	
Stainless steel	
Cast iron	○
Non ferrous metals	●
Heat resistant alloys	
hardened materials	

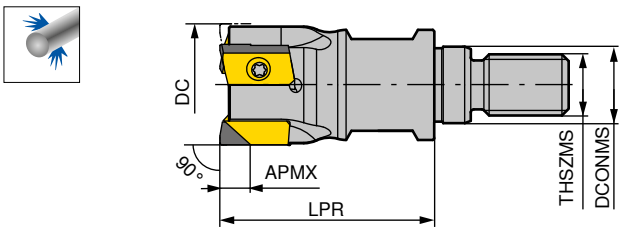
1) Insert radius > 4.0 mm: Modify cutter body

Milling guide

Machining strategy	→ 163–165	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 163
Safety advice	→ 159		

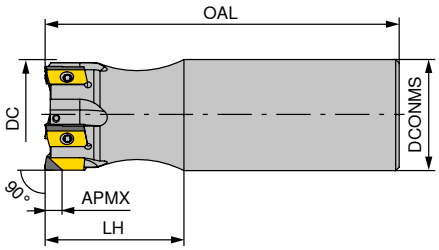
15

MaxiMill – Screw-in cutter G HPC 04



Designation	DC mm	ZNF	APMX mm	THSZMS	DCONMS mm	LPR mm	RPMX 1/min.	torque moment Nm	Insert	NEW 2B/40 Article no. 50 785 ... EUR	
GHPC.20.R.03-04	20	3	4	M10	10,5	35	52000	5	ZNHW 04T3..	261,70	20003
GHPC.25.R.04-04	25	4	4	M12	12,5	35	45000	5	ZNHW 04T3..	292,90	25004
GHPC.32.R.05-04	32	5	4	M16	17,0	35	38000	5	ZNHW 04T3..	324,10	32005
GHPC.40.R.06-04	40	6	4	M16	17,0	35	34000	5	ZNHW 04T3..	355,10	40006

MaxiMill – End Mill C HPC 04



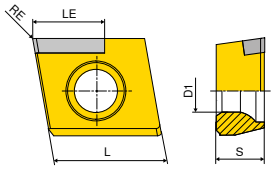
A

Designation	DC mm	ZNF	APMX mm	DCONMS mm	OAL mm	LH mm	RPMX 1/min.	torque moment Nm	Insert	NEW 2B/40 Article no. 50 680 ... EUR	
CHPC.20.R.03-04-A-25	20	3	4	20	77	25	52000	5	ZNHW 04T3..	261,70	02003
CHPC.25.R.04-04-A-32	25	4	4	25	90	32	45000	5	ZNHW 04T3..	292,90	02504
CHPC.32.R.05-04-A-40	32	5	4	32	102	40	38000	5	ZNHW 04T3..	324,10	03205
CHPC.40.R.06-04-A-50	40	6	4	32	112	50	34000	5	ZNHW 04T3..	355,10	04006

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
20 - 40	4,76	043	10,20	125	4,38	303	4,09	131	118,90	191

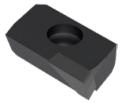
ZNHW

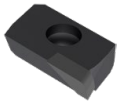
Designation	LE	D1	L	S
	mm	mm	mm	mm
ZNHW 04T3..	4	2,8	11	3,97
ZNHW 04T3..	4	2,8	11	3,97
ZNHW 04T3..	4	2,8	11	3,97
ZNHW 04T3..	4	2,8	11	3,97



ZNHW

ISO	RE	CTD4205 DIAMOND ZNHW NEW 1G/22 Article no. 51 137 ... EUR		CTL3215 CWB3215 CBN ZNHW NEW 1G/21 Article no. 51 137 ... EUR	
	mm				
04T304ER	0,4	105,00	75400		
04T305ER	0,5			126,80	85500
04T308ER	0,8	105,00	75800		
04T3POER		105,00	77000		





	CTD4205	CTL3215
Steel		
Stainless steel		
Cast iron		●
Non ferrous metals	●	
Heat resistant alloys		
hardened materials		○

Milling guide

Machining strategy	→ 166	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 166

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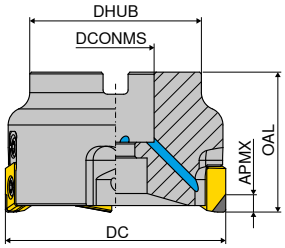
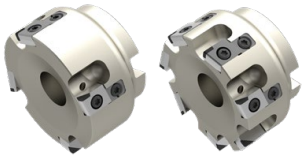
MaxiMill – Shell mill HPC 12

▲ 50 723 ... normal pitch
▲ 50 724 ... fine pitch

Scope of supply:

Tool, adjustment wedges and setting key; incl. wooden box





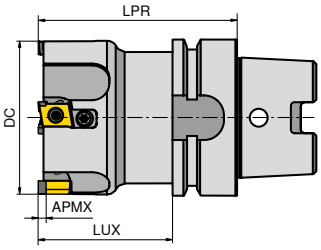
Designation	DC	ZNF	APMX	OAL	DHUB	DCONMS H6	RPMX	torque moment	Insert	2B/40 Article no. 50 723 ...		2B/40 Article no. 50 724 ...	
	mm		mm	mm	mm	mm	1/min.	Nm		EUR		EUR	
AHPC.40.R.04-12	40	4	11	40	34	16	32000	5	ZNHW 1205..	652,90	**040**		
AHPC.50.R.04-12	50	4	11	40	49	22	32000	5	ZNHW 1205..	667,90	**050**		
AHPC.50.R.05-12	50	5	11	40	49	22	32000	5	ZNHW 1205..			747,90	**050**
AHPC.63.R.04-12	63	4	11	40	49	22	29000	5	ZNHW 1205..	688,00	**063**		
AHPC.63.R.07-12	63	7	11	40	49	22	29000	5	ZNHW 1205..			927,20	**063**
AHPC.80.R.09-12	80	9	11	50	60	27	26000	5	ZNHW 1205..			1.290,00	**080**
AHPC.80.R.05-12	80	5	11	50	60	27	26000	5	ZNHW 1205..	972,20	**080**		
AHPC.100.R.06-12	100	6	11	50	70	32	24000	5	ZNHW 1205..	1.097,00	**100**		
AHPC.100.R.12-12	100	12	11	50	70	32	24000	5	ZNHW 1205..			1.574,00	**100**
AHPC.125.R.08-12	125	8	11	63	72	40	22000	5	ZNHW 1205..	1.301,00	**125**		
AHPC.125.R.14-12	125	14	11	63	72	40	22000	5	ZNHW 1205..			1.779,00	**12514**
AHPC.160.R.10-12	160	10	11	63	118	40	18000	5	ZNHW 1205..	1.620,00	**16010**		
AHPC.160.R.16-12	160	16	11	63	118	40	18000	5	ZNHW 1205..			4.665,00	**16016**
AHPC.200.R.12-12	200	12	11	63	153	60	16000	5	ZNHW 1205..	4.832,00	**20000**		
AHPC.250.R.14-12	250	14	11	63	200	60	14000	5	ZNHW 1205..	5.457,00	**25014**		
AHPC.315.R.18-12	315	18	11	80	265	60	12000	5	ZNHW 1205..	6.874,00	**31518**		

MaxiMill – Monoblock HPC 12

▲ balanced to G 6,3

Scope of supply:

Tool, adjustment wedges and setting key; incl. wooden box

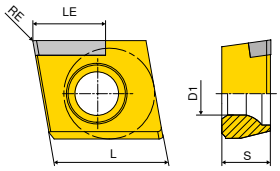


Designation	DC	ZNF	APMX	LPR	LUX	RPMX	torque moment	Insert	2B/40 Article no. 50 721 ...		2B/40 Article no. 50 721 ...	
	mm		mm	mm	mm	1/min.	Nm		EUR		EUR	
MHPC.40.R.04-12-H63A-70	40	4	11	70	44	32000	5	ZNHW 1205..			972,20	**04004**
MHPC.50.R.04-12-H63A-80	50	4	11	80	54	32000	5	ZNHW 1205..			972,20	**05004**
MHPC.50.R.05-12-H63A-80	50	5	11	80	54	32000	5	ZNHW 1205..	1.052,00	**05005**		
MHPC.63.R.04-12-H63A-80	63	4	11	80	54	29000	5	ZNHW 1205..			972,20	**06304**
MHPC.63.R.07-12-H63A-80	63	7	11	80	54	29000	5	ZNHW 1205..	1.211,00	**06307**		
MHPC.80.R.05-12-H63A-90	80	5	11	90	64	26000	5	ZNHW 1205..			1.192,00	**08005**
MHPC.80.R.09-12-H63A-90	80	9	11	90	64	26000	5	ZNHW 1205..	1.512,00	**08009**		
MHPC.100.R.06-12-H63A-90	100	6	11	90	64	24000	5	ZNHW 1205..			1.420,00	**10006**
MHPC.100.R.12-12-H63A-90	100	12	11	90	64	24000	5	ZNHW 1205..	1.900,00	**10012**		
MHPC.125.R.08-12-H63A-123	125	8	11	123	97	22000	5	ZNHW 1205..			3.355,00	**12508**
MHPC.160.R.10-12-H63A-123	160	10	11	123	97	18000	5	ZNHW 1205..			4.537,00	**16010**

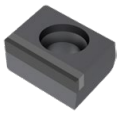
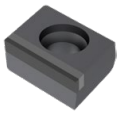
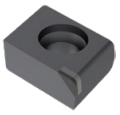
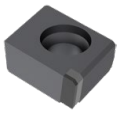
Spare parts DC	Y7 TORX® blade		2A/28 Molykote		2A/28 Clamping screw		2A/28 Wedge		Y7 Torque screwdriver	
	Article no. 80 950 ...		Article no. 70 950 ...		Article no. 70 950 ...		Article no. 70 950 ...		Article no. 80 950 ...	
	EUR		EUR		EUR		EUR		EUR	
40 - 315	4,76	**036**	4,38	**303**	3,40	**174**	36,80	**199**	131,90	**193**

ZNHW

Designation	LE	D1	L	S
	mm	mm	mm	mm
ZNHW 120504ER-1503	3	4,85	12,7	5,40
ZNHW 120504FR-0007	7	4,85	12,7	5,40
ZNHW 120508ER-1503	3	4,85	12,7	5,40
ZNHW 120508SR-0003	3	4,85	12,7	5,40
ZNHW 1205EOER-1002	2	4,85	12,7	5,40
ZNHW 1205POER-1511	11	4,85	12,7	5,40
ZNHW 1205POSR-1003	3	4,85	12,7	5,40
ZNHW 1205POSR-1503	3	4,85	12,7	5,40
ZNHW 1205POSR-1506	6	4,85	12,7	5,40
ZNHW 1205POSR-3003	3	4,85	12,7	5,40
ZNHW 1205ZZSR-5003	3	4,85	12,7	5,40

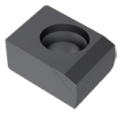


ZNHW

		CTD4205	-R CTD4205	CTD4205	-Q CTD4205
		CWD4205	CWD4205	CWD4205	-Q CWD4205
					
		DIAMOND ZNHW 1G/22	NEW DIAMOND ZNHW 1G/22	DIAMOND ZNHW 1G/22	DIAMOND ZNHW 1G/22
ISO	RE	Article no. 50 467 ...	Article no. 50 517 ...	Article no. 50 468 ...	Article no. 50 466 ...
	mm	EUR	EUR	EUR	EUR
120504ER-1503	0,4			116,10 906	
120504FR-0007	0,4			141,40 904	
120508ER-1503	0,8			116,10 910	
120508SR-0003	0,8			115,50 908	
1205POER-1511		167,30 902			
1205POSR-1003		116,10 90600			
1205POSR-1503		105,00 900			
1205POSR-1506		136,20 90800	136,20 90800		
1205POSR-3003		115,50 904			
1205ZZSR-5003					147,80 900 1)
Steel					
Stainless steel					
Cast iron					
Non ferrous metals		●	●	●	●
Heat resistant alloys					
hardened materials					

1) -Q = Wiper insert

ZNHW

	CTL3215
	CWB3215
	
	CBN ZNHW 1G/21
ISO	Article no. 50 515 ...
	EUR
1205EOER-1002	133,90 952
Steel	
Stainless steel	
Cast iron	●
Non ferrous metals	
Heat resistant alloys	
hardened materials	○

Milling guide

Machining strategy	→ 166+167
ISO Designation System	→ 194+195
Grade description	→ 209+210
Cutting data appoximate values	→ 166

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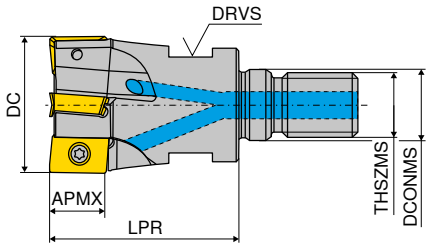
MaxiMill – Screw in cutter G 141

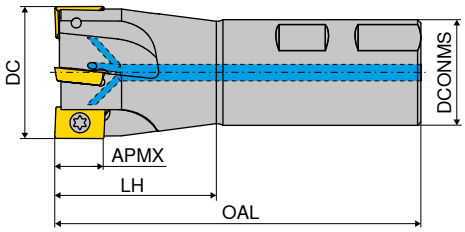
▲ Insert radius > 3.2 mm: Modify cutter body



Designation	DC	ZNF	APMX	LPR	THSZMS	DCONMS	DRVS	torque moment	Insert	2B Article no. 50 770 ...	
	mm		mm	mm		mm	mm	Nm		EUR	
G141.25.R.02.IK	25	2	14	35	M12	12,5	17	3,2	LD.. 1504..	166,70	025
G141.32.R.03.IK	32	3	14	40	M16	17,0	24	3,2	LD.. 1504..	200,20	032
G141.40.R.04.IK	40	4	14	40	M16	17,0	24	3,2	LD.. 1504..	230,70	040

MaxiMill – End milling cutter C 141

▲ Insert radius > 3.2 mm: Modify cutter body

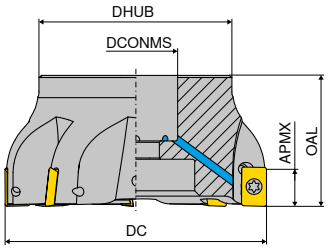


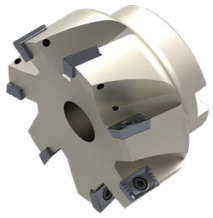
B

Designation	DC	ZNF	APMX	DCONMS	OAL	LH	torque moment	Insert	2B Article no. 50 771 ...	
	mm		mm	mm	mm	mm	Nm		EUR	
C141.20.R.01	20	1	14	25	95	39	3,2	LD.. 1504..	170,90	020
C141.25.R.02	25	2	14	25	100	44	3,2	LD.. 1504..	227,50	025
C141.32.R.03	32	3	14	32	108	48	3,2	LD.. 1504..	264,30	032

MaxiMill – Shell mill A 241

▲ Insert radius > 3.2 mm: Modify cutter body



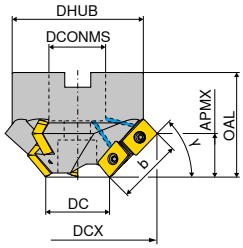


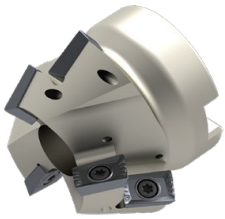
Designation	DC mm	ZNF	APMX mm	DHUB mm	DCONMS mm	OAL mm	torque moment Nm	Insert	2B Article no. 50 769 ... EUR	
A241.40.R.04	40	4	14	33	16	40	3,2	LD.. 1504..	274,70	040
A241.50.R.05	50	5	14	43	22	40	3,2	LD.. 1504..	336,60	050
A241.52.R.05	52	5	14	43	22	40	3,2	LD.. 1504..	329,30	052
A241.63.R.06	63	6	14	48	22	40	3,2	LD.. 1504..	405,80	063
A241.66.R.06	66	6	14	58	27	50	3,2	LD.. 1504..	398,40	066
A241.80.R.07	80	7	14	58	27	50	3,2	LD.. 1504..	477,20	080
A241.100.R.08	100	8	14	75	32	50	3,2	LD.. 1504..	554,70	100

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
20 - 40	4,76	036	9,28	113	4,38	303	3,14	110	128,60	192
50 - 100	4,76	036	9,28	113	4,38	303	3,14	304	128,60	192

MaxiMill – Chamfer Cutter A 242

▲ Caution: Use only inserts with a corner radius of less than 1.6 mm
▲ ZEFP = number of inserts
▲ ZNP = tooth rows





KAPR °	DC mm	DCX ±0,3 mm	ZNF	APMX ±0,3 mm	ZEFP	b ±0,3 mm	OAL mm	DCONMS mm	DHUB mm	ZNP	torque moment Nm	Insert	2B Article no. 50 768 ... EUR	
15	35	92,2	3	7,6	6	29,6	50	27	62,5	2	3,2	LD.. 1504..	376,40	015
30	35	86,3	3	14,8	6	29,6	50	27	62,5	2	3,2	LD.. 1504..	376,40	030
45	35	76,9	3	20,9	6	29,6	50	27	62,5	2	3,2	LD.. 1504..	376,40	045
60	35	64,6	3	25,6	6	29,6	50	22	62,5	2	3,2	LD.. 1504..	376,40	060 1)
75	35	50,3	3	28,5	6	29,6	60	22	49,0	2	3,2	LD.. 1504..	376,40	075 1)

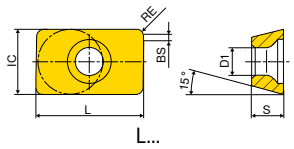
1) Version with Powerscrew

15

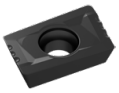
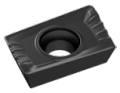
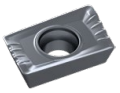
Spare parts KAPR	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Clamping key – T Article no. 80 397 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Power Screw Article no. 70 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR		Y8 Clamping screw Article no. 83 950 ... EUR	
15 - 45	4,76	036			9,28	113			4,38	303	3,14	304	128,60	192	3,67	125
60 - 75	4,76	036	4,24	050	9,28	113	17,14	154	4,38	303	3,14	304	128,60	192		

LDFW / LDFT / LDMT

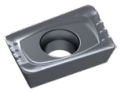
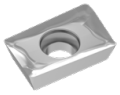
Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
LD.. 1504PD..	9,52	4,4	15	1,2	4,76
LDFT 150408..	9,52	4,4	15	1,2	4,76
LDFT 1504PD..	9,52	4,4	15	0,8	4,76



LDFW / LDFT / LDMT

		CTCP230	-29 CTCP230	-29 CTCP230	-29 CTPP235	-29 CTPP235
		DCX1230	-29 DCX1230	-29 DCX1230	-29 DPX1235	-29 DPX1235
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
						
		LDFW	LDFT	LDMT	LDFT	LDMT
		1B/61	1B/61	1B/61	1B/61	1B/61
ISO	RE	Article no. 51 043 ...	Article no. 51 079 ...	Article no. 51 080 ...	Article no. 51 079 ...	Article no. 51 080 ...
	mm	EUR	EUR	EUR	EUR	EUR
1504PDSR	0,8	15,97 020	19,13 020	9,77 020	19,13 120	9,77 120
Steel		●	●	●	●	●
Stainless steel		○	○	○	○	○
Cast iron						
Non ferrous metals						
Heat resistant alloys						
hardened materials						

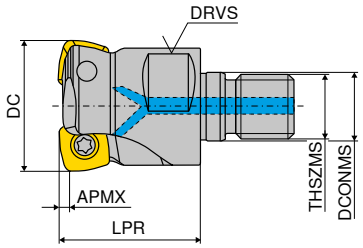
LDFT / LDFW

		-33 CTPM240	CTCK215	-27P H216T
		-33 DPX2240	DCX3215	-ALP CWK26
		DRAGONSKIN	DRAGONSKIN	
				
		LDFT	LDFW	LDFT
		1B/61	1B/61	1A/90
ISO	RE	Article no. 51 042 ...	Article no. 51 043 ...	Article no. 50 409 ...
	mm	EUR	EUR	EUR
150408FR	0,8			19,85 550
1504PDSR	0,8		15,97 520	
1504PDSR	1,2	18,27 420		
Steel		○	○	
Stainless steel		●		
Cast iron			●	○
Non ferrous metals				●
Heat resistant alloys				
hardened materials				

Milling guide

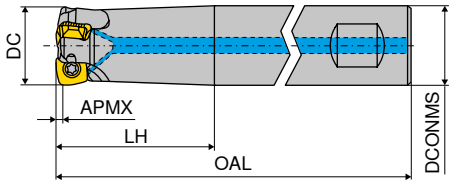
Machining strategy → 168
ISO Designation System → 194+195
Grade description → 209+210
Cutting data appoximate values → 168

MaxiMill – Screw in cutter G HFC



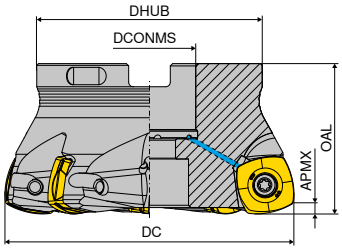
Designation	DC mm	ZNF	APMX mm	LPR mm	DCONMS mm	THSZMS	DRVS mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 682 ... EUR	
GHFC.16.R.02-06	16	2	0,8	27	8,5	M8	10	20800	1,2	XPLX 0603..	230,50	616
GHFC.20.R.03-06	20	3	0,8	33	10,5	M10	15	19800	1,2	XPLX 0603..	261,70	620
GHFC.25.R.04-06	25	4	0,8	35	12,5	M12	17	18700	1,2	XPLX 0603..	292,90	625
GHFC.32.R.05-06	32	5	0,8	35	17,0	M16	24	22000	1,2	XPLX 0603..	324,10	632
GHFC.42.R.07-06	42	7	0,8	35	17,0	M16	24	15000	1,2	XPLX 0603..	356,60	04207
GHFC.25.R.02-09	25	2	1,0	35	12,5	M12	17	30000	3,2	XDLX 09T3..	276,00	025
GHFC.25.R.03-09	25	3	1,0	35	12,5	M12	17	30000	3,2	XDLX 09T3..	296,30	125
GHFC.32.R.03-09	32	3	1,0	35	17,0	M16	24	27000	3,2	XDLX 09T3..	309,50	032
GHFC.42.R.05-19	42	5	1,0	35	17,0	M16	24	26100	3,2	XDLX 09T3..	346,70	04205
GHFC.32.R.02-12	32	2	2,0	35	17,0	M16	24	21600	5	XOLX 1204..	289,50	132
GHFC.35.R.03-12	35	3	2,0	35	17,0	M16	24	21360	5	XOLX 1204..	309,50	035
GHFC.42.R.04-12	42	4	2,0	35	17,0	M16	24	20800	5	XOLX 1204..	334,30	04204

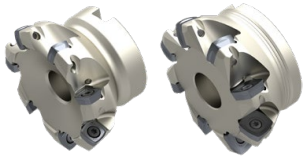
MaxiMill – End milling cutter C HFC



Designation	DC mm	ZNF	APMX mm	OAL mm	LH mm	DCONMS h6 mm	RPMX 1/min.	torque moment Nm	Insert	A 2B/40 Article no. 50 681 ... EUR		B 2B/40 Article no. 50 681 ... EUR	
CHFC.16.R.02-06-A-40-200	16	2	0,8	200	40	16	4600	1,2	XPLX 0603..	230,50	716		
CHFC.16.R.02-06-B-40	16	2	0,8	89	40	16	17300	1,2	XPLX 0603..			230,50	616
CHFC.20.R.03-06-B-50	20	3	0,8	101	50	20	14500	1,2	XPLX 0603..			261,70	620
CHFC.20.R.03-06-A-50-225	20	3	0,8	225	50	20	4200	1,2	XPLX 0603..	261,70	720		
CHFC.25.R.04-06-B-50	25	4	0,8	107	50	25	15600	1,2	XPLX 0603..			292,90	625
CHFC.25.R.04-06-A-50-225	25	4	0,8	225	50	25	4600	1,2	XPLX 0603..	292,90	725		
CHFC.32.R.05-06-B-25-60	32	5	0,8	117	60	25	11000	1,2	XPLX 0603..			324,10	632
CHFC.32.R.05-06-A-25-60-225	32	5	0,8	225	60	25	3900	1,2	XPLX 0603..	324,10	732		
CHFC.25.R.02-09-A-50-225	25	2	1,0	225	50	25	9000	3,2	XDLX 09T3..	276,00	025		
CHFC.25.R.03-09-A-50-225	25	3	1,0	225	50	25	9000	3,2	XDLX 09T3..	296,30	125		
CHFC.32.R.03-09-A-63-250	32	3	1,0	250	63	32	8100	3,2	XDLX 09T3..	309,50	032		
CHFC.32.R.02-12-A-63-250	32	2	2,0	250	63	32	6480	5	XOLX 1204..	289,50	132		
CHFC.35.R.03-12-A-63-250	35	3	2,0	250	63	32	6480	5	XOLX 1204..	309,50	035		

MaxiMill – Shell mill A HFC





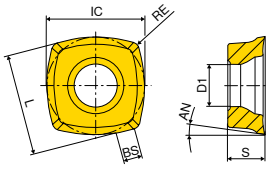
Designation	DC	ZNF	APMX	OAL	DCONMS H6	DHUB	RPMX	torque moment	Insert	2B/40 Article no. 50 683 ...		2B/40 Article no. 50 683 ...	
	mm		mm	mm	mm	mm	1/min.	Nm		EUR		EUR	
AHFC.32.R.03-09	32	3	1,0	40	16	38	27700	3,2	XDLX 09T3..	309,50	032		
AHFC.35.R.04-09	35	4	1,0	40	16	38	26700	3,2	XDLX 09T3..	329,70	035		
AHFC.40.R.04-09	40	4	1,0	40	16	38	26400	3,2	XDLX 09T3..	343,20	140		
AHFC.42.R.05-09	42	5	1,0	40	16	38	26100	3,2	XDLX 09T3..	363,30	142		
AHFC.50.R.05-09	50	5	1,0	40	22	43	23500	3,2	XDLX 09T3..	403,80	150		
AHFC.52.R.06-09	52	6	1,0	40	22	43	23000	3,2	XDLX 09T3..	424,00	152		
AHFC.63.R.06-09	63	6	1,0	40	22	48	20500	3,2	XDLX 09T3..	464,30	163		
AHFC.66.R.07-09	66	7	1,0	40	22	48	20000	3,2	XDLX 09T3..	484,50	16600		
AHFC.40.R.03-12	40	3	2,0	40	16	38	21120	5	XOLX 1204..	323,10	040		
AHFC.42.R.04-12	42	4	2,0	40	16	38	20880	5	XOLX 1204..	343,20	042		
AHFC.50.R.04-12	50	4	2,0	40	22	43	18800	5	XOLX 1204..	383,50	050		
AHFC.52.R.05-12	52	5	2,0	40	22	43	18400	5	XOLX 1204..	403,80	052		
AHFC.63.R.05-12	63	5	2,0	40	22	48	16400	5	XOLX 1204..	444,00	063		
AHFC.66.R.06-12	66	6	2,0	40	22	48	16000	5	XOLX 1204..	464,30	066		
AHFC.80.R.07-12	80	7	2,0	50	27	58	14000	5	XOLX 1204..	524,90	080		
AHFC.100.R.08-12	100	8	2,0	50	32	78	12000	5	XOLX 1204..	585,60	100		
AHFC.63.R.05-19	63	5	3,3	40	22	48	5500	5	XOLX 1906..			464,90	263
AHFC.80.R.06-19	80	6	3,3	50	27	58	4700	5	XOLX 1906..			564,90	280
AHFC.100.R.08-19	100	8	3,3	52	32	78	4100	5	XOLX 1906..			672,40	300
AHFC.125.R.10-19	125	10	3,3	63	40	88	3600	5	XOLX 1906..			844,60	325
AHFC.160.R.11-19	160	11	3,3	63	40	98	3100	5	XOLX 1906..			1.021,00	360 [1]

1) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm

Spare parts	Y7 TORX® blade Article no. 80 950 ...		Y7 Clamping key – T Article no. 80 397 ...		Y7 Key D Article no. 80 950 ...		2A/28 Power Screw Article no. 70 950 ...		2A/28 Molykote Article no. 70 950 ...		2A/28 Clamping screw Article no. 70 950 ...		Y7 Torque screwdriver Article no. 80 950 ...	
	EUR		EUR		EUR		EUR		EUR		EUR		EUR	
XDLX 09T3..	4,76	036			9,28	113			4,38	303	3,14	110	128,60	192
XDLX 09T3.. (Ø32 – Ø42)	4,76	036	3,91	040	9,28	113	12,48	151	4,38	303	3,14	110	128,60	192
XOLX 1204..	4,76	037			9,95	114			4,38	303	2,52	280	131,90	193
XOLX 1204.. (Ø40 – Ø42)	4,76	037	3,91	040	9,95	114	12,48	151	4,38	303	2,52	280	131,90	193
XOLX 1906..	4,76	037			9,95	114			4,38	303	4,09	302	131,90	193
XPLX 0603..	4,76	033			7,80	110			4,38	303	2,57	116	128,60	192

XPLX / XDLX / XOLX

Designation	IC	D1	L	BS	S	AN
	mm	mm	mm	mm	mm	°
XPLX 0603..	6,35	2,8	6	1	2,75	11
XDLX 09T3..	9,52	4,4	9	1,9	3,97	15
XOLX 1204..	12,70	5,5	12	1,3	4,76	-
XOLX 1906..	19,14	6,0	19	-	6,35	10



XPLX

		-M50 CTCP220		-M50 CTPP225		-M50 CTPP235		-M50 CTPM225		-M50 CTPM240		-F40 CTPM245	
		-M50 DCX1220		-M50 DPX1225		-M50 DPX1235		-M50 DPX2225		-M50 DPX2240		-F40 DPX2245	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
		XPLX		XPLX		XPLX		XPLX		XPLX		XPLX	
		1B/61		1B/61		1B/61		1B/61		1B/61		1H/17	
ISO	RE	**Article no. 51 019 ...**		**Article no. 51 019 ...**		**Article no. 51 019 ...**		**Article no. 51 019 ...**		**Article no. 51 019 ...**		**Article no. 51 116 ...**	
	mm	EUR		EUR		EUR		EUR		EUR		EUR	
060305ER	0,5											15,06	**455**
060305SR	0,5	12,34	**255**	12,34	**055**	12,34	**105**	12,34	**205**	12,34	**405**		
Steel			●		●		●		○		○		●
Stainless steel							○		●		●		●
Cast iron													
Non ferrous metals													
Heat resistant alloys													
hardened materials													

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XPLX

ISO	RE mm	-M50 CTCK215 / -M50 DCX3215		-F40 CTC5240 / -F40 HCF5240		-F40 CTCS245	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
		XPLX 1B/61		XPLX 1H/D4		XPLX NEW 1H/D4	
		Article no. 51 019 ...		Article no. 50 518 ...		Article no. 51 116 ...	
	mm	EUR		EUR		EUR	
060305ER	0,5			15,06	558	15,06	55500
060305SR	0,5	12,34	505				
Steel			○				
Stainless steel							
Cast iron			●				
Non ferrous metals							
Heat resistant alloys					●		●
hardened materials							

XDLX

ISO	RE mm	-M50 CTCP220 / -M50 DCX1220		-M50 CTPP225 / -M50 DPX1225		-M50 CTCP230 / -M50 DCX1230		-M50 CTPP235 / -M50 DPX1235	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
		XDLX 1B/61		XDLX 1B/61		XDLX 1B/61		XDLX 1B/61	
		Article no. 51 016 ...		Article no. 51 016 ...		Article no. 51 016 ...		Article no. 51 016 ...	
	mm	EUR		EUR		EUR		EUR	
09T308SR	0,8	12,72	258	12,72	058	12,72	008	12,72	108
Steel		●		●		●		●	
Stainless steel						○		○	
Cast iron									
Non ferrous metals									
Heat resistant alloys									
hardened materials									

XDLX

ISO	RE mm	-M50 CTPM225		-M50 CTCM235		-M50 CTPM240		-F40 CTPM245		-M50 CTPM245	
		-M50 DPX2225		-M50 DCX2235		-M50 DPX2240		-F40 DPX2245		-M50 DPX2245	
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
		XDLX 1B/61		XDLX 1B/61		XDLX 1B/61		XDLX 1H/17		XDLX 1H/17	
		Article no. 51 016 ...		Article no. 51 016 ...		Article no. 51 016 ...		Article no. 51 115 ...		Article no. 51 016 ...	
		EUR		EUR		EUR		EUR		EUR	
09T308ER	0,8							15,36	458		
09T308SR	0,8	12,72	208	12,72	308	12,72	408			15,36	458
Steel			○		○		○		●		●
Stainless steel			●		●		●		●		●
Cast iron											
Non ferrous metals											
Heat resistant alloys											
hardened materials											

XDLX

ISO	RE mm	-M50 CTCK215		-F40 CTC5240		-F40 CTCS245	
		-M50 DCX3215		-F40 HCF5240			
		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
		XDLX 1B/61		XDLX 1H/D4		XDLX NEW 1H/D4	
		Article no. 51 016 ...		Article no. 50 503 ...		Article no. 51 115 ...	
		EUR		EUR		EUR	
09T308ER	0,8			15,36	558	15,36	558
09T308SR	0,8	12,72	508				
Steel			○				
Stainless steel							
Cast iron			●				
Non ferrous metals							
Heat resistant alloys					●		●
hardened materials							

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XOLX

		-M50 CTCP220	-M50 CTPP225	-M50 CTCP230	-M50 CTPP235	-R50 CTPP235
		-M50 DCX1220	-M50 DPX1225	-M50 DCX1230	-M50 DPX1235	-R50 DPX1235
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
		XOLX	XOLX	XOLX	XOLX	XOLX
		1B/61	1B/61	1B/61	1B/61	1B/61
ISO	RE	**Article no. 51 017 ...**	**Article no. 51 017 ...**	**Article no. 51 017 ...**	**Article no. 51 017 ...**	**Article no. 51 018 ...**
	mm	EUR	EUR	EUR	EUR	EUR
120410SR	1,0	15,26 **260**	15,26 **060**	15,26 **010**	15,26 **110**	15,26 **110**
Steel		●	●	●	●	●
Stainless steel				○	○	○
Cast iron						
Non ferrous metals						
Heat resistant alloys						
hardened materials						

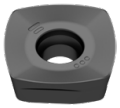
XOLX

		-M50 CTPM225	-M50 CTCM235	-M50 CTPM240	-F40 CTPM245	-M50 CTPM245
		-M50 DPX2225	-M50 DCX2235	-M50 DPX2240	-F40 DPX2245	-M50 DPX2245
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
		XOLX	XOLX	XOLX	XOLX	XOLX
		1B/61	1B/61	1B/61	1H/17	1H/17
ISO	RE	**Article no. 51 017 ...**	**Article no. 51 017 ...**	**Article no. 51 017 ...**	**Article no. 51 022 ...**	**Article no. 51 017 ...**
	mm	EUR	EUR	EUR	EUR	EUR
120410ER	1,0				17,96 **460**	
120410SR	1,0	15,26 **210**	15,26 **310**	15,26 **410**		17,96 **460**
Steel		○	○	○	●	●
Stainless steel		●	●	●	●	●
Cast iron						
Non ferrous metals						
Heat resistant alloys						
hardened materials						

XOLX / XOHX

ISO	RE mm	-M50 CTCK215	-F40 CTC5240	-F50 CTC5240	-F40 CTCS245	-F50 CTCS245
		-M50 DCX3215	-F40 HCF5240			
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
		XOLX	XOLX	XOHX	XOLX	XOLX
		1B/61	1H/D4	NEW 1H/D4	NEW 1H/D4	NEW 1H/D4
		Article no. 51 017 ...	Article no. 50 504 ...	Article no. 51 124 ...	Article no. 51 022 ...	Article no. 51 124 ...
	mm	EUR	EUR	EUR	EUR	EUR
120410ER	1,0		17,96 558		17,96 560	
120410SR	1,0	15,26 510		23,35 16000		23,35 56000
Steel		○				
Stainless steel						
Cast iron		●				
Non ferrous metals						
Heat resistant alloys			●	●	●	●
hardened materials						

XOLX

ISO	RE mm	-M50 CTCP230	-M50 CTPP235	-M50 CTPM240	-F40 CTPM245	-M50 CTCK215	-F40 CTC5240	-F40 CTCS245
		-M50 DCX1230	-M50 DPX1235	-M50 DPX2240	-F40 DPX2245	-M50 DCX3215	-F40 HCF5240	
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
								
		XOLX	XOLX	XOLX	XOLX	XOLX	XOLX	XOLX
		1B/61	1B/61	1B/61	1H/17	1B/61	1H/D4	NEW 1H/D4
		Article no. 51 017 ...	Article no. 51 017 ...	Article no. 51 017 ...	Article no. 51 022 ...	Article no. 51 017 ...	Article no. 50 504 ...	Article no. 51 022 ...
	mm	EUR	EUR	EUR	EUR	EUR	EUR	EUR
190615ER	1,5				27,26 465		27,26 515	27,26 56500
190615SR	1,5	22,17 015	22,17 115	22,17 415		22,17 515		
Steel		●	●	○	●	○		
Stainless steel		○	○	●	●			
Cast iron						●		
Non ferrous metals								
Heat resistant alloys							●	●
hardened materials								

Milling guide

Machining strategy	→ 170–173	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 170–173
Starting Parameter	→ 170–173		

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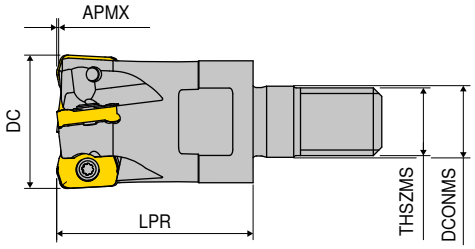
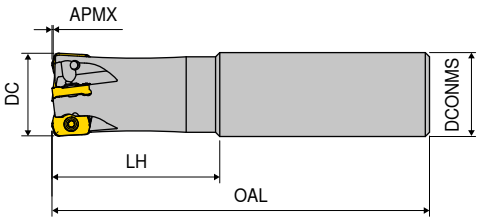
MaxiMill – Screw in cutter G DHFC



Designation	DC mm	ZNF	APMX mm	LPR mm	DCONMS mm	THSZMS	torque moment Nm	Insert	NEW WA Article no. 56 411 ... EUR	
GDHFC.16.R.02-09	16	2	0,75	29	8,5	M8	0,65	LNKX 0925..	213,00	01602
GDHFC.16.R.03-09	16	3	0,75	29	8,5	M8	0,65	LNKX 0925..	232,30	01603
GDHFC.20.R.04-09	20	4	0,75	29	10,5	M10	0,65	LNKX 0925..	266,50	02004
GDHFC.25.R.05-09	25	5	0,75	33	12,5	M12	0,65	LNKX 0925..	309,30	02505
GDHFC.32.R.05-09	32	5	0,75	42	17,0	M16	0,65	LNKX 0925..	330,70	03205
GDHFC.35.R.06-09	35	6	0,75	42	17,0	M16	0,65	LNKX 0925..	350,00	03506
GDHFC.42.R.06-09	42	6	0,75	42	17,0	M16	0,65	LNKX 0925..	365,00	04206

MaxiMill – End milling cutter C DHFC



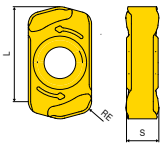
A

Designation	DC mm	ZNF	APMX mm	OAL mm	LH mm	DCONMS h6 mm	torque moment Nm	Insert	NEW WA Article no. 56 417 ... EUR	
CDHFC.16.R.05-09-A-32	16	3	0,75	80	32	16	0,65	LNKX 0925..	232,30	01603
CDHFC.20.R.04-09-A-40	20	4	0,75	90	40	20	0,65	LNKX 0925..	266,50	02004

Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		WA Clamping screw Article no. 56 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
16 - 42	5,26	051	7,95	117	4,38	303	3,32	15000	118,90	191

LNKX

Designation	L	S
	mm	mm
LNKX 0925..	9	2,50



LNKX

		-R50 CTPP231	-M50 CTPP236	-R50 CTPP236	-M50 CTPM241	-R50 CTPK221
		LNKX	LNKX	LNKX	LNKX	LNKX
		NEW WB	NEW WB	NEW WB	NEW WB	NEW WB
ISO	RE	Article no. 56 353 ...	Article no. 56 355 ...	Article no. 56 353 ...	Article no. 56 355 ...	Article no. 56 353 ...
	mm	EUR	EUR	EUR	EUR	EUR
0925ZSR	1	17,68 12000	17,68 02500	17,68 02000	17,68 42500	17,68 27000
Steel		●	●	●	●	●
Stainless steel					●	
Cast iron		●	●	●		●
Non ferrous metals						
Heat resistant alloys					●	
hardened materials		●	●	●		●

Milling guide

Machining strategy	→ 174	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 174

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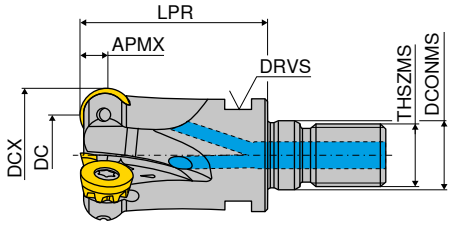
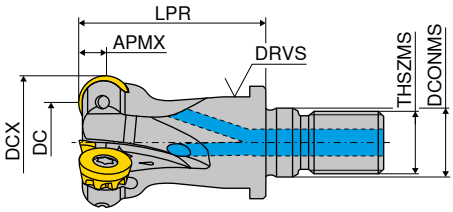
MaxiMill – Screw in cutter G 251 RS



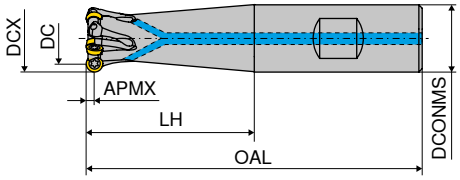
Designation	DC mm	DCX mm	ZNF	APMX mm	DCONMS mm	LPR mm	THSZMS	DRVS mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 684 ... EUR	
G251.20.R.05-05-RS	15	20	5	2,5	10,5	33	M10	15	31800	0,7	RDHX 0501..	278,80	220
G251.25.R.06-05-RS	20	25	6	2,5	12,5	35	M12	17	24450	0,7	RDHX 0501..	321,00	225
G251.32.R.07-05-RS	27	32	7	2,5	17,0	35	M16	24	19850	0,7	RDHX 0501..	385,10	232
G251.20.R.03-08-RS	12	20	3	4,0	10,5	33	M10	15	25000	1,2	RDHX 0802..	261,70	120
G251.25.R.04-08-RS	17	25	4	4,0	12,5	35	M12	17	19000	1,2	RDHX 0802..	292,90	125
G251.32.R.05-08-35-RS	24	32	5	4,0	17,0	35	M16	24	19000	1,2	RDHX 0802..	356,10	132
G251.20.R.02-10-RS	10	20	2	5,0	10,5	33	M10	15	30000	2	RP.X 10T3..	211,70	020
G251.25.R.03-10-RS	15	25	3	5,0	12,5	35	M12	17	30000	2	RP.X 10T3..	284,60	025
G251.32.R.04-10-RS	22	32	4	5,0	17,0	35	M16	24	25000	2	RP.X 10T3..	331,20	032
G251.25.R.02-12-35-RS	13	25	2	6,0	12,5	35	M12	17	25000	3,2	RP.X 1204..	205,30	525
G251.32.R.03-12-35-RS	20	32	3	6,0	17,0	35	M16	24	19850	3,2	RP.X 1204..	250,50	532
G251.35.R.03-12-35-RS	23	35	3	6,0	17,0	35	M16	24	15900	3,2	RP.X 1204..	250,50	535
G251.42.R.04-12-42-RS	30	42	4	6,0	17,0	42	M16	24	15000	3,2	RP.X 1204..	297,70	542

MaxiMill – Screw in cutter G 251



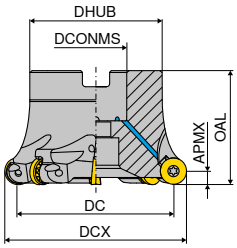
Designation	DC mm	DCX mm	ZNF	APMX mm	THSZMS	LPR mm	DCONMS mm	DRVS mm	torque moment Nm	Insert	2B Article no. 55 112 ... EUR	
G251.10.R.02-05	5	10	2	2,5	M8	20	8,5	10	0,7	RDHX 0501..	151,00	110
G251.12.R.03-05	7	12	3	2,5	M8	20	8,5	10	0,7	RDHX 0501..	203,40	112
G251.15.R.04-05	10	15	4	2,5	M8	20	8,5	10	0,7	RDHX 0501..	238,00	115
G251.16.R.04-05	11	16	4	2,5	M8	20	8,5	10	0,7	RDHX 0501..	238,00	216
G251.20.R.05-05	15	20	5	2,5	M10	25	10,5	15	0,7	RDHX 0501..	281,00	320
G251.20.R.03-08	12	20	3	4,0	M10	28	10,5	15	1,2	RDHX 0802..	203,40	420
G251.25.R.04-08	17	25	4	4,0	M12	28	12,5	17	1,2	RDHX 0802..	254,80	425
G251.32.R.06-08	24	32	6	4,0	M16	28	17,0	24	1,2	RDHX 0802..	336,60	432
G251.35.R.06-08	27	35	6	4,0	M16	28	17,0	24	1,2	RDHX 0802..	336,60	435
G251.20.R.02-10	10	20	2	5,0	M10	33	10,5	15	2	RP.X 10T3..	216,00	220
G251.32.R.04-10	22	32	4	5,0	M16	35	17,0	24	2	RP.X 10T3..	315,60	232
G251.35.R.05-10	25	35	5	5,0	M16	35	17,0	24	2	RP.X 10T3..	353,40	235
G251.25.R.02-12.IK	13	25	2	6,0	M12	35	12,5	17	3,2	RP.X 1204..	212,90	525
G251.32.R.03-12.IK	20	32	3	6,0	M16	35	17,0	24	3,2	RP.X 1204..	259,00	532
G251.35.R.03-12.IK	23	35	3	6,0	M16	35	17,0	24	3,2	RP.X 1204..	259,00	535
G251.42.R.04-12.IK	30	42	4	6,0	M16	42	17,0	24	3,2	RP.X 1204..	308,30	542

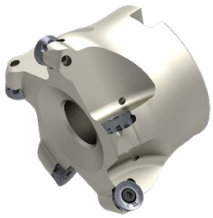
MaxiMill – End milling cutter C 251 RS



Designation	DC	DCX	ZNF	APMX	OAL	LH	DCONMS	RPMX	Insert	A 2B/40 Article no. 50 685 ... EUR		B 2B/40 Article no. 50 685 ... EUR	
	mm	mm		mm	mm	mm	mm	1/min.					
C251.10.R-02-05-B-12-20-RS	5	10	2	2,5	67	21,5	12	40000	RDHX 0501..			192,80	010
C251.10.R-02-05-A-25-165-RS	5	10	2	2,5	165	25,0	10	12000	RDHX 0501..	186,20	110		
C251.12.R-03-05-B-16-25-RS	7	12	3	2,5	75	25,0	16	40000	RDHX 0501..			243,20	012
C251.12.R-03-05-A-32-165-RS	7	12	3	2,5	165	32,0	12	16000	RDHX 0501..	234,20	112		
C251.16.R-04-05-B-32-RS	11	16	4	2,5	81	32,0	16	40000	RDHX 0501..			284,60	316
C251.16.R-04-05-A-40-165-RS	11	16	4	2,5	165	40,0	16	18000	RDHX 0501..	278,10	016		
C251.20.R-05-05-B-40-RS	15	20	5	2,5	91	40,0	20	31800	RDHX 0501..			331,20	620
C251.20.R-05-05-A-50-165-RS	15	20	5	2,5	165	50,0	20	18000	RDHX 0501..	324,90	120		
C251.16.R-02-08-B-32-RS	8	16	2	4,0	81	32,0	16	40000	RDHX 0802..			200,60	116
C251.16.R-02-08-A-40-165-RS	8	16	2	4,0	165	40,0	16	18000	RDHX 0802..	192,80	216		
C251.20.R-03-08-B-40-RS	12	20	3	4,0	91	40,0	20	31800	RDHX 0802..			254,90	220
C251.20.R-03-08-A-60-RS	12	20	3	4,0	110	50,0	20	30000	RDHX 0802..	261,70	020		
C251.20.R-03-08-A-50-200-RS	12	20	3	4,0	200	50,0	20	25000	RDHX 0802..	247,10	320		
C251.25.R-04-08-B-50-RS	17	25	4	4,0	107	50,0	25	25500	RDHX 0802..			301,40	625
C251.25.R-04-08-A-60-RS	17	25	4	4,0	116	60,0	25	19000	RDHX 0802..	292,90	125		
C251.25.R-04-08-A-60-225-RS	17	25	4	4,0	225	60,0	25	18000	RDHX 0802..	293,60	225		
C251.20.R-02-10-A-50-RS	10	20	2	5,0	102	50,0	20	25000	RP.X 10T3..	213,50	420		
C251.20.R-02-10-A-50-200-RS	10	20	2	5,0	200	50,0	20	25000	RP.X 10T3..	213,50	520		
C251.25.R.03-10-A-60-RS	15	25	3	5,0	116	60,0	25	25000	RP.X 10T3..	288,50	025		
C251.25.R-03-10-B-60-RS	15	25	3	5,0	116	60,0	25	20000	RP.X 10T3..			288,50	325
C251.25.R-03-10-A-60-225-RS	15	25	3	5,0	225	60,0	25	18000	RP.X 10T3..	288,50	425		
C251.32.R.04-10-A-70-RS	22	32	4	5,0	127	70,0	32	25000	RP.X 10T3..	324,90	032		
C251.25.R-02-12-B-30-RS	13	25	2	6,0	86	30,0	25	25000	RP.X 1204..			263,10	525
C251.32.R-03-12-A-RS	20	32	3	6,0	100	40,0	32	19000	RP.X 1204..	304,30	232		
C251.32.R-03-12-B-40-RS	20	32	3	6,0	100	40,0	32	19000	RP.X 1204..			304,30	132

MaxiMill – Shell mill A 251 RS



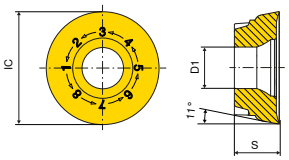


Designation	DC mm	DCX mm	ZNF	APMX mm	OAL mm	DHUB mm	DCONMS H6 mm	RPMX 1/min.	torque moment Nm	Insert	2B/40 Article no. 50 686 ... EUR	
A251.40.R.03-10-RS	30	40	3	5	40	38	16	15900	2	RP.X 10T3..	315,60	240
A251.40.R.05-10-RS	30	40	5	5	40	38	16	16000	2	RP.X 10T3..	355,70	140
A251.42.R.06-10-RS	32	42	6	5	40	38	16	16000	2	RP.X 10T3..	408,80	142
A251.50.R.04-10-RS	40	50	4	5	40	43	22	12700	2	RP.X 10T3..	346,60	350
A251.50.R.06-10-RS	40	50	6	5	40	43	22	12500	2	RP.X 10T3..	423,00	150
A251.52.R.06-10-RS	42	52	6	5	40	43	22	12500	2	RP.X 10T3..	423,00	152
A251.40.R.04-12-RS	28	40	4	6	40	38	16	15900	3,2	RP.X 1204..	327,20	340
A251.50.R.04-12-RS	38	50	4	6	40	43	22	12700	3,2	RP.X 1204..	337,70	250
A251.50.R.05-12-RS	38	50	5	6	40	43	22	12500	3,2	RP.X 1204..	397,10	050
A251.52.R.05-12-RS	40	52	5	6	40	43	22	12500	3,2	RP.X 1204..	416,50	052
A251.63.R.06-12-RS	51	63	6	6	40	48	22	10000	3,2	RP.X 1204..	490,30	063
A251.66.R.07-12-RS	54	66	7	6	40	48	22	9000	3,2	RP.X 1204..	516,90	166
A251.80.R.05-12-RS	68	80	5	6	50	58	27	7950	3,2	RP.X 1204..	447,50	180
A251.80.R.07-12-RS	68	80	7	6	50	58	27	8000	3,2	RP.X 1204..	553,10	080
A251.100.R.06-12-RS	88	100	6	6	50	78	32	6350	3,2	RP.X 1204..	499,40	100
A251.100.R.10-12-RS	88	100	10	6	50	78	32	6350	3,2	RP.X 1204..	729,60	200
A251.50.R.04-16-RS	34	50	4	8	40	48	22	12700	5	RP.X 1605..	397,10	450
A251.52.R.04-16-RS	36	52	4	8	40	48	22	10100	5	RP.X 1605..	397,10	452
A251.63.R.05-16-RS	47	63	5	8	40	48	22	10100	5	RP.X 1605..	500,60	163
A251.66.R.05-16-RS	50	66	5	8	40	48	22	7950	5	RP.X 1605..	504,30	466
A251.80.R.06-16-RS	64	80	6	8	50	58	27	7950	5	RP.X 1605..	608,00	280
A251.100.R.07-16-RS	84	100	7	8	50	78	32	6350	5	RP.X 1605..	710,30	300
A251.125.R.08-16-RS	109	125	8	8	63	88	40	5050	5	RP.X 1605..	751,80	225
A251.80.R.05-20-RS	60	80	5	10	50	58	27	7950	5	RP.X 2006..	514,80	380
A251.100.R.06-20-RS	80	100	6	10	50	78	32	6350	5	RP.X 2006..	615,80	400
A251.125.R.06-20-RS	105	125	6	10	63	88	40	5050	5	RP.X 2006..	623,50	125

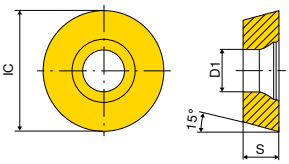
Spare parts	Y7 TORX® blade		Y7 Clamping key – T		Y7 Key D		2A/28 Power Screw		2A/28 Molykote		2A/28 Clamping screw		Y7 Torque screwdriver	
	Article no. 80 950 ...		Article no. 80 397 ...		Article no. 80 950 ...		Article no. 70 950 ...		Article no. 70 950 ...		Article no. 70 950 ...		Article no. 80 950 ...	
Insert	EUR		EUR		EUR		EUR		EUR		EUR		EUR	
RDHX 0501..	4,76	031			8,44	108			4,38	303	2,57	149	118,90	191
RDHX 0802..	4,76	033			7,80	110			4,38	303	2,57	116	118,90	191
RP.X 10T3..	4,76	035	3,91	040	9,14	112	12,48	151	4,38	303	2,57	840	128,60	192
RP.X 1204..	4,76	036	3,91	040	9,28	113	12,48	151	4,38	303	3,14	304	128,60	192
RP.X 1605..	4,76	037	4,24	050	9,95	114	17,14	154	4,38	303	2,52	280	131,90	193
RP.X 2006..	4,76	037			9,95	114			4,38	303	4,09	302	131,90	193

RDHX / RPHX / RPNX

Designation	IC	D1	S
	mm	mm	mm
RDHX 0501..	5	2,5	1,59
RDHX 0802..	8	2,8	2,38
RP.X 10T3..	10	3,4	3,97
RP.X 1204..	12	4,4	4,76
RP.X 1605..	16	5,5	5,56
RP.X 2006..	20	6,0	6,35



RP.X 10T3.. / RP.X 1204.. / RP.X 1605.. / RPNX 2006..

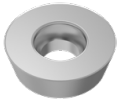


RDHX 0501.. / RDHX 0802..

RDHX

	-SN CTCP230		-SN CTPP235		-F50 CTPM240		-F50 CTPM245	
	-SN DCX1230		-SN DPX1235		-F50 DPX2240		-F50 DPX2245	
	DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
	RDHX		RDHX		RDHX		RDHX	
	1B/61		1B/61		NEW 1B/61		1H/17	
ISO	Article no. 51 048 ...		Article no. 51 048 ...		Article no. 51 083 ...		Article no. 51 083 ...	
	EUR		EUR		EUR		EUR	
0501MOSN	12,11	020	12,11	120			11,12	465
0802M4SN							14,64	471
0802MOSN	12,36	025	12,36	125	12,36	420	14,64	470
Steel		●		●		○		●
Stainless steel		○		○		●		●
Cast iron								
Non ferrous metals								
Heat resistant alloys								
hardened materials								

RDHX

	-EN CTCK215		-FN H216T		-M31 CTC5240		-F50 CTCS245	
	-EN DCX3215		-FN CWK26		-M31 HCF5240			
	DRAGONSKIN				DRAGONSKIN		DRAGONSKIN	
								
	RDHX		RDHX		RDHX		RDHX	
	1B/61		1B/61		1H/D4		NEW 1H/D4	
ISO	Article no. 51 048 ...		Article no. 50 481 ...		Article no. 50 481 ...		Article no. 51 083 ...	
	EUR		EUR		EUR		EUR	
0501MOFN			9,61	600				
0802M4EN					14,64	50100		
0802MOEN	12,36	520			14,64	500	14,64	570
0802MOFN			9,91	602				
Steel		○						
Stainless steel								
Cast iron		●		○				
Non ferrous metals				●				
Heat resistant alloys						●		●
hardened materials								

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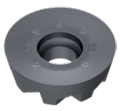
RPHX / RPNX

	-SN TCM10		-F50 CTCP230		-M50 CTCP230		-SN CTCP230		-SN CTCP230	
	-SN CWC10		-F50 DCX1230		-M50 DCX1230		-SN DCX1230		-SN DCX1230	
			DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
	CERMET RPHX		RPNX		RPNX		RPHX		RPNX	
	1B/79		1B/18		1B/61		1B/61		1B/61	
ISO	Article no. 50 483 ...		Article no. 51 055 ...		Article no. 51 054 ...		Article no. 51 052 ...		Article no. 51 057 ...	
	EUR		EUR		EUR		EUR		EUR	
10T3MOEN			12,83	020						
10T3MOSN	12,83	900			9,77	020	12,83	020		
1204MOEN			11,22	025						
1204MOSN	14,06	902			11,22	025	14,06	025	11,22	025
1605MOSN					15,26	030	19,13	030	15,26	030
2006MOSN									19,85	035
Steel	●		●		●		●		●	
Stainless steel	●		○		○		○		○	
Cast iron	○									
Non ferrous metals										
Heat resistant alloys										
hardened materials										

RPHX / RPNX

	-F50 CTPP235		-F50 CTPP235		-M30 CTPP235		-M30 CTPP235	
	-F50 DPX1235		-F50 DPX1235		-M30 DPX1235		-M30 DPX1235	
	DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
								
	RPHX		RPNX		RPHX		RPNX	
	1B/61		1B/61		1B/61		1B/61	
ISO	Article no. 51 051 ...		Article no. 51 055 ...		Article no. 51 049 ...		Article no. 51 053 ...	
	EUR		EUR		EUR		EUR	
10T3MOEN					12,83	120		
10T3MOSN	12,83	12000	9,77	120				
1204MOEN			11,22	125				
1204MOSN	14,06	125						
1605MOSN			15,26	130				
2006MOEN							19,85	120
Steel		●		●		●		●
Stainless steel		○		○		○		○
Cast iron								
Non ferrous metals								
Heat resistant alloys								
hardened materials								

RPNX / RPHX

ISO	-M50 CTPP235		-M50 CTPP235		-SN CTPP235		-SN CTPP235	
	-M50 DPX1235		-M50 DPX1235		-SN DPX1235		-SN DPX1235	
	DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
	RPNX		RPHX		RPHX		RPNX	
	1B/61		NEW 1B/61		1B/61		1B/18	
	Article no. 51 054 ...		Article no. 51 050 ...		Article no. 51 052 ...		Article no. 51 057 ...	
	EUR		EUR		EUR		EUR	
10T3MOSN	9,77	12000	12,83	12000	12,83	120		
1204MOSN	11,22	125			14,06	125	11,22	125
1605MOSN	15,26	130			19,13	130	15,26	130
2006MOSN							19,85	135
Steel	●		●		●		●	
Stainless steel	○		○		○		○	
Cast iron								
Non ferrous metals								
Heat resistant alloys								
hardened materials								

RPHX

ISO	-F50 CTPM225		-M30 CTPM225		-SN CTPM225		-F50 CTCM235		-M30 CTCM235	
	-F50 DPX2225		-M30 DPX2225		-SN DPX2225		-F50 DCX2235		-M30 DCX2235	
	DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
	RPHX		RPHX		RPHX		RPHX		RPHX	
	1B/61		1B/61		1B/61		1B/61		1B/61	
	Article no. 51 051 ...		Article no. 51 049 ...		Article no. 51 052 ...		Article no. 51 051 ...		Article no. 51 049 ...	
	EUR		EUR		EUR		EUR		EUR	
1204MOEN			14,06	225			14,06	325		
1204MOSN	14,06	225			14,06	225			14,06	325
Steel		○		○		○		○		○
Stainless steel		●		●		●		●		●
Cast iron										
Non ferrous metals										
Heat resistant alloys										
hardened materials										

RPHX / RPNX

	-F50 CTPM240		-F50 CTPM240		-M30 CTPM240		-M30 CTPM240		-M50 CTPM240	
	-F50 DPX2240		-F50 DPX2240		-M30 DPX2240		-M30 DPX2240		-M50 DPX2240	
	DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
	RPHX		RPNX		RPHX		RPNX		RPHX	
	1B/61		1B/61		1B/61		1B/61		1B/61	
ISO	Article no. 51 051 ...		Article no. 51 055 ...		Article no. 51 049 ...		Article no. 51 053 ...		Article no. 51 050 ...	
	EUR		EUR		EUR		EUR		EUR	
10T3MOEN					12,83	420			12,83	420
10T3MOSN	12,83	420								
1204MOEN					14,06	425			14,06	425
1204MOSN	14,06	425								
1605MOEN					19,13	430				
1605MOSN	19,13	430								
2006MOEN							19,85	420		
2006MOSN			19,85	435						
Steel	○		○		○		○		○	
Stainless steel	●		●		●		●		●	
Cast iron										
Non ferrous metals										
Heat resistant alloys										
hardened materials										

RPHX / RPNX

	CTPM245		-F50 CTPM245		-F50 CTPM245		-M32 CTPM245		-M50 CTPM245	
	DPX2245		-F50 DPX2245		-F50 DPX2245		-M32 DPX2245		-M50 DPX2245	
	DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
	RPHX		RPHX		RPNX		RPHX		RPHX	
	1H/17		1H/17		1H/17		1H/17		1H/17	
ISO	Article no. 51 052 ...		Article no. 51 051 ...		Article no. 51 055 ...		Article no. 51 108 ...		Article no. 51 050 ...	
	EUR		EUR		EUR		EUR		EUR	
10T3M4SN			16,19	470 [1]	13,46	470 [1]			16,19	470 [1]
10T3M8SN			16,19	471	13,46	471			16,19	471
1204M4EN	17,84	475 [1]					17,84	475 [1]		
1204M4SN			17,84	475 [1]	15,84	475 [1]			17,84	475 [1]
1204M6SN			17,84	476					17,84	476
1204M8SN			17,84	477	15,84	476			17,84	477
1605M8SN			24,34	480						
2006M4SN			30,83	485 [1]						
2006M8SN					24,34	485				
Steel	●		●		●		●		●	
Stainless steel	●		●		●		●		●	
Cast iron										
Non ferrous metals										
Heat resistant alloys										
hardened materials										

1) Insert with 4 indexes

RPNX / RPHX

ISO	-R30 CTCK215		-SN CTCK215		-SN CTCK215		-SN CTPK220		-27P H216T	
	-R30 DCX3215		-SN DCX3215		-SN DCX3215		-SN DPX3220		-ALP CWK26	
	DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN			
	RPNX		RPHX		RPNX		RPNX		RPHX	
	1B/18		1B/61		1B/18		1B/61		1A/90	
	Article no. 51 056 ...		Article no. 51 052 ...		Article no. 51 057 ...		Article no. 51 057 ...		Article no. 50 483 ...	
	EUR		EUR		EUR		EUR		EUR	
10T3MOEN	9,77	520								
10T3MOFN									14,65	600
10T3MOSN			12,83	520			9,77	620		
1204MOEN	11,22	525								
1204MOFN									16,24	602
1204MOSN			14,06	525	11,22	525	11,22	625		
1605MOFN									22,16	604
1605MOSN			19,13	530	15,26	530	15,26	630		
2006MOSN					19,85	535	19,85	635		
Steel		○		○		○		○		
Stainless steel										
Cast iron		●		●		●		●		○
Non ferrous metals										●
Heat resistant alloys										
hardened materials										

RPHX / RPNX

ISO	-M31 CTC5240		-F50 CTCS245		-F50 CTCS245		-R60 CTP6215	
	-M31 HCF5240						-R60 CCN6215	
	DRAGONSKIN		DRAGONSKIN		DRAGONSKIN			
	RPHX		RPHX		RPNX		RPNX	
	1H/D4		NEW 1H/D4		NEW 1H/D4		1B/61	
	Article no. 50 493 ...		Article no. 51 051 ...		Article no. 51 055 ...		Article no. 50 508 ...	
	EUR		EUR		EUR		EUR	
10T3M4EN	16,19	550 [1]						
10T3M4SN			16,19	570 [1]				
10T3M8EN	16,19	551						
10T3M8SN			16,19	571				
1204M4EN	17,84	552 [1]						
1204M4SN			17,84	575				
1204M6EN	17,84	56200	17,84	57800				
1204M8EN	17,84	582					12,11	300
1204M8SN			17,84	577				
1605M8EN	24,34	555	24,34	58100				
2006M8SN					24,34	585		
Steel								
Stainless steel								
Cast iron								●
Non ferrous metals								
Heat resistant alloys		●		●		●		
hardened materials								●

1) Insert with 4 indexes

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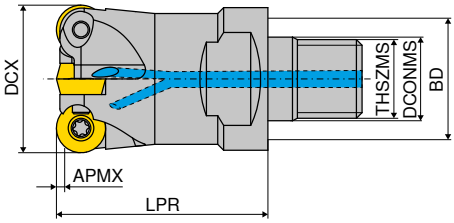
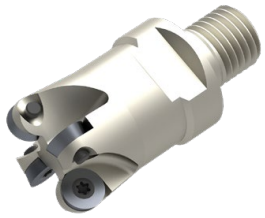
Milling guide

Machining strategy → 176
ISO Designation System → 194+195
Grade description → 209+210
Cutting data appoximate values → 175

Button insert milling cutter R 1000 G

▲ Insert angle 0°

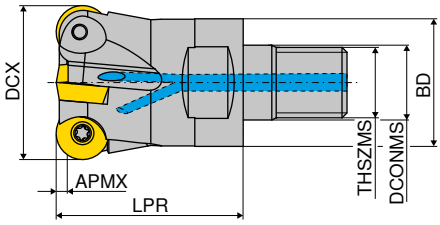




Designation	DCX mm	ZNF	APMX mm	THSZMS	LPR mm	DCONMS mm	BD mm	torque moment Nm	Insert	WA Article no. 56 403 ... EUR	
R1000G.15.4.M8-05.IK	15	4	1,3	M8	20,5	8,5	13,8	0,43	RDHX 0501..	166,70	151
R1000G.20.5.M10-05.IK	20	5	1,3	M10	25,5	10,5	18,0	0,43	RDHX 0501..	197,20	201
R1000G.12.2.M8-07.IK	12	2	1,5	M8	28,5	8,5	11,8	0,75	RD.X 07T1..	108,10	123
R1000G.15.3.M8-07.IK	15	3	1,5	M8	28,5	8,5	13,8	0,75	RD.X 07T1..	130,10	152
R1000G.20.4.M10-07.IK	20	4	1,5	M10	28,5	10,5	18,0	0,75	RD.X 07T1..	167,70	202
R1000G.25.5.M12-07.IK	25	5	1,5	M12	28,5	10,5	21,0	0,75	RD.X 07T1..	191,90	251
R1000G.15.2.M8-07.IK	15	2	1,5	M8	28,5	8,5	13,8	0,9	RD.X 0702..	110,10	153
R1000G.16.3.M8-07.IK	16	3	1,5	M8	28,5	8,5	13,8	0,9	RD.X 0702..	133,20	161
R1000G.20.4.M10-07.IK	20	4	1,5	M10	28,5	10,5	18,0	0,9	RD.X 0702..	167,70	203
R1000G.25.5.M12-07.IK	25	5	1,5	M12	28,5	12,5	21,0	0,9	RD.X 0702..	191,90	252
R1000G.30.5.M16-07.IK	30	5	1,5	M16	28,5	17,0	29,0	0,9	RD.X 0702..	195,00	301
R1000G.35.6.M16-07.IK	35	6	1,5	M16	28,5	17,0	29,0	0,9	RD.X 0702..	219,20	351
R1000G.42.7.M16-07.IK	42	7	1,5	M16	42,5	17,0	29,0	0,9	RD.X 0702..	260,00	421
R1000G.20.2.M10-10.IK	20	2	2,8	M10	29,0	10,5	18,0	2,4	RD.X 1003..	117,40	204
R1000G.25.2.M12-10.IK	25	2	2,8	M12	33,0	12,5	21,0	2,4	RD.X 1003..	117,40	253
R1000G.25.3.M12-10.IK	25	3	2,8	M12	33,0	12,5	21,0	2,4	RD.X 1003..	122,70	254
R1000G.30.4.M12-10.IK	30	4	2,3	M12	33,0	12,5	21,0	2,4	RD.X 1003..	168,90	302
R1000G.30.4.M16-10.IK	30	4	2,8	M16	43,0	17,0	23,0	2,4	RD.X 1003..	168,90	303
R1000G.35.5.M16-10.IK	35	5	2,8	M16	43,0	17,0	29,0	2,4	RD.X 1003..	207,70	352
R1000G.42.5.M16-10.IK	42	5	2,8	M16	43,0	17,0	29,0	2,4	RD.X 1003..	219,20	422
R1000G.42.6.M16-10.IK	42	6	2,8	M16	43,0	17,0	29,0	2,4	RD.X 1003..	231,70	423
R1000G.24.2.M12-12.IK	24	2	3,0	M12	33,0	12,5	21,0	2,4	RD.X 12T3..	121,60	241
R1000G.35.3.M16-12.IK	35	3	3,0	M16	43,0	17,0	29,0	2,4	RD.X 12T3..	136,30	353
R1000G.35.4.M16-12.IK	35	4	3,0	M16	43,0	17,0	29,0	2,4	RD.X 12T3..	176,20	354
R1000G.42.4.M16-12.IK	42	4	3,0	M16	43,0	17,0	29,0	2,4	RD.X 12T3..	192,90	424
R1000G.42.5.M16-12.IK	42	5	3,0	M16	43,0	17,0	29,0	2,4	RD.X 12T3..	213,90	425
R1000G.32.2.M16-16.IK	32	2	4,0	M16	43,5	17,0	29,0	4,3	RD.X 1604..	141,60	321
R1000G.35.3.M16-16.IK	35	3	4,0	M16	43,5	17,0	29,0	4,3	RD.X 1604..	174,10	355
R1000G.40.2.M16-20.IK	40	2	7,0	M16	53,5	17,0	29,0	4,3	RD.X 2006..	197,20	401

Button insert milling cutter R 1007 G

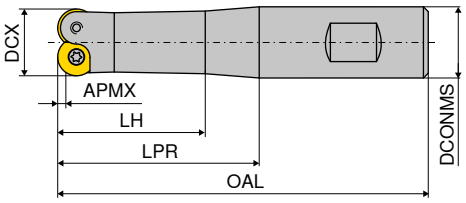
▲ Insert angle 7°
▲ for Steel < 10 % Cr



Designation	DCX	ZNF	APMX	THSZMS	LPR	DCONMS	BD	torque moment	Insert	WA Article no. 56 405 ...	
	mm		mm		mm	mm	mm	Nm		EUR	
R1007G.25.3.M12-10.IK	25	3	2,5	M12	32,5	12,5	21	2,4	RD.X 1003..	122,70	**251**
R1007G.42.6.M16-10.IK	42	6	2,5	M16	42,5	17,0	29	2,4	RD.X 1003..	231,70	**421**
R1007G.35.3.M16-12.IK	35	3	3,0	M16	42,5	17,0	29	2,4	RD.X 12T3..	154,10	**351**
R1007G.35.4.M16-12.IK	35	4	3,0	M16	42,5	17,0	29	2,4	RD.X 12T3..	176,20	**352**

Button insert milling cutter R 1000 C

▲ Insert angle 0°

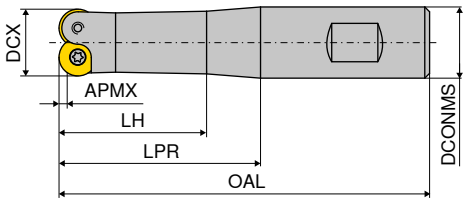


A

Designation	DCX	ZNF	APMX	OAL	LPR	LH	DCONMS	torque moment	Insert	WA Article no. 56 441 ...	
	mm		mm	mm	mm	mm	mm	Nm		EUR	
R1000C.8.1.30-05	8	1	1,3	75	30	18	10	0,43	RDHX 0501..	120,60	**081**
R1000C.10.2.30-05	10	2	1,3	75	30	23	10	0,43	RDHX 0501..	133,20	**101**
R1000C.12.3.30-05	12	3	1,3	81	30	23	12	0,43	RDHX 0501..	148,90	**121**
R1000C.12.2.30-07	12	2	1,5	76	30	23	12	0,75	RD.X 07T1..	95,32	**122**

Button insert milling cutter R 1002 C

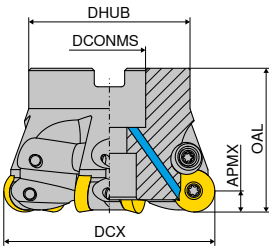
▲ Insert angle 0°

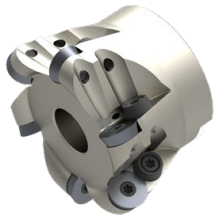


Designation	DCX mm	ZNF	APMX mm	OAL mm	LPR mm	LH mm	DCONMS mm	Insert	WA Article no. 56 443 ... EUR	
R1002C.12.2.40-07	12	2	1,5	89	40	19,5	16	RD.X 07T1..	97,30	121
R1002C.12.2.60-07	12	2	1,5	110	60	19,5	16	RD.X 07T1..	104,30	122
R1002C.12.2.80-07	12	2	1,5	129	80	19,5	16	RD.X 07T1..	111,10	123
R1002C.15.2.40-07	15	2	2,6	89	40	23,0	16	RD.X 0702..	97,30	151
R1002C.15.2.60-07	15	2	2,6	109	60	23,0	16	RD.X 0702..	103,50	152
R1002C.15.2.80-07	15	2	2,6	131	80	22,0	20	RD.X 0702..	111,10	153
R1002C.15.2.100-07	15	2	2,6	151	100	22,0	20	RD.X 0702..	119,60	154
R1002C.20.2.40-10	20	2	4,0	91	40	23,0	20	RD.X 1003..	110,10	201
R1002C.20.2.60-10	20	2	4,0	111	60	23,0	20	RD.X 1003..	113,30	202
R1002C.20.2.80-10	20	2	4,0	137	80	23,0	25	RD.X 1003..	118,50	203
R1002C.20.2.100-10	20	2	4,0	157	100	23,0	25	RD.X 1003..	124,80	204
R1002C.20.2.120-10	20	2	4,0	177	125	23,0	25	RD.X 1003..	131,10	205

Button insert milling cutter R 1000 A

▲ Insert angle 0°

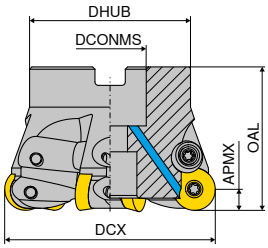


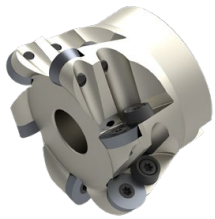


Designation	DCX mm	ZNF	APMX mm	OAL mm	DCONMS mm	DHUB mm	torque moment Nm	Insert	WA Article no. 56 407 ... EUR	
R1000A.42.6.43-10.IK	42	6	2,8	43,0	16	35	2,4	RD.X 1003..	231,70	420
R1000A.42.4.43-12.IK	42	4	3,0	43,0	16	35	2,4	RD.X 12T3..	186,70	421
R1000A.42.5.43-12.IK	42	5	3,0	43,0	16	35	2,4	RD.X 12T3..	213,90	422
R1000A.52.5.53-12.IK	52	5	3,5	53,0	22	40	2,4	RD.X 12T3..	231,70	521
R1000A.52.4.53,5-16.IK	52	4	4,7	53,5	22	40	4,3	RD.X 1604..	227,50	522
R1000A.66.5.53,5-16.IK	66	5	5,1	53,5	27	48	4,3	RD.X 1604..	269,50	661
R1000A.80.6.53,5-16.IK	80	6	5,8	53,5	27	60	4,3	RD.X 1604..	345,00	801

Button insert milling cutter R 1007 A

- Insert angle 7°
- for Steel < 10 % Cr + Milling machines with low power





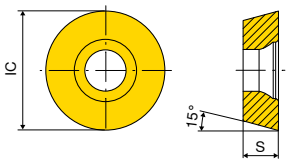
Designation	DCX mm	ZNF	APMX mm	OAL mm	DCONMS mm	DHUB mm	torque moment Nm	Insert	WA Article no. 56 409 ... EUR	
R1007A.42.6.42,5-10.IK	42	6	3,5	42,5	16	35	2,4	RD.X 1003..	231,70	421
R1007A.52.7.52,5-10.IK	52	7	3,5	52,5	22	40	2,4	RD.X 1003..	338,60	521
R1007A.52.5.52,5-12.IK	52	5	3,5	52,5	22	40	2,4	RD.X 12T3..	231,70	522
R1007A.66.6.52,5-12.IK	66	6	3,5	52,5	27	48	2,4	RD.X 12T3..	274,70	661
R1007A.80.7.54,5-12.IK	80	7	3,5	54,5	27	60	2,4	RD.X 12T3..	345,00	801
R1007A.52.5.53-16.IK	52	5	4,1	53,0	22	40	4,3	RD.X 1604..	254,80	523
R1007A.66.5.53-16.IK	66	5	4,6	53,0	27	48	4,3	RD.X 1604..	269,50	662
R1007A.66.6.53-16.IK	66	6	5,1	53,0	27	48	4,3	RD.X 1604..	308,30	663
R1007A.80.6.53-16.IK	80	6	5,1	53,0	27	60	4,3	RD.X 1604..	345,00	802
R1007A.100.7.53-16	100	7	5,1	53,0	32	70	4,3	RD.X 1604..	426,70	910 1)
R1007A.125.8.53-16	125	8	5,2	53,0	40	90	4,3	RD.X 1604..	483,40	925 1)
R1007A.160.9.53-16	160	9	5,1	53,0	40	120	4,3	RD.X 1604..	661,70	960 1)
R1007A.66.5.53-20.IK	66	5	7,0	53,0	27	48	4,3	RD.X 2006..	323,00	664
R1007A.80.5.53-20.IK	80	5	7,4	53,0	27	60	4,3	RD.X 2006..	399,50	803

1) Without Through Coolant

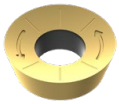
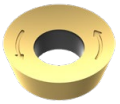
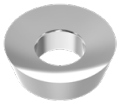
Spare parts	Y7 TORX® blade		WA Clamping Screw		WA over clamp		Y7 Key D		2A/28 Molykote		WA Clamping screw		Y7 Torque screwdriver	
	Article no. 80 950 ...		Article no. 56 950 ...		Article no. 56 950 ...		Article no. 80 950 ...		Article no. 70 950 ...		Article no. 56 950 ...		Article no. 80 950 ...	
Insert	EUR		EUR		EUR		EUR		EUR		EUR		EUR	
RD.X 0702..	4,76	032					7,80	109	4,38	303	2,64	006	118,90	191
RD.X 07T1..	4,76	032					7,80	109	4,38	303	2,64	004	118,90	191
RD.X 1003..	4,76	036					9,28	113	4,38	303	3,40	010	128,60	192
RD.X 12T3..	4,76	036	2,07	022			9,28	113	4,38	303	3,40	010	128,60	192
RD.X 1604..	4,76	037			1,45	210	9,95	114	4,38	303	3,84	012	128,60	192
RD.X 2006..	4,76	037			1,45	210	9,95	114	4,38	303	3,84	012	128,60	192
RDHX 0501..							8,44	108	4,38	303	2,56	002	118,90	191

RDHX / RDMX / RDEX / RDPX

Designation	IC	S
	mm	mm
RDHX 0501..	5	1,50
RD.X 07T1..	7	1,99
RD.X 0702..	7	2,38
RD.X 1003..	10	3,18
RD.X 12T3..	12	3,97
RD.X 1604..	16	4,76
RDHX 2006..	20	6,00



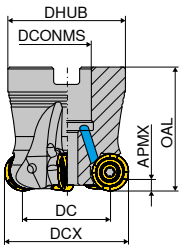
RDHX / RDMX / RDEX / RDPX

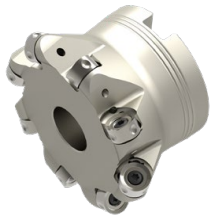
	WTN1205		WAN1240		WAX1240		-HP WAN2225		-F30P WUN4210	
										
	RDHX		RDMX		RDEX		RDPX		RDHX	
	WB		WB		WB		WB		WB	
ISO	Article no. 56 302 ...		Article no. 56 309 ...		Article no. 56 314 ...		Article no. 56 348 ...		Article no. 56 304 ...	
	EUR		EUR		EUR		EUR		EUR	
0501MOT	12,00	100								
0702MOE									11,56	611
0702MOT	12,32	111			8,58	611				
07T1MOE									11,56	621
07T1MOT	12,32	121			8,44	621				
1003MOS							12,43	231		
1003MOT	12,43	131	9,17	731	9,03	631			12,97	631
12T3MOS							13,08	241		
12T3MOT	13,08	141	10,62	741	10,29	641			15,89	641
1604MOS							16,43	251		
1604MOT	13,08	151	11,68	751	11,46	651			19,24	651
2006MOT	17,95	161							21,08	661
Steel		●		●		●				
Stainless steel		○		○				●		
Cast iron		●		○		○				
Non ferrous metals		○								●
Heat resistant alloys				○				○		
hardened materials		●				○				

Milling guide

Machining strategy	→ 180+181	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 177–179

MaxiMill – Shell mill A 252



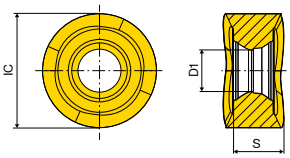


Designation	DC mm	DCX mm	ZNF	APMX mm	OAL mm	DHUB mm	DCONMS mm	torque moment Nm	Insert	2B/40 Article no. 50 689 ... EUR	
A252.40.R.05-10	30	40	5	2,5	40	38	16	2	RNHU 1004..	409,50	140
A252.42.R.05-10	32	42	5	2,5	40	38	16	2	RNHU 1004..	469,60	142
A252.50.R.06-10	40	50	6	2,5	40	43	22	2	RNHU 1004..	486,90	150
A252.52.R.07-10	42	52	7	2,5	40	43	22	2	RNHU 1004..	528,80	152
A252.63.R.08-10	53	63	8	2,5	40	48	22	2	RNHU 1004..	599,30	16300
A252.80.R.10-10	70	80	10	2,5	50	58	27	2	RNHU 1004..	681,70	18000
A252.40.R.04-12	28	40	4	3,0	40	38	16	3,2	RNHU 1205..	376,20	240
A252.50.R.05-12	38	50	5	3,0	40	43	22	3,2	RNHU 1205..	456,80	250
A252.52.R.05-12	40	52	5	3,0	40	43	22	3,2	RNHU 1205..	457,90	252
A252.63.R.06-12	51	63	6	3,0	40	48	22	3,2	RNHU 1205..	564,30	263
A252.66.R.07-12	54	66	7	3,0	40	48	22	3,2	RNHU 1205..	594,40	266
A252.80.R.08-12	68	80	8	3,0	50	58	27	3,2	RNHU 1205..	649,20	280
A252.100.R.10-12	88	100	10	3,0	50	78	32	3,2	RNHU 1205..	772,60	30000
A252.125.R.12-12	113	125	12	3,0	63	88	40	3,2	RNHU 1205..	934,70	32500

Spare parts	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Clamping key – T Article no. 80 397 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Power Screw Article no. 70 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
RNHU 1004.. (Ø40 – Ø80)	5,26	053			11,56	127			4,38	303	3,09	710	128,60	192
RNHU 1205.. (Ø40)	5,26	054	3,91	040	11,89	128	12,48	151	4,38	303	3,18	839	128,60	192
RNHU 1205.. (Ø050 – Ø125)	5,26	054			11,89	128			4,38	303	3,18	839	128,60	192

RNHU

Designation	IC	D1	S
	mm	mm	mm
RNHU 1004..	10	3,4	4,60
RNHU 1205..	12	4,4	5,30



RNHU

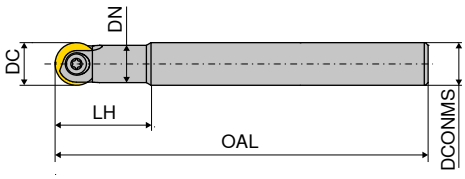
	-M50 CTPP235		-F50 CTPM240		-M31 CTPM245		-M32 CTPM245		-M31 CTC5240		-M31 CTC5240	
					-M31 DPX2245		-M32 DPX2245		-M31 HCF5240		-M31 HCF5240	
	DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN	
	RNHU		RNHU		RNHU		RNHU		RNHU		RNHU	
	NEW 1B/61		NEW 1B/61		1H/17		1H/17		1H/D4		1H/D4	
ISO	Article no. 51 130 ...		Article no. 51 129 ...		Article no. 51 106 ...		Article no. 51 107 ...		Article no. 50 520 ...		Article no. 50 521 ...	
	EUR		EUR		EUR		EUR		EUR		EUR	
1004M4ER	18,34	12000	18,34	42000	24,81	470	24,81	470	24,81	550		
1205M4ER			19,86	42500	27,16	475	27,16	475			27,16	552
1205M4SR	19,86	12500										
Steel		●		○		●		●				
Stainless steel		○		●		●		●				
Cast iron												
Non ferrous metals												
Heat resistant alloys										●		●
hardened materials												

Milling guide

Grade description	→ 209+210	Cutting data appoximate values	→ 182
ISO Designation System	→ 194+195		

Copy milling cutter K 2000C / K 2001C

▲ with carbide shank



Designation	DC mm	DN mm	LH mm	OAL mm	DCONMS h6 mm	torque moment Nm	WA Article no. 56 100 ... EUR		WA Article no. 56 101 ... EUR	
K2000C.6.16.100	6	5,3	16	100	8	0,6	358,60	060 1)		
K2000C.6.20.100	6	5,8	20	100	6	0,6	358,60	061 1)		
K2000C.6.70.150	6	5,8	70	150	6	0,6	465,50	062 1)		
K2000C.6.100.200	6	5,8	100	200	6	0,6	564,10	063 1)		
K2000C.8.25.80	8	7,0	25	80	8	1	379,60	081 1)		
K2000C.8.25.100	8	7,0	25	100	8	1	379,60	082 1)		
K2000C.8.25.150	8	7,0	40	150	8	1	421,50	083 1)		
K2000C.10.35.80	10	8,8	35	80	10	5	458,20	101 1)		
K2000C.10.35.120	10	8,8	35	120	10	5	471,90	102 1)		
K2000C.10.50.150	10	8,8	50	150	10	5	523,30	103 1)		
K2000C/K2001C.12.35.80	12	10,5	35	80	12	5	476,00	121 1)	476,00	121
K2000C/K2001C.12.35.120	12	10,5	35	120	12	5	497,00	122 1)	497,00	122
K2000C/K2001C.12.50.160	12	10,5	50	160	12	5	531,60	123 1)	531,60	123
K2001C.16.40.100	16	14,0	40	100	16	5			655,40	161
K2001C.16.40.140	16	14,0	40	140	16	5			655,40	162
K2001C.16.55.175	16	14,0	55	175	16	5			714,00	163
K2001C.20.50.100	20	18,0	50	100	20	5			834,60	201
K2001C.20.50.140	20	18,0	50	140	20	5			834,60	202
K2001C.20.75.190	20	18,0	75	190	20	5			992,00	203
K2001C.25.60.160	25	22,4	60	160	25	5			1.182,00	252
K2001C.25.90.210	25	22,4	90	210	25	5			1.478,00	253

1) Without Through Coolant

Applicable inserts

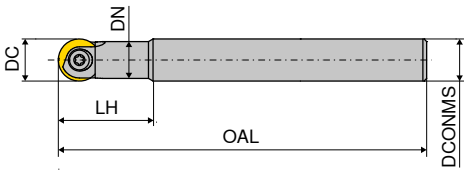
ROHX-FM3, ROHX-FM4, ROHX-FM6,
ROHX-MR5, ROGX-MR4

XOHX06.. -MR2, XOHX-FM1

15

Copy milling cutter K 2002C

▲ cylindrical steel shank version



Designation	DC mm	DN mm	LH mm	OAL mm	DCONMS h6 mm	torque moment Nm	WA Article no. 56 102 ... EUR	
K2002C.12.32.90	12	10,5	32	90	12	5	93,53	121
K2002C.12.32.130	12	10,5	32	130	12	5	93,53	122
K2002C.12.46.150	12	10,5	46	150	12	5	97,83	123
K2002C.16.36.100	16	14,0	36	100	16	5	99,09	161
K2002C.16.36.140	16	14,0	36	140	16	5	99,09	162
K2002C.16.53.160	16	14,0	53	160	16	5	104,40	163
K2002C.20.45.160	20	18,0	45	160	20	5	103,40	202
K2002C.20.61.175	20	18,0	61	175	20	5	123,70	203
K2002C.25.45.160	25	22,4	45	160	25	5	145,70	252
K2002C.25.70.190	25	22,4	70	190	25	5	151,00	253
K2002C.32.56.175	32	28,6	56	175	32	5	185,60	322
K2002C.32.80.210	32	28,6	80	210	32	5	195,00	323

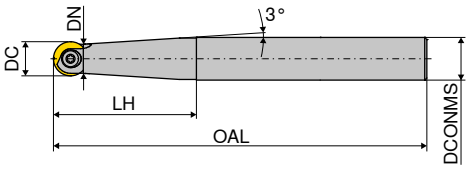
Applicable inserts

ROHX-FM3, ROHX-FM4, ROHX-FM6,
ROHX-MR5, ROGX-MR4

XOHX-FM1

Copy milling cutter K 2003C

▲ tapered execution



Designation	DC mm	DN mm	LH mm	OAL mm	DCONMS h6 mm	torque moment Nm	WA Article no. 56 104 ... EUR	
K2003C.6.16.90	6	5,3	16	90	10	0,6	104,90	061
K2003C.8.50.85	8	7,5	50	85	12	1	124,80	081
K2003C.8.50.140	8	7,5	50	140	12	1	124,80	082
K2003C.10.35.85	10	9,0	35	85	12	5	124,80	101
K2003C.10.35.150	10	9,0	35	150	12	5	124,80	102
K2003C.12.60.110	12	10,5	60	110	16	5	126,90	121
K2003C.12.60.160	12	10,5	60	160	16	5	126,90	122
K2003C.16.67.120	16	14,0	67	120	20	5	136,30	161
K2003C.16.67.175	16	14,0	67	175	20	5	136,30	162
K2003C.20.80.190	20	18,0	80	190	25	5	158,40	201
K2003C.25.100.210	25	22,4	100	210	32	5	197,20	251
K2003C.32.123.240	32	28,6	123	240	40	5	252,70	321

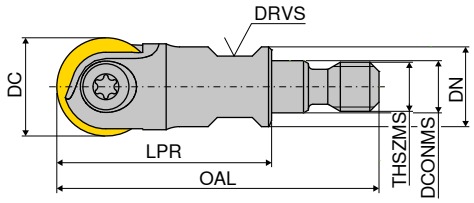
Applicable inserts

	ROHX-FM3, ROHX-FM4, ROHX-FM6, ROHX-MR5, ROGX-MR4

	XOHX-FM1

15

Copy milling cutter K 2000G



Designation	DC mm	LPR mm	DN mm	OAL mm	DCONMS mm	THSZMS	DRVS mm	torque moment Nm	WA Article no. 56 120 ... EUR	
K2000G.8.25.M6	8	25	10	39,5	6,5	M6	8	1	208,70	081 1)
K2000G.10.25.M6	10	25	10	39,5	6,5	M6	8	5	206,50	101 1)
K2000G.12.25.M6	12	25	10	39,5	6,5	M6	8	5	212,90	121 1)
K2000G.12.26.M8	12	26	13	43,5	8,5	M8	10	5	212,90	122
K2000G.16.26.M8	16	26	13	43,5	8,5	M8	10	5	221,20	161
K2000G.20.30.M10	20	30	18	49,5	10,5	M10	15	5	225,50	201
K2000G.25.40.M12	25	40	21	62,0	12,5	M12	17	5	233,80	251
K2000G.32.45.M16	32	45	30	69,0	17,0	M16	26	5	249,50	321

1) Without Through Coolant

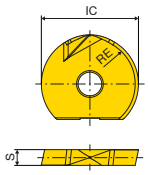
Applicable inserts

ROHX-FM3, ROHX-FM4, ROHX-FM6, ROHX-MR5, ROGX-MR4	XOHX-FM1

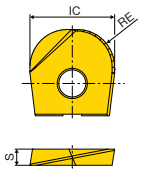
Spare parts DC	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		WA Clamping screw Article no. 56 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
6	4,76	031	8,44	108	4,38	303	6,10	041	118,90	191
8	4,76	033	7,80	110	4,38	303	6,10	042	118,90	191
10	4,76	036	9,28	113	4,38	303	6,10	043	131,90	193
12	4,76	037	9,95	114	4,38	303	8,33	044	131,90	193
16	4,76	037	9,95	114	4,38	303	8,33	045	131,90	193
20	4,76	037	9,95	114	4,38	303	8,33	046	131,90	193
25			12,10	131	4,38	303	8,33	047		
32			12,10	131	4,38	303	8,45	048		

ROHX / XOHX / ROGX

Designation	IC	S
	mm	mm
ROHX0616R..	6	1,60
ROHX0820R..	8	2,00
XOHX10254..	10	2,50
ROHX1025R..	10	2,50
XOHX12255..	12	2,50
RO.X1225R..	12	2,50
XOHX16307..	16	3,00
RO.X1630R..	16	3,00
XOHX20309..	20	3,00
RO.X2030R..	20	3,00
RO.X2540R..	25	4,00
RO.X3250R..	32	5,00



RO.X



XOHX

ROHX / XOHX / ROGX

ISO	RE	-MR5 CTPP211		-FM1 CTPP216		-FM3 CTPP216		-FM4 CTPP216		-FM4 CTPK226		-MR4 CTPK231		-FM6 CTCN211	
		ROHX		XOHX		ROHX		ROHX		ROHX		ROGX		ROHX	
		NEW WB		NEW WB		NEW WB		NEW WB		NEW WB		NEW WB		WB	
		Article no. 56 149 ...		Article no. 56 169 ...		Article no. 56 147 ...		Article no. 56 141 ...		Article no. 56 141 ...		Article no. 56 143 ...		Article no. 56 145 ...	
	mm	EUR		EUR		EUR		EUR		EUR		EUR		EUR	
0616 R3	3,0					30,87	30200	25,73	90200					76,96	602 1)
0820 R4	4,0	31,38	71300			37,43	31300	24,72	71300	25,92	11300			100,20	613 1)
1025 R5	5,0	31,38	72400			37,43	32400	24,72	72400	25,92	12400			100,20	624 1)
102540	4,0			33,89	92400										
1225 R6	6,0					38,03	33500	25,73	73500	25,92	13500	25,22	53500	100,20	635 1)
122550	5,0			36,32	93500										
1630 R8	8,0					40,96	34600	29,56	74600	30,21	14600	29,56	54600	113,50	646 1)
163070	7,0			38,84	94700										
2030 R10	10,0					43,38	35700	33,89	75700	33,77	15700	33,89	55700		
203090	9,0			44,28	95900										
2540 R12,5	12,5					53,98	36800	50,54	76800	50,37	16800	49,94	56800		
3250 R16	16,0					72,33	37900	73,84	77900	74,69	17900	68,90	57900		
Steel		●		●		●		●		●		●			
Stainless steel		●		●		●		●		○		●			
Cast iron		●		●		●		●		○		●			
Non ferrous metals		○								○					●
Heat resistant alloys		●		●		●		●		○		●			
hardened materials		○		●		●		●		●					

1) Specifically for machining graphite !

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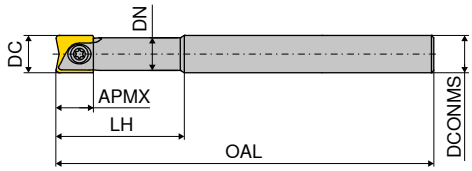
Milling guide

Depth of Cut	→ 185	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 183+184

Copy milling cutter K 2005C / K 2006C

▲ with carbide shank



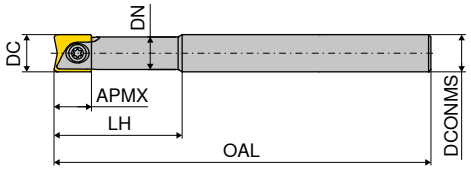
Designation	DC mm	APMX mm	DN mm	LH mm	OAL mm	DCONMS h6 mm	torque moment Nm	WA Article no. 56 110 ... EUR		WA Article no. 56 111 ... EUR	
K2005C.8.27.82	8	9,5	7,0	27	82	8	1	379,60	081 1)		
K2005C.8.27.102	8	9,5	7,0	27	102	8	1	379,60	082 1)		
K2005C.8.42.152	8	9,5	7,0	42	152	8	1	421,50	083 1)		
K2005C.10.37.82	10	11,5	8,8	37	82	10	5	458,20	101 1)		
K2005C.10.37.122	10	11,5	8,8	37	122	10	5	471,90	102 1)		
K2005C.10.52.152	10	11,5	8,8	52	152	10	5	523,30	103 1)		
K2005C/K2006C.12.37.82	12	14,0	10,5	37	82	12	5	476,00	121 1)	476,00	121
K2005C/K2006C.12.37.122	12	14,0	10,5	37	122	12	5	497,00	122 1)	497,00	122
K2005C/K2006C.12.52.162	12	14,0	10,5	52	162	12	5	531,60	123 1)	531,60	123
K2006C.16.42.102	16	16,0	14,0	42	102	16	5			655,40	161
K2006C.16.42.142	16	16,0	14,0	42	142	16	5			655,40	162
K2006C.16.57.177	16	16,0	14,0	57	177	16	5			714,00	163
K2006C.20.52.102	20	18,0	18,0	52	102	20	5			834,60	201
K2006C.20.52.142	20	18,0	18,0	52	142	20	5			834,60	202
K2006C.20.77.192	20	18,0	18,0	77	192	20	5			979,40	203
K2006C.25.62.162	25	23,5	22,4	62	162	25	5			1.182,00	252
K2006C.25.92.212	25	23,5	22,4	92	212	25	5			1.478,00	253

1) Without Through Coolant

Applicable inserts

	XOHX-FM2 / -FM5 / -MR2 / -MR3 / -MR6
	XOGX-MF4

Copy milling cutter K 2007C



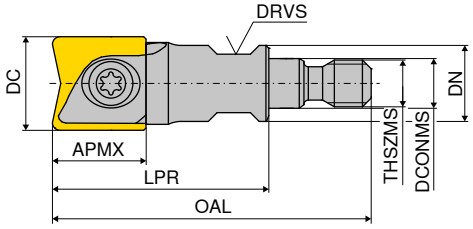
Designation	DC	APMX	DN	LH	OAL	DCONMS h6	torque moment	WA Article no. 56 112 ...	
	mm	mm	mm	mm	mm	mm	Nm	EUR	
K2007C.12.34.92	12	14,0	10,5	34	92	12	5	102,20	121
K2007C.12.34.132	12	14,0	10,5	34	132	12	5	93,53	122
K2007C.12.48.152	12	14,0	10,5	48	152	12	5	97,83	123
K2007C.16.38.102	16	16,0	14,0	38	102	16	5	99,09	161
K2007C.16.38.142	16	16,0	14,0	38	142	16	5	99,09	162
K2007C.16.55.162	16	16,0	14,0	55	162	16	5	104,40	163
K2007C.20.47.162	20	18,0	18,0	47	162	20	5	103,40	202
K2007C.20.63.177	20	18,0	18,0	63	177	20	5	123,70	203
K2007C.25.47.162	25	23,5	22,4	47	162	25	5	145,70	252
K2007C.25.72.192	25	23,5	22,4	72	192	25	5	151,00	253
K2007C.32.58.177	32	28,0	28,6	58	177	32	5	185,60	322
K2007C.32.82.212	32	28,0	28,6	82	212	32	5	195,00	323

Applicable inserts

	XOHX-FM2 / -FM5 / -MR2 / -MR3 / -MR6
	XOGX-MF4

15

Copy milling cutter K 2005G



Designation	DC	APMX	DN	LPR	OAL	DCONMS	THSZMS	DRVS	torque moment	WA Article no. 56 130 ...	
	mm	mm	mm	mm	mm	mm		mm	Nm	EUR	
K2005G.8.25.M6	8	9,5	10	25	39,5	6,5	M6	8	1	208,70	081 1)
K2005G.10.25.M6	10	11,5	10	25	39,5	6,5	M6	8	5	206,50	101 1)
K2005G.12.25.M6	12	14,0	10	25	39,5	6,5	M6	8	5	212,90	121 1)
K2005G.12.28.M8	12	14,0	13	28	45,5	8,5	M8	8	5	212,90	122
K2005G.16.28.M8	16	16,0	13	28	45,5	8,5	M8	10	5	221,20	161
K2005G.20.32.M10	20	18,0	18	32	51,5	10,5	M10	15	5	225,50	201
K2005G.25.42.M12	25	23,5	21	42	64,0	12,5	M12	17	5	233,80	251
K2005G.32.47.M16	32	28,0	30	47	71,0	17,0	M16	26	5	249,50	321

1) Without Through Coolant

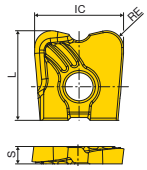
Applicable inserts

	XOHX-FM2 / -FM5 / -MR2 / -MR3 / -MR6
	XOGX-MF4

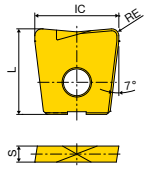
Spare parts DC	Y7 TORX® blade Article no. 80 950 ...		Y7 Key D Article no. 80 950 ...		2A/28 Molykote Article no. 70 950 ...		WA Clamping screw Article no. 56 950 ...		Y7 Torque screwdriver Article no. 80 950 ...	
	EUR		EUR		EUR		EUR		EUR	
8	4,76	033	7,80	110	4,38	303	6,10	042	118,90	191
10	4,76	036	9,28	113	4,38	303	6,10	043	131,90	193
12	4,76	037	9,95	114	4,38	303	8,33	044	131,90	193
16	4,76	037	9,95	114	4,38	303	8,33	045	131,90	193
20	4,76	037	9,95	114	4,38	303	8,33	046	131,90	193
25			12,10	131	4,38	303	8,33	047		
32			12,10	131	4,38	303	8,45	048		

XOHX / XOGX

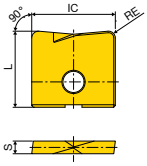
Designation	IC	S	L
	mm	mm	mm
XO.X10251..	10	2,50	11,5
XO.X12251..	12	2,50	14,0
XO.X12252..	12	2,50	14,0
XO.X16301..	16	3,00	16,0
XO.X16303..	16	3,00	16,0
XO.X20301..	20	3,00	18,0
XO.X20304..	20	3,00	18,0
XOHX06160..	6	1,60	8,0
XOHX08200..	8	2,00	9,5
XOHX08201..	8	2,00	9,5
XOHX10250..	10	2,50	11,5
XOHX12252..	12	3,00	14,0
XOHX20302..	20	3,00	18,0
XOHX25401..	25	4,00	23,5
XOHX25402..	25	4,00	23,5
XOHX25405..	25	4,00	23,5
XOHX32502..	32	5,00	28,0



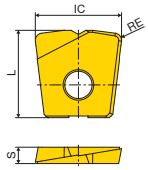
XOGX -MF4



XOHX -FM2, -MR2

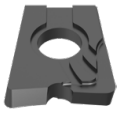
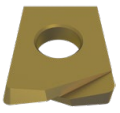
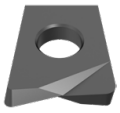


XOHX -FM5, -MR6



XOHX -MR3

XOHX / XOGX

		-MR2 CTPP211		-MR6 CTPP211		-FM2 CTPP216		-FM5 CTPP216		-MF4 CTPP216		-MR3 CTPK231		-MR2 CTCN211	
															
		XOHX		XOHX		XOHX		XOHX		XOGX		XOHX		XOHX	
		NEW WB		NEW WB		NEW WB		NEW WB		NEW WB		NEW WB		WB	
ISO	RE	Article no. 56 167 ...		Article no. 56 163 ...		Article no. 56 165 ...		Article no. 56 159 ...		Article no. 56 161 ...		Article no. 56 171 ...		Article no. 56 168 ...	
	mm	EUR		EUR		EUR		EUR		EUR		EUR		EUR	
061605	0,5	32,08	71000											76,96	610 1)
082006	0,6			34,50	71000	30,37	71000	26,53	71000						
082010	1,0	35,11	71200			30,37	71200							92,10	612 1)
102508	0,8			34,50	72100	30,37	72100	26,23	72100			38,23	32100		
102510	1,0	35,11	72200			30,37	72200			30,67	92200			97,94	622 1)
122510	1,0	37,63	73200	37,63	73200	31,38	73200	29,56	73200	33,29	93200	38,23	53200	106,10	632 1)
122520	2,0	37,63	73500			31,38	73500			33,29	93500				
163010	1,0	40,65	74200			36,32	74200			37,63	94200			131,90	642 1)
163013	1,3			40,05	74300	36,32	74300	33,89	74300						
163015	1,5											40,65	54400		
163030	3,0	40,65	74700			36,32	74500			37,63	94700				
203010	1,0	46,81	75200			40,05	75200			42,47	95200				
203016	1,6			45,59	75400	40,05	75400	38,84	75400						
203020	2,0											48,02	55500		
203040	4,0	46,81	75800			40,05	75800			42,47	95800				
254010	1,0	59,72	76200			51,75	76200								
254020	2,0			62,74	76500	51,75	76500	54,17	76500						
254050	5,0	59,72	76900			51,75	76900								
325025	2,5			88,67	77600			75,16	77600						
Steel		●		●		●		●		●		●			
Stainless steel		●		●		●		●		●		●			
Cast iron		●		●		●		●		●		●			
Non ferrous metals		○		○										●	
Heat resistant alloys		●		●		●		●		●		●			
hardened materials		○		○		●		●		●					

1) Specifically for machining graphite !

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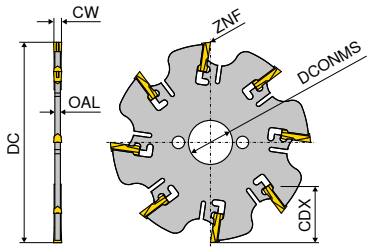
Milling guide

Depth of Cut	→ 185	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 183+184

Side and Face milling System FM

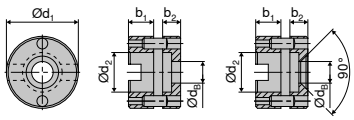
▲ For safety reasons the cutting speed must not exceed 250 m/min!

Scope of supply:
incl. ejector



Designation	DC	CW	ZNF	CDX	OAL	DCONMS	RPMX	Insert	2B Article no. 50 756 ... EUR	
	mm	mm		mm	mm	mm	1/min.			
SF-1,8-Z 8-100	100	2,3	8	28	1,8	22	800	FM-2.3 ...	524,30	**100**
SF-2,4-Z 8-100	100	3,0	8	28	2,4	22	800	FM-3.0 ...	476,00	**102**
SF-2,8-Z 8-100	100	4,0	8	28	2,8	22	800	FM-4.0 ...	476,00	**104**
SF-3,7-Z 8-100	100	5,0	8	28	3,7	22	800	FM-5.0 ...	608,10	**106**
SF-4,7-Z 8-100	100	6,0	8	28	4,7	22	800	FM-6.0 ...	633,40	**108**
SF-1,8-Z 10-125	125	2,3	10	40	1,8	22	650	FM-2.3 ...	623,90	**110**
SF-2,4-Z 10-125	125	3,0	10	40	2,4	22	650	FM-3.0 ...	564,10	**112**
SF-2,8-Z 10-125	125	4,0	10	40	2,8	22	650	FM-4.0 ...	564,10	**114**
SF-3,7-Z 10-125	125	5,0	10	40	3,7	22	650	FM-5.0 ...	722,50	**116**
SF-4,7-Z 10-125	125	6,0	10	40	4,7	22	650	FM-6.0 ...	766,50	**118**
SF-2,4-Z 15-160	160	3,0	15	49	2,4	32	500	FM-3.0 ...	663,70	**120**
SF-2,8-Z 15-160	160	4,0	15	49	2,8	32	500	FM-4.0 ...	663,70	**122**
SF-3,7-Z 15-160	160	5,0	15	49	3,7	32	500	FM-5.0 ...	809,50	**124**
SF-4,7-Z 15-160	160	6,0	15	49	4,7	32	500	FM-6.0 ...	844,10	**126**

Drive dogs



M../2N M../2S

Type	d_1 mm	d_2 mm	d_B mm	b_1 mm	b_2 mm	Ø mm	2A Article no. 70 950 ... EUR	
M22/2N	40	22	12	14,5	10	100/125	53,16	**800**
M32/2N	58	32	18	17,5	15	160	56,31	**801**
M22/2S	40	22	12	14,5	10	100/125	59,56	**802**
M32/2S	58	32	18	17,5	15	160	65,22	**803**

Ejector

2A Article no. 70 950 ... EUR	
3,72	**804**

FM

ISO	-N CWN35		-KXF CWN35		-N CWK12	
	FM V5		FM V5		FM V5	
	Article no. 50 491 ...		Article no. 50 492 ...		Article no. 50 491 ...	
	EUR		EUR		EUR	
FM-2.3-8	10,50	023	10,50	023	9,50	123
FM-3.0-8	10,50	030	10,50	030	9,50	130
FM-4.0-8	10,50	040	10,50	040	9,50	140
FM-5.0-8	13,29	050			12,97	150
FM-6.0-8	13,29	060			12,97	160
Steel		●		●		
Stainless steel		●		●		
Cast iron						●
Non ferrous metals						●
Heat resistant alloys						
hardened materials						

Milling guide

Machining strategy	→ 188	ISO Designation System	→ 194+195
Grade description	→ 209+210	Cutting data appoximate values	→ 187

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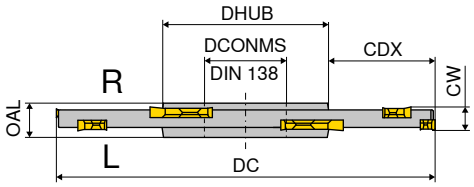
Saw Cutter TX

▲ Note: side and face milling cutters TX are cross-pitched and equipped with indexable inserts for both right-hand and left-hand version.
▲ ZEFP = number of inserts

Scope of supply:
side and face milling cutter, 2 spare clamping screws and 1 Torx key



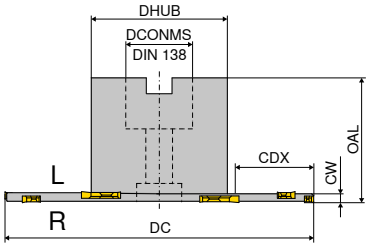
Designation	DC mm	CW mm	ZNF	CDX mm	DCONMS mm	DHUB mm	OAL mm	ZEFP	Insert	torque moment Nm	V5 Article no. 50 730 ... EUR	
TX.STF.80X27.03.Z4	80	3	4	18,0	27	40	8	8	TX. 161702	0,9	493,90	083
TX.STF.100X32.03.Z5	100	3	5	25,0	32	46	8	10	TX. 161702	0,9	621,80	103
TX.STF.125X40.03.Z6	125	3	6	32,0	40	54	10	12	TX. 161702	0,9	679,50	123
TX.STF.160X40.03.Z8	160	3	8	50,0	40	54	10	16	TX. 161702	0,9	793,80	163
TX.STF.80X27.04.Z4	80	4	4	18,0	27	40	8	8	TX. 162302	1,3	486,50	084
TX.STF.100X32.04.Z5	100	4	5	25,0	32	46	8	10	TX. 162302	1,3	613,40	104
TX.STF.125X40.04.Z6	125	4	6	32,0	40	54	10	12	TX. 162302	1,3	669,00	124
TX.STF.160X40.04.Z8	160	4	8	50,0	40	54	10	16	TX. 162302	1,3	783,30	164
TX.STF.80X27.06.Z4	80	6	4	21,0	27	36	10	8	TX. 223202	2	319,80	086
TX.STF.80X22.06.Z4	80	6	4	22,0	22	33	10	8	TX. 223202	2	319,80	080
TX.STF.100X32.06.Z5	100	6	5	25,5	32	47	10	10	TX. 223202	2	380,60	106
TX.STF.125X40.06.Z6	125	6	6	32,5	40	58	10	12	TX. 223202	2	513,80	136
TX.STF.160X40.06.Z8	160	6	8	50,0	40	58	10	16	TX. 223202	2	681,60	166
TX.STF.80X27.08.Z4	80	8	4	21,0	27	36	12	8	TX. 224302	2,8	319,80	088
TX.STF.100X32.08.Z5	100	8	5	25,5	32	47	12	10	TX. 224302	2,8	380,60	108
TX.STF.125X40.08.Z6	125	8	6	32,5	40	58	12	12	TX. 224302	2,8	513,80	138
TX.STF.160X40.08.Z8	160	8	8	50,0	40	58	12	16	TX. 224302	2,8	660,60	168
TX.STF.80X27.10.Z4	80	10	4	21,0	27	36	12	8	TX. 225402	3	319,80	090
TX.STF.100X32.10.Z5	100	10	5	25,5	32	47	12	10	TX. 225402	3	380,60	110
TX.STF.125X40.10.Z6	125	10	6	32,5	40	58	14	12	TX. 225402	3	513,80	140
TX.STF.160X40.10.Z8	160	10	8	50,0	40	58	14	16	TX. 225402	3	681,60	170

Spare parts CW	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		V5 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
3	4,76	032	7,80	109	4,38	303	4,71	858	118,90	191
4	4,76	033	7,80	110	4,38	303	2,16	218	118,90	191
6	4,76	036	9,28	113	4,38	303	2,81	101	128,60	192
8	4,76	037	9,95	114	4,38	303	2,81	135	128,60	192
10	4,76	037	9,95	114	4,38	303	2,76	146	128,60	192

Shell side and face milling cutter TX

▲ Note: side and face milling cutters TX are cross-pitched and equipped with indexable inserts for both right-hand and left-hand version.
▲ ZEFP = number of inserts

Scope of supply:
side and face milling cutter, 2 spare clamping screws and 1 Torx key

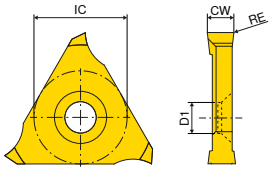


Designation	DC mm	CW mm	ZNF	CDX mm	DCONMS mm	DHUB mm	OAL mm	ZEFP	torque moment Nm	Insert	V5 Article no. 50 734 ... EUR	
TX.ASF.100.R.03.Z5	100	3	5	25,0	27	48	50	10	0,9	TX. 161702	565,10	300
TX.ASF.125.R.03.Z6	125	3	6	37,5	27	48	50	12	0,9	TX. 161702	877,60	225
TX.ASF.160.R.03.Z8	160	3	8	44,0	40	70	50	16	0,9	TX. 161702	940,50	260
TX.ASF.100.R.04.Z5	100	4	5	25,0	27	48	50	10	3,2	TX. 162302	556,80	100
TX.ASF.125.R.04.Z6	125	4	6	37,5	27	48	50	12	3,2	TX. 162302	804,30	025
TX.ASF.125.R.04.Z6	125	4	6	26,5	40	70	50	12	3,2	TX. 162302	783,30	125
TX.ASF.160.R.04.Z8	160	4	8	55,0	27	48	50	16	3,2	TX. 162302	980,40	060
TX.ASF.160.R.04.Z8	160	4	8	44,0	40	70	50	16	3,2	TX. 162302	926,90	160
TX.ASF.180.R.04.Z9	180	4	9	54,0	40	70	50	18	3,2	TX. 162302	1.072,00	180
TX.ASF.200.R.04.Z10	200	4	10	64,0	40	70	50	20	3,2	TX. 162302	1.194,00	200

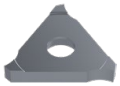
Spare parts CW	DCONMS	V5 Washer Article no. 70 950 ... EUR		Y7 TORX® blade Article no. 80 950 ... EUR		V5 Clamping Screw Article no. 70 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		V5 Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
3	40	1,63	222	4,76	032	7,03	220	7,80	109	4,38	303	4,71	858	118,90	191
3	27	1,08	221	4,76	032	1,63	219	7,80	109	4,38	303	4,71	858	118,90	191
4	27	1,08	221	4,76	033	1,63	219	7,80	110	4,38	303	2,16	218	128,60	192
4	40	1,63	222	4,76	033	7,03	220	7,80	110	4,38	303	2,16	218	128,60	192

TX-L / TX-R

Designation	IC	D1	CW
	mm	mm	mm
TX . 1617..	10	3,95	1,7
TX . 1623..	10	3,95	2,3
TX . 2232..	13	5,50	3,2
TX . 2243..	13	5,50	4,3
TX . 2254..	13	5,50	5,4



TX-L / TX-R

		CWX500		CWX500		CWK10		CWK10	
									
		TX-L		TX-R		TX-L		TX-R	
		V5		V5		V5		V5	
ISO	RE	Article no. 50 382 ...		Article no. 50 381 ...		Article no. 50 382 ...		Article no. 50 381 ...	
	mm	EUR		EUR		EUR		EUR	
TX 161702	0,2	19,78	217	19,78	217				
TX 162302	0,2	19,56	223	19,56	223				
TX 223202	0,2	29,52	232	29,52	232	26,16	532	26,16	532
TX 224302	0,2	29,83	243	29,83	243	26,70	543	26,70	543
TX 225402	0,2	22,16	254	22,16	254	19,02	554	19,02	554

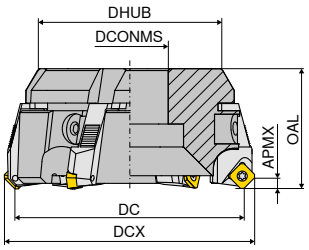
Steel	●	●		
Stainless steel	●	●		
Cast iron	●	●		
Non ferrous metals			●	●
Heat resistant alloys	●	●		
hardened materials				

Milling guide

Grade description → 209+210
ISO Designation System → 194+195
Cutting data appoximate values → 187

MaxiMill – Combi Mill Base Holder 260

▲ Basic body with clamping wedges, without cartridges



DC mm	ZNF	DCONMS mm	DHUB mm	OAL mm	WT kg	2B/40 Article no. 50 715 ... EUR	
80	5	27	66	52	1	367,30	080
100	6	32	86	52	2	402,30	100
125	7	40	95	63	3	560,20	125
160	10	40	130	63	6	614,40	160
200	12	60	172	63	9	785,20	200
250	14	60	222	63	17	1.017,00	250
315	18	60	280	80	31	1.063,00	315
400	22	60	365	80	52	2.292,00	400

For information on axial runout setting, see → **page 189**

Spare parts DC	2A/28 Clamping wedge screw Article no. 70 950 ... EUR		2A/28 Clamping Wedge Article no. 70 950 ... EUR		2A/28 Key-T Article no. 70 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A/28 Eccentric Key Article no. 70 950 ... EUR	
80 - 400	2,98	297	17,47	296	7,09	317	4,38	303	12,37	298

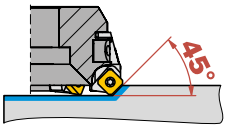
Insert related diameter

Inserts	Nominal Ø in mm 80 DC mm	80 DCX mm	100 DC mm	100 DCX mm	120 DC mm	120 DCX mm	160 DC mm	160 DCX mm	200 DC mm	200 DCX mm	250 DC mm	250 DCX mm	315 DC mm	315 DCX mm	400 DC mm	400 DCX mm
SD.. 0903..	80	88,4	100	108,4	123	131,4	158	166,4	198	206,4	248	256,4	313	321,4	398	406,4
SD.. 1204..	80	94,5	100	114,5	123	137,5	158	172,5	198	212,5	248	262,5	313	327,5	398	412,5
SE.. 1204..	80	93	100	113	123	136	158	171	198	211	248	261	313	326	398	411
SD.. 1504..	75	94	95	114	118	137	153	172	193	212	243	262	308	327	393	412
SP.. 1204..	82	88	102	108	125	131	160	166	200	206	250	256	315	321	400	406
OA.. 0605..	80	85,6	100	105,6	123	128,6	158	163,6	198	203,6	248	253,6	313	318,6	398	403,6
RP.X 1204..	80	92	100	112	123	135	158	170	198	210	248	260	313	325	398	410
RP.X 16..	76	92	96	112	119	135	154	170	194	210	244	260	309	325	394	410
SD.. 1205..	89		109		132		167		207		257		322		407	
SD.. 09T3	89		109		132		167		207		257		322		407	
LD..1504..	89		109		132		167		207		257		322		407	
XD.T 11T3	89		109		132		167		207		257		322		407	
XDKT 1505	89		109		132		167		207		257		322		407	
AP.. 1003..	89		109		132		167		207		257		322		407	
TPKW 2204..	89		109		132		167		207		257		322		407	

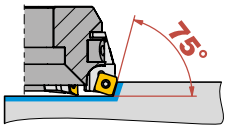
System MaxiMill 260/Combi Mill

Cassette for inserts

Face milling

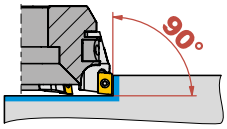


	SD.. 0903..	SD.. 1204..	SE.. 1204..	SD.. 1504..	OA.. 0605..
Cartridge no.	041	031	029	032	057
Article no. 70 950 ...	329	411	306	412	338



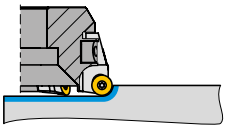
	SP.. 1204..
Cartridge no.	018
Article no. 70 950 ...	310

Shoulder milling



	AP.. 1003..	LD.. 1504..	XD.T 11T3..	XDKT 1505..	SD.. 1205..	SD.. 09T3..	TPKW 2204..
Cartridge no.	042	051	054	056	039	055	025
Article no. 70 950 ...	307	300	336	339	311	337	313

Face/Copy milling



	RP.X 1204..	RP.X 16....
Cartridge no.	052	053
Article no. 70 950 ...	333	707

Insert	APMX mm	Cassette 2B/40 Article no. 70 950 ... EUR	
AP.. 1003..	8,0	84,26	307
LD.. 1504..	14,0	84,26	300
OA.. 0605..	3,5	84,26	338
RP.X 1204..	6,0	84,26	333
RP.X 16..	8,0	84,26	707
SD.. 0903..	4,0	84,26	329
SD.. 09T3..	8,0	84,26	337
SD.. 1204..	6,0	84,26	411
SD.. 1205..	6,0	84,26	311
SD.. 1504..	9,0	84,26	412
SE.. 1204..	6,0	84,26	306
SP.. 1204..	9,0	84,26	310
TPKW 2204..	18,0	84,26	313
XD.T 11T3	10,0	84,26	336
XDKT 1505..	14,0	84,26	339

Spare parts	Y7 TORX® blade Article no. 80 950 ... EUR		Y7 Key D Article no. 80 950 ... EUR		2A/28 Molykote Article no. 70 950 ... EUR		2A Clamping screw Article no. 70 950 ... EUR		Y7 Torque screwdriver Article no. 80 950 ... EUR	
AP.. 1003..	4,76	033	7,80	110	4,38	303	2,36	112	118,90	191
OA.. 0605..	4,76	037	9,95	114	4,38	303	4,09	302	131,90	193
RP.X 1204.. / LD.. 1504..	4,76	036	9,28	113	4,38	303	3,14	304	128,60	192
SD.. 0903..	4,76	033	7,80	110	4,38	303	2,57	115	118,90	191
SD.. 09T3..	4,76	036	9,28	113	4,38	303	3,14	110	128,60	192
SD.. 1204.. / SE.. 1204.. / SP.. 1204.. / SD.. 1205.. / SD.. 1504.. / RP.X 16.. / TPKW 2204..	4,76	037	9,95	114	4,38	303	2,52	280	131,90	193
XD.T.. 11T3..	4,76	043	10,20	125	4,38	303	4,09	131	118,90	191
XDKT 1505..	5,26	054	11,89	128	4,38	303	3,18	839	128,60	192

Material examples referring to the cutting data tables

	Index	Material	Strength N/mm² / HB / HRC	Material number	Material designation	Material number	Material designation	Material number	Material designation
P	1.1	General construction steel	< 800 N/mm²	1.0402	EN3B				
	1.2	Free cutting steel	< 800 N/mm²	1.0711	EN1A				
	1.3	Hardened steel, non alloyed	< 800 N/mm²	1.0401	EN32C				
	1.4	Alloyed hardened steel	< 1000 N/mm²	1.7325	25 CD4				
	1.5	Tempering steel, unalloyed	< 850 N/mm²	1.5752	EN36	1.0535	EN9		
	1.6	Tempering steel, unalloyed	< 1000 N/mm²	1.6582	EN24				
	1.7	Tempering steel, alloyed	< 800 N/mm²	1.7225	EN19				
	1.8	Tempering steel, alloyed	< 1300 N/mm²	1.8515	EN40B				
	1.9	Steel castings	< 850 N/mm²	0.9650	G-X 260 Cr 27	1.6750	GS-20 NiCrMo 3.7	1.6582	GS-34 CrNiMo 6
	1.10	Nitriding steel	< 1000 N/mm²	1.8509	EN41B				
	1.11	Nitriding steel	< 1200 N/mm²	1.1186	EN8	1.1160	EN14A		
	1.12	Roller bearing steel	< 1200 N/mm²	1.3505	534A99				
	1.13	Spring steel	< 1200 N/mm²		EN45		EN47		EN43
	1.14	High-speed steel	< 1300 N/mm²	1.3343	M2	1.3249	M34		
	1.15	Cold working tool steel	< 1300 N/mm²	1.2379	D2	1.2311	P20		
	1.16	Hot working tool steel	< 1300 N/mm²	1.2344	H13				
M	2.1	Cast steel and sulphured stainless steel	< 850 N/mm²	1.4581	318				
	2.2	Stainless steel, ferritic	< 750 N/mm²	1.4000	403				
	2.3	Stainless steel, martensitic	< 900 N/mm²	1.4057	EN57				
	2.4	Stainless steel, ferritic / martensitic	<1100 N/mm²	1.4028	EN56B				
	2.5	Stainless steel, austenitic / ferritic	< 850 N/mm²	1.4542	17-4PH				
	2.6	Stainless steel, austenitic	< 750 N/mm²	1.4305	303	1.4401	316	1.4301	304
	2.7	Heat resistant steel	< 1100 N/mm²	1.4876	Incoloy 800				
K	3.1	Grey cast iron with lamellar graphite	100–350 N/mm²	0.6015	Grade 150	0.6020	Grade 220	0.6025	Grade 260
	3.2	Grey cast iron with lamellar graphite	300–500 N/mm²	0.6030	Grade 300	0.6035	Grade 350	0.6040	Grade 400
	3.3	Gray cast iron with spheroidal graphite	300–500 N/mm²	0.7040	SG 400-12	0.7043	SG 370-17	0.7050	SG 500-7
	3.4	Gray cast iron with spheroidal graphite	500–900 N/mm²	0.7060	SG 600-3	0.7070	SG 700-2	0.7080	SG 800-2
	3.5	White malleable cast iron	270–450 N/mm²	0.8035	GTW-35	0.8045	GTW-45		
	3.6	White malleable cast iron	500–650 N/mm²	0.8055	GTW-55	0.8065	GTW-65		
	3.7	Black malleable cast iron	300–450 N/mm²	0.8135	GTS-35	0.8145	GTS-45		
	3.8	Black malleable cast iron	500–800 N/mm²	0.8155	GTS-55	0.8170	GTS-70		
N	4.1	Aluminium (non alloyed, low alloyed)	< 350 N/mm²	3.0255	1050 A	3.0275	1070 A	3.0285	1080 A (A8)
	4.2	Aluminium alloys < 0.5 % Si	< 500 N/mm²	3.1325	2017 A (AU4G)	3.4335	7005 (AZ5G)	3.4365	7075 (AZ5GU)
	4.3	Aluminium alloy 0.5–10 % Si	< 400 N/mm²	3.2315	A- G S1	3.2373	A-S9 G	3.2151	A-S 6 U4
	4.4	Aluminium alloys 10–15 % Si	< 400 N/mm²	3.2581	A-S12	3.2583	A-S12 U		
	4.5	Aluminum alloys > 15 % Si	< 400 N/mm²		A-S18	A-S17 U4			
	4.6	Copper (non alloyed, low alloyed)	< 350 N/mm²	2.0040	Cu-c1	2.0060	Cu-a1	2.0090	Cu-b1
	4.7	Copper wrought alloys	< 700 N/mm²	2.1247	Cub2 (Berylium Copper)	2.0855	CuN2S (Nickel Copper)	2.1310	CU-Fe2P
	4.8	Special copper alloys	< 200 HB	2.0916	Cu-A5	2.1525	Cu-S3 M		Ampco 8 (Cu-A6Fe2)
	4.9	Special copper alloys	< 300 HB	2.0978	Cu-Al11 Fe5 Ni5)		Ampco 18 (Cu- A10 Fe3)		
	4.10	Special copper alloys	> 300 HB	2.1247	Cu Be2		Ampco M4		
	4.11	Short-chipping brass, bronze, red bronze	< 600 N/mm²	2.0331	Cu Zn36 Pb1,5	2.0380	Cu Zn39 Pb2 (Ms 56)	2.0410	Cu Zn44 Pb2
	4.12	Long-chipping brass	< 600 N/mm²	2.0335	Cu Zn 36 (Ms63)	2.1293	Cu Cr1 Zr		
	4.13	Thermoplastics		PE	PVC	PS	Polystyrene		Plexiglas
	4.14	Duroplastics		PF	Bakelite		Pertinax		
	4.15	Fibre-reinforced plastics			Carbon Fibre		Fibreglass		Aramid Fibre (Kevlar)
	4.16	Magnesium and magnesium alloys	< 850 N/mm²	3.5812	Mg A7 Z1	3.5662	Mg A9	3.5105	Mg Tr3 Z2 Zn 1
	4.17	Graphite			R8500X		R8650		Technograph 15
	4.18	Tungsten and tungsten alloys			W-Ni Fe (Densimet)		W- Ni Cu (Inermet)		Denal
	4.19	Molybdenum and molybdenum alloys			TZM		MHQ		Mo W
S	5.1	Pure nickel		2.4066	Ni99 (Nickel 200)	2.4068	Lc Ni99 (Nickel 201)		
	5.2	Nickel alloys		1.3912	Fe-Ni36 (Invar)	1.3917	Fe -Ni42 (N42)	1.3922	Fe-Ni48 (N48)
	5.3	Nickel alloys	< 850 N/mm²	2.4375	Ni Cu30 Al (Monel K500)	2.4360	Ni Cu30Fe (Monel 400)	2.4668	
	5.4	Nickel molybdenum alloys		2.4600	Ni Mo30Cr2 (Hastelloy B4)	2.4617	Ni Mo28 (Hastelloy B2)	2.4819	Ni Mo16Cr16 Hastell. C276
	5.5	Nickel-chromium alloys	< 1300 N/mm²	2.4951	Ni Cr20TiAl (Nimonic 80A)	2.4858	Ni Cr21Mo (Inconel 825)	2.4856	Ni Cr22Mo9Nb Inconel 625
	5.6	Cobalt Chrome Alloys	< 1300 N/mm²	2.4964	Co Cr20 W15 Ni10		Co Cr20 Ni16 Mo7		Co Cr28 Mo 6
	5.7	Heat resistant alloys	< 1300 N/mm²	1.4718	Z45 C S 9-3	1.4747	Z80 CSN 20-02	1.4845	Z12 CN 25-20
	5.8	Nickel-cobalt-chromium alloys	< 1400 N/mm²	2.4851	Ni Cr23Fe (Inconel 601)	2.4668	Ni Cr19NbMo (Inconel 718)	2.4602	Ni Cr21Mo14 Hastelloy C22
	5.9	Pure titanium	< 900 N/mm²	3.7025	T35 (Titanium Grade 1)	3.7034	T40 (Titanium Grade 2)	3.7064	T60 (Titanium Grade 4)
	5.10	Titanium alloys	< 700 N/mm²		T-A6-Nb7 (367)		T-A5-Sn2-Mo4-Cr4 (Ti17)		T-A3-V2,5 (Gr18)
	5.11	Titanium alloys	< 1200 N/mm²	3.7165	T-A6-V4 (Ta6V)		T-A4-3V-Mo2-Fe2 (SP700)		T-A5-Sn1-Zr1-V1-Mo (Gr32)
H	6.1	Tempered steel	< 45 HRC						
	6.2		46–55 HRC						
	6.3		56–60 HRC						
	6.4		61–65 HRC						
	6.5		65–70 HRC						

Cutting data appoximate values

Cutting Material **hard** (v_c↑) → **tough** (v_c↓)

	DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN		DRAGONSKIN				DRAGONSKIN				DRAGONSKIN		DRAGONSKIN		DRAGONSKIN					
	CERMET		CERMET																							
	CTEP210 (DCC1210)		TCM10 (CWC10)		CTCP220 (DCX1220)		CTPP225 (DPX1225)		CTCP230 (DCX1230)		CTPP231		CTPP235 (DPX1235)		CTPP236		CTPM225 (DPX2225)		CTCM235 (DCX2235)		CTPM240 (DPX2240)		CTPM241		CTPM245 (DPX2245)	
Index																										
1.1	320		280		320	170	300	160	280	170	200	100	240	140	300	180	270	160	240	140	220	130	200	100		
1.2	400		350		280	150	250	130	230	140	170	90	190	110	250	150	220	130	190	110	170	100	170	90		
1.3	350		300		320	170	300	160	280	170	200	100	240	140	300	180	270	160	240	140	220	130	200	100		
1.4	330		300		300	150	280	140	250	150	170	90	220	130	270	160	240	140	210	130	200	120	170	90	250	
1.5	400		350		300	150	280	140	250	150	170	90	210	130	270	160	230	140	210	130	190	110	170	90		
1.6	350		300		300	150	280	140	250	150	170	90	210	130	270	160	230	140	210	130	190	110	170	90		
1.7	280		250		300	150	280	140	250	150	170	90	220	130	270	160	240	140	210	130	200	120	170	90	220	
1.8	320		280		250	120	220	110	190	110	150	80	160	100	210	120	180	100	150	90	140	80	150	80	180	
1.9	250		230		280	140	250	130	230	140	200	110	200	120	250	150	220	130	200	120	180	100	180	100	250	
1.10	280		250		300	150	280	140	250	150	170	90	220	130	270	160	240	140	210	130	200	120	170	100	220	
1.11	300		250		190	100	170	90	140	90	120	70	120	70	160	100	140	80	100	60	100	60	120	80	180	
1.12	300		250		300	150	280	140	250	150	170	90	220	130	270	160	240	140	210	130	200	120	170	100	250	
1.13					300	150	280	140	250	150	170	90	210	130	270	160	230	140	210	130	190	110	170	100	250	
1.14					150	70	130	70	100	60	120	70	90	50	150	100	170	100	120	70	90	50	120	80	120	
1.15	280		250		180	90	150	90	130	80	140	80	110	70	180	140	180	110	150	90	120	70	140	90	220	
1.16	280		250		180	90	150	90	130	80	140	80	110	70	180	140	180	110	150	90	120	70	180	100	160	
2.1									90	60			80	50			170	100	110	70	80	50	210	100	240	
2.2			280						130	80			110	70			180	110	150	90	120	70	210	100	240	
2.3			250						90	60			80	50			170	100	110	70	80	50	210	100	260	
2.4									130	80			110	70			180	110	150	90	120	70	210	100	280	
2.5													190	110			280	160	250	140	190	110	210	100	180	160
2.6													190	110			280	160	260	150	210	120	210	100	200	180
2.7													190	110			280	160	260	150	210	120	210	100	150	130
3.1	380										150	110			360	90										
3.2	300		250								150	110			360	90										
3.3	400		350								150	110			230	170										
3.4	350		300								150	110			160	110										
3.5	380		330												250	180										
3.6	250														250	180										
3.7	350		300												210	160										
3.8	280														210	160										
4.1																										
4.2																										
4.3																										
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4.14																										
4.15																										
4.16																										
4.17																										
4.18																										
4.19																										
5.1																							80	40		
5.2																							80	40		
5.3																							80	40		
5.4																							80	40		
5.5																							80	40		
5.6																							80	40		
5.7																							80	40		
5.8																							80	40		
5.9																							80	40		
5.10																							90	50		
5.11																							90	50		
6.1											120	50			130	60										
6.2																										
6.3																										
6.4																										
6.5																										

Cutting data appoximate values

Cutting Material **hard** (v_c↑) → **tough** (v_c↓)

	CERAMIC		CBN																			
	CTN3105 CTS3105		CTL3215 CWB3215		CTPK221		CTCK215 DCX3215 (DRAGONSKIN)		CTPK220 DPX3220 (DRAGONSKIN)		H216T CWK 26		AMZ AMZ		CTWN215 CWK 4615		CTC5240 HCF 5240 (DRAGONSKIN)		CTCS245		CTP6215 CCN6215	
Index	✗	🚰	✗	🚰	✗	🚰	✗	🚰	✗	🚰	✗	🚰	✗	🚰	✗	🚰	✗	🚰	✗	🚰	✗	🚰
1.1					**190**	**120**	350	210	300	180												
1.2					**180**	**100**	300	180	250	150												
1.3					**190**	**120**	350	210	300	180												
1.4					**180**	**100**																
1.5					**180**	**100**	320	190	270	160												
1.6					**180**	**100**	320	190	270	160												
1.7					**180**	**100**																
1.8					**180**	**100**																
1.9					**200**	**120**	300	180	260	160												
1.10					**180**	**100**																
1.11					**120**	**70**																
1.12					**180**	**100**																
1.13					**180**	**100**	320	190	270	160												
1.14					**120**	**70**																
1.15					**210**	**120**																
1.16					**210**	**120**																
2.1																						
2.2																						
2.3																						
2.4																						
2.5																						
2.6																						
2.7																						
3.1	**400–1500**		**500–1000**		**270**	**200**	**360**	160	**320**	160	110	110	140		80	80					**280**	250
3.2	**300–800**		**500–1000**		**270**	**200**	**360**	160	**320**	160	110	110	140		80	80					**280**	250
3.3					**250**	**180**	**230**	140	**210**	130	130	130	150		80	80					**180**	150
3.4			**350–650**		**180**	**120**	**160**	100	**140**	80	130	130	150		80	80					**180**	150
3.5					**270**	**190**	**250**	150	**200**	120	130	130	150		80	80					**250**	220
3.6					**270**	**190**	**250**	150	**200**	120	130	130	150		80	80					**250**	220
3.7					**220**	**170**	**210**	130	**170**	100	130	130	150		80	80					**190**	160
3.8					**220**	**170**	**210**	130	**170**	100	130	130	150		80	80					**190**	160
4.1												**1500**		**1500**		**280**						
4.2												**1500**		**1500**		**250**						
4.3												**400**		**400**		**800**						
4.4												**350**		**350**		**800**						
4.5																**500**						
4.6												**500**		**500**		**200**						
4.7												**500**		**500**	80	**80**						
4.8												**500**		**500**	80	**80**						
4.9												**500**		**500**	80	**80**						
4.10												**300**		**300**	70	**70**						
4.11												**800**		**800**	80	**80**						
4.12												**800**		**800**	80	**80**						
4.13												**350**		**350**	80	**80**						
4.14												**350**		**350**	80	**80**						
4.15												**350**		**350**	80	**80**						
4.16												**150**		**150**	80	**110**						
4.17											**90**				80	**80**						
4.18												**90**		**90**		**90**						
4.19												**130**		**130**		**130**						
5.1																		**50**		**30–50**		
5.2																		**50**		**30–50**		
5.3																		**50**		**30–50**		
5.4																		**40**		**30–50**		
5.5																		**40**		**30–50**		
5.6																		**40**		**30–50**		
5.7																		**40**		**30–50**		
5.8																		**40**		**30–50**		
5.9																		**90**				
5.10																		**60**				
5.11																		**60**				
6.1					**180**	**120**															**50**	
6.2					**160**	**100**															**50**	
6.3			110–190																		**40**	
6.4																						
6.5																						

15

System MaxiMill 274-04/-09

Cutting data recommendations/Technology data

System Maximill 274 OFHT-04

	F			M			R		
Material	m/min	f_z mm	a_p mm	m/min	f_z mm	a_p mm	m/min	f_z mm	a_p mm
Steel	50–350	0,1–0,25	2,5	60–280	0,1–0,3	2,5	60–280	0,1–0,3	2,5
Stainless steel	60–270	0,1–0,25	2,5	60–270	0,1–0,3	2,5	60–270	0,1–0,3	2,5
Cast iron				130–360	0,1–0,3	2,5	130–360	0,1–0,3	2,5
Non-ferrous metals	160–1500	0,05–0,4	2,5	160–1500	0,05–0,4	2,5	160–1500	0,05–0,4	2,5
Heat resistant alloys	25–80	0,1–0,25	2,5	25–80	0,1–0,25	2,5			
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

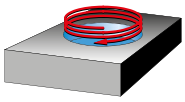
System MaxiMill 274 SFKT-09

	F			M			R		
Material	m/min	f_z mm	a_p mm	m/min	f_z mm	a_p mm	m/min	f_z mm	a_p mm
Steel	50–350	0,1–0,25	3,8	60–280	0,1–0,3	3,8	60–280	0,1–0,3	3,8
Stainless steel	60–270	0,1–0,25	3,8	60–270	0,1–0,3	3,8	60–270	0,1–0,3	3,8
Cast iron	110–130	0,05–0,4		130–360	0,1–0,35	3,8	130–360	0,1–0,35	3,8
Non-ferrous metals	160–1500	0,05–0,4	3,8	160–1500	0,05–0,4	3,8	160–1500	0,05–0,4	3,8
Heat resistant alloys	25–80	0,1–0,25	3,8	25–80	0,1–0,25	3,8	25–80	0,1–0,25	3,8
hardened materials									

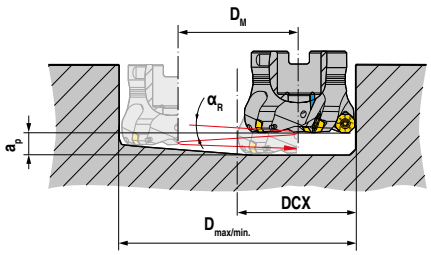
Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

Helical plunge milling



$D_{max.}$ in mm = largest diameter for flat bottom hole
$D_{min.}$ in mm = smallest hole diameter for flat bottom surface
D_M = D_{max} – DCX and D_{min} – DCX



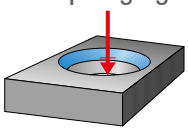
OF..04

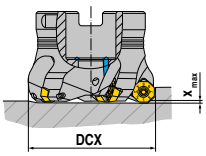
DCX mm	D_{max} mm	D_{min} mm	$\alpha_{R\,max}$ °
25,6	45	39	2,3
30,7	55	49	1,9
37,7	69	63	1,4
45,7	85	79	1,2
55,7	105	99	0,9
68,7	131	125	0,7
85,7	165	159	0,6
105,7	205	199	0,5
130,7	255	249	0,4

SF..09

DCX mm	D_{max} mm	D_{min} mm	$\alpha_{R\,max}$ °
27,4	45,00	42,0	1,9
32,5	55,00	52,0	1,5
39,2	69,00	66,0	1,1
47,6	85,00	82,0	0,9
57,6	105,00	102,0	0,7
70,5	131,00	128,0	0,5
87,5	165,00	162,0	0,4
107,5	205,00	202,0	0,3
132,5	255,00	252,0	0,3

Axial plunging





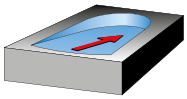
OF..04

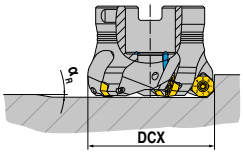
DCX mm	x_{max} mm
25,6	2,5
30,7	2,5
37,7	2,5
45,7	2,5
55,7	2,5
68,7	2,5
85,7	2,5
105,7	2,5
130,7	2,5

SF..09

DCX mm	x_{max} mm
27,4	3,7
32,5	3,5
39,2	3,2
47,6	3,1
57,6	3,1
70,5	3,0
87,5	2,9
107,5	2,7
132,5	2,7

Angled ramping





OF..04

DCX mm	$\alpha_{R\,max}$ °
25,6	14,2
30,7	9,5
37,7	6,5
45,7	4,7
55,7	3,5
68,7	2,7
85,7	2,0
105,7	1,6
130,7	1,2

SF..09

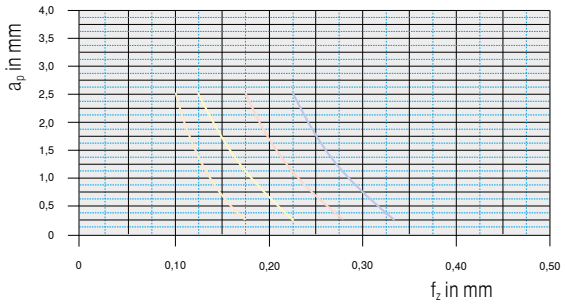
DCX mm	$\alpha_{R\,max}$ °
27,4	20,4
32,5	13,0
39,2	8,0
47,6	5,8
57,6	4,3
70,5	3,2
87,5	2,3
107,5	1,7
132,5	1,3

System MaxiMill 274-04

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

OF.. 04



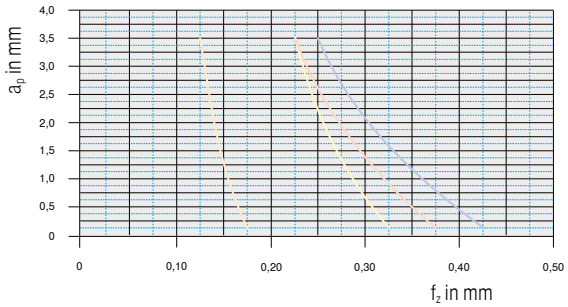
Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**OFHT040305SN-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**OFHT040305SN-F50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**OFHT040305SN-M50**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**OFHT040305SN-F50**	**CTC5240** (HCF5240)	35	Emulsion

System MaxiMill 274-09

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

SF.. 09



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**SFKT0903AFSR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**SFHT0903AFSR-F50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**SFKT0903AFSR-R50**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**SFHT0903AFSR-F50**	**CTC5240** (HCF5240)	35	Emulsion

From v_c > 400 m/min, the tool must be balanced!

System MaxiMill 274-05/-12

Cutting data recommendations/Technology data

System MaxiMill 274 OFHT-05

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	50–350	0,1–0,25	3	60–280	0,1–0,3	3	60–280	0,1–0,3	3
Stainless steel	60–270	0,1–0,25	3	60–270	0,1–0,3	3	60–270	0,1–0,3	3
Cast iron				130–360	0,1–0,3	3	130–360	0,1–0,3	3
Non-ferrous metals	160–1500	0,05–0,4	3	160–1500	0,05–0,4	3	160–1500	0,05–0,4	3
Heat resistant alloys	25–80	0,1–0,25	3	25–80	0,1–0,25	3			
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

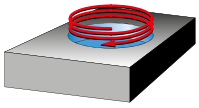
System MaxiMill 274 SFKT-12

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	50–350	0,1–0,25	6	60–280	0,1–0,3	6	60–280	0,1–0,3	6
Stainless steel	60–270	0,1–0,25	6	60–270	0,1–0,3	6	60–270	0,1–0,3	6
Cast iron	110–130	0,05–0,4		130–360	0,1–0,35	6	130–360	0,1–0,35	6
Non-ferrous metals	160–1500	0,05–0,4	6	160–1500	0,05–0,4	6	160–1500	0,05–0,4	6
Heat resistant alloys	25–80	0,1–0,25	6	25–80	0,1–0,25	6	25–80	0,1–0,25	6
hardened materials									

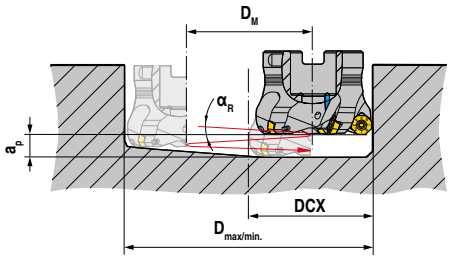
Detailed information on cutting speed for each grade can be found on → page 138+139

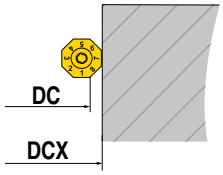
Machining strategy

Helical plunge milling



$D_{max.}$ in mm = largest diameter for flat bottom hole
$D_{min.}$ in mm = smallest hole diameter for flat bottom surface
D_M = D_{max} – DCX and D_{min} – DCX





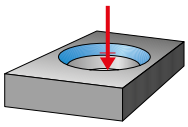
OF..05

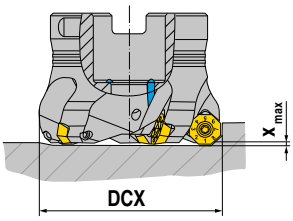
DC mm	DCX mm	D_{max} mm	D_{min} mm	$\alpha_{R\,max}$ °
50	**58**	107	99	1,1
63	**71**	133	125	0,9
80	**88**	167	159	0,7
100	**107,9**	207	199	0,5
125	**132,9**	257	249	0,4

SF..12

DC mm	DCX mm	D_{max} mm	D_{min} mm	$\alpha_{R\,max}$ °
47,0	**61,0**	107	105	0,5
59,9	**74,0**	133	131	0,4
76,9	**90,9**	167	165	0,3
96,9	**110,9**	207	205	0,25
121,9	**135,9**	257	255	0,2

Axial plunging





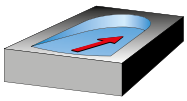
OF..05

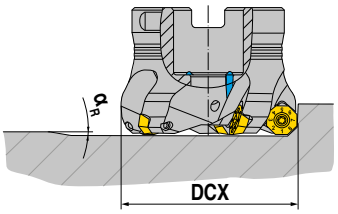
DC mm	DCX mm	X_{max} mm
50	**58**	2,2
63	**71**	1,9
80	**88**	1,8
100	**107,9**	1,1
125	**132,9**	1,4

SF..12

DC mm	DCX mm	X_{max} mm
47,0	**61,0**	3,4
59,9	**74,0**	3,2
76,9	**90,9**	3,0
96,9	**110,9**	2,5
121,9	**135,9**	2,6

Angled ramping





OF..05

DC mm	DCX mm	$\alpha_{R\,max}$ °
50	**58**	3,2
63	**71**	2,0
80	**88**	1,5
100	**107,9**	0,7
125	**132,9**	0,7

SF..12

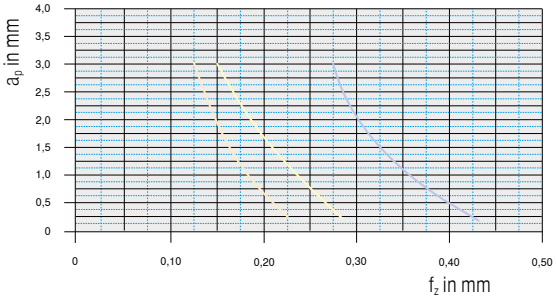
DC mm	DCX mm	$\alpha_{R\,max}$ °
47,0	**61,0**	4,9
59,9	**74,0**	3,4
76,9	**90,9**	2,4
96,9	**110,9**	1,6
121,9	**135,9**	1,3

System MaxiMill 274-05

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

OF.. 05



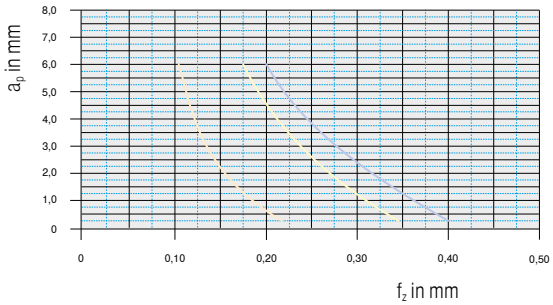
Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**OFHT050410SN-M50**	**CTCP230** (DCX1230)	200	Dry
Stainless steel	1.4571	**OFHT050410SN-F50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301				
Heat resistant alloys	2.4856	**OFHT050410SN-F50**	**CTC5240** (HCF5240)	35	Emulsion

System MaxiMill 274-12

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

SF.. 12



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**SFKT1204AFSR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**SFKT1204AFSR-M50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301				
Heat resistant alloys	2.4856	**SFHT1204AFER-F40**	**CTC5240** (HCF5240	35	Emulsion

15

From v_c > 400 m/min, the tool must be balanced!

System MaxiMill 271

Cutting data appoximate values

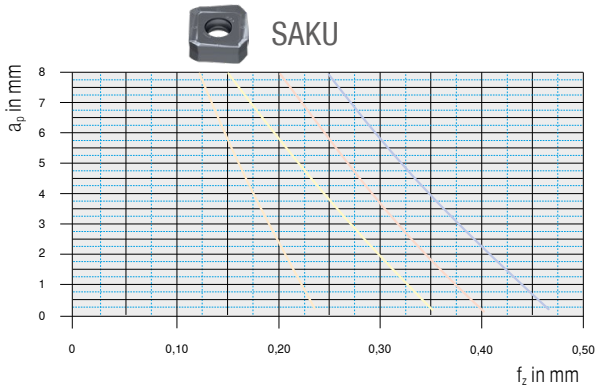
MaxiMill 271

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	50–340	0,2–0,3	8,4	50–340	0,2–0,5	8,4	50–340	0,2–0,5	8,4
Stainless steel	60–270	0,2–0,3	8,4	60–270	0,2–0,5	8,4	60–270	0,2–0,5	8,4
Cast iron				130–360	0,2–0,5	8,4	130–360	0,2–0,5	8,4
Non-ferrous metals									
Heat resistant alloys	25–80	0,2–0,3	8,4	25–80	0,2–0,3	8,4	25–80	0,2–0,3	8,4
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**SAKU 1706ABSR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**SAKU 1706ABSR-F50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**SAKU 1706ABSR-R50**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**SAKU 1706ABSR-F50**	**CTC5240** (HCF5240)	35	Emulsion

From v_c > 400 m/min, the tool must be balanced!

MaxiMill 273 / 273 XAHT system

Cutting data appoximate values

MaxiMill 273

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	60–280	0,2–0,25	3,5	60–280	0,2–0,5	3,5	60–280	0,2–0,5	3,5
Stainless steel	130–240	0,2–0,5	3,5	60–270	0,2–0,5	3,5	60–270	0,2–0,5	3,5
Cast iron				130–360	0,2–0,5	3,5	130–360	0,2–0,5	3,5
Non-ferrous metals									
Heat resistant alloys	25–80	0,2–0,25	3,5	25–80	0,2–0,25	3,5	25–80	0,2–0,25	3,5
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

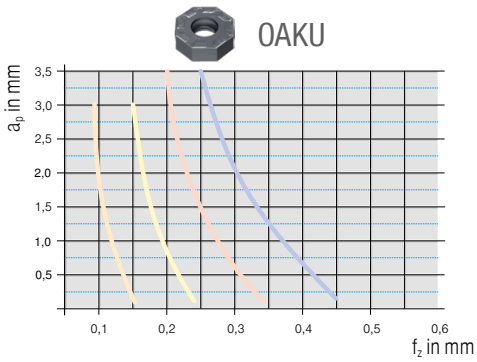
System MaxiMill 273 Wiper insert XAHT

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm						
Steel	60–350	0,05–0,15	0,20–1,00						
Stainless steel	40–250	0,05–0,15	0,20–1,00						
Cast iron	70–280	0,05–0,15	0,20–1,00						
Non-ferrous metals									
Heat resistant alloys	10–100	0,05	0,20–1,00						
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8–6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**OAKU 060508SR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**OAKU 060508SR-F50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**OAKU 060508SR-R50**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**OAKU 060508ER-F40**	**CTC5240** (HCF5240)	35	Emulsion

From v_c > 400 m/min, the tool must be balanced!

System MaxiMill 270-09

Cutting data recommendations/Technology data

for standard inserts

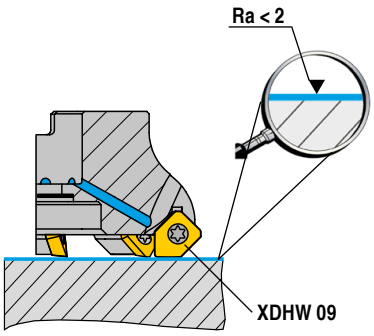
	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	60–280	0,1–0,3	4	60–280	0,1–0,3	4	60–280	0,1–0,3	4
Stainless steel	60–270	0,1–0,25	4	60–270	0,1–0,25	4	60–270	0,1–0,25	4
Cast iron	110–130	0,05–0,4		130–360	0,1–0,35	4	130–360	0,1–0,35	4
Non-ferrous metals	160–1500	0,05–0,4	4	160–1500	0,05–0,4	4	160–1500	0,05–0,4	4
Heat resistant alloys	25–80	0,1–0,25	4	25–80	0,1–0,25	4	25–80	0,1–0,25	4
hardened materials									

for wiper inserts

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	150–350	0,05–0,25	0,10–2,0						
Stainless steel	110–200	0,05–0,25	0,10–2,0						
Cast iron	150–280	0,05–0,25	0,10–2,0						
Non-ferrous metals	< 2000	0,05–0,25	0,10–2,0						
Heat resistant alloys									
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

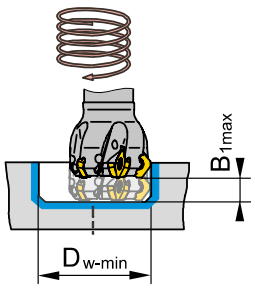


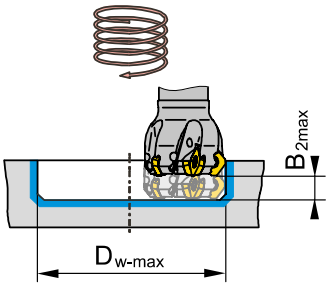
Finish milling with wiper inserts

Two wiper inserts are mounted in each 125mm head

Steel	SDNT	0903AESN-29	DPX 1235	+	XDHW	0903AESN	DPX 1235
	SDNT	0903AESN-29	DCX 1230	+	XDHW	0903AESN	DCX 1230
	SDHT	0903AESN-33	DCX 1230	+	XDHW	0903AESN	DCX 1230
	SDHW	0903AESN	CWC 10	+	XDHW	0903AESN	CWC 10
Cast iron	SDNT	0903AESN-31	DCX 3215	+	XDHW	0903AEEN	DCX 3215
Non-ferrous metals	SDHT	0903AEFN-ALP	CWK 26	+	XDHW	0903AEFN	CWK 26

Helical plunge milling (without start hole)





C 270-09

DC mm	$D_{w\text{-}min}$ mm	$B_{1\,max}$ mm	$D_{w\text{-}max}$ mm	$B_{2\,max}$ mm
6	14,4	1,5	19,0	1,5
12	28,5	1,5	31,0	1,5
16	36,5	1,5	39,0	1,5
20	44,5	1,5	47,0	1,5
25	54,5	1,5	57,0	1,5
32	68,5	1,5	71,0	1,5

A 270-09

DC mm	$D_{w\text{-}min}$ mm	$B_{1\,max}$ mm	$D_{w\text{-}max}$ mm	$B_{2\,max}$ mm
32	68,5	1,5	71,0	1,5
40	84,5	1,5	87,0	1,5
50	104,5	1,5	107,0	1,5
63	130,5	1,5	133,0	1,5
80	164,5	1,5	167,0	1,5
100	204,5	1,5	207,0	1,5
125	254,5	1,5	257,0	1,5
160	324,5	1,5	327,0	1,5

System MaxiMill 270-12

Cutting data recommendations/Technology data

for standard inserts

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	30–280	0,1–0,3	6	60–280	0,1–0,3	6	60–280	0,1–0,3	6
Stainless steel	60–270	0,1–0,25	6	60–270	0,1–0,25	6	60–270	0,1–0,25	6
Cast iron	150–200	0,05–0,4	6	130–360	0,1–0,35	6	130–360	0,1–0,3	6
Non-ferrous metals	160–3500	0,05–0,4	6	160–1500	0,05–0,4	6	160–1500	0,05–0,4	6
Heat resistant alloys	25–80	0,1–0,25	6	25–80	0,1–0,25	6	25–80	0,1–0,25	6
hardened materials									

for wiper inserts

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	20–350	0,10–0,25	0,10–4,00						
Stainless steel	40–120	0,10–0,25	0,10–4,00						
Cast iron	120–290	0,10– 0,25	0,10–4,00						
Non-ferrous metals	< 2000	0,10–0,25	0,10–4,00						
Heat resistant alloys									
hardened materials									

for CBN inserts

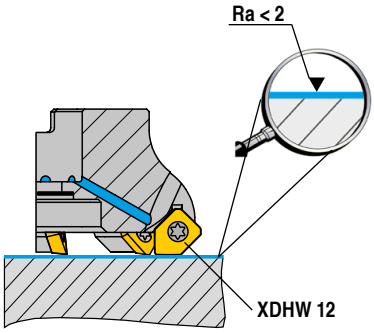
	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel									
Stainless steel									
Cast iron	600–1600	0,10–0,25	0,20–1,50						
Non-ferrous metals									
Heat resistant alloys	350–700	0,08–0,15	0,20–1,00						
hardened materials	350–600	0,08–0,12	0,20–0,40						

for PCD / MDC inserts

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel									
Stainless steel									
Cast iron									
Non-ferrous metals	< 2000	0,05–0,25	0,10–2,00						
Heat resistant alloys									
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

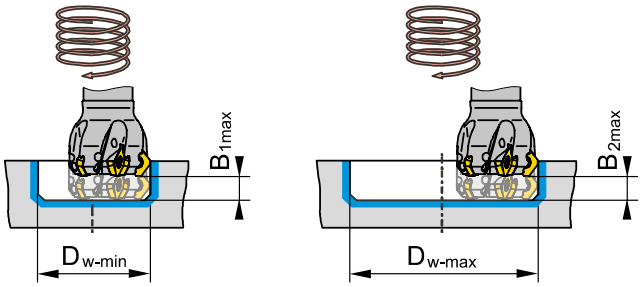


Finish milling with wiper inserts

Two wiper inserts are mounted in each 125mm head

Steel	SDMT 1204AESN-29R	DPX 1235	+	XDHW 1204AESN	DPX 1235
	SDMT 1204AESN-29R	DCX 1230	+	XDHW 1204AESN	DCX 1230
	SDHW 1204AESN-R	CWC 10	+	XDHW 1204AESN	CWC 10
Cast iron	SDMT 1204AEEN-31	DCX 3215	+	XDHW 1204AEEN	DCX 3215
	SDHW 1204AESN-R	DCX 3215	+	XDHW 1204AEEN	DCX 3215
Non-ferrous metals	SDHT 1204AEFN-ALP	CWK 26	+	XDHW 1204AEFN	CWK 26

Helical plunge milling (without start hole)



DC mm	$D_{w\text{-}min}$ mm	$B_{1\,max}$ mm	$D_{w\text{-}max}$ mm	$B_{2\,max}$ mm
32	74,5	1,5	78,0	1,5
40	90,5	1,5	94,0	1,5
50	110,5	1,5	114,0	1,5
63	136,5	1,5	140,0	1,5
80	170,5	1,5	174,0	1,5
100	210,5	1,5	214,0	1,5
125	260,5	1,5	264,0	1,5
160	330,5	1,5	334,0	1,5

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From v_c > 400 m/min, the tool must be balanced!

System MaxiMill 270-19

Cutting data appoximate values

for standard inserts

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel				40–180	0,15–0,6	10	40–180	0,3–0,7	10
Stainless steel				40–120	0,15–0,5	10	40–120	0,3–0,6	10
Cast iron							50–200	0,3–0,9	10
Non-ferrous metals									
Heat resistant alloys				20–70	0,15–0,5	10			
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

From v_c > 400 m/min, the tool must be balanced!

System MaxiMill HEC

Cutting data appoximate values

MaxiMill HEC 11

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel									
Stainless steel									
Cast iron	100–800	0,08–0,3	6	100–360	0,08–0,3	6	100–360	0,1–0,45	6
Non-ferrous metals									
Heat resistant alloys									
hardened materials									

MaxiMill HEC 12

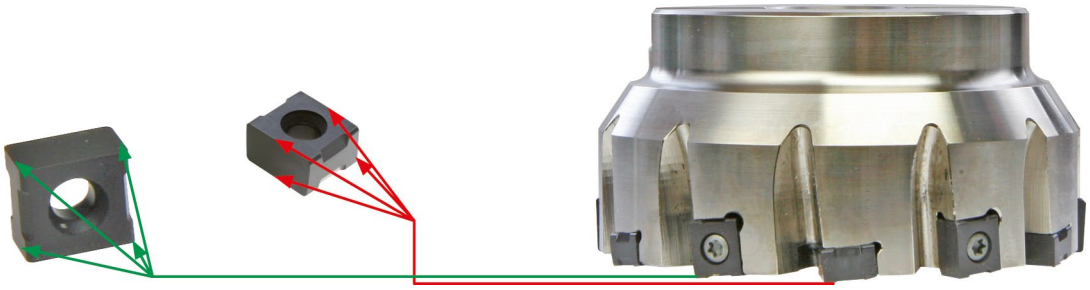
	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel									
Stainless steel									
Cast iron	100–360	0,08–0,3	8	100–360	0,08–0,3	8	100–360	0,1–0,45	8
Non-ferrous metals									
Heat resistant alloys									
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

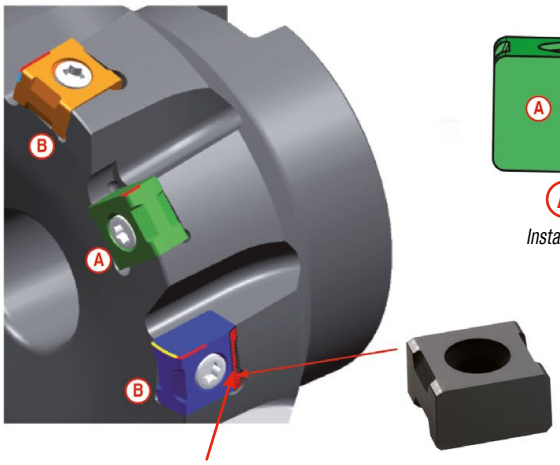
From v_c > 400 m/min, the tool must be balanced!

System MaxiMill HEC 11

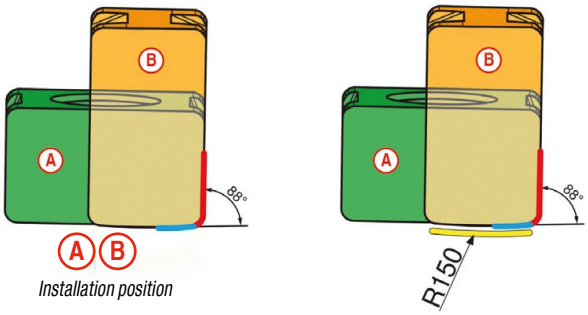
4 cutting edges per installation position



Correct assembly of standard and wiper inserts



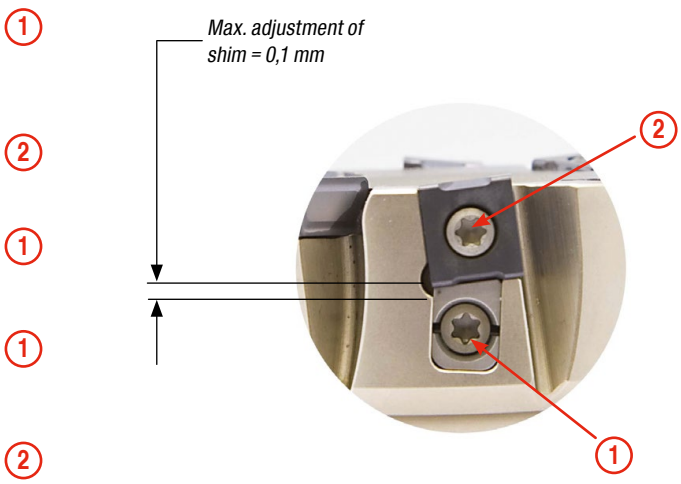
Marking for the correct assembly



Face machining insert	B
Insert main cutting edge	A B
Wiper Facet	B

Adjust the tools in axial direction

- Install the wedge into the cutter body and lightly clamp the clamping screw so as not to clamp.
- Install the inserts as shown and tighten to 1,0 Nm torque.
- Using pre-setting equipment, mark the highest cutting edge.
- With small adjustments of the setting screw set all cutting edges to the same height by 0,005 mm or better.
- Clamp insert with 3,2 Nm torque.



15

MaxiMill 491-09 system

Cutting data appoximate values

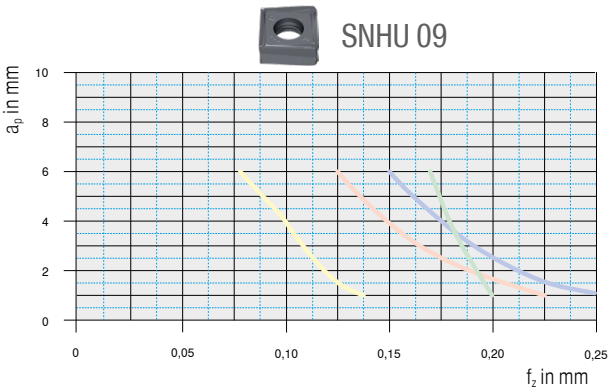
MaxiMill 491-09

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	60–280	0,1–0,2	6	60–280	0,1–0,2	6	60–280	0,1–0,2	6
Stainless steel	60–280	0,05–0,2	6	130–240	0,05–0,25	6	130–240	0,1–0,25	6
Cast iron	110–130	0,05–0,25	6	100–360	0,1–0,25	6	100–360	0,1–0,25	6
Non-ferrous metals	160–1500	0,05–0,25	6	160–1500	0,05–0,25	6	160–1500	0,05–0,25	6
Heat resistant alloys	25–75	0,08–0,15	6	25–75	0,08–0,15	6	25–75	0,08–0,15	6
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Non-ferrous metals	450 N/mm²	4.3	3.2315	AlMgSi1



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**SNHU09T308SR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**SNHU09T308SR-F50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**SNHU09T308SR-R50**	**CTCK215** (DCX3215)	250	Dry
Non-ferrous metals	3.2315	**SNHU09T308FR-F10**	**CTWN215** (CWK4615)	500	Emulsion

From v_c > 400 m/min, the tool must be balanced!

MaxiMill 491-12 system

Cutting data appoximate values

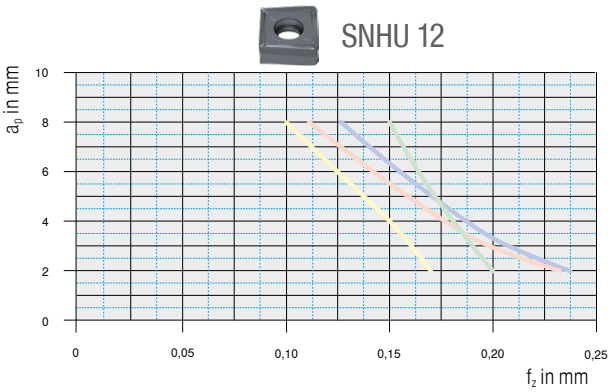
MaxiMill 491-12

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	60–280	0,1–0,2	8	60–280	0,1–0,2	8	60–280	0,1–0,2	8
Stainless steel	60–280	0,05–0,2	8	130–240	0,05–0,25	8	130–240	0,1–0,25	8
Cast iron	110–130	0,05–0,25	8	100–360	0,1–0,25	8	100–360	0,1–0,25	8
Non-ferrous metals	160–1500	0,05–0,25	8	160–1500	0,05–0,25	8	160–1500	0,05–0,25	8
Heat resistant alloys	25–75	0,08–0,15	8	25–75	0,08–0,15	8	25–75	0,08–0,15	8
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Non-ferrous metals	450 N/mm²	4.3	3.2315	AlMgSi1



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**SNHU120408SR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**SNHU120408SR-F50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**SNHU120408SR-R50**	**CTCK215** (DCX3215)	250	Dry
Non-ferrous metals	3.2315	**SNHU120408FR-F10**	**CTWN215** (CWK4615)	500	Emulsion

From v_c > 400 m/min, the tool must be balanced!

System MaxiMill 211-07

Cutting data recommendations/Technology data

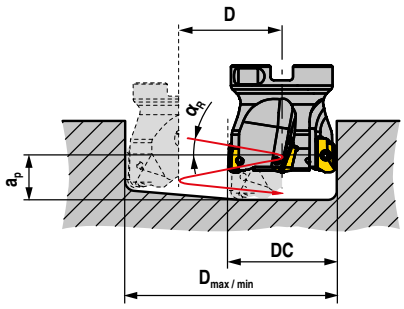
for standard inserts

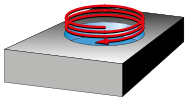
	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	50–340	0,1–0,2	6	50–340	0,1–0,2	6	50–340	0,1–0,2	6
Stainless steel	60–280	0,05–0,2	6	60–280	0,05–0,3	6	60–280	0,1–0,3	6
Cast iron				100–360	0,1–0,3	6	100–360	0,1–0,3	6
Non-ferrous metals	160–1500	0,1–0,2	6	160–1500	0,1–0,2	6	160–1500	0,1–0,2	6
Heat resistant alloys	25–75	0,05–0,15	6	25–75	0,05–0,15	6	25–75	0,05–0,15	6
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

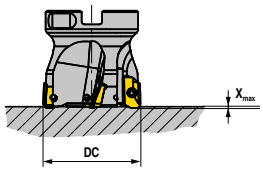
Machining strategy

Helical plunge milling





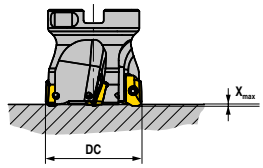
DC mm	D_{max} / RE 0,4 mm	D_{min} mm	$\alpha_{R\,max}$ °
10	19	13	5,5
12	23	17	6,0
16	31	25	3,0
20	39	33	2,0
25	49	43	1,5
32	63	57	1,2
40	79	73	0,8
50	99	93	0,7

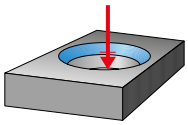


a_p in mm = $D * \pi * \tan \alpha_R$

DC mm	D mm	$\alpha_{R\,max\,360°}$ °
10	13	5,5
12	17	6,0
16	25	3,0
20	33	2,0
25	43	1,5
32	57	1,2
40	73	0,8
50	93	0,7

Axial plunging



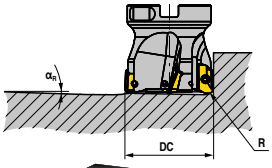


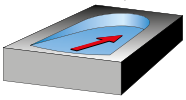
DC mm	X_{max} mm
10	0,8
12	0,8
16	0,8
20	0,8
25	0,8
32	0,8
40	0,8
50	0,8

$D_{max.}$ in mm = largest diameter for flat bottom hole

$D_{min.}$ in mm = smallest hole diameter for flat bottom surface

Angled ramping





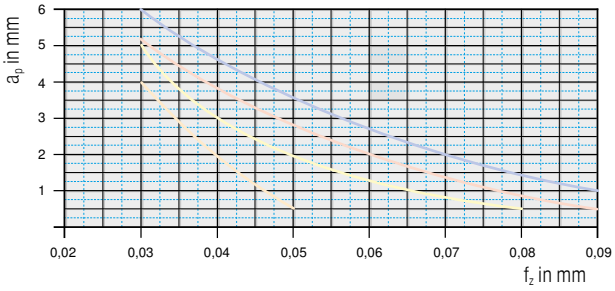
DC mm	α °
10	11,0
12	7,9
16	4,3
20	3,0
25	2,5
32	1,6
40	1,2
50	1,0

$D = D_{max} - DC / D_{min} - DC$

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

XDKT 07



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**XDKT070308SR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**XDKT070308SR-F50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301		**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**XDKT070308ER-F40**	**CTC5240** (HCF5240)	35	Emulsion

From v_c > 400 m/min, the tool must be balanced!

System MaxiMill 211-11

Cutting data recommendations/Technology data

for standard inserts

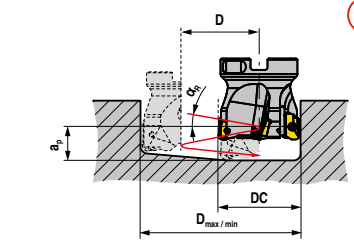
Material	F v_c m/min	F f_z mm	F a_p mm	M v_c m/min	M f_z mm	M a_p mm	R v_c m/min	R f_z mm	R a_p mm
Steel	50–340	0,1–0,2	10	50–340	0,1–0,2	10	50–340	0,1–0,2	10
Stainless steel	60–280	0,05–0,2	10	60–280	0,05–0,25	10	60–280	0,1–0,25	10
Cast iron				100–360	0,1–0,25	10	100–360	0,1–0,25	10
Non-ferrous metals	160–1500	0,1–0,2	10	160–1500	0,1–0,2	10	160–1500	0,1–0,2	10
Heat resistant alloys	25–75	0,05–0,15	10	25–75	0,05–0,15	10	25–75	0,05–0,15	10
hardened materials				40–60	0,05–0,2	10			

for shell end mill

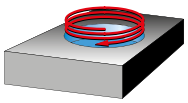
Material	F v_c m/min	F f_z mm	F a_p mm	M v_c m/min	M f_z mm	M a_p mm	R v_c m/min	R f_z mm	R a_p mm
Steel	100–300	0,05–0,20	≤ APMX						
Stainless steel	80–200	0,05–0,20	≤ APMX						
Cast iron	110–300	0,05–0,20	≤ APMX						
Non-ferrous metals	300–2000	0,10–0,25	≤ APMX						
Heat resistant alloys	40–80	0,05–0,15	≤ APMX						
hardened materials	30–50	0,05–0,10	≤ APMX						

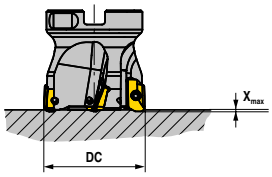
Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

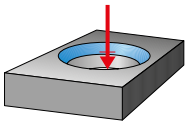


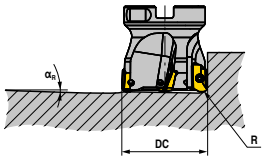
1 Helical plunge milling



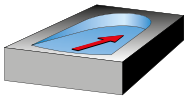


2 Axial plunging





3 Angled ramping



DC mm		1 Helical plunge milling RE = 0,8 mm	2 Axial plunging X_{max}	3 Angled ramping α_R
12	α_R	16°	1,3 mm	18°
	D_{max}	21 mm		
	D_{min}	14 mm		
16	α_R	9,5°	1,5 mm	10,8°
	D_{max}	29 mm		
	D_{min}	21 mm		
20	α_R	7°	2,0 mm	9,8°
	D_{max}	37 mm		
	D_{min}	30 mm		
25	α_R	4,5°	2,0 mm	7,5°
	D_{max}	47 mm		
	D_{min}	40 mm		
32	α_R	3,2°	1,0 mm	4,8°
	D_{max}	61 mm		
	D_{min}	53 mm		
40	α_R	2,2°	1,6 mm	2,9°
	D_{max}	77 mm		
	D_{min}	72 mm		
50	α_R	1,7°	1,6 mm	2,2°
	D_{max}	98 mm		
	D_{min}	93 mm		
63	α_R	1,5°	1,6 mm	1,8°
	D_{max}	123 mm		
	D_{min}	116 mm		
80	α_R	1,0°	1,6 mm	1,4°
	D_{max}	157 mm		
	D_{min}	153 mm		
100	α_R	0,8°	1,6 mm	1,1°
	D_{max}	107 mm		
	D_{min}	101 mm		

$D_{max.}$ in mm = largest diameter for flat bottom hole
$D_{min.}$ in mm = smallest diameter for flat bottom hole
a_p in mm = $D \times \pi \times \tan(\alpha_R)$ = Pitch
l_a in mm = Overhang length

DC mm	l_a = 1–2 x Ø mm	l_a = 2,5 x Ø mm	l_a = 3 x Ø mm	l_a = 4 x Ø mm	l_a = 5 x Ø mm
	maximum rpm based on overhang length. n_{max} in min^{-1}				
12	55000	51500	47000	42000	37000
16	42000	38500	34100	28900	24200
20	36900	33000	28500	23900	19500
25	33200	29000	24400	19900	15400
32	30200	26000	20900	16600	11900
40	27700	23000	18000	13500	9000
50	25400	20400	15400	10800	6100
63	23300	18300	12900	8300	3700
80	21300	16100	10600	5800	
100	19600	14100	8400		

System MaxiMill 211-15

Cutting data recommendations/Technology data

for standard inserts

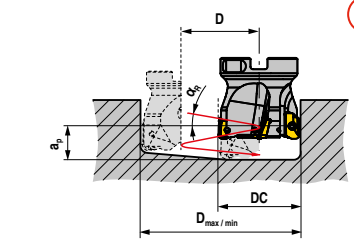
	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	50–340	0,1–0,2	14	50–340	0,1–0,2	14	50–340	0,1–0,2	14
Stainless steel	60–280	0,05–0,2	14	60–280	0,05–0,25	14	60–280	0,1–0,25	14
Cast iron				100–360	0,1–0,25	14	100–360	0,1–0,25	14
Non-ferrous metals	160–1500	0,1–0,2	14	160–1500	0,1–0,2	14	160–1500	0,1–0,2	14
Heat resistant alloys	25–75	0,05–0,15	14	25–75	0,05–0,15	14	25–75	0,05–0,15	14
hardened materials				40–60	0,05–0,2	14			

for shell end mill

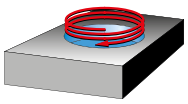
	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	120–300	0,08–0,35	≤ APMX						
Stainless steel	150–200	0,08–0,35	≤ APMX						
Cast iron	130–300	0,08–0,35	≤ APMX						
Non-ferrous metals	400–2500	0,12–0,40	≤ APMX						
Heat resistant alloys	25–80	0,08–0,20	≤ APMX						
hardened materials									

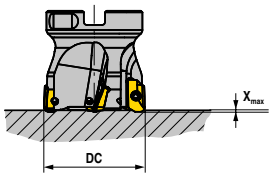
Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

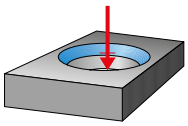


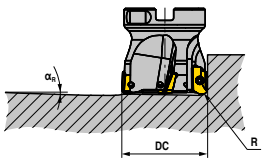
1 Helical plunge milling



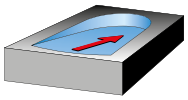


2 Axial plunging





3 Angled ramping



DC mm		1 Helical plunge milling RE = 0,8 mm	2 Axial plunging X_{max}	3 Angled ramping α_R
25	α_R	7,5°	2,7 mm	9,5°
	D_{max}	48 mm		
	D_{min}	37 mm		
32	α_R	5°	2,5 mm	6,8°
	D_{max}	62 mm		
	D_{min}	47 mm		
40	α_R	3,2°	2,5 mm	5,1°
	D_{max}	78 mm		
	D_{min}	63 mm		
50	α_R	2,5°	2,5 mm	2,5°
	D_{max}	98 mm		
	D_{min}	86 mm		
63	α_R	1,5°	2,5 mm	2,5°
	D_{max}	124 mm		
	D_{min}	111 mm		
80	α_R	1,3°	2,5 mm	2,0°
	D_{max}	158 mm		
	D_{min}	147 mm		
100	α_R	1,1°	2,5 mm	1,5°
	D_{max}	198 mm		
	D_{min}	190 mm		
125	α_R	0,9°	2,5 mm	0,9°
	D_{max}	248 mm		
	D_{min}	240 mm		
160	α_R	0,6°	2,5 mm	0,7°
	D_{max}	318 mm		
	D_{min}	310 mm		

maximum rpm based on overhang length. n_{max} in min^{-1}			
DC mm	l_a = 2 x Ø mm	l_a = 3 x Ø mm	l_a = 5 x Ø mm
25	26560	19520	13320
32	24160	16720	9520
40	22160	14400	7200
50	20320	12320	4880
63	18640	10320	2960
80	17040	8480	
100	15680	6720	
125	14320		
160	13200		

$D_{max.}$ in mm = largest diameter for flat bottom hole
$D_{min.}$ in mm = smallest diameter for flat bottom hole

a_p in mm = D x π x tan (α_R) = Pitch

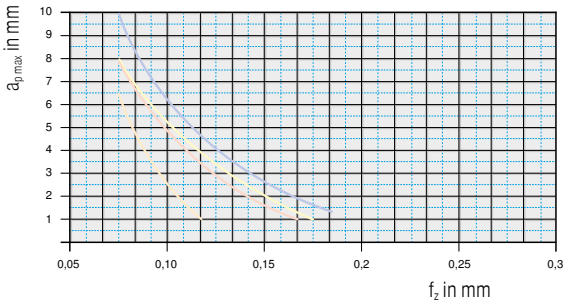
l_a in mm = Overhang length

System MaxiMill 211-11

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

XDKT 11



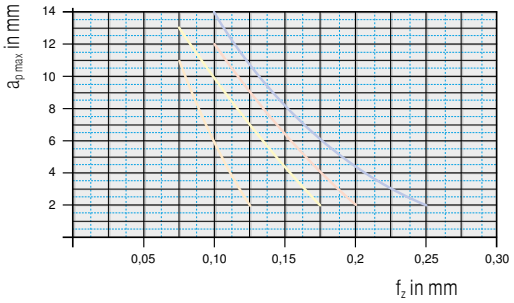
Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**XDKT11T308SR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**XDKT11T308SR-F50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**XDKT11T308SR-R50**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**XDKT11T308ER-F50**	**CTC5240** (HCF5240)	35	Emulsion

System MaxiMill 211-15

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

XDKT 15



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**XDKT150508SR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571		**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**XDKT150508SR-R50**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**XDKT150508ER-F40**	**CTC5240** (HCF5240)	35	Emulsion

15

From v_c > 400 m/min, the tool must be balanced!

System MaxiMill 211-20

Cutting data recommendations/Technology data

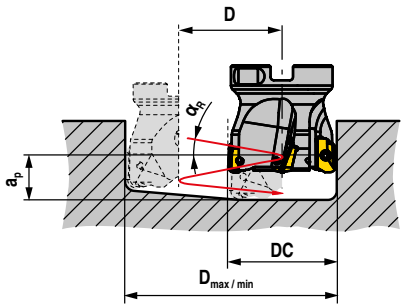
for standard inserts

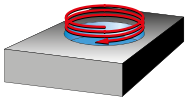
Material	F			M			R		
	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel									
Stainless steel	130–280	0,08–0,2	19	130–280	0,08–0,3	19	180–280	0,1–0,25	19
Cast iron									
Non-ferrous metals									
Heat resistant alloys	25–80	0,08–0,2	19	25–80	0,08–0,3	19	25–80	0,1–0,15	19
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

Helical plunge milling

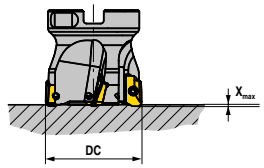


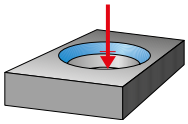


DC mm	D_{max} / RE 0,4 mm	D_{min} mm	$\alpha_{R\,max}$ °
63	124	107	2,2
80	158	143	1,7
100	198	183	1,3

a_p in mm $= D * \pi * \tan \alpha_R$

Axial plunging

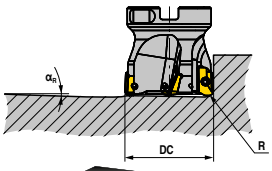


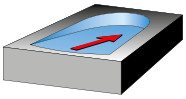


DC mm	X_{max} mm
63	2,0
80	2,0
100	2,0

$D_{max.}$ in mm = largest diameter for flat bottom hole
$D_{min.}$ in mm = smallest hole diameter for flat bottom surface

Angled ramping





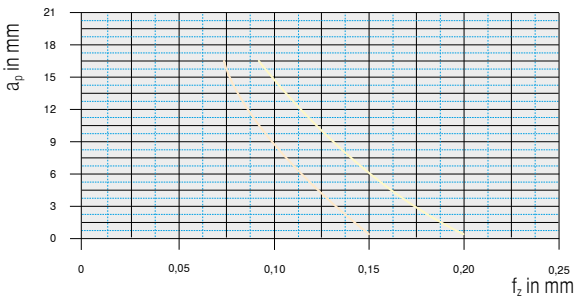
DC mm	α °
63	2,2
80	1,7
100	1,3

$D = D_{max} - DC / D_{min} - DC$

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

XDKT 20



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312				
Stainless steel	1.4571	**XDKT200708ER-F40**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301				
Heat resistant alloys	2.4856	**XDKT200708ER-F40**	**CTC5240** (HCF5240)	35	Emulsion

From v_c > 400 m/min, the tool must be balanced!

System MaxiMill 490-09

Cutting data recommendations/Technology data

for standard inserts

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	50–350	0,05–0,25	7,3	50–350	0,05–0,3	7,3	50–270	0,1–0,3	7,3
Stainless steel	130–280	0,1–0,2	7,3	60–280	0,1–0,2	7,3	60–280	0,1–0,2	7,3
Cast iron	100–360	0,05–0,25	7,3	100–360	0,05–0,3	7,3	100–360	0,1–0,3	7,3
Non-ferrous metals	160–1500	0,08–0,35	7,3	160–1500	0,08–0,35	7,3	160–1500	0,08–0,35	7,3
Heat resistant alloys	25–75	0,1–0,2	7,3	25–75	0,1–0,2	7,3	25–75	0,1–0,2	7,3
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

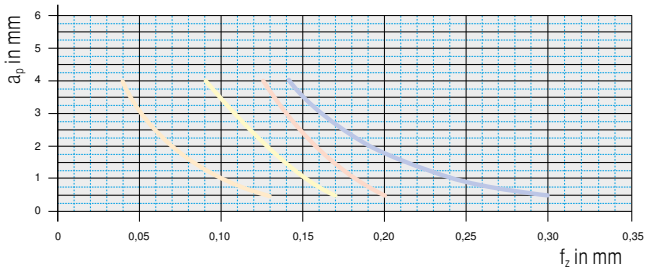
Machining strategy

System MaxiMill 490-09 is not suitable for plunging!

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

SDNT 09

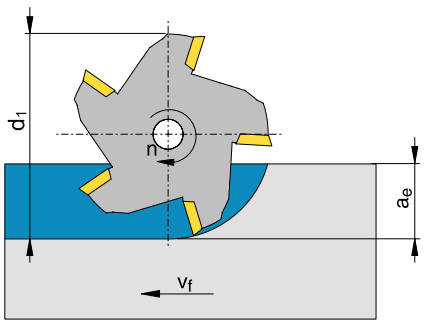


Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**SDNT09T308SR-29**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**SDNT09T308SR-33**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**SDNT09T308SR-31**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**SDNT09T308ER-M31**	**CTC5240** (HCF5240)	35	Emulsion

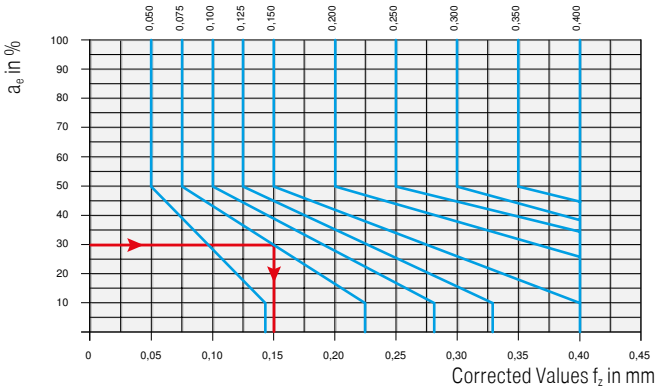
Correction of the tooth load f_z

for System 211-07/-11/-15/-20 and 490-09/-12

These values apply to an engagement width (a_e) below 50 %!



Start values f_z in mm from starting parameter diagram



Example:
Start value (f_z) = 0.075 mm
a_e = 30 %
corrected value (f_z) = 0.15 mm

15

System MaxiMill 490-12

Cutting data appoximate values

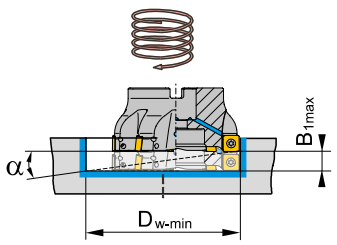
for standard inserts

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	50–350	0,05–0,25	10,7	50–350	0,05–0,3	10,7	50–270	0,1–0,3	10,7
Stainless steel	130–280	0,1–0,2	10,7	60–280	0,1–0,2	10,7	60–280	0,1–0,2	10,7
Cast iron	100–360	0,05–0,25	10,7	100–360	0,05–0,3	10,7	100–360	0,1–0,3	10,7
Non-ferrous metals	160–1500	0,08–0,35	10,7	160–1500	0,08–0,35	10,7	160–1500	0,08–0,35	10,7
Heat resistant alloys	25–75	0,1–0,2	10,7	25–75	0,1–0,2	10,7	25–75	0,1–0,2	10,7
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

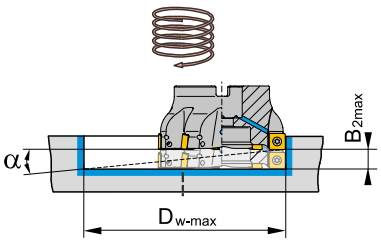
Machining strategy

Helical plunge milling (without start hole)



$$B = (D_W - DC) \times \pi \times \tan \alpha$$

D_w = Diameter of bore to be produced
DC = Nominal diameter of milling cutter
B = Depth of cut calculated for 360° helical movement

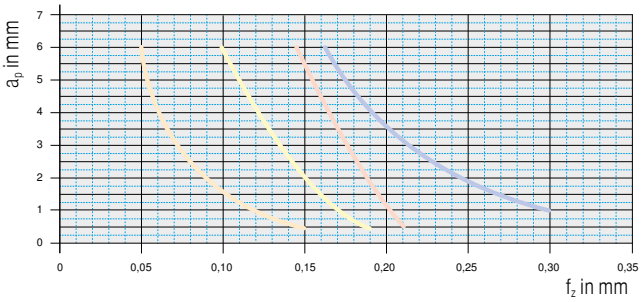


DC mm	$D_{w\text{-}min}$ mm	$B_{1\,max}$ mm	$D_{w\text{-}max}$ mm	$B_{2\,max}$ mm	α °
50	77	2,5	98	4,8	2,0
63	103	1,8	124	3,0	1,0
80	137	2,1	158	3,0	0,8
100	177	2,1	198	2,9	0,6
125	227	1,8	248	2,4	0,4

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

SDMT 12



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**SDMT1205ZZSN-29**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**SDMT120512SR-33**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**SDMT1205ZZSN-31**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**SDMT120508ER-M31**	**CTC5240** (HCF5240)	35	Emulsion

HSC/HPC machining

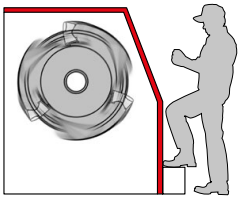
Safety advice

Suitability of the tool for HSC machining

HSC tools from CERATIZIT have been specially developed for this machining strategy and guarantee maximum operational reliability.

Observation of safety precautions of the machine manufacturer

Make sure that all safety precautions of the machine-manufacturer are observed (e.g.: closed machine guards).

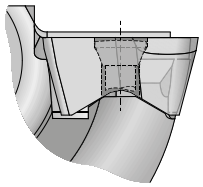


Suitability of the adapters for HSC machining

According to the milling situation, choose the optimum tool/clamping device combination.
For high speed milling applications it is necessary to dynamically balance tool and tool adapter together (see ISO 1940 directives).

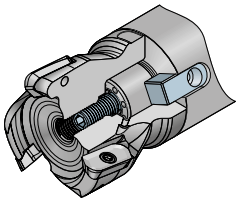
Mounting the indexable insert with centrifugal force protection

Insert clamping: EURO-patent EP 1083017A1
Make sure that the insert pocket is cleaned and the threading bore for the clamping screw is in good condition.
Check the axial and radial contact points of the insert in the pocket.
The clamping screws for positive insert clamping must be tightened with a torque of (XDHT11 = 1,8 Nm; XDH.19 = 6,0 Nm).



Optimum mounting of HSC milling cutters (DC = Ø 40–63) to milling arbors using power screw

The power screw guarantees a stable connection of tool and milling adapter and is easy to use.



Power Screw

Maximum admissible number of revolutions

Please note the maximum number of revolutions stated on the tool. This number is exclusively valid for the specific tool and must be adapted according to the selected tool adapter, total overhang length and the respective machining situation.

Optimum application range of the tool (a_e, a_p, f_z, n)

In order to guarantee productive milling, please observe the recommendations regarding the cutting parameters.

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Failure to comply with these safety regulations automatically excludes CERATIZIT from any liability

System MaxiMill HSC-11

Cutting data appoximate values

for standard inserts

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel									
Stainless steel									
Cast iron	110–130	0,05–0,35	10						
Non-ferrous metals	160–3000	0,05–0,35	10	160–3000	0,05–0,35	10	160–3000	0,05–0,35	10
Heat resistant alloys									
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

	Workpiece material	Treatment / alloy		VDI 3323 Group	Hardness HB	H216T (CWK26) v_c in m/min	H216T (CWK26) v_c in m/min
N	Forged aluminium alloy	non hardenable		21	60		200–3000
		hardenable		22	100		200–2000
	Cast aluminum alloy	non hardenable	< 12% Si	23	80		200–2000
		hardenable	< 12% Si	24	90		200–1800
		non hardenable	> 12% Si	25	130		200–1000
	Copper and Copper alloys (Bronze, Brass)		Free-cutting steel alloy (1% Pb)	26			200–600
			brass, red bronze	27	90	250–1000	250–1000
			bronze	28	100		150–400
			lead-free copper and electrolytic copper	29	100		300–800
	Non metal materials		Duroplastics	29		80–1000	80–1000
			Fibre-reinforced plastics	29		70–500	70–500
			hard rubber	30		80–300	80–300

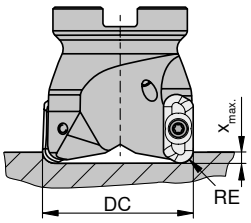
= full lubricant = minimum quantity lubrication = dry machining

System MaxiMill HSC-11

Technical data

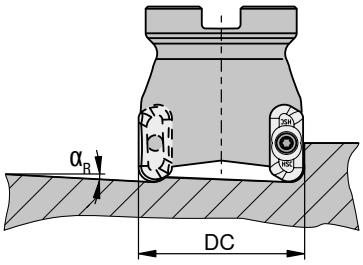
Machining strategy

Plunging



DC mm	11 RE 0,2-4,0 $x_{max.}$ mm
16	1,70
18	2,11
19	2,24
20	2,39
22	2,70
25	2,55
32	2,40
40	2,28
50	2,26
63	2,10
80	1,75
100	1,79

Linear ramping



DC mm	α_R °
16	18,8
18	16,3
19	15,3
20	14,8
22	13,8
25	10,3
32	6,8
40	4,8
50	3,5
63	2,5
80	1,8
100	1,3

Milling strategy for roughing and finishing

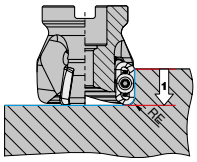
With maximum chip volume

Indexable Insert	RE mm	a_p mm	$a_{p\,max.}$ mm
XDHT 11T302FR-ALP	0,2	10	9,8
XDHT 11T304FR-ALP	0,4	10	9,6
XDHT 11T308FR-ALP	0,8	10	9,2
XDHT 11T312FR-ALP	1,2	10	8,8
XDHT 11T316FR-ALP	1,6	10	8,4
XDHT 11T320FR-ALP	2,0	10	8,0
XDHT 11T325FR-ALP	2,5	10	7,5
XDHT 11T332FR-ALP	3,2	10	6,8
XDHT 11T340FR-ALP	4,0	10	6,0
XDHT 11T350FR-ALP	5,0	10	5,0

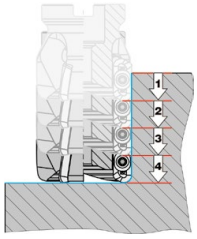
With maximum side wall quality

Indexable Insert	RE mm	$a_{p\,max.}$ mm
XDHT 11T302FR-ALP	0,2	7,8
XDHT 11T304FR-ALP	0,4	7,6
XDHT 11T308FR-ALP	0,8	7,2
XDHT 11T312FR-ALP	1,2	6,5
XDHT 11T316FR-ALP	1,6	6,8
XDHT 11T320FR-ALP	2,0	6,4
XDHT 11T325FR-ALP	2,5	5,5
XDHT 11T332FR-ALP	3,2	4,8
XDHT 11T340FR-ALP	4,0	4,0
XDHT 11T350FR-ALP	5,0	3,0

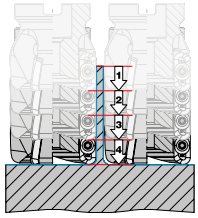
Shoulder milling



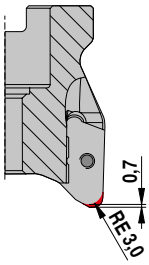
Pocket milling

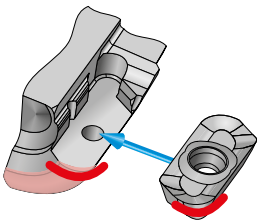


Pocket milling with thin walled components



Modification to front profile





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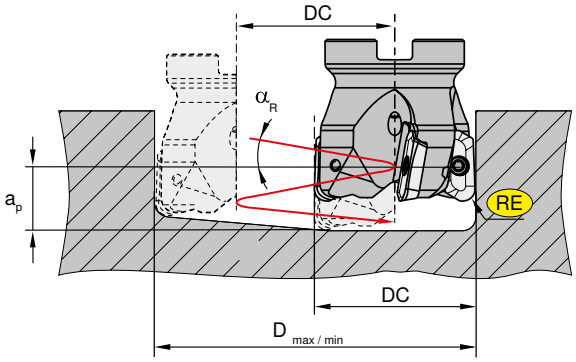
For inserts with a corner radius larger than 3.2 mm the basic body of the tool must be modified according to the drawing above.

System MaxiMill HSC-11

Technical data

Machining strategy

Circular ramping



RE	=	Insert radius
α_R in mm	=	Maximum ramping angle (related to centre of tool)
a_p in mm	=	pitch → D x π x tan (α_R)
D in mm	=	pitch → D_{max} – DC and/or D_{min} – DC

For flat bottom hole

$D_{max.}$ in mm	=	largest drilling diameter
$D_{min.}$ in mm	=	smallest drilling diameter
$DN_{max.}$ in mm	=	Maximum hole diameter for non flat bottom

DC in mm		XDHT-11 (HSC-11)								
(DN_{max})		RE = 0,2	RE = 0,4	RE = 0,8	RE = 1,2	RE = 1,6	RE = 2,0	RE = 2,5	RE = 3,2	RE = 4,0
16	α_R	9,7°	10,0°	9,9°	9,4°	8,9°	8,4°	7,9°	7,0°	6,1°
	D_{max}	30	30	29	28	27	27	26	24	23
(31)	D_{min}	18	18	18	18	18	18	18	18	18
18	α_R	9,4°	9,1°	8,7°	8,3°	7,9°	7,5°	6,9°	6,2°	5,3°
	D_{max}	34	34	33	32	31	31	30	28	27
(35)	D_{min}	22	22	22	22	22	22	22	22	22
19	α_R	8,8°	8,6°	8,3°	7,9°	7,5°	7,5°	6,5°	5,9°	5,1°
	D_{max}	36	36	35	34	33	33	32	30	29
(37)	D_{min}	24	24	24	24	24	24	24	24	24
20	α_R	8,4°	8,2°	7,8°	7,4°	7,7°	6,7°	6,2°	5,5°	4,8°
	D_{max}	38	38	37	36	35	35	34	32	31
(39)	D_{min}	26	26	26	26	26	26	26	26	26
22	α_R	7,6°	7,4°	7,8°	6,7°	6,4°	6,5°	5,6°	5,2°	4,3°
	D_{max}	42	42	41	40	39	39	38	36	35
(43)	D_{min}	30	30	30	30	30	30	30	30	30
25	α_R	6,7°	6,5°	6,2°	5,9°	5,6°	5,3°	4,9°	4,4°	3,8°
	D_{max}	48	48	47	46	45	45	44	42	41
(49)	D_{min}	36	36	36	36	36	36	36	36	36
32	α_R	4,7°	4,7°	4,8°	4,6°	4,3°	4,1°	3,8°	3,4°	2,9°
	D_{max}	62	62	61	60	59	59	58	56	55
(63)	D_{min}	50	50	50	50	50	50	50	50	50
40	α_R	3,3°	3,3°	3,4°	3,4°	3,5°	3,3°	3,0°	2,7°	2,3°
	D_{max}	78	78	77	76	75	75	74	72	71
(79)	D_{min}	66	66	66	66	66	66	66	66	66
50	α_R	2,4°	2,5°	2,5°	2,5°	2,6°	2,6°	2,4°	2,2°	1,9°
	D_{max}	98	98	97	96	95	95	94	92	91
(99)	D_{min}	86	86	86	86	86	86	86	86	86
63	α_R	1,7°	1,7°	1,7°	1,8°	1,8°	1,8°	1,8°	1,7°	1,5°
	D_{max}	124	124	123	122	121	121	120	118	117
(125)	D_{min}	112	112	112	112	112	112	112	112	112
80	α_R	1,1°	1,1°	1,1°	1,1°	1,1°	1,1°	1,1°	1,2°	1,2°
	D_{max}	158	158	157	156	155	155	154	152	151
(159)	D_{min}	146	146	146	146	146	146	146	146	146
100	α_R	0,8°	0,8°	0,9°	0,9°	0,9°	0,9°	0,9°	0,9°	0,9°
	D_{max}	198	198	197	196	195	195	194	192	191
(199)	D_{min}	186	186	186	186	186	186	186	186	186

System MaxiMill HSC/HPC-19

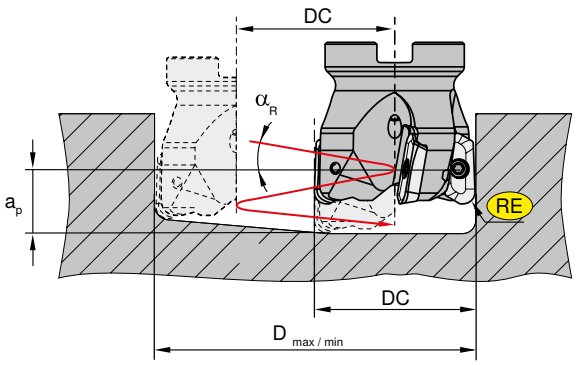
Cutting data recommendations/Technology data

for standard inserts

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel									
Stainless steel									
Cast iron	110–130	0,05–0,35	18						
Non-ferrous metals	160–3000	0,05–0,35	18	160–3000	0,05–0,35	18	160–3000	0,05–0,35	18
Heat resistant alloys									
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

Circular ramping



RE = Insert radius
α_R in mm = Maximum ramping angle (related to centre of tool)

a_p in mm = pitch → D x π x tan (α_R)

D in mm = pitch → D_{max} – DC and/or D_{min} – DC

For flat bottom hole

$D_{max.}$ in mm = largest drilling diameter
$D_{min.}$ in mm = smallest drilling diameter
$DN_{max.}$ in mm = Maximum hole diameter for non flat bottom

	DC mm	DN_{max} mm	α_R °	D_{max} mm	D_{min} mm
RE = 0,2 mm	**25**	49	7°02‘	48	32
	32	63	4°34‘	62	46
	40	79	3°47‘	78	62
	50	99	3°01‘	97	81
	63	125	2°17‘	124	107
	80	159		158	141
	100	199		198	181
RE = 0,8 mm	**25**	49	7°21‘	47	32
	32	63	4°44‘	61	46
	40	79	3°53‘	77	62
	50	99	3°05‘	97	81
	63	125	2°20‘	123	107
	80	159		157	141
	100	199		197	181
RE = 2,5 mm	**25**	49	8°24‘	44	32
	32	63	5°13‘	58	46
	40	79	4°12‘	74	62
	50	99	3°17‘	94	81
	63	125	2°27‘	120	107
	80	159		154	141
	100	199		194	181
RE = 4,0 mm	**25**	49	9°32‘	41	32
	32	63	5°42‘	55	46
	40	79	4°30‘	71	62
	50	99	3°28‘	91	81
	63	125	2°33‘	117	107
	80	159		151	141
	100	199		191	181

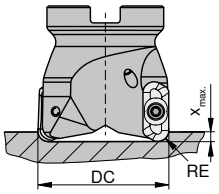
	DC mm	DN_{max} mm	α_R °	D_{max} mm	D_{min} mm
RE = 0,4 mm	**25**	49	7°08‘	48	32
	32	63	4°37‘	62	46
	40	79	3°49‘	78	62
	50	99	3°02‘	98	81
	63	125	2°18‘	124	107
	80	159		158	141
	100	199		198	181
RE = 2,0 mm	**25**	49	8°40‘	45	32
	32	63	5°04‘	59	46
	40	79	4°06‘	75	62
	50	99	3°13‘	95	81
	63	125	2°25‘	121	107
	80	159		155	141
	100	199		195	181
RE = 3,2 mm	**25**	49	8°54‘	42	32
	32	63	5°26‘	56	46
	40	79	4°20‘	72	62
	50	99	3°21‘	92	81
	63	125	2°30‘	118	107
	80	159		152	141
	100	199		192	181
RE = 5,0 mm	**25**	49	6°49‘	39	32
	32	63	3°59‘	53	46
	40	79	3°20‘	69	62
	50	99	2°13‘	89	81
	63	125	1°52‘	115	107
	80	159		149	141
	100	199		189	181

System MaxiMill HSC/HPC-19

Technical data

Machining strategy

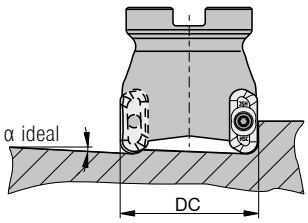
Plunging



HSC 19	DC mm	19 RE 0,2–4,0 $x_{max.}$ mm	19 RE 5,0 $x_{max.}$ mm
CHSC 19 / GHSC 19 / MHSC 19	25	5,0	4,0
CHSC 19 / GHSC 19 / MHSC 19	32–40	4,0	3,0
AHSC 19	40–100	4,0	3,0

HPC 19	DC mm	19 RE 0,2–4,0 $x_{max.}$ mm	19 RE 5,0 $x_{max.}$ mm
CHPC 19 / MHPC 19	22–25	5,0	4,0
CHPC 19 / MHPC 19	32–50	6,0	5,0
AHPC 19	40–63	6,0	5,0

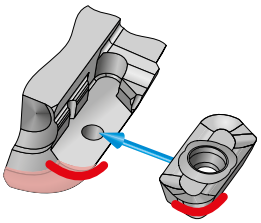
Linear ramping

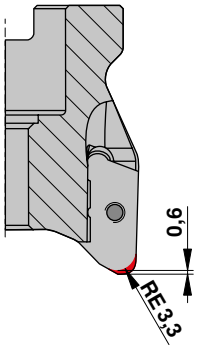


DC mm	α ideal HSC 19	α ideal HPC 19
25	11°	11°
32	7°	7°
40	5°	5°
50	4°	4°
63	3°	3°
80	2°	
100	2°	

Modification to basic body

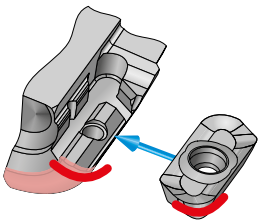
HSC 19





Modification to front profile

HPC 19



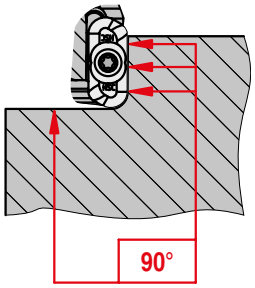
For inserts with a corner radius larger than 4.0 mm the basic body of the tool must be modified according to the drawing above.

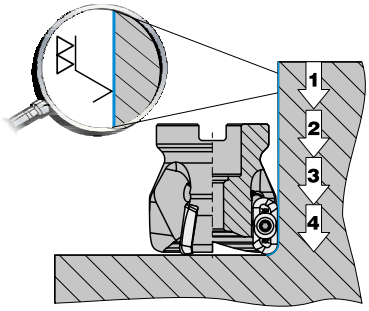
System MaxiMill HSC/HPC-19

Technical data

Machining strategy

▽ + ▽▽ Excellent side wall quality after roughing operation.
Additional finishing operations minimized or no longer required.





Milling strategy for roughing and finishing

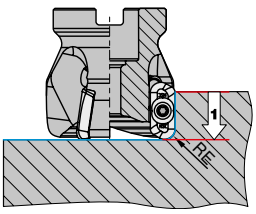
With maximum chip volume

Indexable Insert	RE mm	a_p mm	$a_{p\ max.}$ mm
XDH. 190402FR-ALP	0,2	18,0	17,8
XDH. 190404FR-ALP	0,4	18,0	17,6
XDH. 190408FR-ALP	0,8	18,0	17,2
XDH. 190420FR-ALP	2,0	18,0	16,0
XDH. 190425FR-ALP	2,5	18,0	15,0
XDH. 190432FR-ALP	3,2	18,0	14,8
XDH. 190440FR-ALP	4,0	18,0	14,0
XDH. 190450FR-ALP	5,0	17,0	13,0

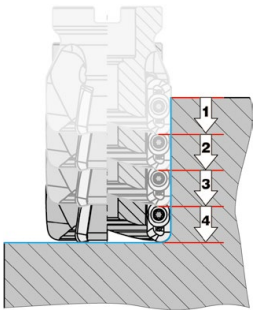
With maximum side wall quality

Shoulder milling	RE mm	$a_{p\ max.}$ mm
XDH. 190402FR-ALP	0,2	11,8
XDH. 190404FR-ALP	0,4	11,6
XDH. 190408FR-ALP	0,8	11,2
XDH. 190420FR-ALP	2,0	10,0
XDH. 190425FR-ALP	2,5	9,5
XDH. 190432FR-ALP	3,2	8,8
XDH. 190440FR-ALP	4,0	8,0
XDH. 190450FR-ALP	5,0	7,0

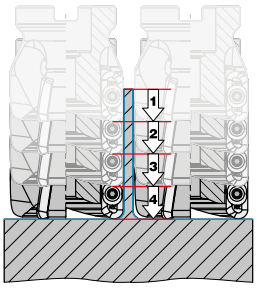
Shoulder milling



Pocket milling



Pocket milling with thin walled components



This information applies to the inserts type XDHT 19 and XDHX 19.

System MaxiMill HPC-04/12

Cutting data recommendations/Technology data

MaxiMill HPC-04

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel									
Stainless steel									
Cast iron	450–800	0,05–0,2	4						
Non-ferrous metals	350–3500	0,05–0,2	4	350–3500	0,05–0,2	4			
Heat resistant alloys									
hardened materials									

MaxiMill HPC-12

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel									
Stainless steel									
Cast iron	450–800	0,05–0,2	2						
Non-ferrous metals	350–3500	0,1–0,35	11	350–3500	0,1–0,35	11	350–3500	0,1–0,4	11
Heat resistant alloys									
hardened materials									

Machining strategy

What do you have to take into account?

- Machine stability.
- Stable work piece clamping and tool adapter.
- Use of coolant generally not necessary, however, this will facilitate the removal of the chips - also improved surface quality.
- Take into account thermal stress and critical temperature of 600 °C! If required for material, work with coolant.
- Avoid vibration.
- Observe balancing quality class.
- Observe chemical reactions of diamond to carbide forming elements (Fe, Ti, Ta, Co, Ni)

Excellent suitability

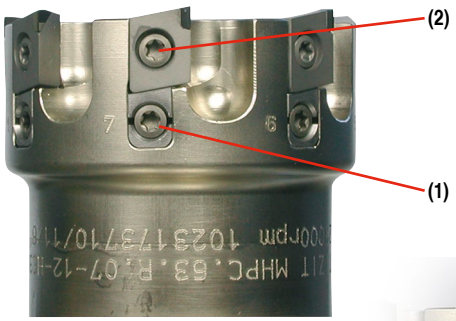
- for components made of light metals and non-ferrous metals, plastic, fibre composite materials, graphite ...
- when the simplest setting method saves cost for tool presetting.
- for high-volume production.
- for high surface quality of the work pieces.
- when long tool life is necessary to reduce tool changes and expensive machine downtime.
- when the tool is already on site (presetting, etc.)

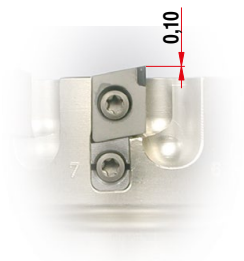
Quality class check

After assembly, clamping of the inserts and adjustment of the axial run-out the balancing quality class of the tools should be checked. When applying shell milling cutters, after assembly with an adapter balancing is necessary.

Setting wiper inserts

As in the setting procedure described above the standard inserts are adjusted to a radial run-out of = 0.02 mm. The inserts with wiper edge are then set to 0.02–0.03 mm above the highest cutting edge.





The adjustment procedure

1 Mount Adjustment wedgesin the tools (as delivered). Tighten adjustment screw (1) without deforming the wedges.

2 Mount the PCD inserts and tighten the clamping screws (2) with 1.0 Nm.

3 Mark „ highest edge“ with the help of pre-setting equipment.

4 Adjust the PCD insert by 0.02 mm turning the clamping screw (1) clockwise.

Pre-loading must be reached. Use the angled TORX screwdrivers

5 Set other cutting edges to this level, maximum deviation of 0.005 mm. Maximum length adjustment = 0.10 mm.

6 Tighten all insert tightening screws (2) to 5,0 Nm.

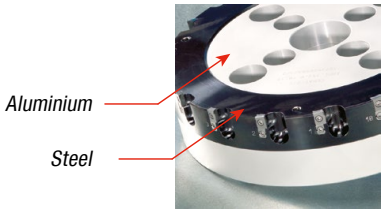
7 Check axial run-out of all inserts: Target = 0.005 mm.

Perfect precision – MaxiMill HPC-12

The adjustable high-performance tool for the finishing of aluminium components

Tool body made of steel

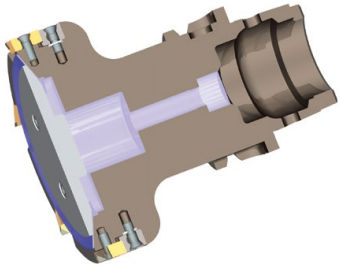
- For highest stability
- Maximum abrasion resistance
- Bimetallic version from diameter 160 mm easier handling and spindle protection with large tools



Picture shows bimetallic version

Available as shell milling cutters and monobloc type

- Direct HSK63 connection as monobloc type
- Monobloc tools balanced to G2.5 at n=20,000 min^{-1} (ISO1940)



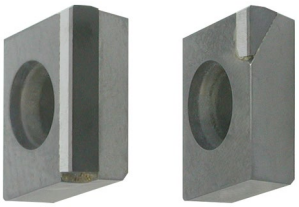
Particularly for HSC applications with internal coolant supply

- Improved chip evacuation
- High surface quality
- Optimum application conditions
- Suitability for minimum quantity lubrication

Time is money – the system MaxiMill HPC-12 is simple and quick to adjust!

Highly positive rake angle of +25°

- Low cutting forces
- Increased parallelism of surfaces
- Minimised component deformation



Tangential concept

- Stable location for the PCD segment and maximum process security

Adapted PCD cutting edge

- High impact strength when milling!
- Maximum edge stability
- Reduced built-up edge on the work piece
- The machining of Al-Si alloys with over 12 % silicon is possible without problems

Inserts Selection

- Standard insert
- Insert with corner radius
- Insert with wiper edge

System MaxiMill 141 / 241

Cutting data recommendations/Technology data

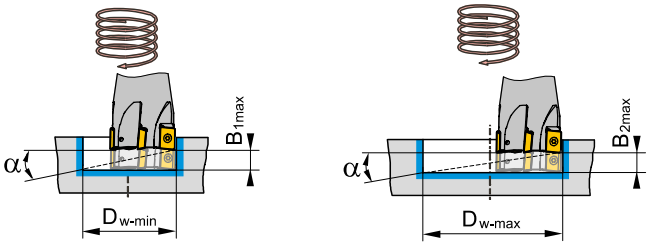
for standard inserts

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	60–280	0,1–0,2	14	60–280	0,1–0,2	14	60–280	0,1–0,2	14
Stainless steel	130–240	0,05–0,2	14	130–240	0,05–0,25	14	130–240	0,1–0,25	14
Cast iron				100–360	0,1–0,25	14			
Non-ferrous metals	160–1500	0,1–0,2	14	160–1500	0,1–0,2	14	160–1500	0,1–0,2	14
Heat resistant alloys									
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

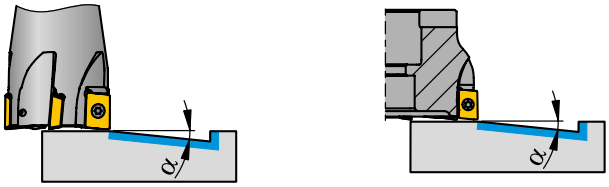
Machining strategy

Helical plunge milling (without start hole)



D_w = Diameter of bore to be produced
DC = Nominal diameter of milling cutter
B = Depth of cut calculated for 360° helical movement

Angled ramping



$$B = (D_w - DC) \times \pi \times \tan \alpha$$

C 141

DC mm	$D_{w\text{-}min}$ mm	$B_{1\,max}$ mm	$D_{w\text{-}max}$ mm	$B_{2\,max}$ mm	α °
16	20,0	0,4	30,0	1,5	2,0
20	24,0	0,4	38,0	1,9	2,0
25	34,0	0,9	48,0	2,5	2,0
32	48,0	1,7	62,0	3,2	2,0
40	64,0	1,9	78,0	3,1	1,5

A 241

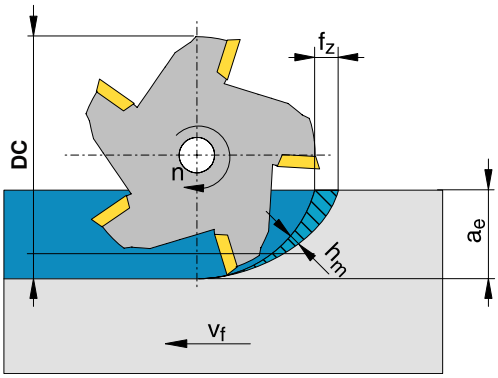
DC mm	$D_{w\text{-}min}$ mm	$B_{1\,max}$ mm	$D_{w\text{-}max}$ mm	$B_{2\,max}$ mm	α °
40	64,0	1,9	78,0	3,1	1,5
50	84,0	1,8	98,0	2,6	1,0
63	110,0	1,2	124,0	1,6	0,5
80	144,0	1,4	158,0	1,7	0,4
100	184,0	1,3	198,0	1,6	0,3
125	234,0	1,2	248,0	1,3	0,2

Average chip thickness [h_m] – the approach

Shoulder milling

1 Select appropriate average chip thickness [h_m] for the steel from the table.

Material	Tensile strength N/mm²	h_m mm
for steel	...–800	0,16
for steel	800–1000	0,14
for steel	1000–1200	0,12
for steel	1200–...	0,10
for stainless steel	...–750	0,15
for stainless steel	750–900	0,13
for stainless steel	900–1150	0,11
for stainless steel	1150–...	0,09 *



2 Select the corrected feed rate value from the table based on the appropriate chip thickness [h_m] and depth of cut [a_e].

h_m mm	Corrected feed value f_z for h_m				
0,16	0,36	0,29	0,25	0,18	0,16
0,14	0,31	0,26	0,22	0,16	0,14
0,12	0,27	0,22	0,19	0,14	0,12
0,10	0,22	0,18	0,16	0,12	0,10
0,15	0,34	0,27	0,24	0,17	0,15
0,13	0,29	0,24	0,21	0,15	0,13
0,11	0,25	0,20	0,17	0,13	0,11
0,09 *	0,20	0,16	0,14	0,10	0,09 *
a_e =	**0,2 x DC**	**0,3 x DC**	**0,4 x DC**	**0,75 x DC**	**1 x DC**

Face milling

Material	Tensile strength N/mm²	h_m mm
for steel	...–800	0,2
for steel	800–1000	0,18
for steel	1000–1200	0,16
for steel	1200–...	0,14
for stainless steel	... –750	0,21
for stainless steel	750–900	0,19
for stainless steel	900–1150	0,17
for stainless steel	1150– ...	0,15

Procedure as shoulder milling.

h_m mm	Corrected feed value f_z for h_m			
0,20	0,40 **	0,40 **	0,33	0,28
0,18	0,40 **	0,40 **	0,29	0,25
0,16	0,40 **	0,36	0,26	0,23
0,14	0,36	0,31	0,23	0,20
0,21	0,40 **	0,40 **	0,34	0,30
0,19	0,40 **	0,40 **	0,31	0,27
0,17	0,40 **	0,38	0,28	0,24
0,15	0,39	0,34	0,24	0,21
a_e =	**0,3 x DC**	**0,4 x DC**	**0,75 x DC**	**1 x DC**

* f_z < 0,08 mm: Danger, as tool is not working and cutting
** f_z > 0,4 mm: Danger of an open space contact

System MaxiMill HFC-06

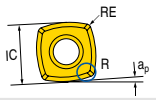
Cutting data recommendations/Technology data

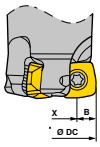
	F			M			R		
Material	v_c in m/min	f_z in mm	a_p in mm	v_c in m/min	f_z in mm	a_p in mm	v_c in m/min	f_z in mm	a_p in mm
Steel				60–280	0,2–1,25	0,8	60–280	0,2–1,25	0,8
Stainless steel				60–270	0,2–1,25	0,8	60–270	0,2–1,25	0,8
Cast iron				130–360	0,2–1,25	0,8	130–360	0,2–1,25	0,8
Non-ferrous metals									
Heat resistant alloys				25–75	0,2–1,25	0,8	25–75	0,2–1,25	0,8
hardened materials									

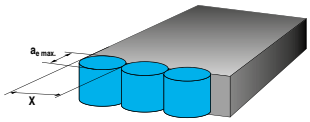
Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

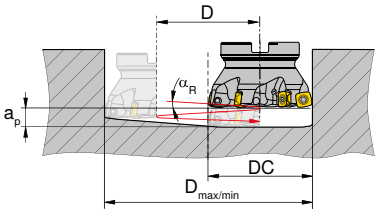
Programmed radius R = 1.2 mm

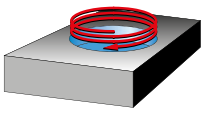


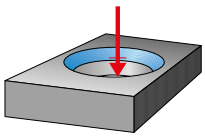


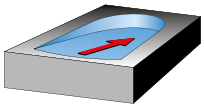


Cutting depth and remaining material			Cutting width for flat surfaces			Cutting depth when plunging				
IC in mm	RE in mm	$a_{p\,max.}$ in mm	DC in mm	X in mm	B in mm	$a_{e\,max.}$ in mm	f_z in mm			X
							initial	min.	max.	
6,35	0,5	0,8	16–32	DC–(2 x B)	4,3	5,3	0,10	0,08	0,15	<0,7 x DC









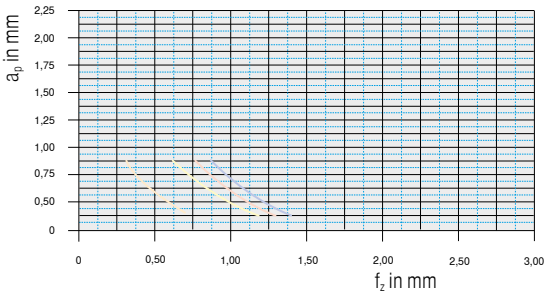
	circular		
	Helical plunging (helical plunging into solid material)		
DC mm	$D_{max.}$ mm	$D_{min.}$ mm	$\alpha_{R\,max.}$ °
16	31	22	4,5°
20	39	30	2,3°
25	49	40	1,3°
32	63	54	0,9°

	axial	Angled
	Plunging	
DC mm	$X_{max.}$ mm	$\alpha_{R\,max.}$ °
16	0,5	5,9°
20		3,2°
25		2°
32		1,3°

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

XPLX 06



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**XPLX 060305SR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**XPLX 060305ER-M40**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**XPLX 060305ER-M50**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**XPLX 060305SR-F40**	**CTC5240** (HCF5240)	35	Emulsion

From v_c > 400 m/min, the tool must be balanced!

System MaxiMill HFC-09

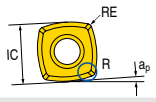
Cutting data recommendations/Technology data

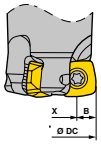
	F			M			R		
Material	v_c in m/min	f_z in mm	a_p in mm	v_c in m/min	f_z in mm	a_p in mm	v_c in m/min	f_z in mm	a_p in mm
Steel				60–280	0,2–2,5	1	60–280	0,2–2,5	1
Stainless steel				60–270	0,2–2,5	1	60–270	0,2–2,5	1
Cast iron				130–360	0,2–2,5	1	130–360	0,2–2,5	1
Non-ferrous metals									
Heat resistant alloys				25–75	0,2–2,5	1	25–75	0,2–2,5	1
hardened materials									

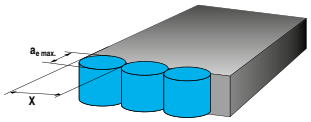
Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

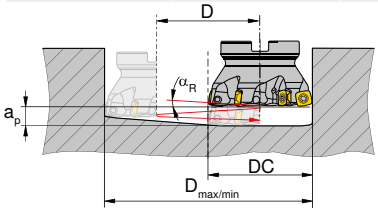
Programmed radius R = 2 mm

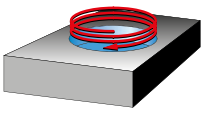


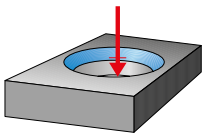


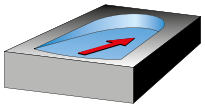


Cutting depth and remaining material			Cutting width for flat surfaces			Cutting depth when plunging				
IC in mm	RE in mm	$a_{p\,max.}$ in mm	DC in mm	X in mm	B in mm	$a_{e\,max.}$ in mm	f_z in mm			X
							initial	min.	max.	
9	0,8	1	25–66	DC–(2 x B)	5,9	7,5	0,10	0,08	0,15	<0,7 x DC









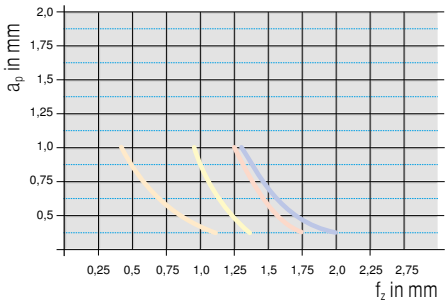
	circular		
	Helical plunging (helical plunging into solid material)		
DC mm	$D_{max.}$ mm	$D_{min.}$ mm	$\alpha_{R\,max.}$ °
25	48	35	3,1°
32	62	49	1,7°
35	68	55	1,4°
40	78	65	1,0°
42	82	69	0,9°
50	98	85	0,8°
52	102	89	0,7°
63	124	111	0,7°
66	130	117	0,6°

	axial	Angled
	Plunging	
DC mm	$X_{max.}$ mm	$\alpha_{R\,max.}$ °
25		3,6°
32		2,0°
35		1,6°
40		1,2°
42	0,75	1,1°
50		0,9°
52		0,8°
63		0,8°
66		0,7°

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

XDLX 09



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**XDLX09T308SR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**XDLX09T308SR-M50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**XDLX09T308SR-M50**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**XDLX09T308ER-F40**	**CTC5240** (HCF5240)	35	Emulsion

From v_c > 400 m/min, the tool must be balanced!

System MaxiMill HFC-12

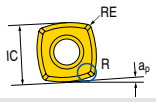
Cutting data recommendations/Technology data

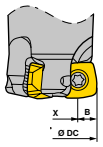
	F			M			R		
Material	v_c in m/min	f_z in mm	a_p in mm	v_c in m/min	f_z in mm	a_p in mm	v_c in m/min	f_z in mm	a_p in mm
Steel				60–280	0,2–3,0	2	60–280	0,2–3,0	2
Stainless steel				60–270	0,2–3,0	2	60–270	0,2–3,0	2
Cast iron				130–360	0,2–3,0	2	130–360	0,2–3,0	2
Non-ferrous metals									
Heat resistant alloys				25–75	0,2–3,0	2	25–75	0,2–3,0	2
hardened materials									

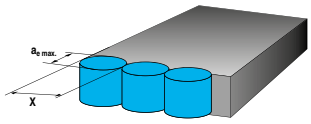
Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

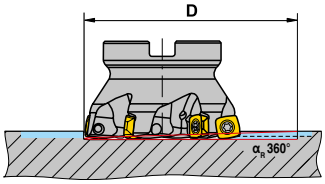
Programmed radius R = 3 mm

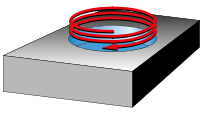


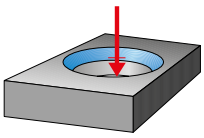


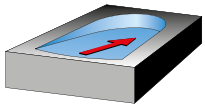


Cutting depth and remaining material			Cutting width for flat surfaces			Cutting depth when plunging				
IC in mm	RE in mm	$a_{p\,max.}$ in mm	DC in mm	X in mm	B in mm	$a_{e\,max.}$ in mm	f_z in mm			X
							initial	min.	max.	
12	1,0	2	32–100	DC–(2 x B)	8,3	10	0,15	0,10	0,20	<0,7 x DC









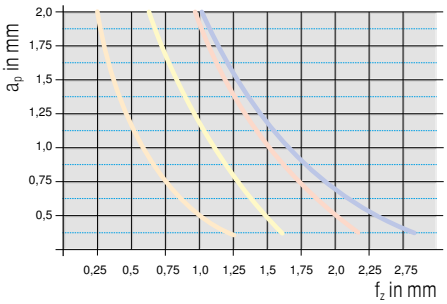
	circular		
	Helical plunging (helical plunging into solid material)		
DC mm	$D_{max.}$ mm	$D_{min.}$ mm	$\alpha_{R\,max.}$ °
32	62	44	6,1°
35	68	50	3,7°
40	78	60	2,5°
42	82	64	2,3°
50	98	80	1,3°
52	102	84	1,3°
63	124	106	0,9°
66	130	112	0,9°
80	158	140	1,1°
100	198	180	0,6°

	axial	Angled
	Plunging	
DC mm	$X_{max.}$ mm	$\alpha_{R\,max.}$ °
32	1,15	7,2°
35		4,4°
40		2,9°
42		2,7°
50 + 52		1,5°
63 + 66		1,1°
80		1,3°
100		0,7°

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

XOLX 12



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**XOLX120410SR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**XOLX120410ER-M50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**XOLX120410ER-M50**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**XOLX120410ER-F40**	**CTC5240** (HCF5240)	35	Emulsion

From v_c > 400 m/min, the tool must be balanced!

System MaxiMill HFC-19

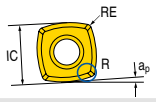
Cutting data recommendations/Technology data

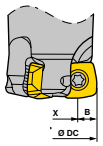
	F			M			R		
Material	v_c in m/min	f_z in mm	a_p in mm	v_c in m/min	f_z in mm	a_p in mm	v_c in m/min	f_z in mm	a_p in mm
Steel				60–280	0,2–3,0	3,3	60–280	0,2–3,0	3,3
Stainless steel				60–270	0,2–3,0	3,3	60–270	0,2–3,0	3,3
Cast iron				130–360	0,2–3,0	3,3	130–360	0,2–3,0	3,3
Non-ferrous metals									
Heat resistant alloys				25–75	0,2–3,0	3,3	25–75	0,2–3,0	3,3
hardened materials									

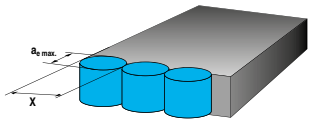
Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

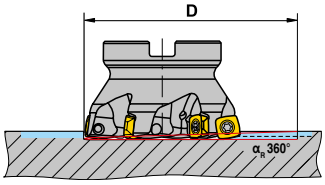
Programmed radius R = 5 mm

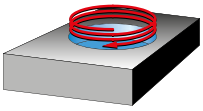


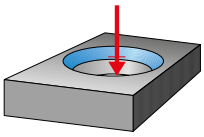


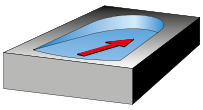


Cutting depth and remaining material			Cutting width for flat surfaces			Cutting depth when plunging				
IC in mm	RE in mm	$a_{p\,max.}$ in mm	DC in mm	X in mm	B in mm	$a_{e\,max.}$ in mm	f_z in mm			X
							initial	min.	max.	
19,14	1,5	3,3	63–160	DC–(2 x B)	13,1	12	0,2	0,10	0,25	<0,65 x DC









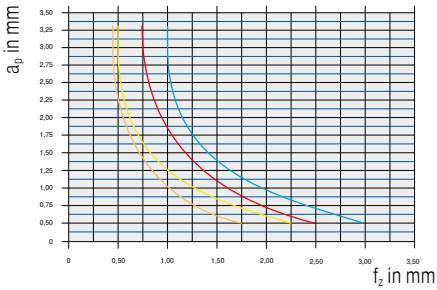
	circular		
	Helical plunging (helical plunging into solid material)		
DC mm	$D_{max.}$ mm	$D_{min.}$ mm	$\alpha_{R\,max.}$ °
63	97	123	2,5
80	131	157	1,4
100	171	197	1,0
125	221	247	0,7
160	291	317	0,5

	axial	Angled	
	Plunging		
DC mm	$X_{max.}$ mm	$\alpha_{R\,max.}$ °	$a_{p\,max}$ mm
63		2,9	
80		1,8	
100	1,7	1,3	3,3
125		1,0	
160		0,7	

Starting Parameter

Example materials				
Steel	1000 N/mm²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm²	2.6	1.4571	X6CrNiMoTi 1712 2
Cast iron	180 HB	3.1	EN-GJL-250	EN-GJL-250 (GG25)
Heat resistant alloys	1450 N/mm²	5.8	Inconel 625	Inconel 718

XOLX 19



Material		Inserts		v_c in m/min	Coolant
Steel	1.2312	**XOLX190615SR-M50**	**CTPP235** (DPX1235)	200	Dry
Stainless steel	1.4571	**XOLX190615SR-M50**	**CTPM240** (DPX2240)	180	Dry
Cast iron	5.1301	**XOLX190615SR-M50**	**CTCK215** (DCX3215)	250	Dry
Heat resistant alloys	2.4856	**XOLX190615ER-F40**	**CTC5240** (HCF5240)	35	Emulsion

From v_c > 400 m/min, the tool must be balanced!

System DHFC

Cutting data recommendations/Technology data

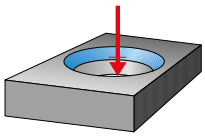
for standard inserts

	F			M			R		
Material	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm	v_c m/min	f_z mm	a_p mm
Steel	130–300	0,25–1,0	0,7	130–300	0,25–1,0	0,7	130–300	0,25–1,0	0,7
Stainless steel				80–210	0,25–1,0	0,6			
Cast iron				120–250	0,2–1,1	0,7	120–270	0,2–1,2	0,75
Non-ferrous metals									
Heat resistant alloys				30–90	0,15–0,75	0,6			
hardened materials									

Detailed information on cutting speed for each grade can be found on → page 138+139

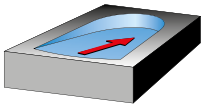
Machining strategy

Axial plunging into solid material



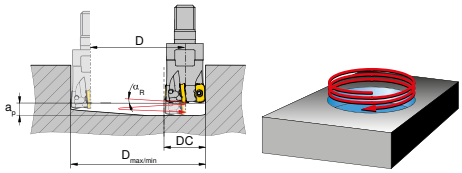
DC mm	X_{max} mm
16	0,35
20	0,40
25	0,45
32–35	0,50
40	0,55

Angled ramping



DC mm	α°	y mm
16	<2,5	7
20	<1,9	11
25	<1,5	16
32	<1,2	23
35	<1,0	26
42	<0,9	33

Circular Milling



DC mm	D_{min} mm	D_{max} mm
16	23	31
20	31	39
25	41	49
32	55	63
35	61	69
42	75	83

System MaxiMill 251

Cutting data recommendations/Technology data

for standard inserts

	F				
		05		08	
Material	v_c m/min	f_z mm	a_p mm	f_z mm	a_p mm
Steel	50–350	0,08–0,35	2,5	0,08–0,35	4
Stainless steel	130–280	0,08–0,35	2,5	0,08–0,35	4
Cast iron	100–360			0,1–0,4	4
Non-ferrous metals	160–1500	0,05–0,4	2,5	0,05–0,4	4
Heat resistant alloys	25–75			0,08–0,35	4
hardened materials					

	M						
		10		12		16	
Material	v_c m/min	f_z mm	a_p mm	f_z mm	a_p mm	f_z mm	a_p mm
Steel	50–350	0,08–0,4	5	0,08–0,4	6	0,08–0,4	8
Stainless steel	60–280	0,08–0,35	5	0,08–0,35	6	0,08–0,35	8
Cast iron	100–360	0,1–0,4	5	0,1–0,4	6	0,1–0,4	8
Non-ferrous metals	160–1500	0,05–0,4	5	0,05–0,4	6	0,05–0,4	8
Heat resistant alloys	25–75	0,08–0,38	5	0,08–0,38	6	0,08–0,38	8
hardened materials	40–60			0,05–0,35	6		

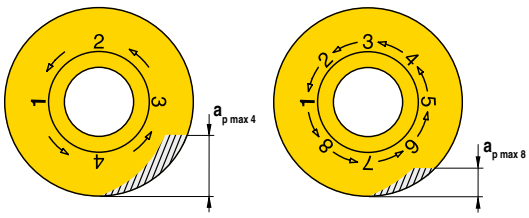
	R						
		20					
Material	v_c m/min	f_z mm	a_p mm	f_z mm	a_p mm	f_z mm	a_p mm
Steel	50–350	0,1–0,4	10				
Stainless steel	60–280	0,08–0,35	10				
Cast iron	100–360	0,1–0,4	10				
Non-ferrous metals	160–1500	0,05–0,4	10				
Heat resistant alloys	25–75	0,08–0,38	10				
hardened materials							

Detailed information on cutting speed for each grade can be found on → page 138+139

Recommended cutting depth

	4-position		8-face
Ø mm	$a_{p\,max.}$ mm	$a_{p\,max}$ theoretical mm	$a_{p\,max.}$ mm
5	1,0	2,0	0,7
8	1,5	3,5	1,1
10	2,5	4,5	1,4
12	3,0	5,5	1,7
16	4,0	7,5	2,3
20	4,0	9,5	2,9

Average depth for the 4/8 index use of the insert

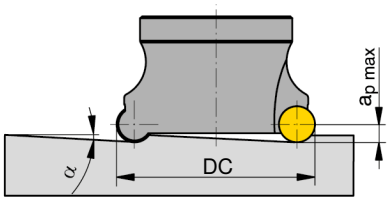


15

System MaxiMill 251

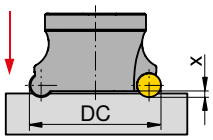
Technical data

Linear ramping



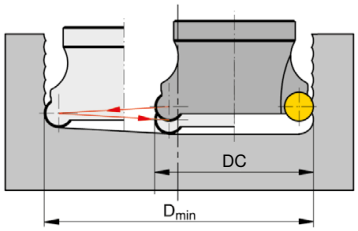
Ø DC mm	05 α °	08 α °	10 α °	12 α °	16 α °	20 α °
10	3,4					
12	16,0					
16	8,0	5,0				
20	5,5	20,0	1,3			
25	4,0	13,0	2,0	6,0		
32	3,0	8,0	3,0	4,0		
40			3,3	2,8		
42			3,1			
50			2,4	2,6	4,0	
52			2,2	2,3		
63				1,9	2,8	
66				1,6		
80				1,3	2,0	3,2
100				1,0	1,5	2,3
125						1,7

Plunging

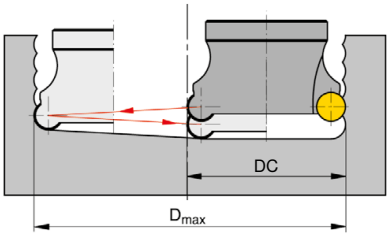


Ø DC mm	05 X max. mm	08 X max. mm	10 X max. mm	12 X max. mm	16 X max. mm	20 X max. mm
10	0,5					
12	1,3					
16	1,3	0,5				
20	1,3	2,7	0,2			
25	1,3	2,7	0,4	1,0		
32	1,3	2,7	0,8	1,1		
40			1,5	1,2		
42			1,5	1,5		
50			1,5	1,5	2,0	
52			1,5	1,5	2,0	
63				1,5	2,0	
66				1,5	2,0	
80				1,5	2,0	3,0
100				1,5	2,0	3,0
125						3,0

Circular milling into solid



$D_{min.}$ = smallest drilling diameter depending on the tool diameter



$D_{max.}$ = Maximum hole diameter Depending on the tool diameter

maximum possible hole diameter = 2 x DC – 1 mm

Ø DC mm	05 D_{min} mm	05 D_{max} mm	05 α_R °	08 D_{min} mm	08 D_{max} mm	08 α_R °	10 D_{min} mm	10 D_{max} mm	10 α_R °	12 D_{min} mm	12 D_{max} mm	12 α_R °	16 D_{min} mm	16 D_{max} mm	16 α_R °	20 D_{min} mm	20 D_{max} mm	20 α_R °
10	12	15	2,5															
12	16	19	2,1															
16	24	27	1,5	21	24	2,4												
20	32	35	1,2	27	32	1,9	26	30	1,3									
25	42	45	1,0	37	42	1,5	37	40	1,8	31	38	2,2						
32	56	59	0,7	51	56	1,2	50	54	1,5	46	52	1,7						
40							64	70	1,1	62	68	1,4						
42							68	74	1,1									
50							84	90	0,9	81	88	1,1	75	84	1,5			
52							88	94	0,9	86	92	1,0						
63										107	114	0,9	101	110	1,1			
66										113	120	0,8						
80										142	148	0,7	135	144	0,9	128	140	1,1
100										181	188	0,5	175	184	0,7	168	180	0,9
125																218	230	0,7

R100. system

Cutting data appoximate values

	v_c m/min	WTN 1205	WAN 2225	WAN 1240	WAX 1240	WUN 4210
Steel						
Non alloyed steel	**R**	150–250		100–250	100–300	
	F	200–400			150–350	
Alloyed tool steel Cast steel	**R**	150–250		100–200	100–250	
	F	200–350			150–300	
High alloyed tool steel	**R**	120–200		100–150	150–180	
	F	150–300			150–250	
Stainless steel						
	R		80–200			
	F	100–200	80–230			
Cast iron						
Grey Iron GG	**R**	150–200			160–220	
	F	200–350			160–220	
Cast iron with spheroidal graphite GGG	**R**	150–200			160–220	
	F	200–350			160–220	
Tempered cast iron	**R**	100–180			160–220	
	F	200–350			160–220	
Non-ferrous metals						
Aluminium	**R**					100–800
	F					100–800
Copper	**R**					100–400
	F					100–400
Graphite	**R**	200–800				200–800
	F	200–800				200–800
Plastics	**R**	200–800				200–800
	F	200–800				200–800
Heat resistant alloys						
Heat resistant alloys	**R**					
	F					
Titanium alloys	**R**		40–50			
	F		40–60			
hardened materials						
to 48 HRC	**R**	150–250			80–150	
	F	150–250				
to 55 HRC	**R**	100–180				
	F	100–180				
to 65 HRC	**R**	35–150				
	F	35–150				

R (Roughing)
F (Finishing)

15

System R 1000, 1002, 1007

Cutting data appoximate values

	f_z, a_p mm	WTN1205	WUN 4210	WAN2225	WAX1240	WAN1240
Steel						
0501	f_z	0,1–0,3				
	a_p	0,1–0,3				
07T1	f_z	0,1–0,3	0,1–0,2		0,1–0,3	
	a_p	0,1–0,5	0,1–0,2		0,1–0,7	
0702	f_z	0,1–0,3			0,2–0,5	
	a_p	0,1–0,7			0,1–0,75	
1003	f_z	0,1–0,3	0,15–0,3		0,2–0,7	0,2–0,9
	a_p	0,1–1,0	0,1–0,3		0,2–1,5	0,2–1,5
12T3	f_z	0,1–0,3	0,15–0,3		0,2–0,8	0,25–1,0
	a_p	0,1–1,5	0,1–0,3		0,2–2,0	0,2–2,0
1604	f_z	0,2–0,3			0,25–1,0	0,3–1,2
	a_p	0,2–1,5			0,2–3,0	0,25–3,0
2006	f_z	0,25–0,4				
	a_p	0,2–2,0				
Stainless steel						
0501	f_z	0,1–0,15				
	a_p	0,1–0,15				
07T1	f_z	0,1–0,2	0,1–0,2			
	a_p	0,1–0,2	0,1–0,2			
0702	f_z	0,1–0,2	0,1–0,2			
	a_p	0,1–0,2	0,1–0,2			
1003	f_z	0,15–0,3	0,15–0,3	0,15–0,6		
	a_p	0,1–0,3	0,1–0,3	0,4–1,0		
12T3	f_z	0,15–0,3	0,15–0,3	0,2–0,8		
	a_p	0,1–0,3	0,1–0,3	0,5–2,0		
1604	f_z	0,15–0,3	0,15–0,3	0,3–1,0		
	a_p	0,1–0,3	0,1–0,3	0,6–3,0		
2006	f_z		0,15–0,3			
	a_p		0,1–0,4			
Cast iron						
0501	f_z	0,1–0,2				
	a_p	0,1–03				
07T1	f_z	0,1–0,3	0,1–0,3		0,1–0,3	
	a_p	0,1–0,5	0,1–0,5		0,1–0,5	
0702	f_z	0,1–0,3	0,1–0,3		0,1–0,3	
	a_p	0,1–0,7	0,1–1,0		0,1–0,7	
1003	f_z	0,15–0,3	0,15–0,3		0,1–0,3	0,1–0,3
	a_p	0,1–1,0	0,1–1,5		0,1–1,0	0,1–1,0
12T3	f_z	0,15–0,4	0,15–0,4		0,1–0,4	0,1–0,4
	a_p	0,1–1,5	0,1–2,0		0,1–1,5	0,1–1,5
1604	f_z	0,2–0,5	0,2–0,5		0,2–0,5	0,2–0,5
	a_p	0,2–3,0	0,2–3,0		0,2–3,0	0,2–2,0
2006	f_z	0,25–0,6	0,25–0,6			
	a_p	0,2–4,0	0,2–4,0			

System R 1000, 1002, 1007

Cutting data appoximate values

	f_z, a_p mm	WTN1205	WUN4210	WAN2225	WAX1240	WAN1240
Non-ferrous metals						
0501	f_z	0,1–0,2				
	a_p	0,1–0,3				
07T1	f_z	0,1–0,3				
	a_p	0,1–0,7				
0702	f_z	0,1–0,3				
	a_p	0,1–1,0				
1003	f_z	0,1–0,3				
	a_p	0,1–1,5				
12T3	f_z	0,1–0,4				
	a_p	0,1–2,0				
1604	f_z	0,2–0,5				
	a_p	0,2–4,0				
2006	f_z	0,25–0,6				
	a_p	0,2–5,0				
Heat resistant alloys						
0501	f_z					
	a_p					
07T1	f_z					
	a_p					
0702	f_z					
	a_p					
1003	f_z			0,1–0,4		
	a_p			0,2–1,0		
12T3	f_z			0,15–0,5		
	a_p			0,3–1,5		
1604	f_z			0,15–0,5		
	a_p			0,3–2,0		
2006	f_z					
	a_p					
hardened materials						
0501	f_z	0,1–0,15				
	a_p	0,1–0,2				
07T1	f_z	0,1–0,15			0,1–0,2	
	a_p	0,1–0,2			0,1–0,3	
0702	f_z	0,1–0,2			0,1–0,2	
	a_p	0,1–0,3			0,1–0,3	
1003	f_z	0,1–0,2			0,1–0,2	
	a_p	0,1–0,5			0,1–0,5	
12T3	f_z	0,1–0,25			0,1–0,25	
	a_p	0,1–0,7			0,1–0,7	
1604	f_z	0,15–0,3			0,15–0,3	
	a_p	0,2–1,0			0,2–1,0	
2006	f_z	0,2–0,4				
	a_p	0,2–1,0				

WTN 1205

Up to 48 HRC: a_p-range as indicated in the table
Up to 55 HRC: maximum value a_p x 0,7
Up to 65 HRC: maximum value a_p x 0,5

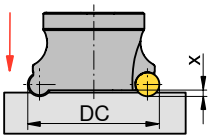
15

System R 1000, 1002, 1007

Technical data

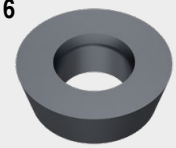
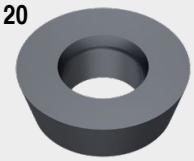
Machining strategy

Plunging

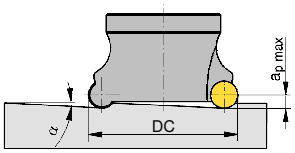


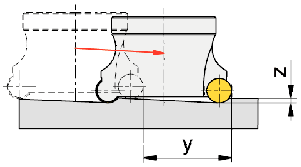
reduce f_z according to table by 30 %

→ v_c Page 178+179

	05	07	10	12	16	20
						
ØDC mm	$X_{max.}$ mm	$X_{max.}$ mm	$X_{max.}$ mm	$X_{max.}$ mm	$X_{max.}$ mm	$X_{max.}$ mm
8–160	1,0	1,2	2,5	3,0	4,0	5,0

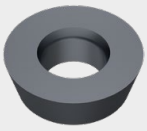
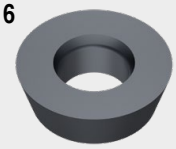
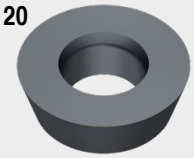
Linear ramping





y = minimum cutter movement
z = minimum cutter movement
a_p / f_z application table

→ v_c Page 178+179

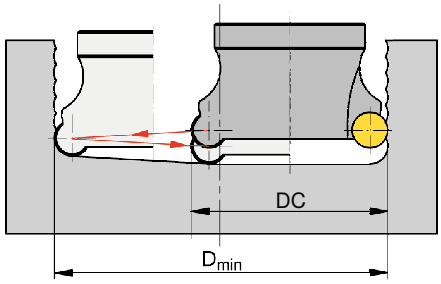
	05			07			10			12			16			20		
																		
ØDC mm	α°	y mm	z mm	α°	y mm	z mm	α°	y mm	z mm	α°	y mm	z mm	α°	y mm	z mm	α°	y mm	z mm
8	26,5	2	< 1,0															
10																		
12	14,0	4	< 1,0															
14	9,5	6	< 1,0															
15	8,1	7	< 1,0	26,5	2	< 1,2												
16	7,1	8	< 1,0	14,0	4	< 1,2												
18	5,7	10	< 1,0	11,3	6	< 1,2												
20	4,7	12	< 1,0	8,5	8	< 1,2												
22																		
24																		
25				5,3	13	< 1,2	19,7	7	< 2,5									
30				3,8	18	< 1,2	11,7	12	< 2,5									
32																		
35				3,0	23	< 1,2	8,4	17	< 2,5	13,0	13	< 3,0	38,7	5	< 4,0			
40																		
42				2,3	30	< 1,2	5,9	24	< 2,5	8,5	20	< 3,0						
50																22,6	12	< 5,0
52							4,2	34	< 2,5	5,7	30	< 3,0	10,3	22	< 4,0			
66										3,9	44	< 3,0	6,4	36	< 4,0	10,1	28	< 5,0
80										3,0	58	< 3,0	4,6	50	< 4,0	6,8	42	< 5,0
100													3,3	70	< 4,0	4,6	62	< 5,0
125													2,4	95	< 4,0	3,3	87	< 5,0
160													1,8	130	< 4,0	2,3	122	< 5,0

System R 1000, 1002, 1007

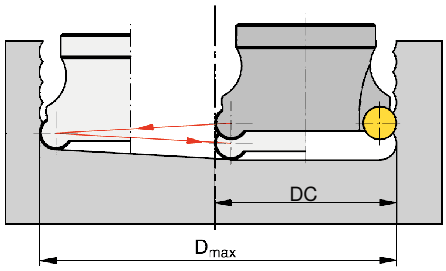
Technical data

Machining strategy

Circular ramping



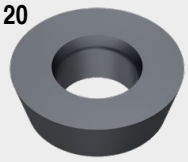
D_{min} = smallest drilling diameter depending on the tool diameter



D_{max} = largest drilling diameter depending on the tool diameter

a_p / f_z according to table

→ v_c Page 178+179

	05		07		10		12		16		20	
												
Ø DC mm	D_{min} mm	D_{max} mm	D_{min} mm	D_{max} mm	D_{min} mm	D_{max} mm	D_{min} mm	D_{max} mm	D_{min} mm	D_{max} mm	D_{min} mm	D_{max} mm
8	10	16										
10	12	20										
12	16	24	14	24								
14	20	28	16	28								
15	22	30	17	30								
16	24	30	20	32								
18	28	36	24	36	20	36						
20	32	40	28	40	22	40						
22							24	44				
24							26	48				
25			38	50	32	50						
30			48	60	42	60						
32									34	64		
35			58	80	72	70	48	70	40	70		
40											42	80
42			72	84	66	84	62	84				
50											62	100
52					86	104	82	104	74	104		
66							110	132	102	132	94	132
80							138	160	130	160	122	160
100									170	200	162	200
125									220	250	212	250
160									290	320	282	320

System MaxiMill 252

Cutting data recommendations/Technology data

for standard inserts

	M						
		10		12			
Material	v_c m/min	f_z mm	a_p mm	f_z mm	a_p mm	f_z mm	a_p mm
Steel	60–240	0,08–0,35	2,5	0,08–0,35	3		
Stainless steel	60–280	0,05–0,35	2,5	0,05–0,35	3		
Cast iron							
Non-ferrous metals							
Heat resistant alloys	25–75	0,08–0,35	2,5	0,08–0,35	3		
hardened materials							

Detailed information on cutting speed for each grade can be found on → page 138+139

MaxiMill 252 – recommended cutting depth

	4-position	
Ø mm	$a_{p\,max}$ mm	$a_{p\,max}$ theoretical mm
10	2,5	4,5
12	3,0	5,5

Cutting data standard values for copy milling cutter K200.

● 1st choice ○ suitable

	R	F	R	F	R	F	R	F	suitable coolant types		
	CTPK226		CTPP211		CTPK231		CTCN211		Emulsion	Com-pressed air	MMS
Index	v_c m/min	v_c m/min	v_c m/min	v_c m/min	v_c m/min	v_c m/min	v_c m/min	v_c m/min			
1.1		280-300	180-220	220-300	160-200				○	●	●
1.2		280-300	180-220	220-300	160-200				○		●
1.3		280-300	180-220	220-300	160-200				○		●
1.4		280-300	180-220	220-300	160-200				○		●
1.5		220-240	180-220	220-240	160-200				○	●	●
1.6		220-240	180-220	220-240	160-200				○		●
1.7		220-240	180-220	220-240	160-200				○	●	●
1.8		220-240	180-220	220-240	160-200				○		●
1.9		220-240	180-220	220-240	160-200				○		●
1.10		280-300	140-220	200-300	140-180				○	●	●
1.11		280-300	140-220	200-300	140-180				○		●
1.12		280-300	140-220	200-300	140-180				○		●
1.13		280-300	140-220	200-300	140-180				○		●
1.14		280-300	140-220	200-300	140-180				○		●
1.15		280-320	180-220	240-320	160-200				○	●	●
1.16		280-320	180-220	240-320	160-200				○	●	●
2.1		220-220	140-180	200-240	120-180				●		
2.2		220-220	140-180	200-240	120-180				●		
2.3		220-220	140-180	200-240	120-180				●		
2.4		220-220	140-180	200-240	120-180				●	○	
2.5		220-220	140-180	200-240	120-160				●		
2.6		180-200	140-160	180-200	120-160				●	○	
2.7		180-200	140-160	180-200	120-160				●		
3.1		280-300	160-200	200-300	120-200					●	○
3.2		280-300	160-200	200-300	120-200					●	○
3.3		280-300	160-200	200-300	120-200					●	○
3.4		300-350	180-220	240-350	180-200					●	○
3.5		300-350	180-220	240-350	180-200					●	○
3.6		300-350	180-220	240-350	180-200					●	○
3.7		300-350	180-220	240-350	180-200					●	○
3.8		240-260	160-200	220-260	160-200					●	○
4.1			240-280	300-600	300-600				●		
4.2			240-280	300-600	300-600				●		
4.3			240-280	300-600	300-600				●		
4.4			240-280	300-600	300-600				●		
4.5									●		
4.6			240-280	300-600	240-280				●		
4.7			240-280	300-600	240-280				●		
4.8			240-280	300-600	240-280				●		
4.9			240-280	300-600	240-280				●		
4.10			240-280	280-320	240-280				●		
4.11			240-280	280-320	240-280				●		
4.12			240-280	280-320	240-280				●		
4.13			500-600	500-600			400-600	600-800		●	
4.14			300-400	300-400						●	
4.15			300-400	300-400				250-300		●	
4.16			300-400	300-400				300-400	●		
4.17							400-600	600-800		●	
4.18							100-140	160-180	●		
4.19							100-140	100-140	●		
5.1					80-120				●		
5.2				80-120	80-120				●		
5.3				80-120	80-120				●		
5.4				80-120	80-120				●		
5.5				80-120	80-120				●		
5.6				80-120	80-120				●		
5.7				80-120	80-120				●		
5.8				80-120	80-120				●		
5.9				80-120	80-120				●		
5.10				60-80	60-80				●	○	
5.11				60-80	80-100				●	○	
6.1		240-260		60-80	140-160						
6.2		240-260	140-200	220-300	140-160					●	○
6.3		200-220	120-160	180-300	80-100					●	○
6.4		120-140	100-120	120-200						●	○
6.5											

Cutting data standard values for copy milling cutter K200.

● 1st choice ○ suitable

	R	F	Roughing (R)		Finishing (F)		only for -MR3 Roughing (R)		suitable coolant types		
	CTPP216		Ø 6–16	Ø 20–32	Ø 6–16	Ø 20–32	Ø 6–16	Ø 20–32			
Index	v_c m/min	v_c m/min	f_z mm	f_z mm	f_z mm	f_z mm	f_z mm	f_z mm	Emulsion	Com-pressed air	MMS
1.1	220-300	280-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,2-1,5	○	●	●
1.2	220-300	280-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,2-1,5	○		●
1.3	220-300	280-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,2-1,5	○		●
1.4	220-300	280-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,2-1,5	○		●
1.5	220-300	280-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,2-1,5	○	●	●
1.6	220-300	280-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25	○		●
1.7	260-340	280-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25	○	●	●
1.8	260-340	280-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25	○		●
1.9	260-340	280-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25	○		●
1.10	240-340	240-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,20	○	●	●
1.11	240-340	240-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,0-1,5	○		●
1.12	240-340	240-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,0-1,5	○		●
1.13	240-340	240-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,0-1,5	○		●
1.14	240-340	240-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,0-1,5	○		●
1.15	250-360	240-320	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,0-1,5	○	●	●
1.16	250-360	240-320	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,0-1,5	○	●	●
2.1	220-300	220-240	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25	●		
2.2	220-300	220-240	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25	●		
2.3	220-300	220-240	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25	●		
2.4	220-300	220-240	0,08-0,4	0,25-0,45	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25	●	○	
2.5	220-300	220-240	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25	●		
2.6	220-250	220-240	0,08-0,4	0,25-0,45	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,5	●	○	
2.7	220-250	220-240	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,5	●		
3.1	240-350	240-260	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,0-1,5		●	○
3.2	240-350	240-260	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,0-1,5		●	○
3.3	240-350	240-260	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,8	1,0-1,5		●	○
3.4	340-400	240-360	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25		●	○
3.5	340-400	240-360	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25		●	○
3.6	340-400	240-360	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25		●	○
3.7	340-400	240-360	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25		●	○
3.8	280-340	220-300	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,3-0,6	0,8-1,25		●	○
4.1		400-450	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.2		400-450	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.3		400-450	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.4		400-450	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.5		300-400	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.6		300-400	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.7		300-400	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.8		300-400	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.9		300-400	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.10		300-400	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.11		300-400	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.12		300-400	0,08-0,35	0,25-0,45	0,06-0,25	0,025-0,45			●		
4.13		600-800	0,25-0,35	0,4-0,5	0,08-0,3	0,25-0,4				●	
4.14		300-350	0,25-0,35	0,4-0,5	0,08-0,3	0,25-0,4				●	
4.15			0,25-0,35	0,4-0,5	0,08-0,3	0,25-0,4				●	
4.16			0,25-0,35	0,4-0,5	0,08-0,3	0,25-0,4			●		
4.17			0,25-0,35	0,4-0,5	0,08-0,3	0,25-0,4				●	
4.18							0,20-0,4	0,4-0,8	●		
4.19							0,20-0,4	0,4-0,8	●		
5.1		60-80	0,08-0,3	0,15-0,4	0,05-0,2	0,15-0,25	0,20-0,4	0,4-0,8	●		
5.2		60-80	0,08-0,3	0,15-0,4	0,05-0,2	0,15-0,25	0,20-0,4	0,4-0,8	●		
5.3		60-80	0,08-0,3	0,15-0,4	0,05-0,2	0,15-0,25	0,20-0,4	0,4-0,8	●		
5.4		60-80	0,08-0,3	0,15-0,4	0,05-0,2	0,15-0,25	0,20-0,4	0,4-0,8	●		
5.5		60-80	0,08-0,3	0,15-0,4	0,05-0,2	0,15-0,25	0,20-0,4	0,4-0,8	●		
5.6		60-80	0,08-0,3	0,15-0,4	0,05-0,2	0,15-0,25	0,20-0,4	0,4-0,8	●		
5.7		60-80	0,08-0,3	0,15-0,4	0,05-0,2	0,15-0,25	0,25-0,5	0,6-1,0	●		
5.8		60-80	0,08-0,3	0,15-0,4	0,05-0,2	0,15-0,25	0,25-0,5	0,6-1,0	●		
5.9		60-80	0,08-0,3	0,15-0,4	0,05-0,2	0,15-0,25	0,25-0,5	0,6-1,0	●		
5.10		60-80	0,08-0,35	0,4-0,5	0,08-0,3	0,25-0,4	0,25-0,5	0,6-1,0	●	○	
5.11		60-80	0,08-0,35	0,4-0,5	0,08-0,3	0,25-0,4	0,25-0,5	0,6-1,0	●	○	
6.1	240-260	240-260	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,25-0,5	0,6-1,0			
6.2	240-260	240-260	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5	0,25-0,5	0,6-1,0		●	○
6.3	220-240	160-240	0,08-0,4	0,25-0,5	0,08-0,3	0,2-0,5				●	○
6.4	120-140	100-140	0,25-0,35	0,4-0,5	0,08-0,2	0,18-0,35				●	○
6.5											

Maximum axial depths of cut a_p for copy milling cutter K200.

Ball nose insert									
Insert Ø in mm		6	8	10	12	16	20	25	32
		$a_{p\,max.}$	$a_{p\,max.}$	$a_{p\,max.}$	$a_{p\,max.}$	$a_{pmax.}$	$a_{p\,max.}$	$a_{p\,max.}$	$a_{p\,max.}$
ROHX-FM3	**R**	0,8	1,0	1,5	2,0	3,0	4,0	5,0	6,0
	F	0,4	0,8	1,0	1,2	1,5	1,5	2,0	2,0
ROHX-FM4	**R**	0,8	1,0	2,0	3,0	4,0	5,0	6,0	8,0
	F	0,4	0,8	1,0	1,2	1,5	1,5	2,0	2,0
ROHX-FM6	**R**	0,8	1,0	1,5	2,0	3,0	4,0	5,0	6,0
	F	0,4	0,8	1,0	1,2	1,5	1,5	2,0	2,0
ROGX-MR4	**R***				4,0	6,0	8,0	12,0	16,0
	F				2,0	3,0	4,0	5,0	6,0
ROHX-MR5	**R**		1,5	2,0					
	F		0,8	1,0					

*a_p with full interference 25 % of Ø DC maximum!

Torus inserts									
Insert Ø in mm		6	8	10	12	16	20	25	32
		$a_{p\,max.}$	$a_{p\,max.}$	$a_{p\,max.}$	$a_{p\,max.}$	$a_{pmax.}$	$a_{p\,max.}$	$a_{p\,max.}$	$a_{p\,max.}$
XOHX-FM5	**R**		2,0	3,0	3,0	4,0	5,0	6,0	8,0
	F		0,6	2,0	2,4	3,2	4,0	5,0	6,4
XOHX-MR6	**R**		2,0	3,0	3,0	4,0	5,0	6,0	8,0
	F		0,6	2,0	2,4	3,2	4,0	5,0	6,4
XOHX-FM1	**R**			1,5	2,0	3,0	4,0		
	F			0,8	0,8	1,0	1,0		
XOHX-FM2	**R**		1,0	1,5	2,0	3,0	4,0	5,0	
	F		0,5	0,7	0,8	1,0	1,0	1,5	
XOHX-MR2	**R**	0,8	1,0	1,5	2,0	3,0	4,0	5,0	
	F	0,5	0,5	0,7	0,8	1,0	1,0	1,5	
XOGX-MF4	**R**			1,5	2,0	3,0	4,0		
	F			0,7	0,8	1,0	1,0		
XOHX-MR3	**R**			0,5	0,6	0,8	1,0		
	F								

Ranges of application of geometry

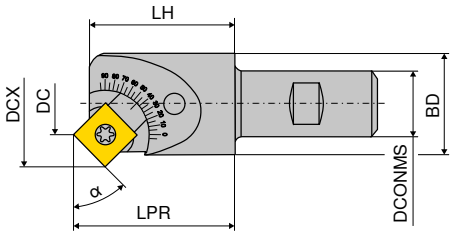
Inserts	F	M	R	Main Application
XOHX-FM1	●	●		Steel, steel casting, heat resistant steel, hardened steel to 63 HRC
XOHX-FM2	●	●		Steel, steel casting, heat resistant steel, hardened steel to 60 HRC
ROHX-FM3	●	●		Steel, steel casting, heat resistant steel
ROHX-FM4	●	●		Steel, steel casting, heat resistant steel, hardened steel to 60 HRC
XOHX-FM5	●	●		Steel, steel casting, heat resistant steel, hardened steel to 60 HRC
ROHX-FM6	●	●	●	Non ferrous metals, plastics, graphite
XOHX-MR2		●	●	long-chipping ferrous metals
XOHX-MR3		●	●	Steel, steel casting, heat resistant steel
ROGX-MR4		●	●	Steel, steel casting, heat resistant steel
XOGX-MF4	●	●		Steel, steel casting, heat resistant steel
ROHX-MR5		●	●	long-chipping ferrous metals
XOHX-MR6		●	●	long-chipping ferrous metals

System 4500-09

Cutting data recommendations/Technology data

for standard inserts

Material	m/min	f_z mm
Steel	120–250	0,05–0,30
Stainless steel	110–220	0,08–0,30
Cast iron	120–240	0,10–0,35
Non-ferrous metals	200–280	0,10–0,35
Heat resistant alloys		
hardened materials		



Machining strategy

Cutting angle α	$D_{min.}$ mm	$D_{max.}$ mm
0°	3,0	20,30
5°	3,8	20,90
10°	4,9	21,60
15°	5,8	22,10
20°	6,8	22,60
25°	7,9	23,00
30°	8,9	23,50
35°	10,0	23,60
40°	11,0	23,85
45°	12,3	23,90
50°	13,3	23,85
55°	14,3	23,80
60°	15,5	23,60
65°	16,4	23,40
70°	17,4	23,10
75°	18,4	22,60
80°	19,3	22,20
85°	20,0	21,50
90°	20,8	20,80

Detailed information on cutting speed for each grade can be found on → page 138+139

System 4500-12

Cutting data recommendations/Technology data

for standard inserts

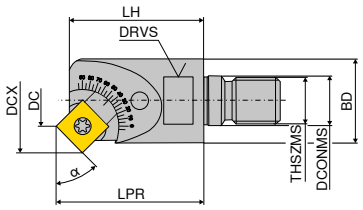
Material	m/min	f_z mm
Steel	120–250	0,05–0,25
Stainless steel	110–220	0,08–0,20
Cast iron	120–240	0,10–0,25
Non-ferrous metals	200–280	0,10–0,25
Heat resistant alloys		
hardened materials		

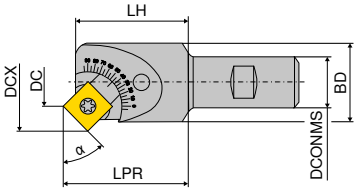
Machining strategy

Cutting angle α	$D_{min.}$ mm	$D_{max.}$ mm
0°	7,1	30,50
5°	7,8	31,40
10°	9,4	32,40
15°	10,7	33,20
20°	12,0	33,80
25°	13,4	34,40
30°	14,9	34,80
35°	16,5	35,20
40°	17,9	35,40
45°	19,3	35,45
50°	20,8	35,40
55°	22,3	35,20
60°	23,6	34,90
65°	25,0	34,60
70°	26,5	34,00
75°	27,7	33,40
80°	28,8	32,70
85°	29,9	31,90
90°	31,0	31,00

Machining strategy

Cutting angle α	$D_{min.}$ mm	$D_{max.}$ mm
0°	3,7	27,30
5°	4,7	28,20
10°	6,0	29,00
15°	7,3	29,80
20°	8,8	30,50
25°	10,0	31,00
30°	11,5	31,50
35°	13,1	31,90
40°	14,7	32,15
45°	16,0	32,20
50°	17,5	32,15
55°	19,0	32,00
60°	20,4	31,80
65°	21,8	31,30
70°	23,0	30,90
75°	24,4	30,20
80°	25,7	29,50
85°	26,7	28,70
90°	27,8	27,80





Detailed information on cutting speed for each grade can be found on → page 138+139

Cutting data for side and face milling cutters FM

Material	v_c m/min		f_z mm/z	
	CWN 35 **ISO (P35)**	CWK 12 **ISO (K10)**	FM-N	FM-KXF
St 37 / C 15	90–180		0,05–0,08	0,07–0,2
St 50 / C 50	80–150		0,04–0,08	0,07–0,2
St 60–70 / C 60	70–140		0,04–0,08	0,07–0,18
16 Mn Cr 5	50–120		0,04–0,09	0,07–0,2
42 Cr Mo4 / 50 Cr V 4	40–120		0,04–0,09	0,08–0,25
Tool steels and HSS	40–90		0,04–0,08	0,07–0,18
Corrosion resistant X-CrNi steel	30–80		0,04–0,08	0,07–0,15
Ferritic, austenitic steels	10–40		0,03–0,09	0,07–0,15
GG-10		60–180	0,04–0,1	
GG-30		60–150	0,04–0,1	
Malleable iron GT		40–100	0,04–0,11	
Aluminium		200–250	0,04–0,12	
G Al Si		200–250	0,06–0,1	
brass		50–250	0,05–0,08	
Copper Cu-E		120–250	0,04–0,08	
Red bronze		120–250	0,05–0,09	
bronze		100–250	0,05–0,1	
hard rubber		200–250	0,03–0,15	
Novotex, Pertinax		50–250	0,03–0,1	
Bakelite		50–250	0,03–0,1	

Cutting data for side and face milling cutters TX

	Material			HB	v_c m/min	h_m mm
P	Unalloyed steel	1.0711 9 S 20 1.0037 ST 37 1.0050 ST 50		125–300	160–240	0,1
	low-alloy steel	1.0070 ST 70 1.7131 16 MnCr 5 1.7218 25 CrMo 4		180–350	70–150	0,08
	High-alloy steel	1.2842 90 MnCr V 8 1.7225 42 CrMo4 V 1.2344 X 40 CrMoV		200–350	50–70	0,05
	Stainless steel	1.4002 X 6 CrA 13 1.4510 X 6 CrTi 17 1.4104 X 12 CrMoS 17		200–325	80–120	0,08
M	Stainless steel	1.4057 20 CrNi 17 2 1.4301 X 5 CrNi 18 10 1.4571 X 6 CrNiMoTi 17 12 2		180–330	120–130	0,08
K	Grey cast iron	0.6020 GG 20 0.6040 GG 40		180–260	90–100	0,1
	Cast iron with spheroidal graphite	0.7040 GGG 40 0.7070 GGG 70		160–250	60–100	0,08
N	Wrought Aluminium Alloys	non hardenable	Al Mn Al Mg Al Mg Mn	60	500–700	0,12
		hardenable	Al Mg Si Al Cu Mg Al Cu Si Mn	100	200–500	0,12
	Cast Aluminium Alloys	non hardenable < 12 % Si hardenable < 12 % Si non hardenable > 12 % Si		80–130	80–220	0,1
	Copper and copper alloys	non hardenable	Cu Ag Cu As	90–100	200–500	0,12
S	Heat resistant alloys	1.4962 X 12 CrNiWTi 16 13 1.4923 X 22 CrMoV 12 1		200–320	80–140	0,05
	Titanium alloys	3.7024 Ti 99,5 3.7154 TiAl6Zr5		120–310	80–120	0,06

Average Chip Thickness

h_m in mm

$$h_m = f_z \sqrt{\frac{a_e}{DC}}$$

Feed per tooth

f_z in mm

$$f_z = h_m \sqrt{\frac{DC}{a_e}}$$

Feed rate

v_f in mm/min

$$v_f = f_z \times z \times n$$

DC = Ø of the disc cutters

ZNF = Number of teeth of the cutter

15

System FM

Technical data

Machining strategy

Advantages:

- Self-clamping insert with double prismatic support and precise location.
- Clamping pressure increases as a function of cutting pressure (lever principle).
- No additional clamping elements like claws, screws or clamping wedges in the tool.
- The special shape of the chip groove crimps the chips, so they become smaller than the milled groove, which allows continuous chip flow.
- Every cutting insert cuts the entire width of cut, therefore the feed rate can be doubled per tool revolution compared to cross-pitched cutters (rough and finishing cutter).
- Changing the insert takes only 15 seconds per cutting edge and can be carried out in the machine without dismantling the side and face miling cutter. The insert is removed from the prism using the ejector (included in the delivery) (picture 1).
- Side and face miling cutters of the FM system can be used for both climb and conventional miling.

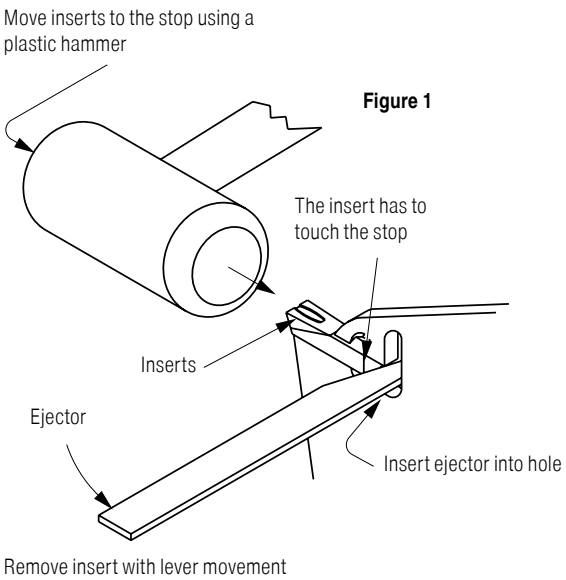


Figure 1

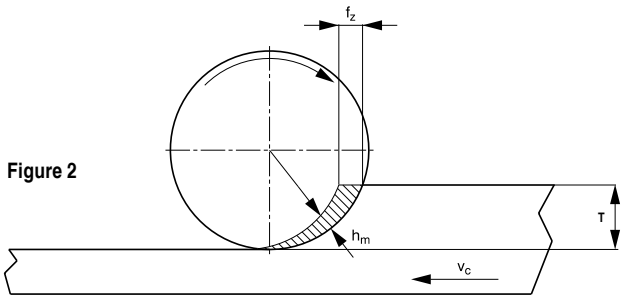
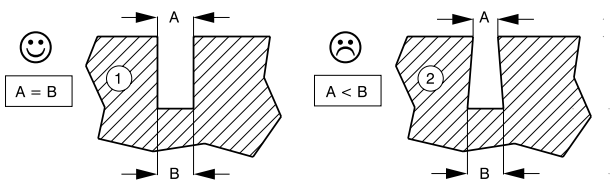


Figure 2

Figure 3



Information on application:

When the side and face milling cutter cuts into the workpiece a 'comma' chip is produced. The depth of cut „a_e" is important with regard to the feed rate. The average chip thickness is indicated by the parameter „h_m", which is always smaller than the feed per tooth „f_z" (see picture 2).

Make sure the chips are not too thin, as they would cause early wear of the cutting edge.

Guide values for the feed rate„f_z":

1) The feed values„f_z" in the cutting data table apply for 50–100 % of the maximum cutting depth „a_e".
2) With „a_e" < 50 % and > 30 % the feed rate should be increased by approx. 30–40 %.
3) With „a_e" < 30 % the feed rate should be increased by approx. 50 %.

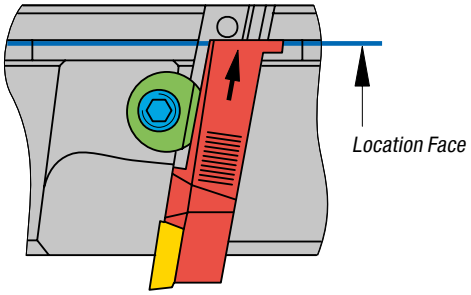
Side and face milling cutters are preferably used for climb milling (see picture 2). When climb milling, the cutting edge first cuts the largest section, therefore less friction wear is caused than in conventional milling (cutting edge goes into workpiece first).
Another advantage of climb milling is that the workpiece is pressed onto the support face - lifting of the workpiece is not possible..

Specially when slot milling make sure that the slot which is being produced does not close during machining, because otherwise the inserts are pulled out of their seat and the tool is destroyed (see picture 3).

For safety reasons the maximum cutting speed of 250 m/min. must not be exceeded.

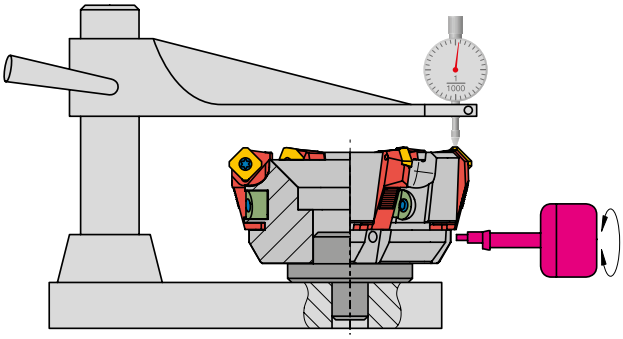
System MaxiMill 260

Setting of axial run-out for roughing



For assembly simply press cartridges onto the location face of the radial groove. The axial run-out amounts to 0.03 mm measured on the master insert.

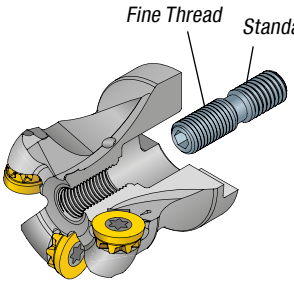
Setting of axial run-out with eccentric key and clock gauge or on optical presetting equipment



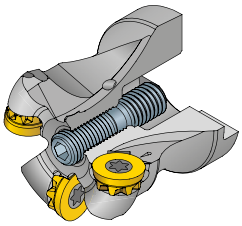
Exact setting of axial run-out up to 0.002 mm

- Clean the milling tools
- Mount cutter on appropriate setting equipment
- Loosen clamping wedge, push cassette to face and tighten wedge lightly
- Insert ecentric key into hole and turn until cassette is in desired position
- Keep ecentric key in contact with the cassette so that it remains in position.
  Tighten wedge (torque moment 10 Nm)
- The tool is now ready for use

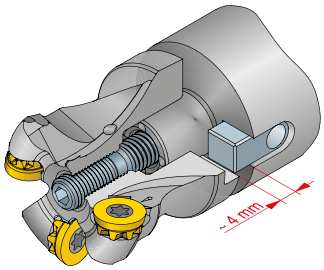
Easy and safe clamping – with the CERATIZIT power screw



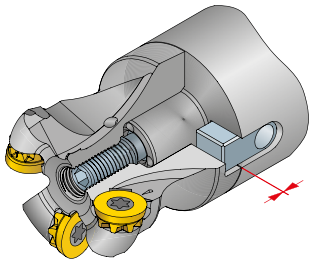
The fine-pitch part of the power screw is threaded into the milling cutter.



The power screw is turned carefully until the stop (as screw was delivered).

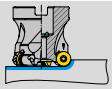
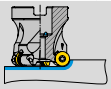
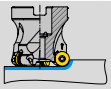


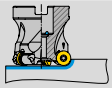
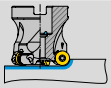
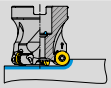
In order to guarantee an optimum connection of tool and shank, a gap of 4 mm is required between cutter body and adapter prior to final clamping.
Using standardised adpaters this is automatically guaranteed.
If necessary, you can readjust by means of the power screw with 0.5 mm/rev.



Turn clamping screw to tighten

Torque moments for clamping screws for mounting the milling cutter to the shell mill adapter

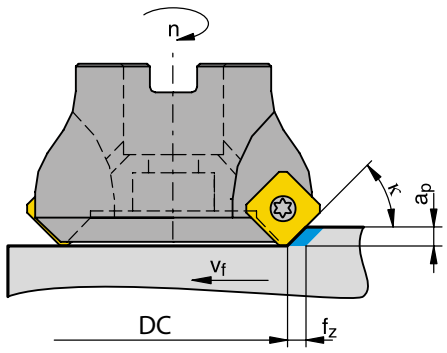
	 10				 12				 16			
Cutter Ø mm	ISK-Screw DIN 912	M_d Nm	Suits-screw Article no.	M_d Nm	ISK-Screw DIN 912	M_d Nm	Suits-screw Article no.	M_d Nm	ISK-Screw DIN 912	M_d Nm	Suits-screw Article no.	M_d Nm
40			70 950 151	10			70 950 151	10				
42			70 950 151	10			70 950 151	10				
50	M10x25	80			M10x25	80					70 950 154	15
52					M10x25	80					70 950 154	15
63					M10x25	80			M10x25	80		
66					M10x25	80			M10x25	80		

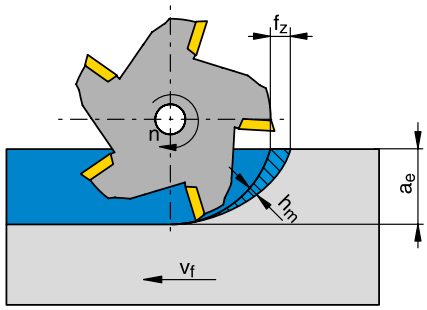
	 12				 16				 20			
Cutter Ø mm	ISK-Screw DIN 912	M_d Nm	Suits-screw Article no.	M_d Nm	ISK-Screw DIN 912	M_d Nm	Suits-screw Article no.	M_d Nm	ISK-Screw DIN 912	M_d Nm	Suits-screw Article no.	M_d Nm
80	M12x30	140			M12x30	140			M12x30	140		
100	M16x35	180			M16x35	180			M16x35	180		
125					M16x35	180			M16x35	180		

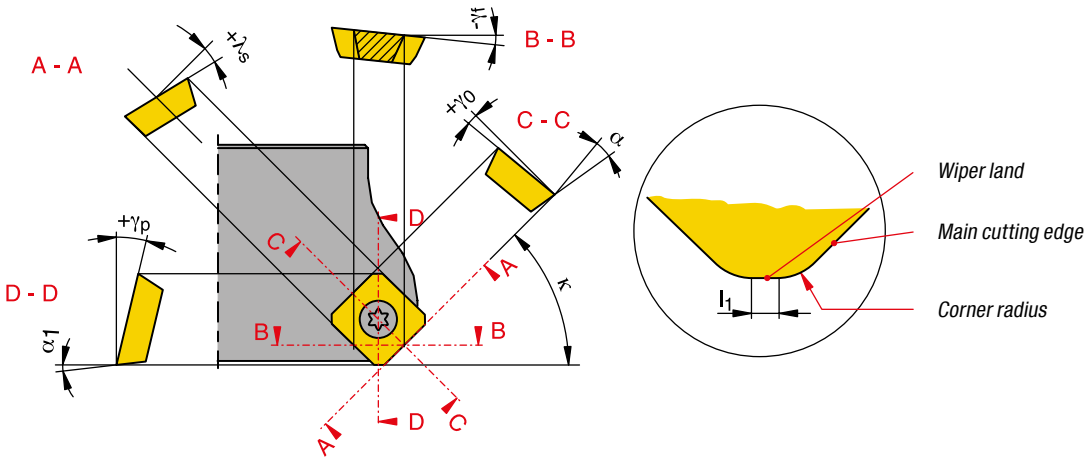
Abbreviations & dimensions

a_e	cutting width	mm
a_p	Cutting depth	mm
DC	Tool diameter	mm
D_w	Workpiece diameter	mm
f_z	Feed per tooth	mm
h_m	Average Chip Thickness	mm
ZNP	Number of teeth	
k_c	Specific cutting force	N/mm²
$k_{c1.1}$	Specific cutting force for 1 mm² chip area	N/mm²
BS	Length of wiper land	mm
m_c	Increase of specific cutting force	
n	rpm	rpm
Q	Chip volume	cm³/min
v_c	Cutting speed	m/min
v_f	Feed rate	mm/min.
ZNF	Number of Effective Teeth	

γ_0	Effective cutting angle	degree
γ_f	Side clearance angle	degree
γ_p	Axial cutting angle	degree
κ	Cutting edge angle	degree
λ_s	Angle of inclination	degree
α	Clearance angle	degree
α_1	Side clearance angle	degree





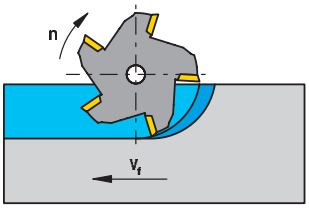


15

Engagement conditions

Recommended

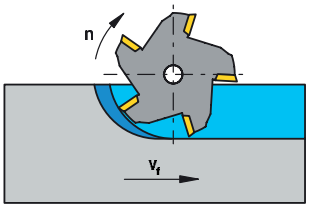
Climb milling



The feed direction of the workpiece is the same as the direction of rotation of the milling cutter in the cutting zone. The chips have maximum thickness at the beginning, chip thickness then decreases until it becomes zero at the end of the cut.

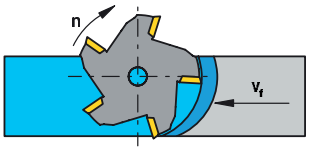
Unsuitable

Conventional milling

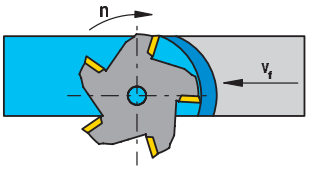


The feed direction of the workpiece is opposite to the direction of rotation of the milling cutter in the cutting zone. Chip thickness is zero at the beginning and increases until it reaches its maximum at the end of the cut.

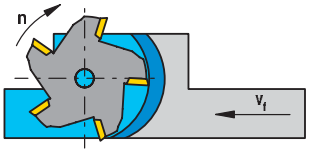
Cutter positioning



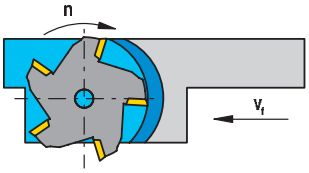
If possible the cutter should exit tangentially of the workpiece.



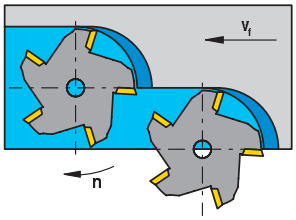
Workpiece situation



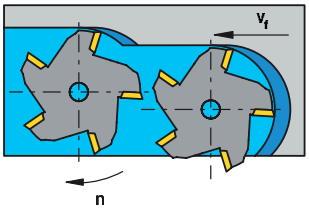
The workpiece should be clamped in such a way as to allow the cutter to emerge tangentially of the workpiece along the whole machining length.



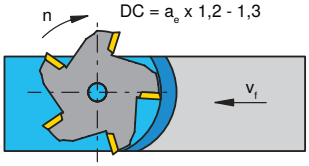
Overlapping



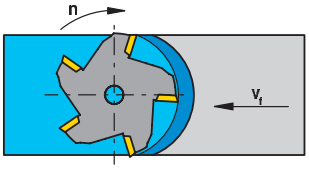
Either employ climb milling or ensure that the cutter comes out of the workpiece tangentially, as in the illustration on the left.



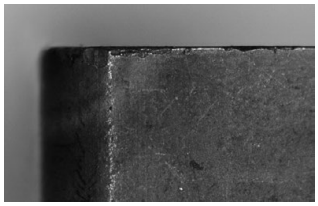
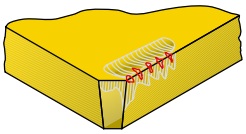
Cutter size



When face milling the diameter of the cutter should be 20–30 % larger than that of the workpiece.

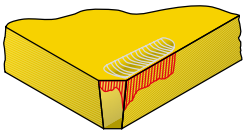


Cutting demands when milling

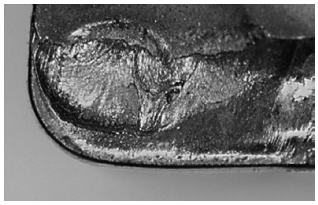
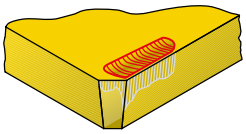
Edge chipping

Cutting speed	↑
Feed per tooth	↓
Toughness of grade	↑
Cutting edge chamfer	↑



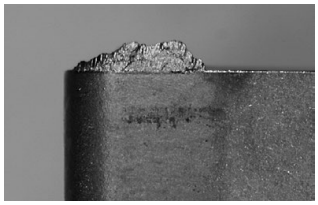
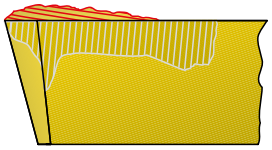
Wear on clearance face

Cutting speed	↓
Feed per tooth	↑
Abrasion resistant grade	↑

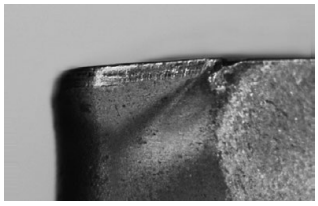
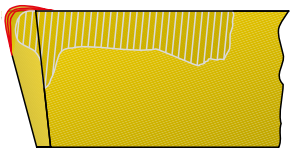
Cratering

Cutting speed	↓
Feed per tooth	↓
Abrasion resistant grade	↑

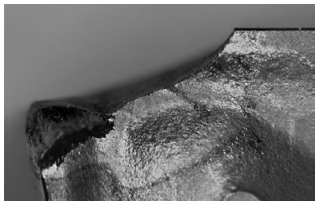
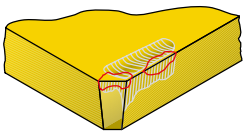
Built-up edge

Cutting speed	↑
Feed per tooth	↑
Wear resistance	↑

Cutting-edge deformation

Cutting speed	↓
Feed per tooth	↓
Abrasion resistant grade	↑

Cutting Edge Breakage

Cutting speed	↓
Toughness of grade	↑

ISO designation indexable milling inserts

X	D	K	T	11	T3	08	S	R	-	F50
1	2	3	4	5	6	7	8	9		10

Z	N	H	W	12	05	PO	S	R	-	15	06	-	R
1	2	3	4	5	6	7	8	9		11	12		13

1 Insert shape

A	85°	
B	82°	
K	55°	
H	120°	
L	90°	
O	135°	
P	108°	
C	80°	
D	55°	
E	75°	
M	86°	
V	35°	
R		
S	90°	
T	60°	
W	80°	
X	Special version	
Z		

2 Clearance angle

	α
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	Special version

3 Tolerances

	IC ±mm	BS ±mm	S ±mm	IC = 6,35 / 9,52	IC = 12,7	IC = 15,8 / 19,05
A	0,025	0,005	0,025	●	●	●
C	0,025	0,013	0,025	●	●	●
E	0,025	0,025	0,025	●	●	●
F	0,013	0,005	0,025	●	●	●
G	0,025	0,025	0,13	●	●	●
H	0,013	0,013	0,025	●	●	●
J	0,05	0,005	0,025	●		
	0,08	0,005	0,025		●	
	0,10	0,005	0,025			●
K	0,05	0,013	0,025	●		
	0,08	0,013	0,02		●	
	0,10	0,013	0,02			●

	IC ±mm	BS ±mm	S ±mm	IC = 6,35 / 9,52	IC = 12,7	IC = 15,8 / 19,05
	0,05	0,08	0,13	●		
M	0,08	0,13	0,13		●	
	0,10	0,15	0,13			●
	0,05	0,08	0,025	●		
N	0,08	0,13	0,025		●	
	0,10	0,15	0,025			●
	0,08	0,13	0,13	●		
U	0,13	0,20	0,13		●	
	0,18	0,27	0,13			●

7 Wiper land / corner radius

Radius

	RE in mm
M0*	
02	0,2
04	0,4
08	0,8
12	1,2

* Only with insert type "R"

1. Designation

	K_r
A	45°
D	60°
E	75°
F	85°
P	90°
Z	Alternative

2. Designation

	α'_n
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
Z	Alternative
O	

8 Cutting edge

F sharp

E honed

S chamfered and honed

T chamfered

9 Direction of cut

R

L

N

4

Characteristics

A	
F	
G	
M	
N	
Q	
R	
T	
U	
W	
X	Special version

5

Cutting length

IC mm	A	T	C/S	H	L	R	V	W	O	X	Z
4,90										07	
5,00						05					
5,56			05		08			03			
6,00											
6,35		11	06		10			04		06	
6,65	10										
6,80										11	
7,00											04
7,94			07								
8,00						08					
9,00					12						
9,30										15	
9,52	16	16	09		15			06	04		
9,57	15										
9,60										09	
10,00			10		11	10					12
12,00						12					
12,50										20	
12,70		12/22	12		20		22	08		12	
15,81			15		22			10			
16,00						16					
16,20				09							
16,74			16								
17,00			17								
17,18									06		
18,18									07		
19,05			19					13			
20,00						20					

6

Insert thickness

S

	S mm
01	1,59
T1	1,98
02	2,38
03	3,18
T3	3,97
04	4,76
05	5,56
06	6,35
07	7,94
09	9,52

10

Chip groove

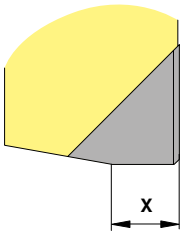
Chip breaker designation
F.. = fine
M.. = medium
R.. = roughing

Additional characteristics:
R = transition radius main/ secondary cutting edge
Q = Masterfinish

11

Manufacturer specification

Length of the finishing cutting edge

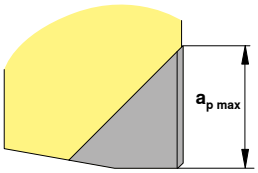


00 = 0,0 mm
10 = 1,0 mm
12 = 1,2 mm
15 = 1,5 mm
30 = 3,0 mm
50 = 5,0 mm

12

Manufacturer specification

$a_{p\,max}$



02 = 2,0 mm
03 = 3,0 mm
04 = 4,0 mm
06 = 6,0 mm
07 = 7,0 mm
11 = 11,0 mm

13

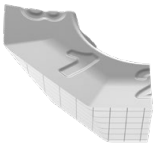
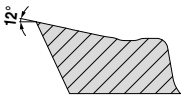
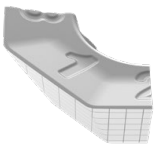
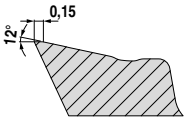
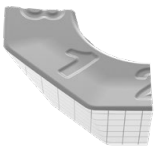
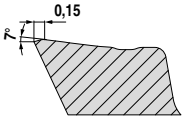
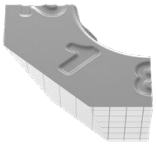
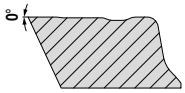
Manufacturer specification

F = Fine
M = Medium
R = Rough

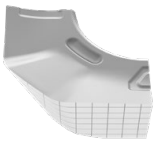
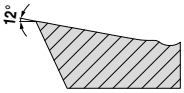
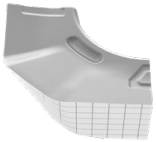
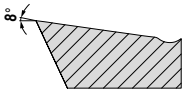
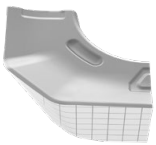
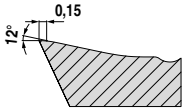
15

Chip Breakers Overview

MaxiMill 274 (OF..)

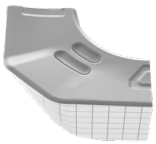
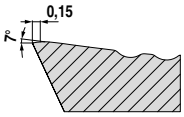
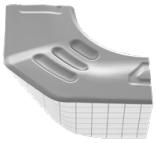
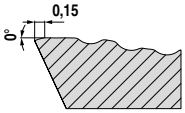
Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-F10 ▲ Highly positive geometry ▲ Sharp cutting edges ▲ First choice for non-ferrous metals 	**CTWN215 (CWK4615)**	**CTWN215 (CWK4615)**	**CTWN215 (CWK4615)**		0,05–0,40
-F50 ▲ Positive Geometry ▲ Light rough machining ▲ For unstable workholding ▲ First choice for stainless steel materials 	**CTCP220**/CTPP225 **(DCX1220**/DPX1225) CTPM225/**CTCM235** (DPX2225 /**DCX2235)** **CTC5240/CTCS245 (HCF5240)**	CTCP230/**CTPP235** (DCX1230/**DPX1235)** CTPM225/**CTCM235** **CTPM240**/CTPM245 (DPX2225/**DCX2235** **DPX2240**/ DPX2245) **CTC5240/CTCS245 (HCF5240)**	CTPM240/**CTPM245** (DPX2240/**DPX2245)**		0,10–0,25
-M50 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials 		**CTCP230**/CTPP235 **(DCX1230**/DPX1235) **CTPM240/CTPM225 (DPX2240/DPX2225)** **CTCK215 (DCX3215)**	CTCP230/**CTPP235** (DCX1230/**DPX1235)** **CTPM240 (DPX2240)** **CTCK215 (DCX3215)**		0,10–0,30
EN ▲ Universal Geometry ▲ Low cutting force ▲ First choice for good flatness 	**CTPM245 (DPX2245)** **CTC5240 (HCF5240)**	**CTPM245 (DPX2245)** **CTC5240 (HCF5240)**			0,10–0,25

MaxiMill 274 (SF..)

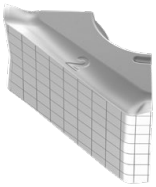
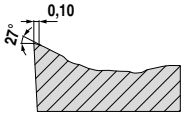
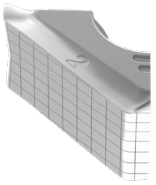
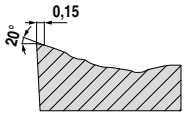
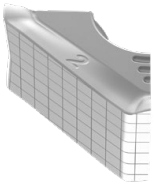
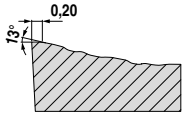
Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-F10 ▲ Highly positive geometry ▲ Sharp cutting edges ▲ First choice for non-ferrous metals 	**CTWN215 (CWK4615)**	**CTWN215 (CWK4615)**	**CTWN215 (CWK4615)**		0,05–0,40
-F40 ▲ Positive Geometry ▲ Finishing and rough machining ▲ For unstable workholding ▲ For heat resistant materials, titanium and super alloys 	**CTC5240 (HCF5240)**	**CTC5240 (HCF5240)**			0,10–0,25
-F50 ▲ Positive Geometry ▲ Light rough machining ▲ For unstable workholding ▲ First choice for stainless steel materials 	**CTCP220**/CTPP225 **(DCX1220**/DPX1225) CTPM225/**CTCM235** (DPX2225 /**DCX2235)**	CTCP230/**CTPP235** (DCX1230/**DPX1235)** CTPM225/**CTCM235** **CTPM240**/CTPM245 (DPX2225/**DCX2235** **DPX2240**/ DPX2245)	CTPM240/**CTPM245** (DPX2240/**DPX2245)**		0,10–0,25

Chip Breakers Overview

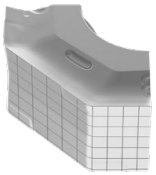
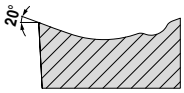
MaxiMill 274 (SF..)

	Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-M50 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials		**CTCP220**/CTPP225 **(DCX1220**/DPX1225) CTPM225 (DPX2225)	**CTCP230**/CTPP235 **(DCX1230**/DPX1235) **CTPM225/CTPM240** **(DPX2225/DPX2240)**	CTCP230/**CTPP235** (DCX1230/**DPX1235)** CTPM240 (DPX2240)		0,10–0,30
-R50 ▲ Stable Geometry ▲ Medium rough machining ▲ For interrupted cuts ▲ First choice for cast iron materials			**CTCK215/CTPK220** **(DCX3215/DPX3220)**	**CTCK215/CTPK220** **(DCX3215/DPX3220)**		0,10–0,35

MaxiMill 271

	Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-F50 ▲ Positive Geometry ▲ Medium rough machining ▲ For unstable clamoing with steel machining ▲ First choice for stainless steel materials		**CTCP220**/CTPP225 **(DCX1220**/DPX1225) **CTCM235**/CTPM225 **(DCX2235/**DPX2225) **CTCS245/CTC5240** **(HCF5240)**	**CTCP230**/CTPP235 **(DCX1230**/DPX1235) CTPM225/**CTPM240**/CTPM245 (DPX2225/**DPX2240**/ DPX2245) **CTCS245/CTC5240** **(HCF5240)**	**CTPP235** **(DPX1235)** **CTPM245** **(DPX2245)** **CTCS245/CTC5240** **(HCF5240)**		0,20–0,30
-M50 ▲ Universal Geometry ▲ Medium to heavy rough machining ▲ First choice for general steel materials		**CTCP220**/CTPP225 **(DCX1220**/DPX1225)	CTPP225/**CTCP230**/CTPP235 (DPX1225/**DCX1230**/DPX1235) CTPM225/**CTCM235**/**CTPM240** (DPX2225/**DCX2235**/**DPX2240)** **CTCK215**/CTPK220 **(DCX3215**/DPX3220)	CTCP230/**CTPP235** (DCX1230/**DPX1235)** CTCM235/**CTPM240** (DCX2235/**DPX2240)** CTCK215/**CTPK220** (DCX3215/**DPX3220)**		0,20–0,50
-R50 ▲ Stable Geometry ▲ Heavy rough machining ▲ For heavily interrupted cuts ▲ First choice for cast iron materials			**CTCK215**/CTPK220 **(DCX3215**/DPX3220)	CTCK215/**CTPK220** (DCX3215/**DPX3220)**		0,20–0,50

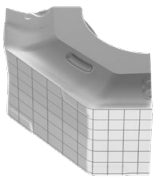
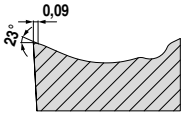
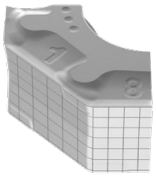
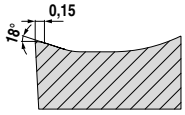
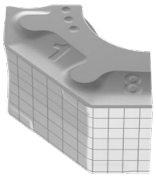
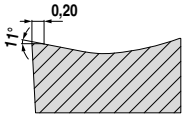
MaxiMill 273

	Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-F40 ▲ Positive Geometry ▲ Finishing and rough machining ▲ For unstable workholding ▲ For heat resistant materials, titanium and super alloys		CTPM245 (DPX2245) **CTC5240** **(HCF5240)**	CTPM245 (DPX2245) **CTC5240** **(HCF5240)**	CTC5240 (HCF5240)		0,20–0,25

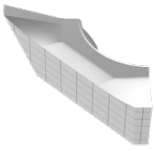
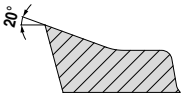
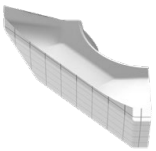
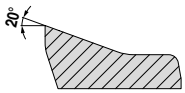
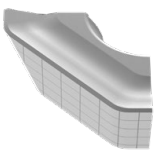
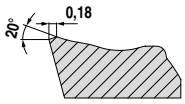
15

Chip Breakers Overview

MaxiMill 273

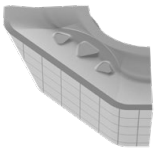
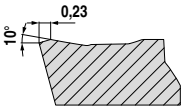
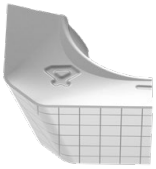
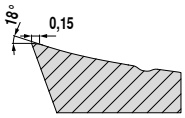
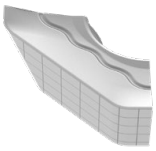
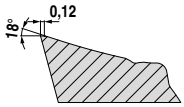
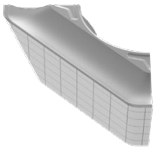
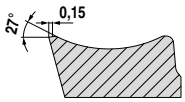
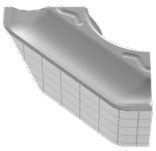
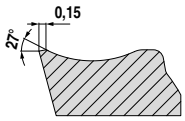
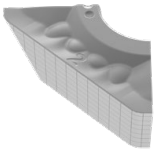
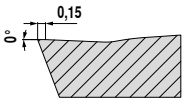
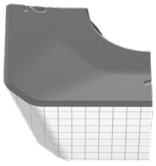
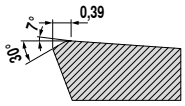
Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-F50 ▲ Positive Geometry ▲ Light rough machining ▲ For unstable workholding ▲ First choice for stainless steel materials		**CTCP220**/CTPP225 (**DCX1220**/DPX1225) CTPM225/CTCM235 (DPX2225/DCX2235)	CTPP225/**CTCP230**/CTPP235 (DPX1225/**DCX1230**/DPX1235) CTPP225/**CTPM240** (DPX1225/**DPX2240**)	CTPM240 (DPX2240)		0,20–0,25
-M50 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials		**CTCP220**/CTPP225 (**DCX1220**/DPX1225) CTPM225/CTCM235 (DPX2225/ DCX2235)	CTPP225/**CTCP230**/CTPP235 (DPX1225/**DCX1230**/DPX1235) CTPP225/**CTPM240** (DPX1225/**DPX2240**) **CTCK215**/CTPK220 (**DCX3215**/DPX3220)	CTCP230/**CTPP235** (DCX1230/**DPX1235**) CTCM235/**CTPM240** (DCX2235/**DPX2240**) CTCK215/**CTPK220** (DCX3215/**DPX3220**)		0,20–0,50
-R50 ▲ Stable Geometry ▲ Heavy rough machining ▲ For heavily interrupted cuts ▲ First choice for cast iron materials			CTCK215/CTPK220 (DCX3215/DPX3220) **CTCK215**/CTPK220 (**DCX3215**/DPX3220)	CTCK215/CTPK220 (DCX3215/DPX3220) CTCK215/**CTPK220** (DCX3215/**DPX3220**)		0,20–0,50

MaxiMill 270

Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-27 ▲ Highly positive geometry ▲ Sharp cutting edges ▲ First choice for non-ferrous metals		**H216T** **(CWK26)**	**H216T** **(CWK26)**	**H216T** **(CWK26)**		0,05–0,40
-27P ▲ Highly positive geometry ▲ Sharp cutting edges ▲ Reduced built up edge ▲ First choice for non-ferrous metals		**H216T**/AMZ (**CWK26**/AMZ)	**H216T**/AMZ (**CWK26**/AMZ)	**H216T**/AMZ (**CWK26**/AMZ)		0,05–0,40
-29 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials		**CTCP230**/CTPP235 (**DCX1230**/DPX1235)	CTCP230/**CTPP235** (DCX1230/**DPX1235**)	CTCP230/**CTPP235** (DCX1230/**DPX1235**)		0,10–0,30

Chip Breakers Overview

MaxiMill 270

Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-31 ▲ Stable Geometry ▲ Heavy rough machining ▲ For heavily interrupted cuts ▲ First choice for cast iron materials 					0,10–0,35
		CTCK215 (DCX3215)	**CTCK215 (DCX3215)**		
-F50 ▲ Positive Geometry ▲ Light rough machining ▲ For unstable workholding ▲ First choice for stainless steel materials 	**CTPM245 (DPX2245)**	**CTPM245 (DPX2245)**	CTPM245 (DPX2245)		0,10–0,20
	CTCS245	**CTCS245**	CTCS245		
-M31 ▲ Positive Geometry ▲ Smooth running ▲ Universal application ▲ For heat resistant materials, titanium and super alloys 					0,10–0,25
	CTC5240 (HCF5240)	CTC5240 (HCF5240)	CTC5240 (HCF5240)		
-33 ▲ Positive Geometry ▲ Light rough machining ▲ First choice for stainless steel materials 	**CTPM240 (DPX2240)**	**CTPM240 (DPX2240)**	**CTPM240 (DPX2240)**		0,10–0,25
-33P ▲ Positive Geometry ▲ Reduced built up edge ▲ First choice for stainless steel materials 		**CTPM240 (DPX2240)**	**CTPM240 (DPX2240)**		0,10–0,25
-M50 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials 	CTPP235 (DPX1235)	**CTPP235 (DPX1235)**	**CTPP235 (DPX1235)**		0,20–0,60
-R50 ▲ Stable Geometry ▲ Medium rough machining ▲ For interrupted cuts ▲ First choice for cast iron materials 	**CTCP230**/CTPP235 (**DCX1230**/DPX1235)	CTCP230/**CTPP235** (DCX1230/**DPX1235**)	**CTCP230/CTPP235 (DCX1230/DPX1235)**		0,30–0,80
	CTPM225	**CTPM225**	**CTPM225**		
	CTCK215	**CTCK215**	**CTCK215**		

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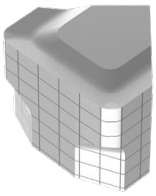
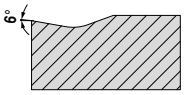
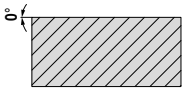
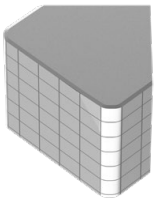
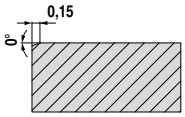
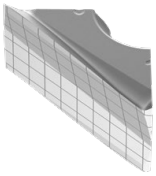
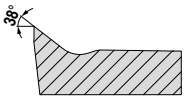
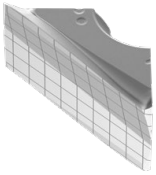
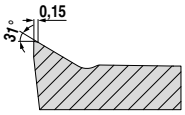
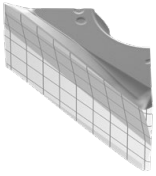
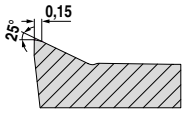
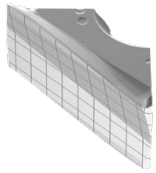
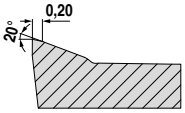
Chip Breakers Overview

MaxiMill HEC

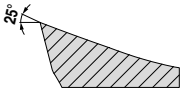
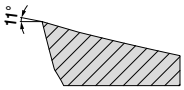
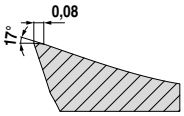
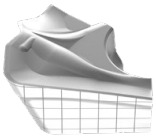
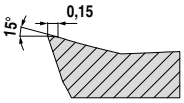
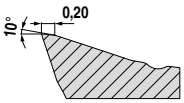
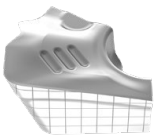
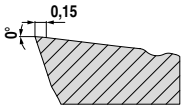
	Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-R50 ▲ Positive Geometry ▲ For thin-walled components ▲ For low powered machines ▲ For cast iron materials		**CTCK215 (DCX3215)**	**CTPK220 (DPX3220)**			0,08–0,25
-ER ▲ Stable cutting edge ▲ Universal application ▲ High surface quality through parallel land ▲ First choice for cast iron materials		**CTEP210 (DCC1210)** **CTCK215**/CTEP210 **(DCX3215**/DCC1210)	**CTPK220 (DPX3220)**			0,08–0,30
-SR ▲ Stable cutting edge ▲ Aligned with ceramics & CBN as a cutting material ▲ Stable component clamping and machine ▲ For cast iron materials		**CTN3105**/CTL3215 **(CTS3105)**				0,10–0,25

MaxiMill 491

	Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-F10 ▲ Very positive geometry ▲ Sharp cutting edge ▲ Prevents sticking and edge build up ▲ First Choice for non-ferrous metal		CTWN215 (CWK4615) **CTWN215 (CWK4615)**	**CTWN215 (CWK4615)**	**CTWN215 (CWK4615)**		0,05–0,25
-F50 ▲ Positive geometry ▲ Finishing and light roughing ▲ First choice for stainless steel materials		**CTPM240 (DPX2240)**	**CTPM240 (DPX2240)**			0,10–0,20
-M50 ▲ Universal geometry ▲ Light to medium roughing ▲ First choice for general steel materials			**CTCP230**/CTPP235 **(DCX1230**/DPX1235) **CTPM240 (DPX2240)**	**CTPP235**/CTCP230 **(DPX1235**/DCX1230) **CTPM240 (DPX2240)**		0,10–0,25
-R50 ▲ Stable geometry ▲ Strong roughing geometry ▲ For heavily interrupted cutting ▲ First choice for cast iron materials			**CTCK215**/CTPK220 **(DCX3215**/DPX3220)	**CTPK220**/CTCK215 **(DPX3220**/DCX3215)		0,10–0,30

Chip Breakers Overview

MaxiMill 211

	Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-F20 ▲ Highly positive geometry ▲ First choice for non-ferrous metals		**CTWN215 (CWK4615)**	**CTWN215 (CWK4615)**	**CTWN215 (CWK4615)**		0,10–0,20
-F40 ▲ Positive Geometry ▲ Finishing and rough machining ▲ For unstable workholding ▲ For heat resistant materials, titanium and super alloys		**CTC5240/CTCS245**	CTPM245 **CTC5240/CTCS245**	**CTPM245** **CTC5240/CTCS245**		0,05–0,15
-F50 ▲ Positive Geometry ▲ Light rough machining ▲ For unstable workholding ▲ First choice for stainless steel materials		**CTCP220**/CTPP225 (**DCX1220**/DPX1225) **CTCM235**/CTPM225 (**DCX2235**/DPX2225)	**CTCP230**/CTPP235 (**DCX1230**/DPX1235) CTPM225/**CTPM240/CTPM245** (DPX2225/**DPX2240/ DPX2245**)	CTCP230/**CTPP235** (DCX1230/**DPX1235**) CTPM240/**CTPM245** (DPX2240/**DPX2245**)		0,10–0,20
-M50 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials		**CTCM235**/CTPM225 (**DCX2235**/DPX2225)	**CTCP230**/CTPP235 (**DCX1230**/DPX1235) CTPM225/**CTPM240** (DPX2225/**DPX2240**) **CTCK215**/CTPK220 (**DCX3215**/DPX3220)	CTCP230/CTPP235 (DCX1230/DPX1235) CTPM225/CTPM240 (DPX2225/DPX2240) CTCK215/**CTPK220** (DCX3215/**DPX3220**)		0,10–0,25
-R50 ▲ Stable Geometry ▲ Heavy rough machining ▲ For heavily interrupted cuts ▲ First choice for cast iron materials		**CTCK215 (DCX3215)**	CTPM225/**CTPM240/CTCM235** (DPX2225/**DPX2240/DCX2235**) **CTCK215 (DCX3215)**	CTCP230/CTPP235 (DCX1230/DPX1235) CTPM225/**CTPM240/CTCM235** (DPX2225/**DPX2240/DCX2235**) **CTCK215 (DCX3215)**		0,10–0,30
-R60 ▲ Highly stable geometry ▲ For stable clamping ▲ First choice for hard machining		**CTP6215 (CCN6215)**	**CTP6215 (CCN6215)**	**CTP6215 (CCN6215)**		0,05–0,20

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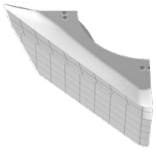
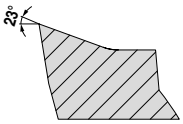
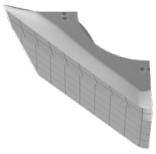
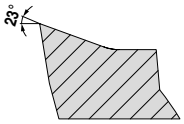
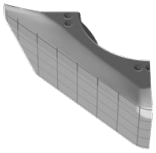
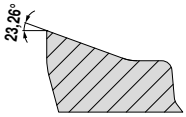
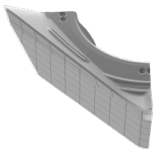
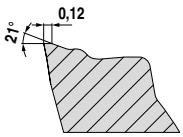
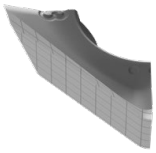
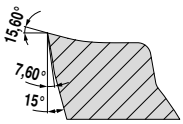
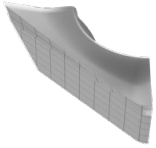
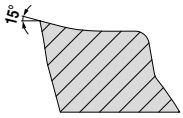
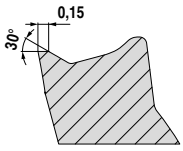
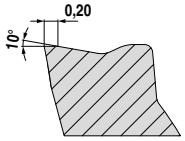
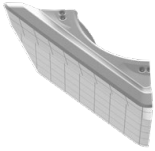
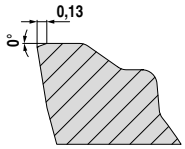
Chip Breakers Overview

MaxiMill 490

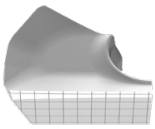
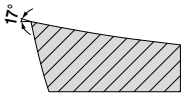
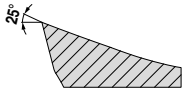
Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-27 ▲ Highly positive geometry ▲ Sharp cutting edges ▲ For finish machining of titanium alloys						0,10–0,20
		CTC5240 (HCF5240)	**CTC5240 (HCF5240)**		
-27P ▲ Highly positive geometry ▲ Sharp cutting edges ▲ Reduced built up edge ▲ First choice for non-ferrous metals		**AMZ**/H216T (**AMZ**/CWK26)				0,08–0,35
		AMZ/**H216T** (AMZ/**CWK26**)	AMZ/H216T **(AMZ/CWK26)**	AMZ/H216T **(AMZ**/CWK26)		
-F10 ▲ Positive Geometry ▲ Light rough machining ▲ For unstable workholding ▲ For heat resistant materials						0,05–0,20
			CTCS245	**CTCS245**		
-29 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials			CTCP230/**CTPP235** (DCX1230/**DPX1235**)	CTCP230/**CTPP235** (DCX1230/**DPX1235**)		0,10–0,25
			CTPM240 (DPX2240)			
-F50 ▲ Positive Geometry ▲ Light rough machining ▲ For unstable workholding ▲ First choice for stainless steel materials						0,10–0,20
		CTPM245 (DPX2245)	**CTPM245 (DPX2245)**			
			CTCS245	**CTCS245**		
-M31 ▲ Positive Geometry ▲ Universal application ▲ Smooth running ▲ For heat resistant materials, titanium and super alloys						0,10–0,20
			CTC5240 (HCF5240)	**CTC5240 (HCF5240)**		
-33 ▲ Positive Geometry ▲ Light rough machining ▲ First choice for stainless steel materials						0,10–0,20
			CTPM240 (DPX2240)	**CTPM240 (DPX2240)**		

Chip Breakers Overview

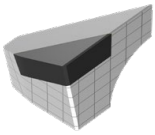
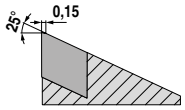
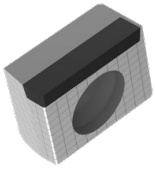
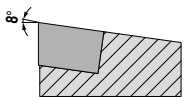
MaxiMill 490

Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-31 ▲ Stable Geometry ▲ Heavy rough machining ▲ For heavily interrupted cuts ▲ First choice for cast iron materials			**CTCK215 (DCX3215)**	**CTCK215 (DCX3215)**		0,10–0,30
-SR ▲ Stable Geometry ▲ Light to medium finishing ▲ Aligned with cermet ▲ For steel materials		**TCM10 (CWC10)** TCM10 (CWC10) TCM10 (CWC10)	**TCM10/CTPP235 (CWC10/DPX1235)**	**CTPP235 (DPX1235)**		0,05–0,25

MaxiMill HSC/HPC

Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-27P ▲ Highly positive geometry ▲ Sharp cutting edges ▲ Reduced built up edge ▲ First choice for non-ferrous metals		H216T (CWK26) **H216T (CWK26)**	**H216T (CWK26)**	**H216T (CWK26)**		0,05–0,35
-F20 ▲ Highly positive geometry ▲ First choice for non-ferrous metals		**CTWN215 (CWK4615)**	**CTWN215 (CWK4615)**	**CTWN215 (CWK4615)**		0,10–0,20

MaxiMill HPC

Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-SR ▲ Highly positive geometry ▲ Universal application ▲ Low cutting forces ▲ Minimum burr formation ▲ High surface quality through parallel land		**CTD4205 (CWD4205)**	**CTD4205 (CWD4205)**	**CTD4205 (CWD4205)**		0,10–0,30
-ER ▲ Positive Geometry ▲ Medium to heavy rough machining ▲ Reduced burr formation ▲ Finishing of cast iron and hardened steel		**CTL3215 (CWB3215)** **CTD4205 (CWD4205)** **CTL3215 (CWB3215)**	**CTL3215 (CWB3215)** **CTD4205 (CWD4205)**	**CTD4205 (CWD4205)**		0,10–0,35

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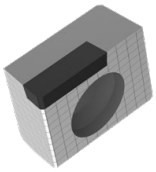
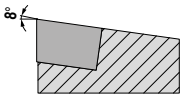
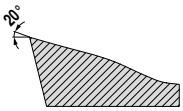
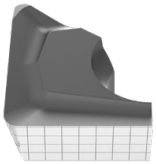
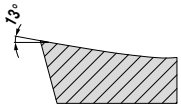
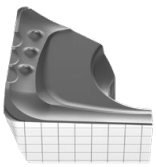
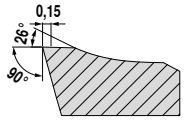
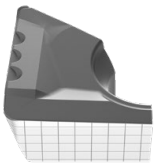
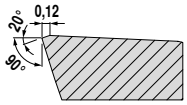
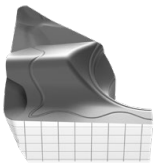
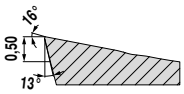
Chip Breakers Overview

MaxiMill HPC

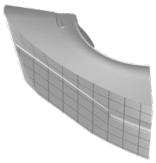
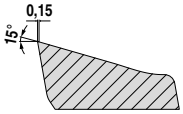
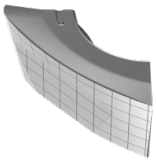
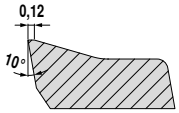
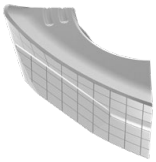
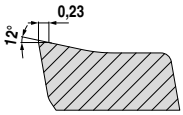
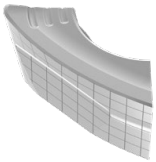
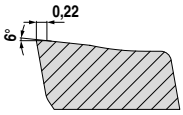
Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-FR ▲ Positive Geometry ▲ For medium to heavy rough machining ▲ Reduced burr formation 	**CTD4205 (CWD4205)**	**CTD4205 (CWD4205)**	**CTD4205 (CWD4205)**		0,10–0,35

MaxiMill 141/241/242

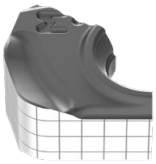
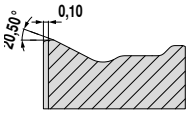
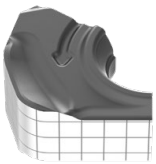
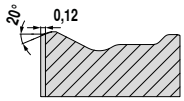
Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-27P ▲ Highly positive geometry ▲ Sharp cutting edges ▲ Reduced built up edge ▲ First choice for non-ferrous metals 	**H216T (CWK26)**	**H216T (CWK26)**	**H216T (CWK26)**		0,05–0,25
-29 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials 		**CTCP230**/CTPP235 **(DCX1230**/DPX1235)	CTCP230/**CTPP235** (DCX1230/**DPX1235)**		0,10–0,30
-33 ▲ Positive Geometry ▲ Light rough machining ▲ First choice for stainless steel materials 		**CTPM240 (DPX2240)**	**CTPM240 (DPX2240)**		0,10–0,30
-SR ▲ Stable Geometry ▲ Light to medium finishing ▲ Aligned with cermet ▲ For steel materials 		**CTCP230 (DCX1230)**	**CTCP230 (DCX1230)**		0,15–0,35
-ER ▲ Positive Geometry ▲ Finishing and rough machining ▲ For unstable workholding ▲ For heat resistant materials, titanium and super alloys 	CTC5240 (HCF5240)	**CTC5240 (HCF5240)**	**CTC5240 (HCF5240)**		0,10–0,25

Chip Breakers Overview

MaxiMill HFC

Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-F40 ▲ Positive Geometry ▲ Finishing and rough machining ▲ For unstable workholding ▲ For heat resistant materials, titanium and super alloys 					0,20–1,25
		CTPM245 (DPX2245)	CTPM245 (DPX2245)		
	CTC5240/CTCS245 (HCF5240)	**CTC5240/CTCS245 (HCF5240)**	**CTC5240/CTCS245 (HCF5240)**		
-F50 ▲ Positive Geometry ▲ Light rough machining ▲ For unstable workholding ▲ For heat resistant materials 					0,20–1,50
	CTC5240/CTCS245 (HCF5240)	**CTC5240/CTCS245 (HCF5240)**	**CTC5240/CTCS245 (HCF5240)**		
-M50 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials 	CTCP220/**CTPP225/CTCP230** (DCX1220/**DPX1225/DCX1230**)	CTPP225/**CTCP230/CTPP235** (DPX1225/**DCX1230/DPX1235**)	CTCP230/**CTPP235** (DCX1230/**DPX1235**)		0,50–3,00
	CTPM225 (DPX2225)	**CTCM235/CTPM240**/CTPM245 **(DCX2235/DPX2240**/DPX2245)	**CTPM240/CTPM245 (DPX2240/DPX2245)**		
		CTCK215 (DCX3215)	**CTCK215 (DCX3215)**		
-R50 ▲ Stable Geometry ▲ For stable machining conditions ▲ First choice for heavily interrupted cuts ▲ First choice for general steel materials 		**CTPP235 (DPX1235)**	**CTPP235 (DPX1235)**		0,50–3,00

DHFC

Model	Machining: fine	Machining: medium	Machining: rough	sectional illustration	f_z in mm
-M50 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials 	CTPP236	**CTPP236**	CTPP236		0,25–1,20
	CTPM241	**CTPM241**	CTPM241		
-R50 ▲ Stable Geometry ▲ For stable machining conditions ▲ First choice for heavily interrupted cuts ▲ First choice for general steel materials 		**CTPP231**/CTPP236	CTPP231/**CTPP236**		0,30–1,20
		CTPK221	**CTPK221**		

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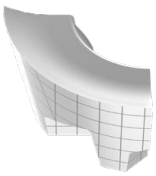
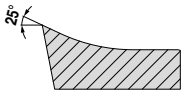
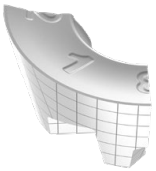
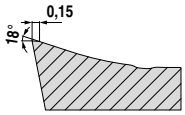
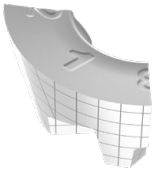
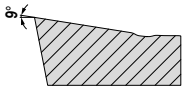
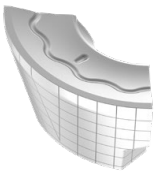
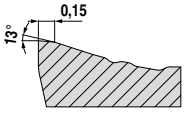
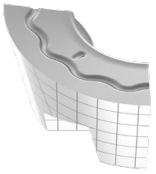
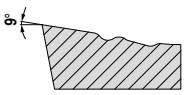
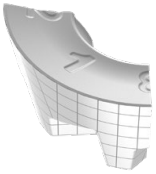
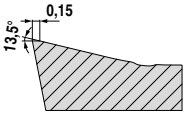
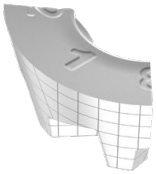
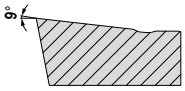
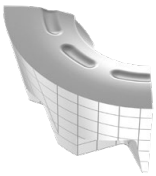
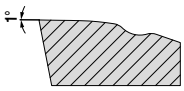
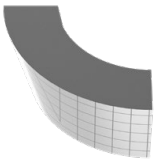
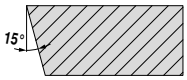
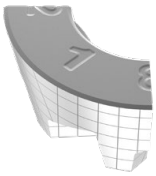
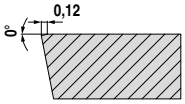
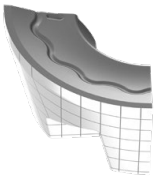
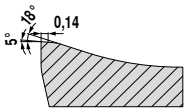
Chip Breakers Overview

MaxiMill 251

	Model	Machining: fine	Machining: Medium	Machining: rough	sectional illustration	f_z in mm
-27P ▲ Highly positive geometry ▲ Sharp cutting edges ▲ Reduced built up edge ▲ First choice for non-ferrous metals		H216T (CWK26) **H216T (CWK26)**	**H216T (CWK26)**	**H216T (CWK26)**		0,05–0,40
-F50 ▲ Positive Geometry ▲ Low cutting forces ▲ For unstable workholding ▲ First choice for austenitic stainless steel materials		CTCP230/**CTPP235** (DCX1230/**DPX1235**) CTPP225/**CTCM235**/CTPM240 (DPX1225/**DCX2235**/DPX2240) **CTCS245**	CTCP230/**CTPP235** (DCX1230/**DPX1235**) CTPP225/**CTCM235/CTPM240** (DPX1225/**DCX2235/DPX2240**) **CTCS245**	CTCM235/**CTPM240** (DCX2235/**DPX2240**) **CTCS245**		0,08–0,35
-M30 ▲ Medium rough machining ▲ Combines low cutting force and stability ▲ First choice for martensitic stainless steel materials		CTPP225/**CTCM235**/CTPM240 (DPX1225/**DCX2235**/DPX2240)	**CTPP235 (DPX1235)** CTPP225/**CTCM235/CTPM240** (DPX1225/**DCX2235/DPX2240**)	**CTPP235 (DPX1235)** CTPP225/CTCM235/**CTPM240** (DPX1225/DCX2235/**DPX2240**)		0,08–0,35
-M31 ▲ Positive Geometry ▲ Universal application ▲ Smooth running ▲ For heat resistant materials, titanium and super alloys		**CTC5240 (HCF5240)**	**CTC5240 (HCF5240)**	**CTC5240 (HCF5240)**		0,08–0,35
-M32 ▲ Medium rough machining ▲ Low cutting force and good stability ▲ First choice for martensitic stainless steel materials		CTPM245 (DPX2245)	**CTPM245 (DPX2245)**	**CTPM245 (DPX2245)**		0,08–0,35
-M50 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials		**CTCP230**/CTPP235 **(DCX1230**/DPX1235)	**CTCP230/CTPP235 (DCX1230/DPX1235)**	CTCP230/**CTPP235** (DCX1230/**DPX1235**)		0,10–0,40
-R30 ▲ Sateble Geometry ▲ Heavy rough machining ▲ For heavily interrupted cuts ▲ First choice for cast iron materials			**CTCK215 (DCX3215)**	**CTCK215 (DCX3215)**		0,10–0,40

Chip Breakers Overview

MaxiMill 251

Model	Machining: fine	Machining: Medium	Machining: rough	sectional illustration	f_z in mm
-R60 ▲ Highly stable geometry ▲ For stable clamping ▲ First choice for hard machining 	**CTP6215 (CCN6215)**	**CTP6215 (CCN6215)**	**CTP6215 (CCN6215)**		0,05–0,35
-FN ▲ Highly positive geometry ▲ First choice for non-ferrous metals 	**H216T (CWK26)**	**H216T (CWK26)**	**H216T (CWK26)**		0,10–0,40
-SN ▲ Robust insert ▲ For poor machining conditions ▲ First choice for cast iron/steel matrerials 	**TCM10**/CTCP230 (**CWC10**/DCX1230) TCM10/CTPM225 (CWC10/ DPX2225) TCM10/CTCK215 (CWC10/DCX3215)	TCM10/**CTCP230/CTPP235** (CWC10/**DCX1230/DPX1235**) **CTPM225 (DPX2225)** **CTCK215 (DCX3215)**	CTCP230/**CTPP235** (DCX1230/**DPX1235**) CTPM225 (DPX2225) **CTCK215 (DCX3215)**		0,10–0,40
-EN ▲ Universal Geometry ▲ Low cutting force ▲ First choice for good flatness 	**CTCK215 (DCX3215)**	**CTCK215 (DCX3215)**	**CTCK215 (DCX3215)**		0,15–0,50

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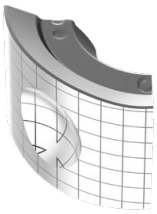
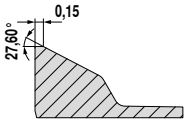
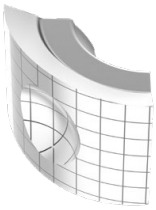
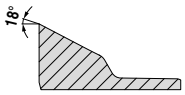
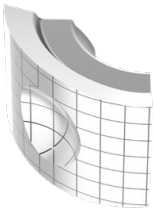
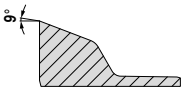
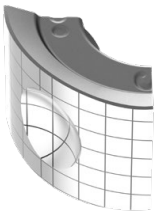
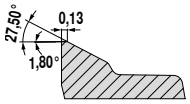
Chip Breakers Overview

MaxiMill 252

	Model	Machining			sectional illustration	f_z in mm
		fine	Medium	rough		
-F50 ▲ Positive Geometry ▲ Light rough machining ▲ For unstable workholding ▲ First choice for stainless steel materials			**CTPM240 (DPX2240)**	CTPM240 (DPX2240)		0,08–0,35
-M31 ▲ Positive Geometry ▲ Universal application ▲ Smooth running ▲ For heat resistant materials, titanium and super alloys		CTPM245 (DPX2245) CTC5240 (HCF5240)	**CTPM245 (DPX2245)** **CTC5240 (HCF5240)**	**CTPM245 (DPX2245)** **CTC5240 (HCF5240)**		0,08–0,35
-M32 ▲ Medium rough machining ▲ Low cutting force and good stability ▲ First choice for martensitic stainless steel materials		CTPM245 (DPX2245)	**CTPM245 (DPX2245)**	**CTPM245 (DPX2245)**		0,05–0,35
-M50 ▲ Universal Geometry ▲ Light to medium rough machining ▲ First choice for general steel materials		CTPP235 (DPX1235)	**CTPP235 (DPX1235)**	**CTPP235 (DPX1235)**		0,10–0,40

Grade description

CTCP220
DCX1220

- Carbide, TiCN-Al_2O_3-coated
- ISO | **P20**
- The wear-resistant grade for dry machining steels

CTCP225
DPX1225

- Carbide, TiAlTaN-coated
- ISO | **P25** | **K25**
- The wear-resistant grade for wet machining of steels

CTCP230
DCX1230

- Carbide, TiCN-Al_2O_3-coated
- ISO | **P30** | **K25** | M25
- The first choice for dry machining steel at high cutting speeds

CTPP235
DPX1235

- Carbide, TiAlTaN-coated
- ISO | **P25** | **K25**
- The wear-resistant grade for wet machining of steels

CTPM225
DPX2225

- Carbide, TiAlTaN-coated
- ISO | P25 | **M25**
- The wear-resistant choice for machining austenitic steels

CTCM235
DCX2235

- Carbide, TiCN-Al_2O_3-coated
- ISO | P40 | **M35**
- The tough alternative for general steel machining
- Well suited to martensitic steel materials

CTPM240
DPX2240

- Carbide, TiAlTaN-coated
- ISO | P40 | **M40**
- The first choice for machining austenitic steels

CTCK215
DCX3215

- Carbide, TiCN-Al_2O_3-coated
- ISO | **K15**
- The first choice for machining cast iron materials at high cutting speeds

CTPK220
DPX3220

- Carbide, TiAlTaN-coated
- ISO | **K20**
- Optimal for machining high-strength cast iron materials in the tougher application range

CTEP210
DCC1210

- Cermet, TiCN-Al_2O_3-coated
- ISO | **P10** | **K05**
- The coated cermet grade with reserves of toughness for finish machining at high cutting speeds

CTWN215
CWK4615

- Carbide, uncoated
- ISO | K15 | **N15**
- Uncoated carbide grade for machining non-ferrous metals

AMZ

- Carbide, TiAlN-coated
- ISO | P10 | K10 | **N10** | S10
- The coated carbide grade for aluminium machining

CTC5240
HCF5240

- Carbide, TiN-TiB_2-coated
- ISO | **S40**
- The special grade for machining titanium and titanium alloys

CTD4205
CWD4205

- Carbide, uncoated
- ISO | **N05**
- Polycrystalline diamond grade for machining non-ferrous metals and non-metallic materials

H216T
CWK26

- Carbide, uncoated
- ISO | **K15** | **N15**
- The uncoated carbide grade for machining aluminium and other non-ferrous metals
- Also highly suitable for HSC machining

TCM10
CWC10

- Cermet, uncoated
- ISO | **P15** | **M10** | K10
- The uncoated cermet grade for finish machining stainless and hardened steel
- Particularly wear resistant thanks to high heat resistance

CTP6215
CCN6215

- Carbide, TiAlN-coated
- ISO | **K15** | **H15**
- The coated carbide grade for hard machining

Grade description

WAN1240

- Carbide, coated
- ISO | **P40** | M40 | K40
- Coated, tough special grade for machining steel at medium to high cutting speeds
- Also suitable for machining cast iron as a secondary application

WAX1240

- Carbide, coated
- ISO | **P40** | K40
- High-strength special grades for medium and rough machining of steel at medium cutting speeds and an extremely high feed per tooth

WAN2225

- Carbide, coated
- ISO | **M25** | S25
- Fine grain size with high toughness and temperature resistance
- For rough and finish machining of rust and acid-resistant steels in both wet and dry cutting

WUN4210

- Carbide, uncoated
- ISO | **N10**
- Uncoated standard grade for medium machining of non-ferrous metals and graphite

WTN1205

- Carbide, coated
- ISO | **P05** | **K05** | N05 | S05 | **H05**
- Coated special grade for machining steel, hardened steel, cast iron, graphite and plastics

CTPK211

- Carbide, TiAlN-coated
- ISO | M15 | **K10** | **N10** | S10 | H10
- The coated standard grade for fine machining of cast iron and non-ferrous metals at medium cutting speeds

CTPP236

- Carbide, TiAlN-TiN coated
- ISO | **P35** | M35 | **K30**
- The tough special grade for medium and rough machining of steel at high cutting speeds
- This grade is also suitable for machining cast iron and stainless steel

CTPP231

- Carbide, coated
- ISO | **P30** | K25
- A very tough special grade for medium and rough machining of steel at medium cutting speeds and an extremely high feed per tooth

CTPM241

- Carbide, AlTiN-coated
- ISO | P40 | **M40** | **S40**
- The tough carbide grade for machining stainless and heat-resistant steels

CTPP216

- Carbide, TiAlN-coated
- ISO | **P10** | M10 | **K10** | H10
- Highly wear-resistant carbide grade with high cutting edge stability for finish machining of high-strength materials, unalloyed tool steels, cast iron and hardened steel up to 54 HRC

CTPP211

- Carbide, coated
- ISO | **P10** | **M10** | K10
- Wear-resistant carbide grade for medium and rough machining of steel and stainless steel
- Well suited to dry machining

CTPK231

- Carbide, coated
- ISO | **P30** | **K30**
- Tough carbide grade for medium and rough machining of steel and cast iron materials
- Well suited to dry machining

CTPK226

- Carbide, coated
- ISO | P30 | **K30** | **H30**
- Extremely wear-resistant ultra-fine grain carbide grade for machining cast iron materials and hardened steels up to 62 HRC

CTCN211

- Carbide, coated
- ISO | **N10**
- Diamond-coated carbide grade especially for machining graphite and non-ferrous metals

Grade description

C	T	C	P	2	2	0
D	C	X	1	2	2	0

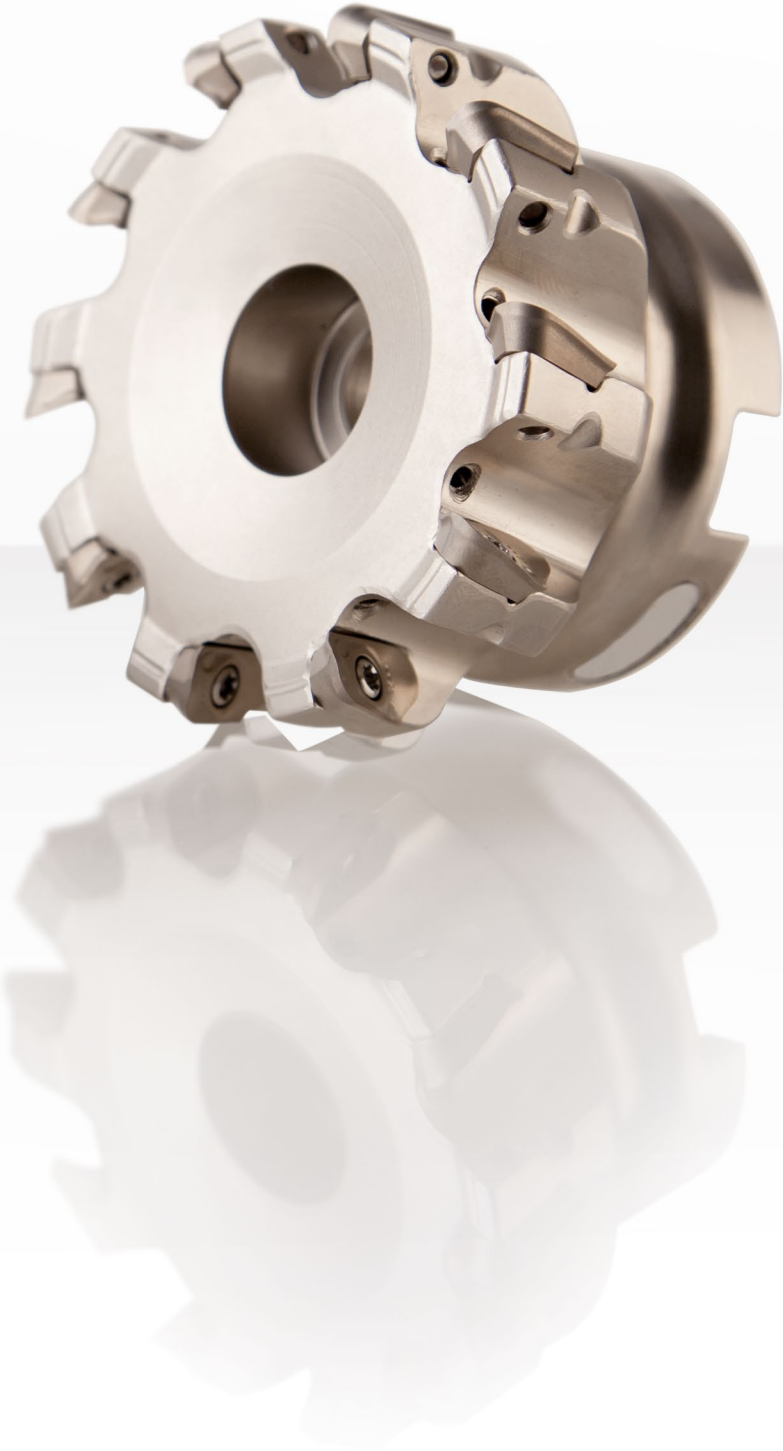
(Example)

Main application – material

1|P	Steel
2|M	Stainless steel
3|K	Cast iron
4|N	Light and non ferrous metals
5|S	Super alloys, titanium
6|H	Hard materials
7|X	Universal application

Application

1	Turning
2	Milling
3	Grooving
4	Drilling
5	Thread turning
6	Others
7	Several processes

Degree of hardness

05	ISO 05
10	ISO 10
15	ISO 15
	...