

Product expertise

Milling

_ EXPERTISE IN MACHINING

M4000 – High performance made universal.





COMPREHENSIVE **EXPERTISE IN ONE** UNIVERSAL SYSTEM.



 $a_{pmax} = 0.039 / 0.059 / 0.078$ inch (1.0 / 1.5 / 2.0 mm)

M4002



M4132 shoulder milling cutter Ø 0.625-5.000 inch (16-125 mm)

 $a_{pmax} = 0.220 / 0.331 / 0.457$ inch (5.6 / 8.4 / 11.6 mm)

Shoulder milling M4132 shoulder milling cutter



Shoulder milling M4132 shoulder

milling cutter



Face milling M4002 high-feed milling cutter



M4002 high-feed milling cutter M4792 routing cutter



T-slot milling M4575 T-slot milling cutter



M4002 high-feed milling cutter M4792 routing cutter



Circular interpolation

M4002 high-feed milling cutter M4792 routing cutter



M4002 high-feed milling cutter M4792 routing cutter



M4132 shoulder milling cutter M4792 routing cutter



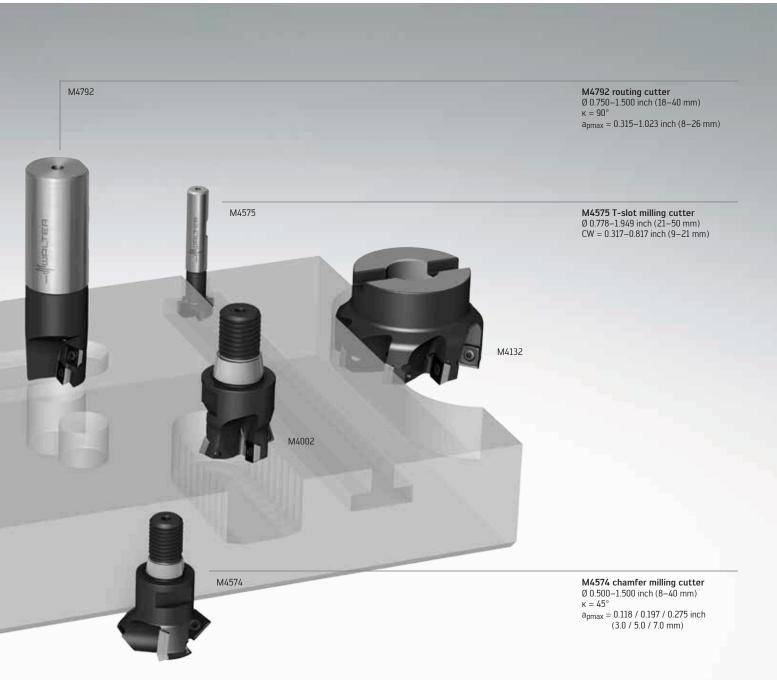
back chamfering

M4574 chamfer milling cutter



M4792 routing cutter





FIND SUCCESS IN PERFORMANCE AND COST EFFICIENCY

M4000 is the universal system for all users who want to have as many options as possible when milling. The M4000 range can master all machining tasks with one type of indexable insert. Whether it is a shoulder milling cutter, high-feed cutter, chamfer milling cutter, T-slot milling cutter or routing cutter, the square system indexable inserts can be used across the entire M4000 range. For routing, the range also has an additional rhombic indexable insert.

The low storage and procurement costs clearly indicate that this system places particular emphasis on cost efficiency. Efficiency is also maximized thanks to extremely easy handling and impressive performance data across the M4000 tool family.

And the same universality provides benefits in terms of easy handling and the impressive performance data that M4000 tools can produce. That's because they ensure a maximum level of efficiency.

SIMPLE CONCEPT, INSPIRATIONAL PERFORMANCE.



System indexable inserts: SD..06T2.. / SD..09T3.. and SD..1204..

powered by Tiger-tec® Silver
– Square, positive basic shape

- Ground support surface
- A variety of different grades and geometries



New indexable insert sizes SD..06T2.. and SD..1204..



M4132 shoulder milling cutter

Can also be fitted with optional specially adapted indexable inserts

Fully circumference-ground with facet:
 For optimum precision on the workpiece



New indexable insert sizes and milling bodies

 $a_{pmax} = 0.221$ and 0.456 inch (5.6 and 11.6 mm)



M4574 chamfer milling cutter

Application information on all M4000 tools

 The Walter Tool-ID and important additional information even appear on tools with small cutting diameters



New indexable insert sizes and milling bodies

 $a_{pmax} = 0.118$ and 0.275 inch (3.0 and 7.0 mm)



M4002 high-feed milling cutter

Can also be fitted with optional specially adapted indexable inserts

- Circumference-sintered with facet:
 For improved surfaces
- Circumference-sintered with large corner radius: For maximum cutting edge stability

New indexable insert sizes and milling bodies



 $a_{pmax} = 0.039$ and 0.078 (3.0 mm and 2.0 mm)

ONE SYSTEM INSERT FOR FIVE TYPES OF MILLING CUTTERS

Walter's tool bodies and indexable inserts are used wherever process reliability really counts. The M4000 range makes no compromises in this regard either. The distinct advantage begins with the cutting material. Almost every machining process can be carried out efficiently using the entire force of the system indexable inserts.

The complete M4000 range, including all tools that will be available in the future, can be fitted with the universal system inserts in three different sizes.

But the M4000 system can do much more. It is a universal system that can also accommodate special indexable inserts for special applications.

This can be seen in the inclusion in the range of a circumference-sintered insert with facet for optimized surface quality when using the high-feed milling cutter; an additional variant with a large corner radius provides maximum cutting edge stability. A fully circumference-ground indexable insert with additional facet is available for the M4132 shoulder milling cutter too. The result of such a configuration is maximum precision.



M4575 T-slot milling cutter Here, the square system insert is

- being used: For creating T-slots in accordance with DIN 650
- With internal cooling

M4792 routing cutter

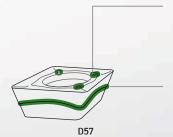
In addition to square system inserts, the rhombic leading inserts are used in this milling cutter:

- Tool cuts over centerParticularly suitable for creating slots and pockets

An additional performance gain for the M4000 routing cutters: For this tool, circumference-sintered, leading inserts are available in a rhombic shape, each with two cutting edges.

Flank face design for faster identification:

The M4000 system inserts can be identified at a glance because of their unique wave profile on the flank face. In addition, they also carry indicators on the rake face. These can be used as an aid to orientation when changing cutting edges.

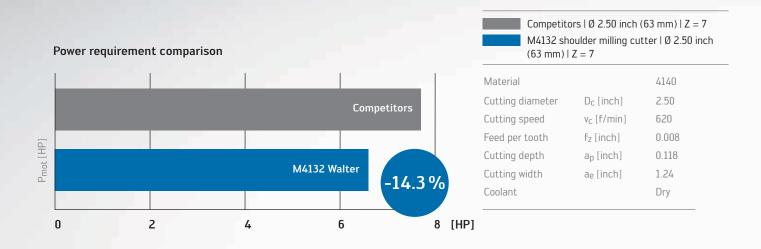


Identification markings for the four cutting edges

The different geometries are easy to identify visually:

- A57 The special one = no wave
- D57 The stable one = 1 wave
- F57 The universal one = 2 waves

INCREASED RESPONSIBILITY, REDUCED POWER REQUIREMENT.



M4000 - SUSTAINABLY IMPRESSIVE

As costs and environmental issues often go hand in hand, it is worth taking a closer look, particularly at power requirements. Today, constantly rising energy costs call for tools in a totally new efficiency class: At the least as powerful as earlier tools, while at the same time, more cost-efficient and environmentally compatible than ever before. The M4000 can meet that ambitious objective with impressive measured values.

Extensive tests have shown:

The cutting material costs per component can be reduced by up to 50%. Examples of tool life that are up to 130% higher than those of commonly manufactured competitor products spell this out quite clearly.

In comparison to other tools, it was also possible to significantly reduce the power requirement when using the M4000 range. Easy-cutting geometries, an increased clearance angle and

an optimized installation position are important design features which allow the use of energy to be consumed sparingly in the production environment. The savings potential that has been proven in field testing is over 14%. As a result, the M4000 system makes a valuable contribution to creating production operations that save more resources and, at the same time, are more cost efficient.



THINKING AHEAD MEANS: COMPENSATING FOR CO₂ IN YOUR ACTIONS

High environmental standards have been firmly anchored in Walter's company culture for many years. Using the M4000, Walter and its renowned partner FirstClimate* have now shown that this powerful tool system can be manufactured with 100% $\rm CO_2$ compensation. Together with FirstClimate, Walter has balanced and documented the complete $\rm CO_2$ requirement according to ISO 14064. Along the entire production and supply chain: From raw material procurement to development and manufacture to packing and warehousing. The $\rm CO_2$ balance determined in this way is used as the binding basis for the Walter Green Compensation project on Borneo's southern coast: The aim of the project is nothing less than to maintain the Tanjung Puting National Park.

The acquisition of the land use rights along the park boundaries helps to prevent deforestation in favor of palm oil plantations. Walter Green supports continuous afforestation and is able to make an important contribution to protecting the habitat of the endangered orangutans.

*Information at: www.firstclimate.com

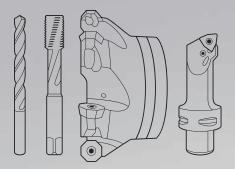


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