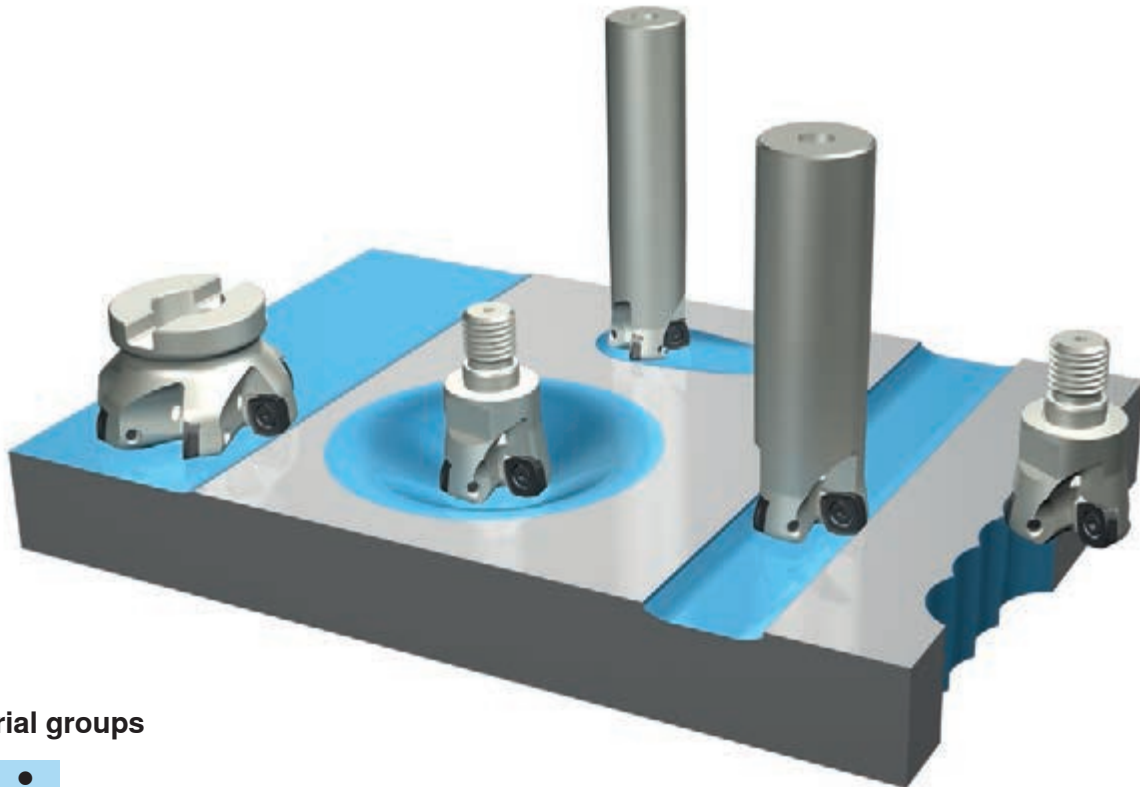


Milling cutter for highest cutting performance

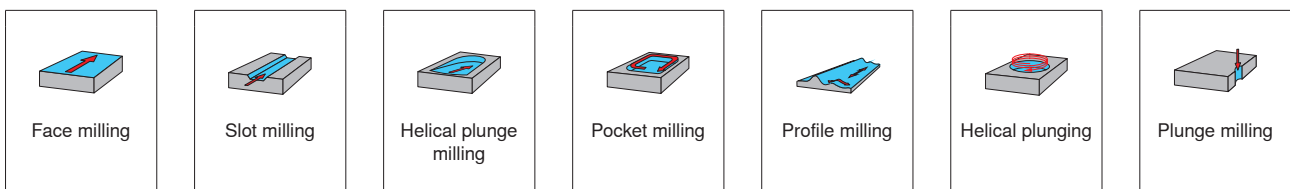
- Extremely high feed rates
- Maximum chip removal rates



Material groups

P	●
M	●
K	○
N	●
S	●
H	

Possible applications



Detailed information

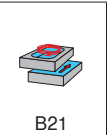
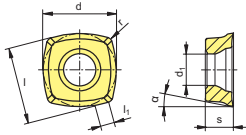
Pitch	Ø range	Inserts
	<p>Ø 16 - 100 mm</p>	<p>XP..06.. XD..09.. XO..12..</p>





MaxiMill HFC system

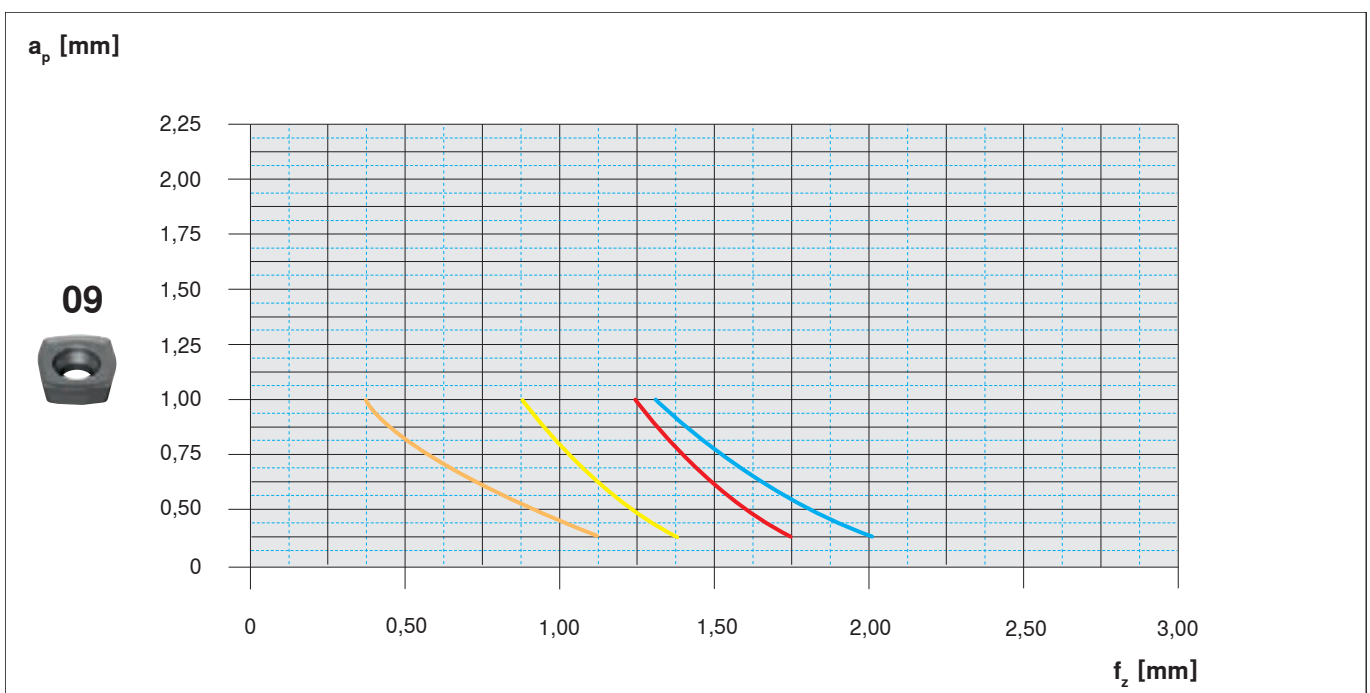
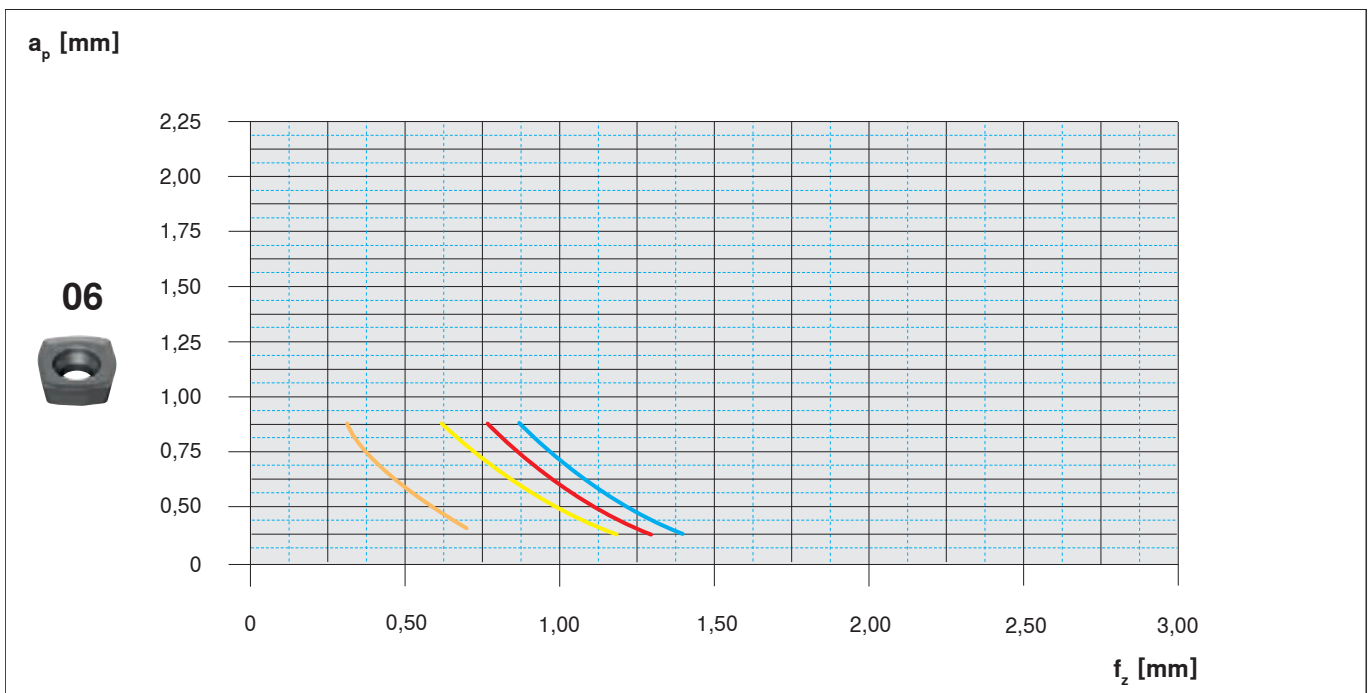
XD.. XO.. XP..



	Image	Part Number	Material													d [mm]	l [mm]	s [mm]	l ₁ [mm]	r [mm]	d ₁ [mm]												
			P	M	K	N	S	H	CTEP210	TCM10	CTCP220	CTPP225	CTCP230	CTPP235	CTPM225							CTCM235	CTPM240	CTN3105	CTL3215	CTCK215	CTPK220	CTD4205	AMZ	H216T	CTW4615	CTC5235	CTC5240
-F40		XDLX 09T308ER-F40	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	9.49	9.00	3.97	0.80	4.40	
		XOLX 120410ER-F40	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	12.70	12.00	4.76	1.00	5.50
		XPLX 060305ER-F40	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	6.35	6.00	2.75	0.50	2.80
-M50		XDLX 09T308SR-M50		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	9.60	9.00	3.97	1.5	0.80	4.40	
		XOLX 120410SR-M50		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	12.70	12.00	4.76	2.2	1.00	5.50
		XPLX 060305SR-M50		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6.35	6.00	2.75	1.0	0.50	2.80
-R50		XOLX 120410SR-R50										●															12.70	12.00	4.76	2.2	1.00	5.50	







Materials				Insert		v_c [m/min]	Coolant
	1.2312	40CrMnMoS8-6	1.000 N/mm ²	XPLX 060305SR-M50 XDLX 09T308SR-M50	CTPP235	180	dry
	1.4571	X6CrNiMoTi17-12-2	600 N/mm ²	XPLX 060305ER-M40 XDLX 09T308SR-M50	CTPM240	160	dry
	5.1301	EN-GJL-250	HB 180	XPLX 060305ER-M50 XDLX 09T308SR-M50	CTCK215	250	dry
	2.4856	Inconel 625	1.450 N/mm ²	XPLX 060305ER-F40 XDLX 09T308ER-F40	CTC5235	35	emulsion

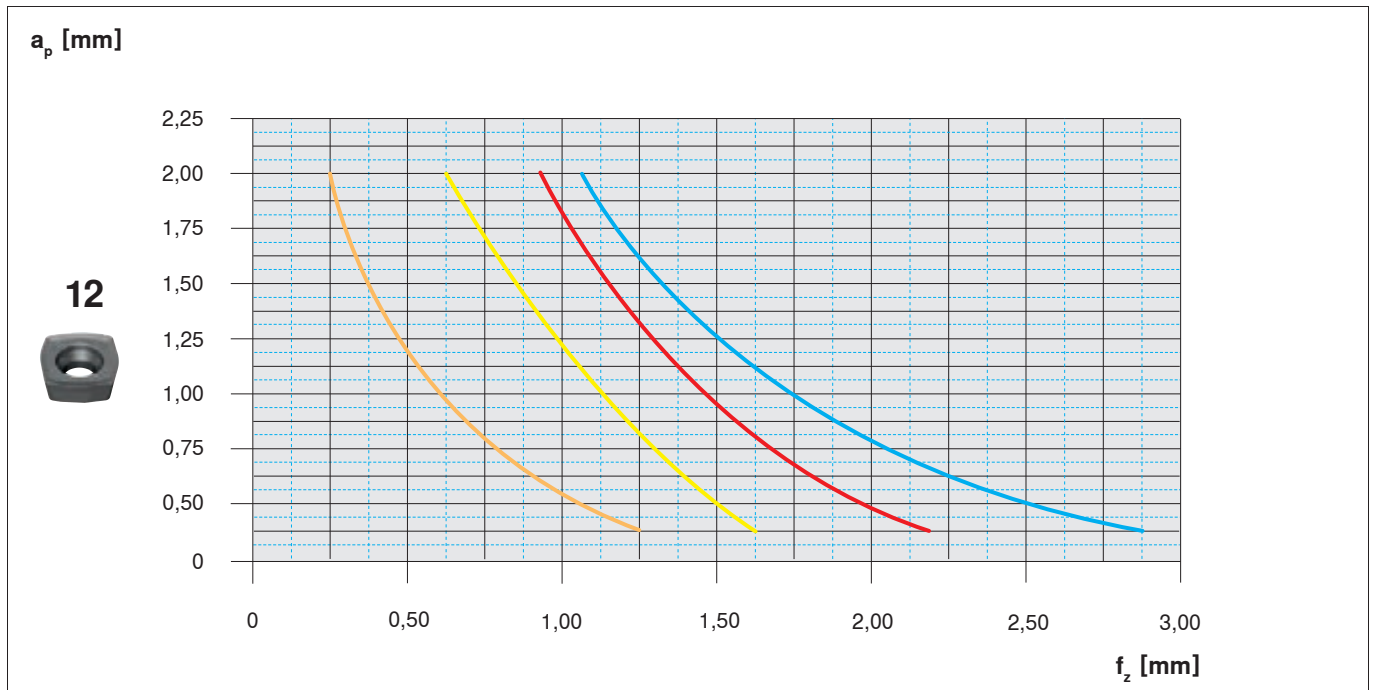


Additional grades and geometries can be used for the application and are illustrated in the respective application range of the system.

MaxiMill HFC system

Starting parameters for example materials HFC 12

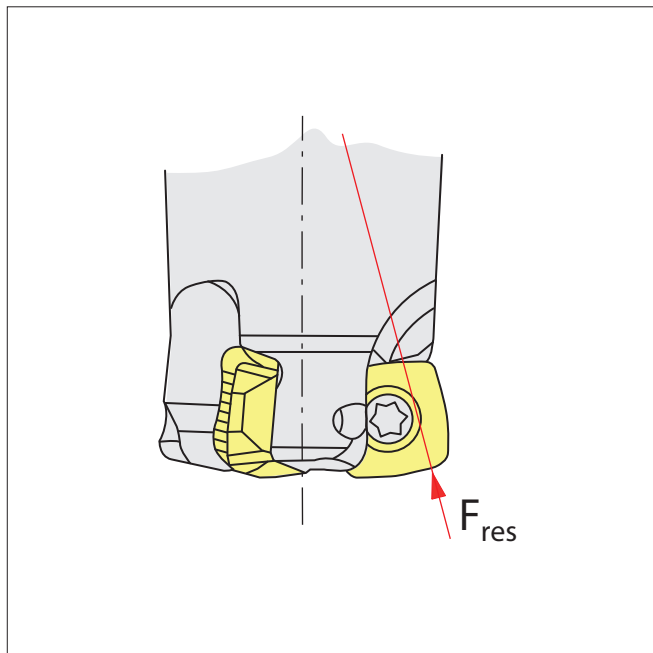
Materials				Insert		v_c [m/min]	Coolant
	1.2312	40CrMnMoS8-6	1.000 N/mm ²	XOLX 120410SR-M50	CTPP235	180	dry
	1.4571	X6CrNiMoTi17-12-2	600 N/mm ²	XOLX 120410ER-M50	CTPM240	160	dry
	5.1301	EN-GJL-250	HB 180	XOLX 120410ER-M50	CTCK215	250	dry
	2.4856	Inconel 625	1.450 N/mm ²	XOLX 120410ER-F40	CTC5235	35	emulsion



Additional grades and geometries can be used for the application and are illustrated in the respective application range of the system.

Minimum vibration

The light cutting geometry and the very positive angle allow for reduced vibration of the milling system. The cutting forces are mainly in axial direction. Even with long tool overhangs the stress on the machine spindle is minimised.



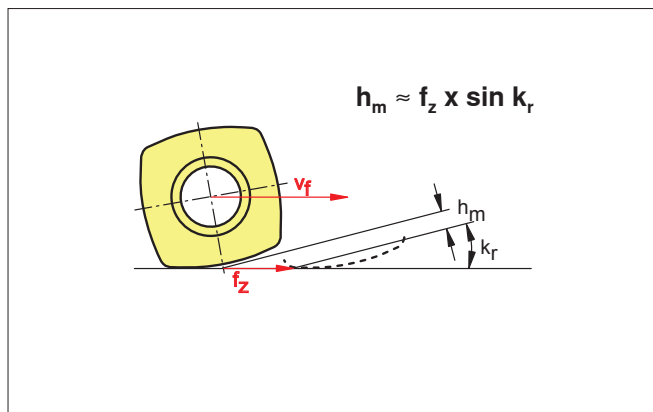
Systems for high feed rates with approach angle $k_r = 15^\circ$
The axial forces produced are directed towards the machine spindle:

$$F_r \ll F_a$$

F_a = axial force on the spindle

F_r = radial force on the spindle

F_{res} = resulting force on the spindle



○ Small approach angle k_r

k_r between 15 and 20°!

○ Low to medium chip thickness h_m

The smaller the approach angle, the lower the medium chip thickness.

○ High feed rate per tooth f_z

In order to reach a regular medium chip thickness, the feed rate per tooth has to be increased.

Thanks to the small approach angle reducing chip thickness, high feed per tooth and high metal removal rates are possible, even with small depths of cut.