

MaxiMill 273-06

Redefine economic machining!



ZD/rd 03-2009

MaxiMill 273-06

Targets of development



- 16 effective cutting edges
- Pitch as narrow as possible
- Minimum power consumption
- General use for face milling plus automotive applications

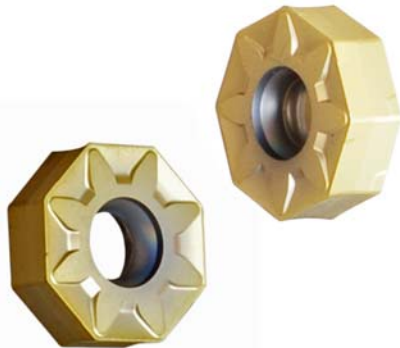
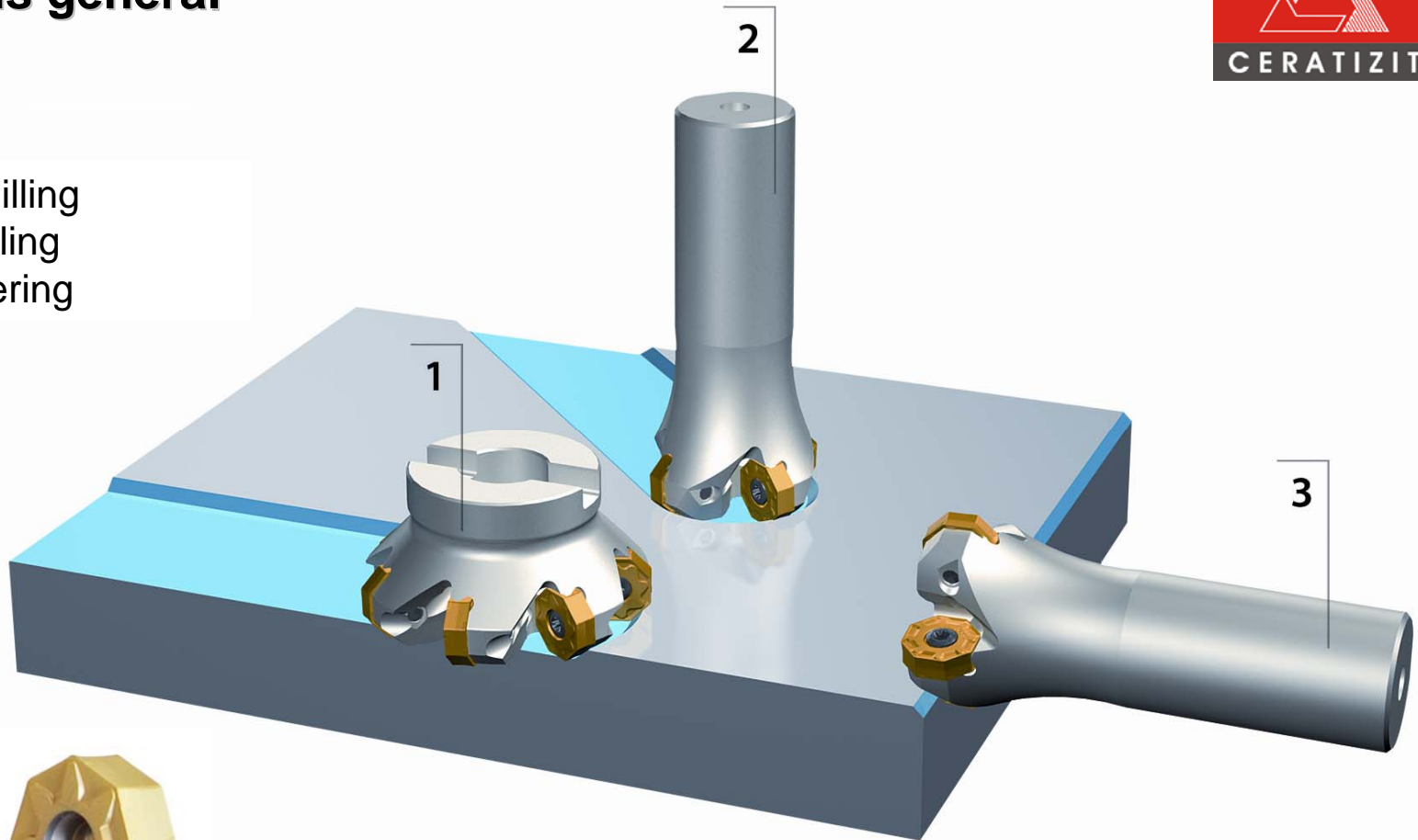


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Applications general



1. Face milling
2. Slot milling
3. Chamfering



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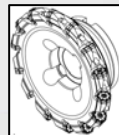
System advantages



Maximum Economy
thanks to 16 cutting edges
thanks to integrated finishing edge

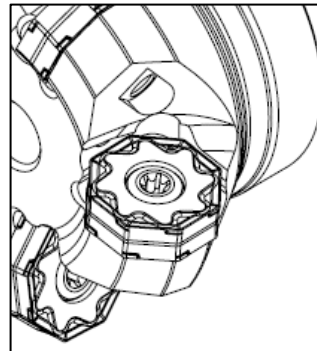


- extra close pitch for machining cast iron
- normal pitch for machining steel



High process reliability
even in unmanned shifts

- HyperCoat coating
- tool coating „hard & tough“
- high stability

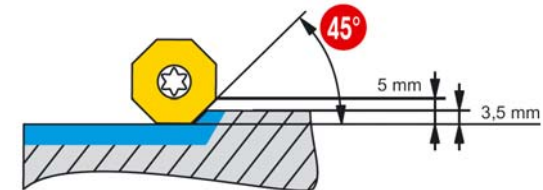


**Minimum power consumption
and quiet machining**

- clearance angle
 - positive mounting situation of the cutting edge
- The tool is running very quiet
and is consuming less machine power

High precision, maximum DOC

- approach angle $44,6^\circ$
- maximum DOC 3,5 resp. 5 mm



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Details of insert

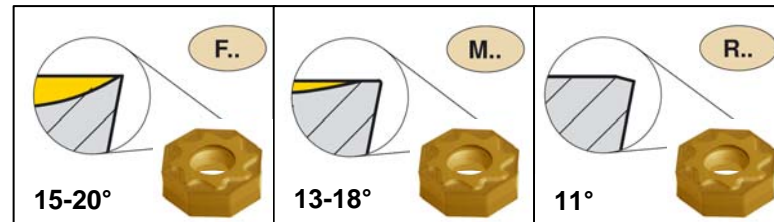
- 16 cutting edges →
- „Masterfinish“ cutting edge →
- Clearance angle →



- Grades with HyperCoat coating



- Chip grooves for machining steel, and cast iron



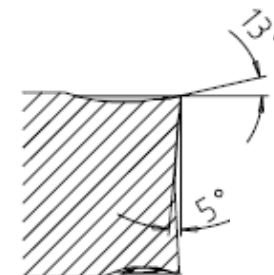
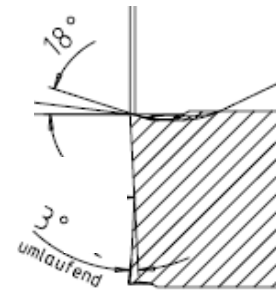
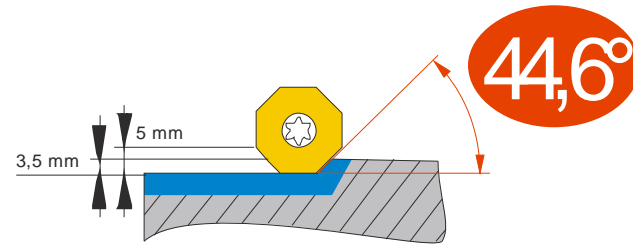
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Details of insert

- Approach angle $44,6^\circ$ (\varnothing 40 mm: $44,7^\circ$)
- Maximum DOC is 3,5 mm
(using all cutting edges and *Masterfinish* edges)
- Maximum DOC is 5,0 mm
(using all cutting edges and „minus 2“ *Masterfinish* edges)
- Chip groove/geometry (e.g. M50)

- *Masterfinish* cutting edge
length 2,0 mm

- Clearance angle 3°
(5° at the *Masterfinish* edge)

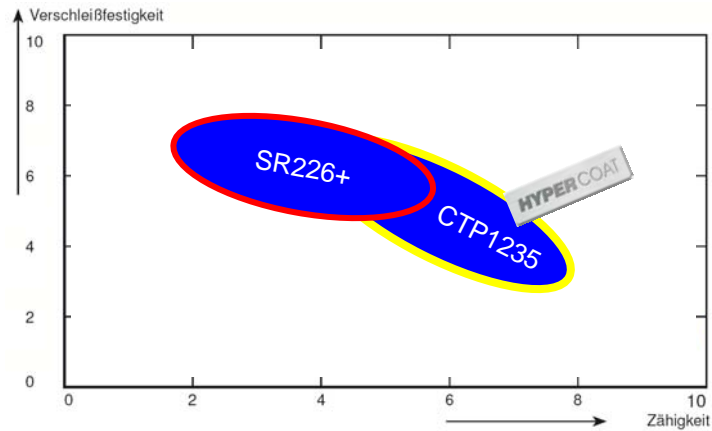


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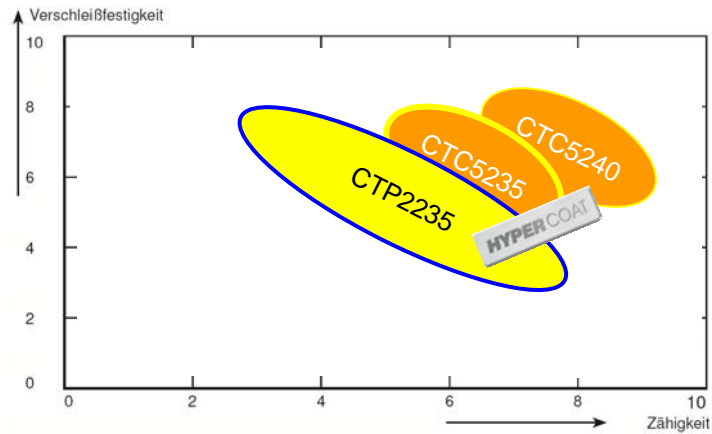
Details of insert



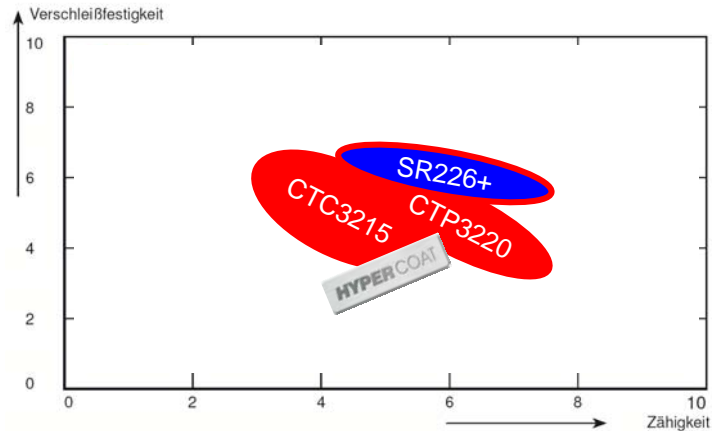
● grades for steel



● grades for stainless steel, heat resistant alloy and titanium alloy



● grades for cast iron



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Details of tool



- **Normal and extra close pitch**
e.g. Ø 100 mm: z10 and z14
- **Coolant bore in all milling cutters**
except A273.40 (z=4)
custom-made for
„Minimum Quantity Lubrication“
- **Coating „hard & tough“** hard & tough
Deposition in CERATIZIT own equipment
- **Position of insert positive**
Rake angle in mounting position
= +8,5° - (+15,5°)



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Customer benefits

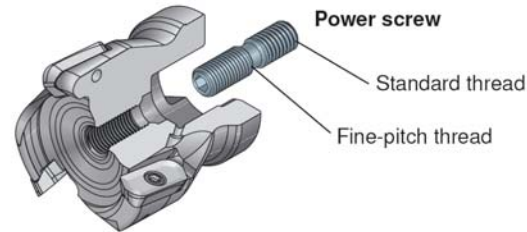


- **16 cutting edges**
decrease of handling cost
- **„Masterfinish“ edge**
no additional finishing process necessary
- **Approach angle**
reduction of machining cost
- **Wide insert program**
cost reduction thanks to flexibility
- **HyperCoat insert** HYPERC OAT
process reliability means no loss of production
- **Extra close pitch**
reduces the machining time on cast iron
- **Normal pitch**
allows the economic machining of steel
- **„hard & tough“ coating** hard & tough
stands for a plus in production reliability



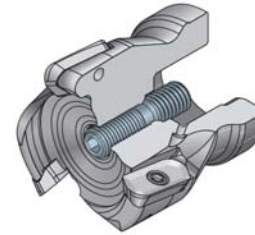
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The PowerScrew



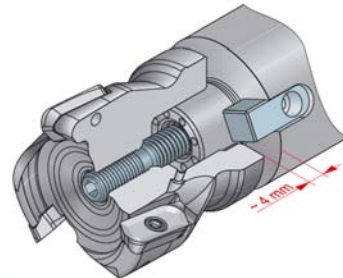
1

The fine-pitch part of the power screw is threaded into the milling cutter



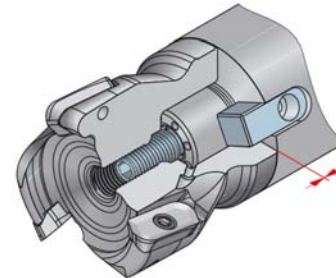
2

Turn the power screw carefully until the stop (as screw was delivered)



3

In order to guarantee an optimum connection of tool and shank a gap of 4 mm is required between cutter body and adapter prior to final clamping.
Using standardized adapters this is automatically guaranteed.
If necessary, you can readjust by means of the power screw with 0.5 mm/revolution.



4

Turn power screw

Torque:

$\varnothing d_1 = 40 \text{ mm} \rightarrow 15 \text{ Nm!}$

$\varnothing d_1 = 50 \text{ mm} \rightarrow 20 \text{ Nm!}$

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System program

Initial program

Ø	unequal pitch	z	equal pitch	z
	screw clamping		wedge clamping	
32	C273.32.R.03-06-B-40	3		
40	C273.40.R.04-06-B-50	4		
40	A273.40.R.03-06	3		
40	A273.40.R.04-06	4		
50	A273.50.R.05-06	5		
63	A273.63.R.07-06	7		
80	A273.80.R.08-06	8	A273.80.R.12-06	12
100	A273.100.R.10-06	10	A273.100.R.14-06	14
125	A273.125.R.11-06	11	A273.125.R.20-06	20
160	A273.160.R.12-06	12	A273.160.R.26-06	26
200			A273.200.R.32-06	32

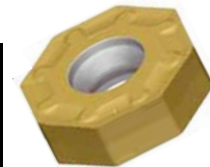


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- 2 = Indexable milling cutter
- 7 = 45° face milling cutter
- 3 = Release (270, 271, 272, 273 ...)
- 06 = Length of cutting edge

Initial program

	CTP1235	SR226+	CTP2235	CTC3215	CTP3220	CTC5235	CTC5240
OAKU 060508SR-M50	X	X	X	X	X		
OAKU 060508SR-R50				X	X		
OAKU 060508SR-F50	X	X	X				
OAKU 060508SR-F40						X	X



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Cutting data



Maximale Schnittdaten / maximum cutting parameters

v_c siehe auch: "Schnittdatenrichtwerte Sorten/Werkstoff"

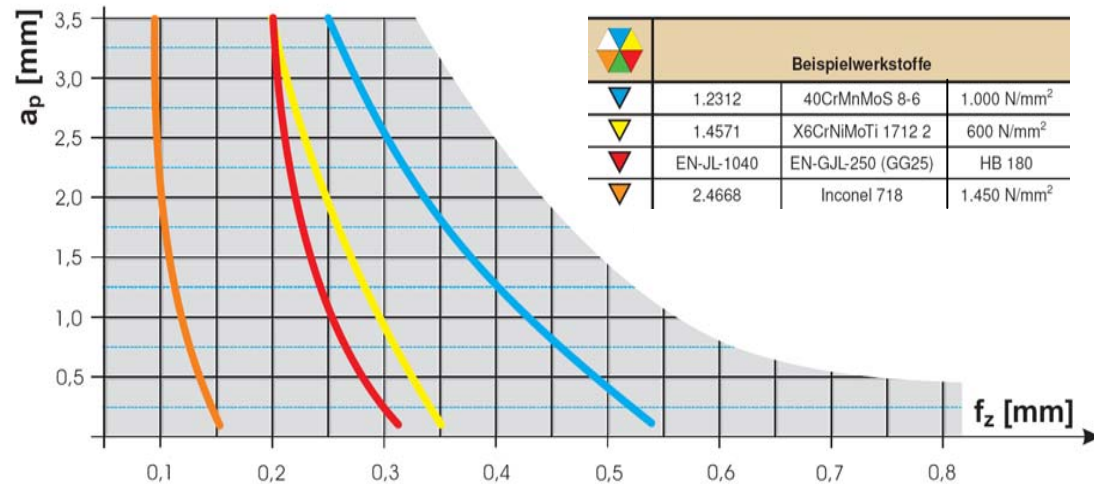
v_c see also "Cutting data Grades, material"

	v_c (m/min)	f_z (mm)	a_p (mm)
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	350 - 60	0,05 - 0,8	0,2 - 3,5
	250 - 40	0,05 - 0,4	0,2 - 3,5
	280 - 70	0,05 - 0,4	0,2 - 3,5
	100 - 10	0,05 - 0,15	0,2 - 3,5

Startparameter / initial parameters

alle Werte auf den farbigen Linien sind optimale Startwerte

all values on the coloured lines are optimum initial data



MaxiMill 273-06 Competition



Iscar
F45WG/NM
Helido



Sandvik
R365
CoroMill



Iscar
SOF45/SOE45
8/16 Mill



Valenite-Safety
V560



Kennametal
Hoffmann
KSHR 12
DoDeKa



Seco
R220.48
Double Octomill



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Exhibition – „NEWS“

NEW! MAXIMILL 273 – THE MOST ECONOMICAL TOOL AVAILABLE

Rough and finish milling up to max. cutting depth of 3.5 mm.
Integrated Masterfinish cutting edge ensures clean surfaces

THE ADVANTAGES IN DETAIL

16 cutting edges!

Easy handling

For a wide range of materials



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Exhibition - Poster



MaxiMill 273 

The most economical tool available



The image shows the MaxiMill 273 tool, a large cylindrical end mill with a complex, multi-fluted design. It is surrounded by several smaller, yellow-tipped inserts. The tool and inserts are set against a dark red background with a reflective surface.

- 16 cutting edges!
- Easy handling
- For a wide range of materials


hard material matters