

# New Product Information

## MaxiMill HFC program extension – new size 19 indexable insert

2017-03

### A new dimension in high-feed milling

In order to meet the demand from our customers for ever higher feeds and consequent reduced machining times, we have upgraded our existing HFC system with a size 19 indexable insert. The new HFC 19 system allows for cutting depths up to 83 % higher and feeds up to 150 % higher.

### Customer benefits



- Irregular pitch for extremely quiet running
- Easy handling thanks to large indexable insert
- FEM-optimised base body
- Optimised chip gullets for excellent chip evacuation
- Coolant holes for emulsion/air/MMS
- Cutting forces are exerted primarily in the axial direction
- Minimal stress on the machine spindle

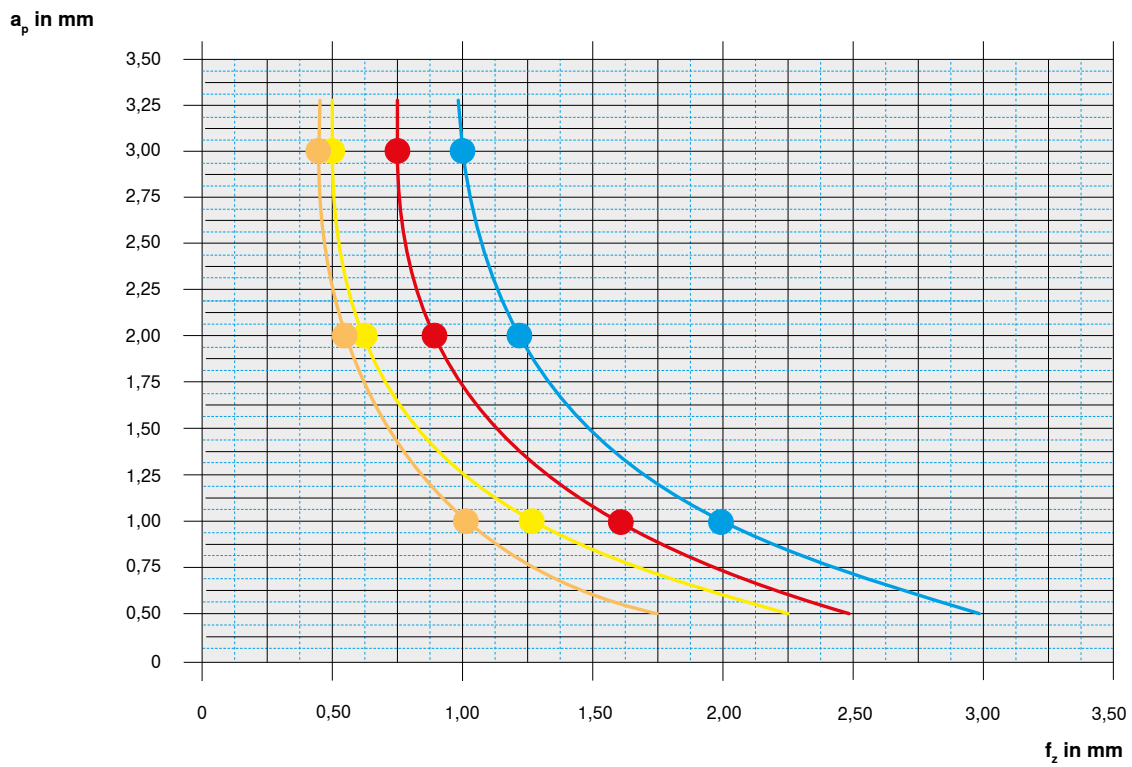
- Patented rectangular geometry, large radius
- Four useable cutting edges
- Soft cut with positive geometry
- Stable mating surfaces
- Cutting depth of up to 3.3 mm

### General Information

#### HFC 19/XOLX 19 system

- Face mill with a diameter of 63 – 160 mm
- Nickel-plated base body
- Indexable inserts with Black- and Silverstar™ coating
- -F40 and -M50 chip breakers

## Starting parameters and machine output



Factory standard			Inserts		$v_c$ in m/min	Coolant
1.2312	40CrMnMoS8-6	1.000 N/mm <sup>2</sup>	XOLX 190615SR-M50	CTPP235	180	Dry
1.4571	X6CrNiMoTi17-12-2	600 N/mm <sup>2</sup>	XOLX 190615SR-M50	CTPM240	160	Dry
5.1301	EN-GJL-250	HB 180	XOLX 190615SR-M50	CTCK215	250	Dry
2.4856	Inconel 625	1.450 N/mm <sup>2</sup>	XOLX 190615ER-F40	CTC5240	35	Emulsion

A HFC	
Ø 63 mm / z = 5	Ø 100 mm / z = 8

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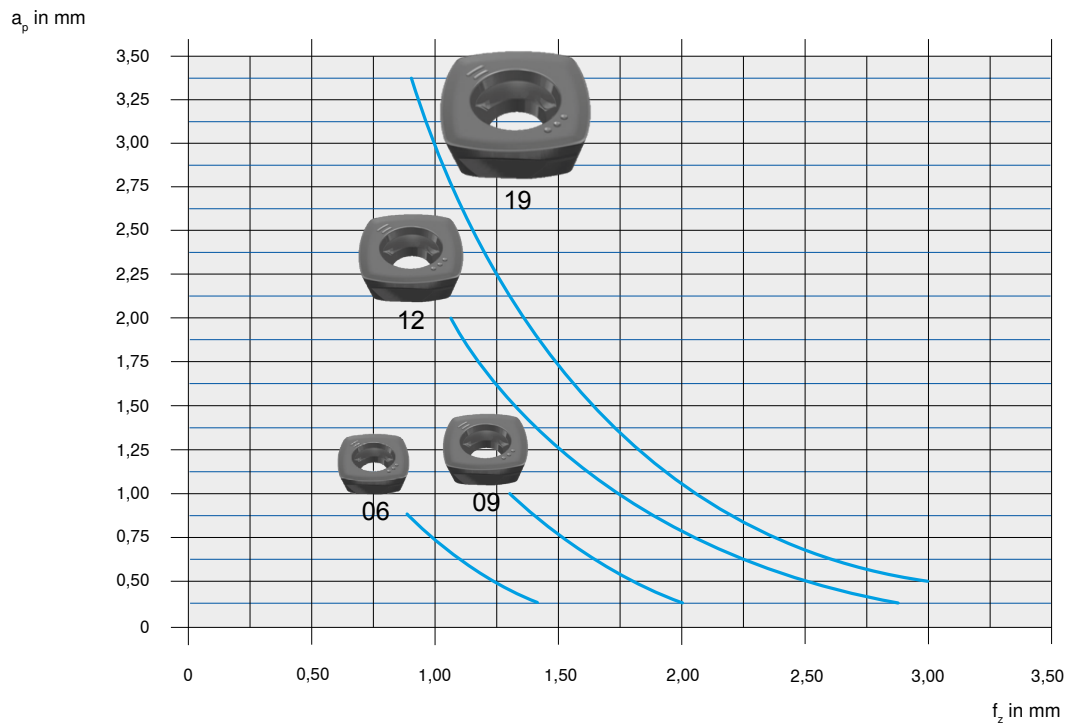
$a_p$	$f_z$	KW	Nm	KW	Nm
1,0	1,90	15	159	21	345
2,0	1,25	22	231	30	504
3,0	1,00	28	291	38	640

$a_p$	$f_z$	KW	Nm	KW	Nm
1,0	1,70	15	116	20	245
2,0	0,80	18	133	23	281
3,0	0,75	25	190	33	402

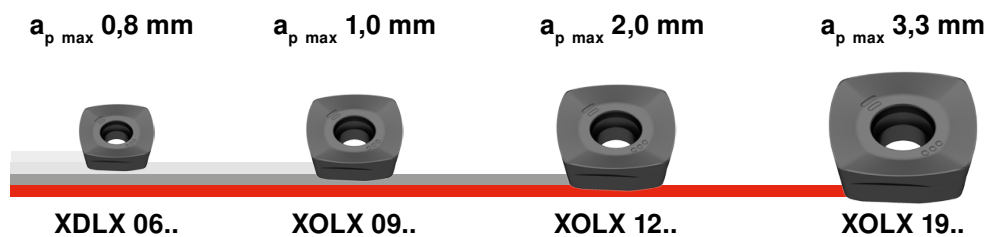
$a_p$	$f_z$	KW	Nm	KW	Nm
1,0	1,25	19	221	13	247
2,0	0,60	22	256	16	295
3,0	0,50	28	336	21	390

$a_p$	$f_z$	KW	Nm	KW	Nm
1,0	1,00	4	221	4	375
2,0	0,55	4	224	5	437
3,0	0,45	5	280	6	547

## Comparison of starting parameters



## Comparison of HFC system cutting depths



## Success Story

### Customer trial in Spain:

Material: Ti6Al4V (3.7165)  
Indexable insert: XOLX 190615ER-F40 CTC5240  
Tool: AHFC.63.R.05-19

Cutting data	CERATIZIT	Competitor
$v_c$ in m/min	50	50
$f_z$ in mm	0,71	0,25
$a_p$ in mm	3,3	3
$a_s$ in mm	40	40
Coolant	Emulsion	Emulsion
Tool life/component	3	1

Machining time  
in min



## Product programme

New	
Article no.	Designation
12092873	AHFC.100.R.08-19
12092874	AHFC.125.R.10-19
12092875	AHFC.160.R.11-19
12092870	AHFC.63.R.05-19
12092871	AHFC.80.R.06-19
11990059	XOLX 190615ER-F40 CTC5240
12170416	XOLX 190615ER-F40 CTPM245
12169579	XOLX 190615SR-M50 CTCK215
12169591	XOLX 190615SR-M50 CTCP230
12102880	XOLX 190615SR-M50 CTPM240
12169595	XOLX 190615SR-M50 CTPP235

## Sales Support

- See the CERATIZIT e-techstore for prices and availability