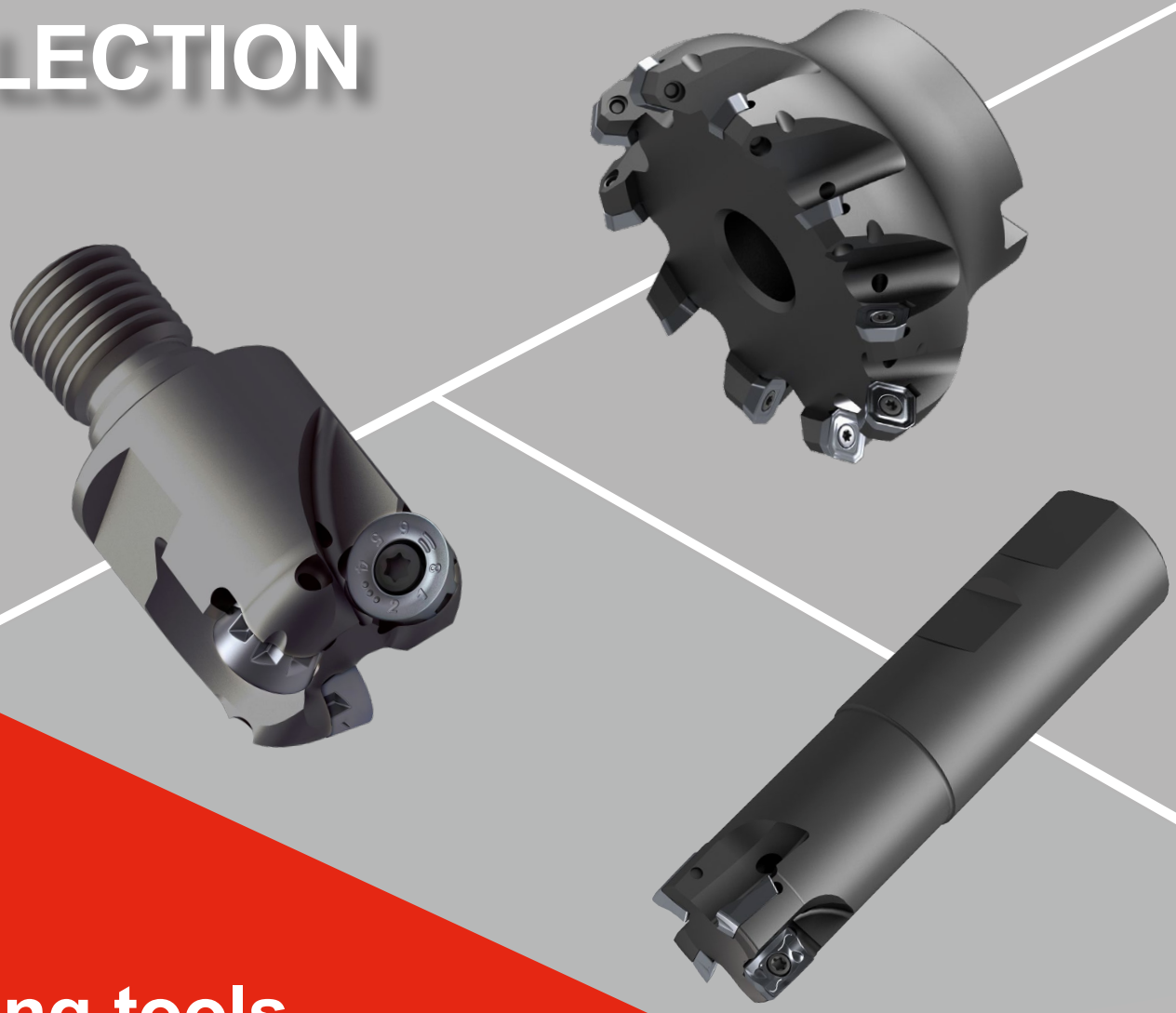
SELECTION



Milling tools with indexable inserts for general applications

from the CERATIZIT CoreLine

CERATIZIT is a high-technology engineering group specialised in cutting tools and hard material solutions.

Tooling a Sustainable Future

ceratizit.com

CERATIZIT GROUP

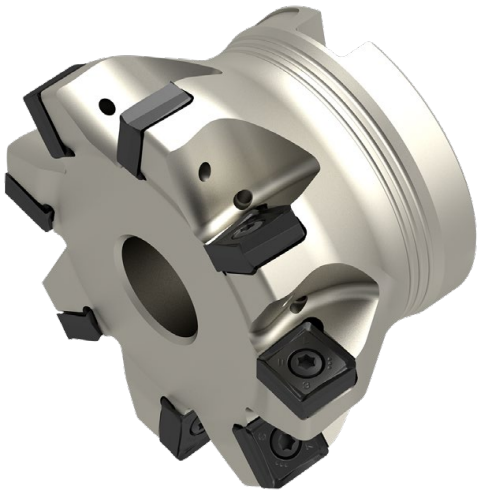
Table of contents

Symbol explanation


central internal coolant


lateral internal coolant

κ = 43° Cutting edge angle



ZNF = Number of flutes

● = **Main Application**

○ = Extended application

Application symbols


Face milling


Angled ramping


Helical plunging


Axial ramping


plunge milling


Slot milling


Shoulder milling


Slot milling (45°)

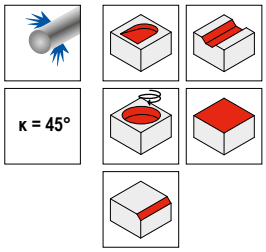

Chamfer milling

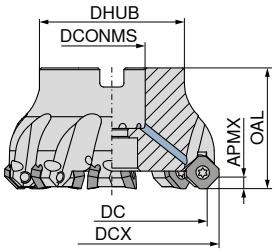

Free form milling

Overview

System	Inserts	Cutting edges per insert	$a_{p\,max.}$ mm	Ø-range mm		Steel	Stainless steel	Cast iron	Non-ferrous metals	Heat-resistant	Tempered steel	Non-metal materials	Page No.
Face milling													
CoreLine 270	**SDNT** 09..	4	4		 Ø 40–100	●	○	○					4
Shoulder milling													
CoreLine 210	**APKT** 1003..	4	7	 Ø 20–32	 Ø 40–80	●	○	○					5+6
Form milling													
CoreLine 251	**RPNX** 10T3..	8	4,5	 Ø 15–22	 Ø 30–40	●	○	○					7+8

CoreLine – Shell mill – 270-09

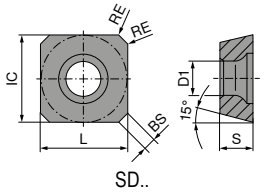




Designation	DC mm	DCX mm	ZNF	APMX mm	OAL mm	DHUB mm	DCONMS H6 mm	torque moment Nm	Insert	51 702 ... £ CX	
A270.40.R.03-09.N	40	48.4	3	4	40	38	16	1,2	SD.. 0903..	159.96	**04003**
A270.50.R.05-09.N	50	58.4	5	4	40	43	22	1,2	SD.. 0903..	204.59	**05005**
A270.63.R.06-09.N	63	71.4	6	4	40	48	22	1,2	SD.. 0903..	253.10	**06306**
A270.80.R.07-09.N	80	88.4	7	4	50	58	27	1,2	SD.. 0903..	296.18	**08007**
A270.100.R.08-09.N	100	108.4	8	4	50	78	32	1,2	SD.. 0903..	380.21	**10008**

SDNT

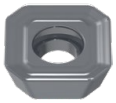
Designation	IC mm	D1 mm	L mm	BS mm	S mm
SDNT 0903..	9.52	3.4	9.52	1.68	3.18



SD..

SDNT

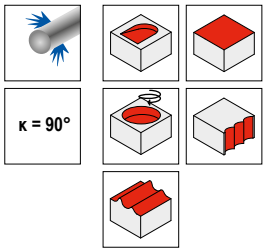
-29
CT-P30

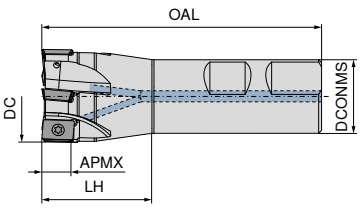

SDNT

ISO	RE mm	51 294 ... £ CX	
0903AESN	1	5.93	**22006**

P	●
M	○
K	○
N	
S	
H	
O	

CoreLine – End milling cutter – 210-10

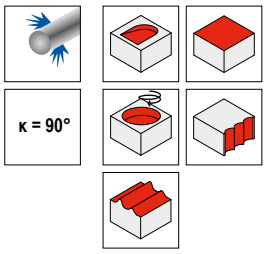


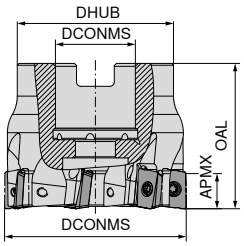


51 700 ...

Designation	DC mm	ZNF	APMX mm	OAL mm	LH mm	DCONMS mm	RPMX 1/min.	torque moment Nm	Insert	£ CX	
C210.20.R.02-10.N	20	2	9	90	40	20	19000	1,2	AP.. 1003..	123.84	**02002**
C210.25.R.03-10.N	25	3	9	100	44	25	18000	1,2	AP.. 1003..	142.76	**02503**
C210.32.R.04-10.N	32	4	9	95	38	25	14000	1,2	AP.. 1003..	164.43	**03204**

CoreLine – Shell mill – 210-10



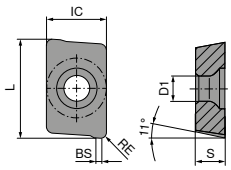


51 701 ...

Designation	DC mm	ZNF	APMX mm	OAL mm	DCONMS $_{H6}$ mm	DHUB mm	RPMX 1/min.	torque moment Nm	Insert	£ CX	
A210.40.R.05-10.N	40	5	9	40	22	38	12000	1,2	AP.. 1003..	189.37	**04005**
A210.50.R.07-10.N	50	7	9	40	22	43	11000	1,2	AP.. 1003..	237.27	**05007**
A210.63.R.08-10.N	63	8	9	40	22	48	9000	1,2	AP.. 1003..	260.41	**06308**
A210.80.R.10-10.N	80	10	9	50	27	58	8000	1,2	AP.. 1003..	329.47	**08010**

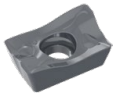
APKT

Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
APKT 1003..	6.65	2.8	10.8	1.1	3.5



APKT

-29M
CT-P30



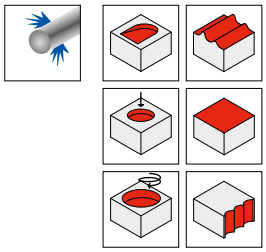
M
APKT

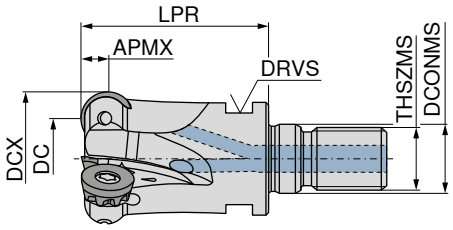
51 293 ...

ISO	RE	£	
	mm	CX	
1003PDSR	0.5	6.55	**22006**

P	●
M	○
K	○
N	
S	
H	
O	

CoreLine – Screw in cutter – 251-10



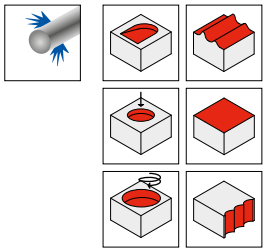


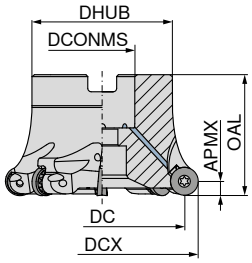
right

51 703 ...

Designation	DC mm	DCX mm	ZNF	APMX mm	DCONMS mm	LPR mm	THSZMS	DRVS mm	RPMX 1/min.	torque moment Nm	Insert	£ CX	
G251.25.R.02-10.N	15	25	2	5	12.5	35	M12	17	25000	2	RP.X 10T3..	171.31	**01502**
G251.32.R.03-10.N	22	32	3	5	17.0	35	M16	24	21000	2	RP.X 10T3..	176.82	**02203**

CoreLine – Shell mill – 251-10





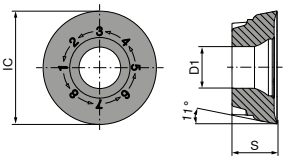
right

51 704 ...

Designation	DC mm	DCX mm	ZNF	APMX mm	OAL mm	DHUB mm	DCONMS $_{H6}$ mm	RPMX 1/min.	torque moment Nm	Insert	£ CX	
A251.40.R.03-10.N	30	40	3	5	40	38	16	14000	2	RP.X 10T3..	179.74	**03003**
A251.50.R.04-10.N	40	50	4	5	40	43	22	12000	2	RP.X 10T3..	190.66	**04004**

RPNX

Designation	IC mm	D1 mm	S mm
RPNX 10T3..	10	3.4	3.97
RPNX 1204..	12	4.4	4.76



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

RPNX

-M50
CT-P30

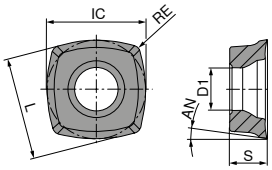
RPNX

51 295 ...

ISO	£ CX	
10T3M8SN	6.80	**22006**
1204M8SN	7.67	**22506**
P		●
M		○
K		○
N		
S		
H		
O		

XDLX

Designation	IC mm	D1 mm	L mm	BS mm	S mm	AN °
XDLX 09T3..	9.52	4.4	9	1.9	3.97	15



XDLX

-M50
CT-P30

XDLX

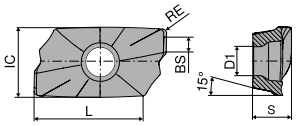
51 296 ...

ISO	RE mm	£ CX	
09T308SR	0.8	6.55	**20806**

P	●
M	○
K	○
N	
S	
H	
O	

XDKT

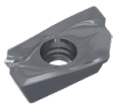
Designation	IC mm	D1 mm	L mm	BS mm	S mm
XDKT 11T3..	6.8	2.8	10.6	1.8	3.8
XDKT 11T3..	6.8	2.8	10.6	1.4	3.8



XDKT

XDKT

-M50
CT-P30



M
XDKT

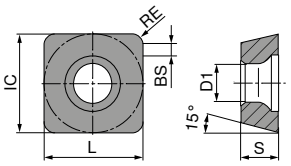
51 297 ...

ISO	RE mm	£ CX	
11T304SR	0.4	6.92	**20406**
11T308SR	0.8	6.92	**20806**
11T312SR	1.2	6.92	**21206**

P	●
M	○
K	○
N	
S	
H	
O	

SDNT

Designation	IC	D1	L	BS	S
	mm	mm	mm	mm	mm
SDNT 09T3..	9.52	4.4	9.52	2.5	3.97



SDNT

-29
CT-P30

SDNT

51 294 ...

ISO	RE	£	
	mm	CX	
09T308SR	0.8	5.93	**20806**

P	●
M	○
K	○
N	
S	
H	
O	

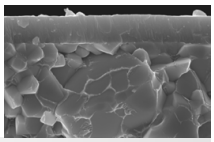
Cutting data standard values

	Material sub-group	Index	Tensile strength N/mm²* / HB / HRC	CT-P30	
				Cutting Material **hard** (v_c↑) → **tough** (v_c↓)	
				v_c (m/min)	
P	Unalloyed steel	P.1.1	420 N/mm² / 125 HB	197	110
		P.1.2	640 N/mm² / 190 HB	166	97
		P.1.3	840 N/mm² / 250 HB	138	85
		P.1.4	910 N/mm² / 270 HB	128	81
		P.1.5	1010 N/mm² / 300 HB	114	75
	Low-alloy steel	P.2.1	610 N/mm² / 180 HB	171	98
		P.2.2	930 N/mm² / 275 HB	126	80
		P.2.3	1010 N/mm² / 300 HB	114	75
		P.2.4	1200 N/mm² / 375 HB	78	61
	High-alloy steel and high-alloy tool steel	P.3.1	680 N/mm² / 200 HB	97	78
		P.3.2	1100 N/mm² / 300 HB	86	66
		P.3.3	1300 N/mm² / 400 HB	77	55
	Stainless steel	P.4.1	680 N/mm² / 200 HB	97	78
		P.4.2	1010 N/mm² / 300 HB	91	72
M	Stainless steel	M.1.1	610 N/mm² / 180 HB	97	78
		M.2.1	300 HB	86	66
		M.3.1	780 N/mm² / 230 HB	94	74
K	Grey cast iron	K.1.1	350 N/mm² / 180 HB	128	88
		K.1.2	500 N/mm² / 260 HB	120	88
	Spherulitic graphite cast iron	K.2.1	540 N/mm² / 160 HB	120	88
		K.2.2	845 N/mm² / 250 HB	120	88
	Malleable iron	K.3.1	440 N/mm² / 130 HB		
		K.3.2	780 N/mm² / 230 HB		
N	Aluminium wrought alloy	N.1.1	60 HB		
		N.1.2	340 N/mm² / 100 HB		
	Cast aluminium alloy	N.2.1	250 N/mm² / 75 HB		
		N.2.2	300 N/mm² / 90 HB		
		N.2.3	440 N/mm² / 130 HB		
	Copper and copper alloys (bronze/brass)	N.3.1	375 N/mm² / 110 HB		
		N.3.2	300 N/mm² / 90 HB		
		N.3.3	340 N/mm² / 100 HB		
	Magnesium alloys	N.4.1	70 HB		
S	Heat-resistant alloys	S.1.1	680 N/mm² / 200 HB		
		S.1.2	950 N/mm² / 280 HB		
		S.2.1	840 N/mm² / 250 HB		
		S.2.2	1180 N/mm² / 350 HB		
		S.2.3	1080 N/mm² / 320 HB		
	Titanium alloys	S.3.1	400 N/mm²		
		S.3.2	1050 N/mm² / 320 HB		
		S.3.3	1400 N/mm² / 410 HB		
H	Hardened steel	H.1.1	46–55 HRC		
		H.1.2	56–60 HRC		
		H.1.3	61–65 HRC		
		H.1.4	66–70 HRC		
	Chilled iron	H.2.1	400 HB		
	Hardened cast iron	H.3.1	55 HRC		
O	Non-metal materials	O.1.1	≤ 150 N/mm²		
		O.1.2	≤ 100 N/mm²		
		O.2.1	≤ 1000 N/mm²		
		O.2.2	≤ 1000 N/mm²		
		O.3.1			

*** Tensile strength**

Grade description

CT-P30



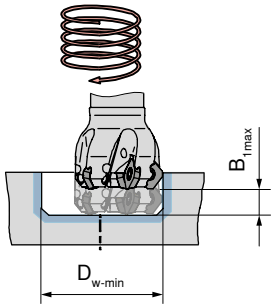
- ▲ Carbide, coated
- ▲ ISO | **P30** | M25 | K25
- ▲ Standard steel grade for universal steel machining

The cutting data is strongly influenced by external conditions, such as the stability of the tool and workpiece clamping, material and type of machine. The specified values represent guideline cutting data that can be adjusted by approx. **±20%** according to the usage conditions.

System 270-09

Machining strategy

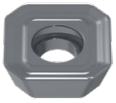
Helical plunging



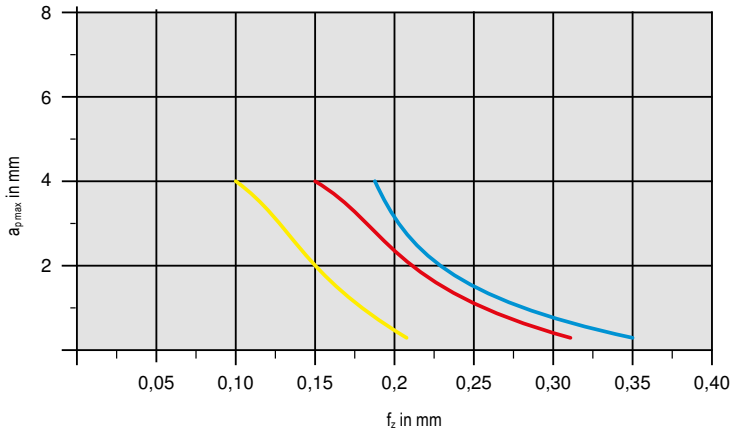
A 270-09

DC mm	D_{min} mm	$B_{1\ max}$ mm	D_{max} mm	$B_{2\ max}$ mm
40	84,5	1,5	87	1,5
50	104,5	1,5	107	1,5
63	130,5	1,5	133	1,5
80	164,5	1,5	167	1,5
100	204,5	1,5	207	1,5

Starting Parameter



SDNT 09



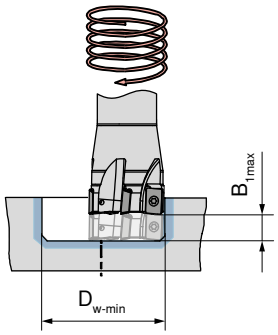
Material			Inserts		v_c in m/min	Cooling
Steel	**P.2.2**	40CrMnMoS 8-6	**SDNT0903AESN-29.N**	**CT-P30**	126	Dry
Stainless steel	**M.1.1**	X6CrNiMoTi 1712 2	**SDNT0903AESN-29.N**	**CT-P30**	97	Dry
Cast iron	**K.1.1**	EN-GJL-250 (GG25)	**SDNT0903AESN-29.N**	**CT-P30**	128	Dry

Detailed information on cutting speed for each grade can be found on → page 12
From v_c > 400 m/min, the tool must be balanced!

System 210-10

Machining strategy

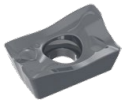
Helical plunging



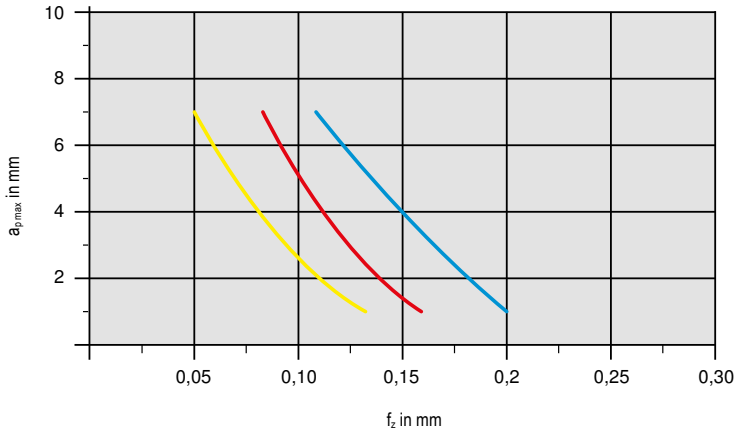
A 210-10 / C 210-10

DC mm	D_{min} mm	$B_{1\,max}$ mm	D_{max} mm	$B_{2\,max}$ mm	α_R °
20	30	1,4	38	2,6	2,7
25	40	1,5	48	2,3	1,9
32	54	1,6	62	2,2	1,3
40	70	1,7	78	2,1	1
50	90	1,6	98	1,9	0,7
63	116	1,6	124	1,8	0,5
80	150	1,5	158	1,8	0,4

Starting Parameter



APKT 10

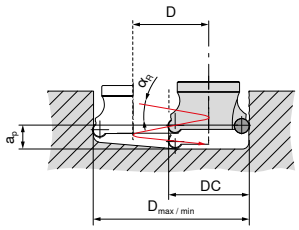


Material			Inserts		v_c in m/min	Cooling
Steel	**P.2.2**	40CrMnMoS 8-6	**AKPT1003PDSR-29M.N**	**CT-P30**	126	Dry
Stainless steel	**M.1.1**	X6CrNiMoTi 1712 2	**AKPT1003PDSR-29M.N**	**CT-P30**	97	Dry
Cast iron	**K.1.1**	EN-GJL-250 (GG25)	**AKPT1003PDSR-29M.N**	**CT-P30**	128	Dry

Detailed information on cutting speed for each grade can be found on → page 12
From v_c > 400 m/min, the tool must be balanced!

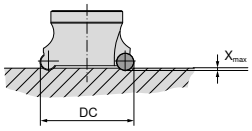
System 251-10

Machining strategy



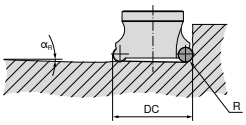
Helical plunging

DC mm	$D_{min.}$ mm	$D_{max.}$ mm	α_R °
25	37	40	1,8
32	50	54	1,5
40	64	70	1,1
50	84	90	0,9



Axial ramping

DC mm	X_{max} mm
25	0,4
32	50
40	64
50	84

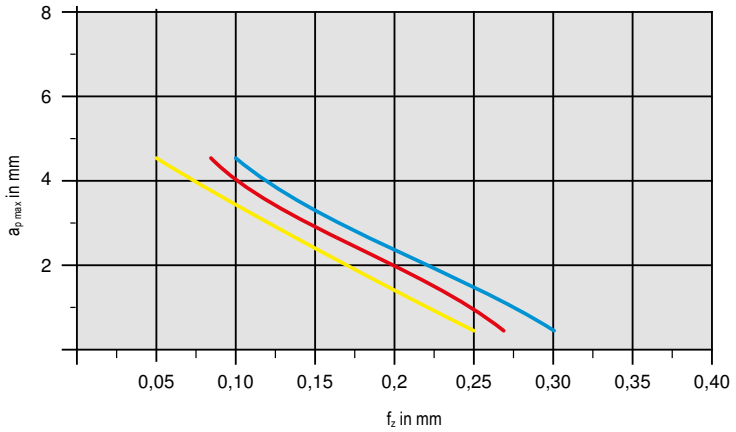


Angled ramping

DC mm	α_R °
25	2
32	3
40	3,3
50	2,4

Starting Parameter

RPNX 10



Material			Inserts		v_c in m/min	Cooling
Steel	**P.2.2**	40CrMnMoS 8-6	**RPNX10T3M8SN-M50.N**	**CT-P30**	126	Dry
Stainless steel	**M.1.1**	X6CrNiMoTi 1712 2	**RPNX10T3M8SN-M50.N**	**CT-P30**	97	Dry
Cast iron	**K.1.1**	EN-GJL-250 (GG25)	**RPNX10T3M8SN-M50.N**	**CT-P30**	128	Dry

Detailed information on cutting speed for each grade can be found on → page 12
From v_c > 400 m/min, the tool must be balanced!

CERATIZIT UK & IRELAND LTD
Europa Link \ UK-Sheffield S9 1XU
Tel.: +44 114 242 8 820
info.uk@ceratizit.com \ www.ceratizit.com

CERATIZIT GROUP

02/2026 – 99 022 01038