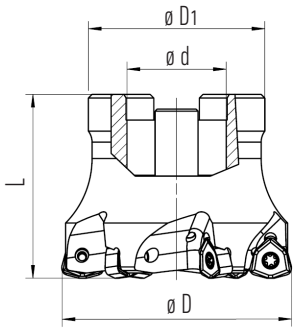
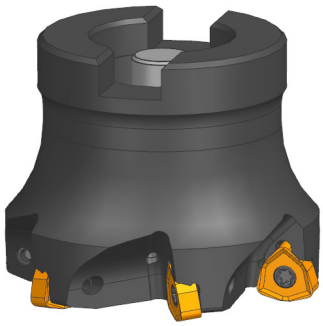
HFC mill F4180

TRI-CUT

- excellent miling performance for stronger machines
- negative inserts with 6 edges
- for a wide range of milling operations
- optimized body with surface treatment
- internal cooling





Arbor mounting

Order code	Dimensions (mm)					Ap max. (mm)	Insert	Insert screw	Key	Torque value (Nm)	Stock
	D	d	D1	L	z						
F4180.50.N22.50.1,5.Z5.C	50	22	46	50	5	1,3	WNMX09	ITS3006	ITK10	2	●
F4180.52.N22.50.1,5.Z5.C	52	22	46	50	5						●
F4180.63.N27.50.1,5.Z6.C	63	27	48	50	6						●
F4180.66.N27.50.1,5.Z6.C	66	27	48	50	6						●
F4180.80.N27.55.1,5.Z7.C	80	27	60	55	7						●

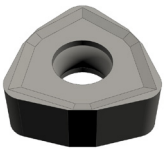
● = stock item

Overview of suitable inserts

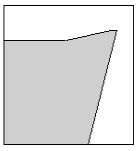
Order code	P	M	K	S	H
WNMX09T316-SS PKU25	○	○	○	○	○
WNMX09T316-SS PKU35	○	○	○	○	○
WNMX09T316-SS PKU36	●	●	●	●	●
WNMX09T316-SS PKT48	○	○	○	○	
WNMX09T316-SG PKU25	○	○	○	○	○
WNMX09T316-SG PKU26	○	○	○	○	○
WNMX09T316-SG PKU35	●	●	●	●	●
WNMX09T316-SG PKU36	○	○	○	○	○
WNMX09T316-SG PKT48	○	○	○	○	

● = stock item ○ = available under request

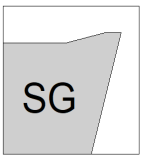
Insert reference
WNMX09T316

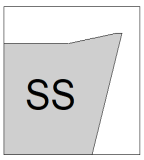


Blade shape



solid cutting edge for roughing steel, stainless steel and cast

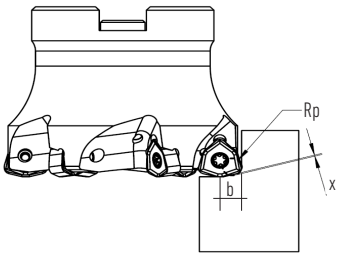




SG-solid cutting edge for roughing steel, stainless steel and cast iron

SS-low cutting force for medium machining of stainless steel and cast iron

Insert reference	Program		
	Rp	x	b
WNMX09T316	2,5	0,6	4,7



HFC mill F4180

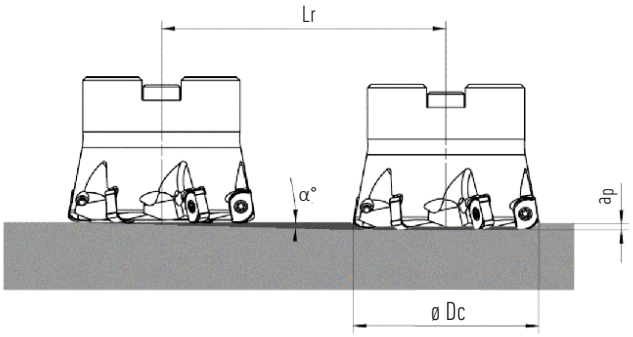
TRI-CUT

Recommended cutting conditions

		Insert reference WNMX09T316		
		Cutting speed Vc (m/min.)	Feed fz (mm/t)	Chip depth Ap (mm)
P	Unalloyed steel	180 - 250	0,4 - 1,15	0,4 - 1,35
	Low-alloyed steel	160 - 230		
	High-alloyed steel	120 - 220		
M	SS - Ferritic / Martensitic	140 - 210	0,5 - 1,2	0,4 - 1,0
	SS - Austenitic	120 - 170		
	SS - austenitic - ferritic (Duplex)	100 - 150		
K	Grey cast iron	160 - 250	0,4 -1,5	0,4 - 1,35
	Malleable cast Iron	140 - 250		
		120 - 210		
S	Superalloys	40 - 100	0,4 - 1,0	0,4 - 1,0
H	Hard materials (+40 HRC)	50 - 100	0,4 -1,1	0,4 - 1,0

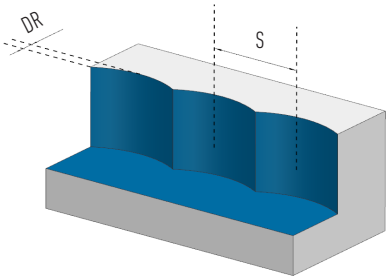
Ramping

Ø Dc	Ramping		
	Max Ramp a°	Max ap	Min Lr
50	2	1,35	48,7
52	1,9	1,35	40,7
63	1,5	1,35	51,7
66	1,4	1,35	54,7
80	1,1	1,35	68,7



Plunging

L≤3Dc	L>3Dc	S max.
fz (mm/t)		
0,10-0,20	0,07-0,14	Smax = √D.DR-DR^2



DR (mm)	S max and DR corresponding to Dc(mm)				
	Dc (mm)				
	50	52	63	66	80
1,0	7,0	7,1	7,9	8,1	8,9
2,0	9,8	10,0	11,0	11,3	12,5
3,0	11,9	12,1	13,4	13,7	15,2
4,0	13,6	13,9	15,4	15,7	17,4
5,0	15,0	15,3	17,0	17,5	19,4
6,0	16,2	16,6	18,5	19,0	21,1
7,0	17,3	17,7	19,8	20,3	22,6
8,0	18,3	18,8	21,0	21,5	24,0
9,0	19,2	19,7	22,0	22,6	25,3
10,0	20,2	20,5	23,0	23,7	26,5