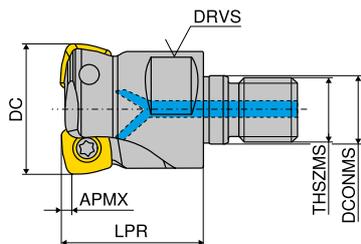
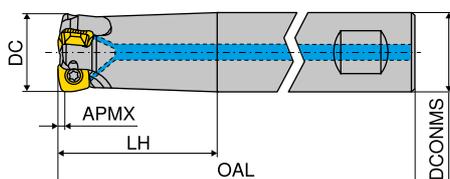


MaxiMill – Screw in cutter G HFC



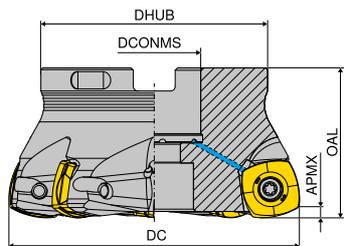
Designation	DC mm	ZNF	APMX mm	LPR mm	DCONMS mm	THSZMS	DRVS mm	RPMX 1/min.	torque moment Nm	Insert	2B/40	
											Article no. 50 682 ... EUR	Article no. 50 682 ... EUR
GHFC.16.R.02-06	16	2	0,8	27	8,5	M8	10	20800	1,2	XPLX 0603..	230,50	616
GHFC.20.R.03-06	20	3	0,8	33	10,5	M10	15	19800	1,2	XPLX 0603..	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	2B/40		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	720	261,70	620
CHFC.20.R.03-06-A-50-225	20	3	0,8	225	50	20	4200	1,2	XPLX 0603..				
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



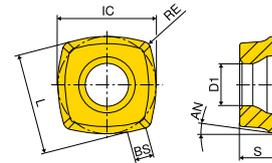
Designation	DC	ZNF	APMX	OAL	DCONMS _{H6}	DHUB	RPMX	torque moment Nm	Insert	2B/40	
										Article no. 50 683 ...	Article no. 50 683 ...
	mm		mm	mm	mm	mm	1/min.			EUR	EUR
AHFC.32.R.03-09	32	3	1,0	40	16	38	27700	3,2	XDLX 09T3..	309,50	032
AHFC.35.R.04-09	35	4	1,0	40	16	38	26700	3,2	XDLX 09T3..	329,70	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		Y7		Y7		2A/28		2A/28		2A/28		Y7	
	Article no. 80 950 ...	EUR	Article no. 80 397 ...	EUR	Article no. 80 950 ...	EUR	Article no. 70 950 ...	EUR	Article no. 70 950 ...	EUR	Article no. 70 950 ...	EUR	Article no. 80 950 ...	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 1B/61	XPLX 1B/61	XPLX 1B/61	XPLX 1B/61	XPLX 1B/61	XPLX 1H/17
ISO	RE	Article no. 51 019 ...	Article no. 51 019 ...	Article no. 51 116 ...			
	mm	EUR	EUR	EUR	EUR	EUR	EUR
060305ER	0,5	12,34 255	12,34 055	12,34 105	12,34 205	12,34 405	15,06 455
060305SR	0,5	12,34 255	12,34 055	12,34 105	12,34 205	12,34 405	15,06 455
		Steel	•	•	•	○	○
		Stainless steel			○	•	•
		Cast iron					•
		Non ferrous metals					
		Heat resistant alloys					
		hardened materials					

XPLX

-M50 CTCK215	-F40 CTC5240	-F40 CTCS245
-M50 DCX3215	-F40 HCF5240	
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
		
XPLX 1B/61	XPLX 1H/D4	NEW XPLX 1H/D4
Article no. 51 019 ...	Article no. 50 518 ...	Article no. 51 116 ...
EUR 12,34	EUR 15,06	EUR 15,06
505	558	55500

ISO	RE
	mm
060305ER	0,5
060305SR	0,5

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

XDLX

-M50 CTCP220	-M50 CTPP225	-M50 CTCP230	-M50 CTPP235
-M50 DCX1220	-M50 DPX1225	-M50 DCX1230	-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 ...
EUR 12,72	EUR 12,72	EUR 12,72	EUR 12,72
258	058	008	108

ISO	RE
	mm
09T308SR	0,8

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

XDLX

		-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	
ISO	RE	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	
		mm	mm	mm	mm	mm	
09T308ER	0,8	12,72	208	12,72	308	12,72	408
09T308SR	0,8	15,36	458	15,36	458	15,36	458
Steel		○	○	○	●	●	
Stainless steel		●	●	●	●	●	
Cast iron							
Non ferrous metals							
Heat resistant alloys							
hardened materials							

XDLX

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

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 1B/61	XOLX 1B/61	XOLX 1B/61	XOLX 1B/61	XOLX 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 1B/61	XOLX 1B/61	XOLX 1B/61	XOLX 1H/17	XOLX 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

		-M50 CTCK215	-F40 CTC5240	-F50 CTC5240	-F40 CTCS245	-F50 CTCS245
		-M50 DCX3215	-F40 HCF5240			
		DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
						
		XOLX 1B/61	XOLX 1H/D4	NEW XOHX 1H/D4	NEW XOLX 1H/D4	NEW XOLX 1H/D4
ISO	RE	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

		-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 1B/61	XOLX 1B/61	XOLX 1B/61	XOLX 1H/17	XOLX 1B/61	XOLX 1H/D4	NEW XOLX 1H/D4
ISO	RE	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	
190615SR	1,5	22,17 015	22,17 115	22,17 415		22,17 515		27,26 56500

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 approximate values	→ 170-173
Starting Parameter	→ 170-173		

System MaxiMill HFC-06

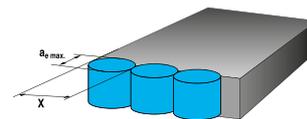
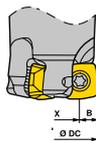
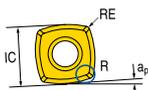
Cutting data recommendations/Technology data

Material	F			M			R		
	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									

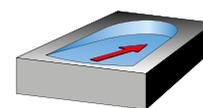
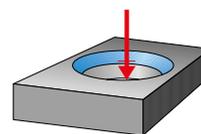
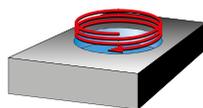
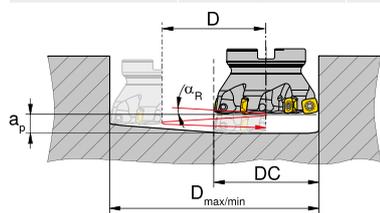
Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

Programmed radius R = 1.2 mm



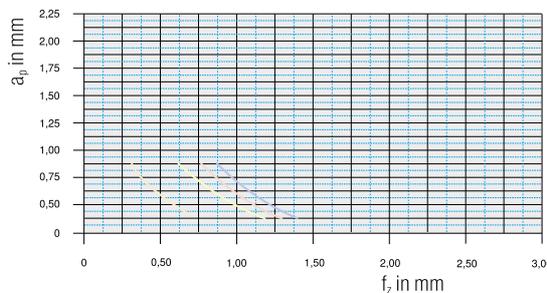
Cutting depth and remaining material			Cutting width for flat surfaces			Cutting depth when plunging				
IC in mm	RE in mm	$a_{p \max}$ in mm	DC in mm	X in mm	B in mm	$a_{e \max}$ in mm	f_z in mm			X
							initial	min.	max.	
6,35	0,5	0,8	16-32	DC-(2 x B)	4,3	5,3	0,10	0,08	0,15	<0,7 x DC



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

Starting Parameter

Example materials				
Steel	1000 N/mm ²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm ²	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/mm ²	5.8	Inconel 625	Inconel 718



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

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

System MaxiMill HFC-09

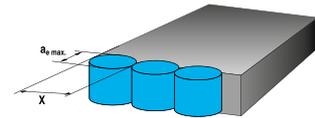
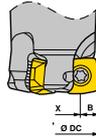
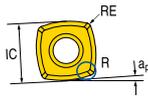
Cutting data recommendations/Technology data

Material	F			M			R		
	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									

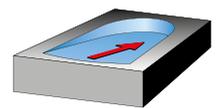
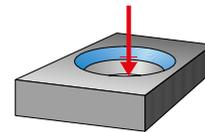
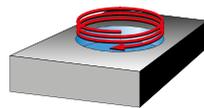
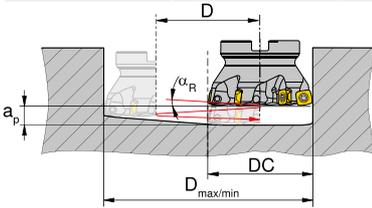
Detailed information on cutting speed for each grade can be found on → page 138+139

Machining strategy

Programmed radius R = 2 mm



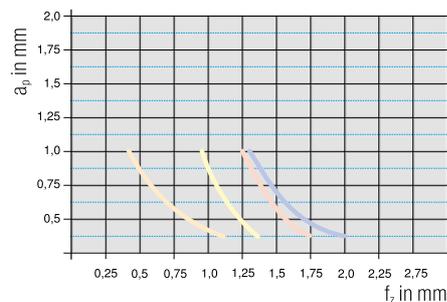
Cutting depth and remaining material			Cutting width for flat surfaces			Cutting depth when plunging				
IC in mm	RE in mm	$a_{p\ max}$ in mm	DC in mm	X in mm	B in mm	$a_{p\ max}$ in mm	f_z in mm			X
							initial	min.	max.	
9	0,8	1	25-66	DC-(2 x B)	5,9	7,5	0,10	0,08	0,15	<0,7 x DC



circular				axial		Angled	
Helical plunging (helical plunging into solid material)				Plunging			
DC mm	$D_{\ max}$ mm	$D_{\ min}$ mm	$\alpha_{R\ max}$ °	$X_{\ max}$ mm	$\alpha_{R\ max}$ °		
25	48	35	3,1°	0,75	3,6°		
32	62	49	1,7°		2,0°		
35	68	55	1,4°		1,6°		
40	78	65	1,0°		1,2°		
42	82	69	0,9°		1,1°		
50	98	85	0,8°		0,9°		
52	102	89	0,7°		0,8°		
63	124	111	0,7°		0,8°		
66	130	117	0,6°		0,7°		

Starting Parameter

Example materials					
Steel	1000 N/mm ²	1.15	1.2312	40CrMnMoS 8-6	
Stainless steel	600 N/mm ²	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/mm ²	5.8	Inconel 625	Inconel 718	



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

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

System MaxiMill HFC-12

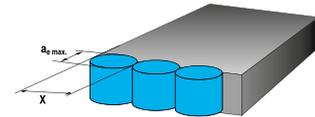
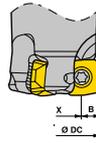
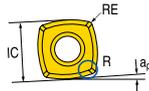
Cutting data recommendations/Technology data

Material	F			M			R		
	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									

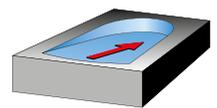
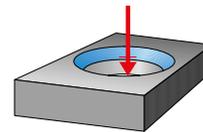
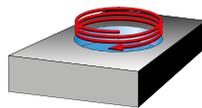
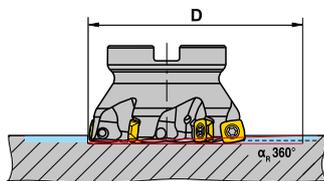
Detailed information on cutting speed for each grade can be found on → page 138+139

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	$a_{p,max}$ in mm	f_z in mm			
							initial	min.	max.	X
12	1,0	2	32-100	DC-(2 x B)	8,3	10	0,15	0,10	0,20	<0,7 x DC



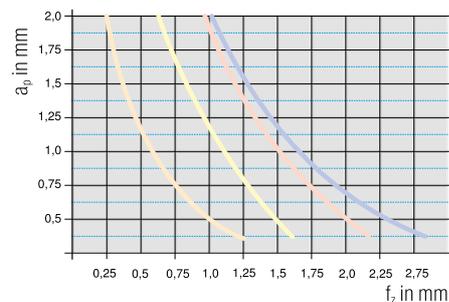
DC mm	circular		
	D_{max} mm	D_{min} mm	$\alpha_{R,max}$ °
32	62	44	6,1°
35	68	50	3,7°
40	78	60	2,5°
42	82	64	2,3°
50	98	80	1,3°
52	102	84	1,3°
63	124	106	0,9°
66	130	112	0,9°
80	158	140	1,1°
100	198	180	0,6°

Helical plunging
(helical plunging into solid material)

DC mm	axial	Angled
	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

Material	Example materials			
	$\sigma_{0,2}$ N/mm ²	1.15	1.2312	Material
Steel	1000 N/mm ²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm ²	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/mm ²	5.8	Inconel 625	Inconel 718



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

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

System MaxiMill HFC-19

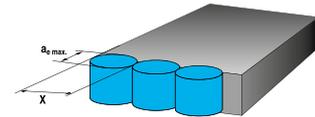
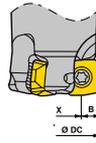
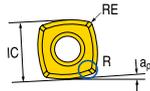
Cutting data recommendations/Technology data

Material	F			M			R		
	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									

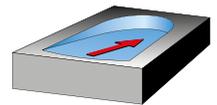
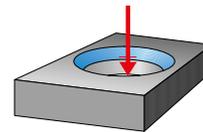
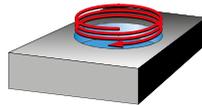
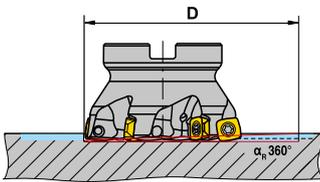
Detailed information on cutting speed for each grade can be found on → page 138+139

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	$a_{p\ max}$ in mm	f_z in mm			
							initial	min.	max.	X
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

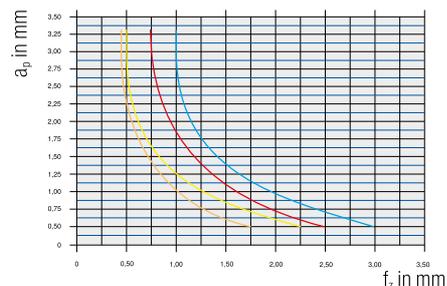


DC mm	circular		
	D_{max} mm	D_{min} mm	$\alpha_{R\ max}$ °
63	97	123	2,5
80	131	157	1,4
100	171	197	1,0
125	221	247	0,7
160	291	317	0,5

DC mm	axial	Angled	
	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

Material	Example materials			Material
	$\sigma_{0,2}$ N/mm ²	$\sigma_{0,1}$	$\sigma_{0,01}$	
Steel	1000 N/mm ²	1.15	1.2312	40CrMnMoS 8-6
Stainless steel	600 N/mm ²	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/mm ²	5.8	Inconel 625	Inconel 718



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

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