

leitz

The Leitz Powerpack

Performance improving machining processes
and technologies for woodworking



Eight modules for your success

Leitz offers an eight-part service package, which makes production processes faster, more flexible and more cost-effective, while maintaining the best machining quality. The following tool and technology modules can be individually combined for optimum results.



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1 Innovative tool systems



Profiling

Customised solutions for every requirement.

YOUR BENEFITS

- Shortened machining times
- Perfect cutting quality during the entire tool life
- Long tool life
- Minimum set-up time
- Easy handling

AT A GLANCE

- One-way and resharpenable continuous systems
- Carbide and diamond cutting edges
- Profile cutting edges in combination with standard reversible cutting edges
- Light metal body with high-performance functional coating

Example of a profile tool

Routing

Rough-finishing router with Marathon coating.

YOUR BENEFITS

- Saving of working steps with rough-finishing design
- High feed speed
- Long tool life
- Low process costs

AT A GLANCE

- Solid tungsten carbide design with Marathon high-performance coating

Boring

Solid tungsten carbide spiral drill with Marathon coating.

YOUR BENEFITS

- Up to 50 % higher feed rates
- Short cycle times
- Tight fit of the dowels due to precisely fitting holes
- Clean hole edges for visible holes at the entry point
- High process reliability

AT A GLANCE

- No need for intermediate emptying
- Tool geometry for optimal chip ejection
- Precise drilling even on sloping surfaces



PRODUCTIVITY



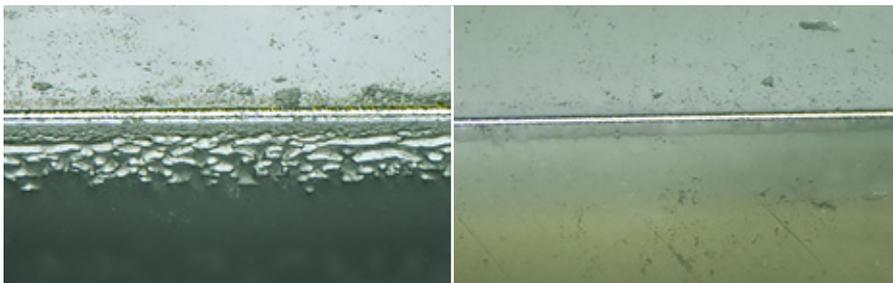
EFFICIENCY

2 High-performance coating

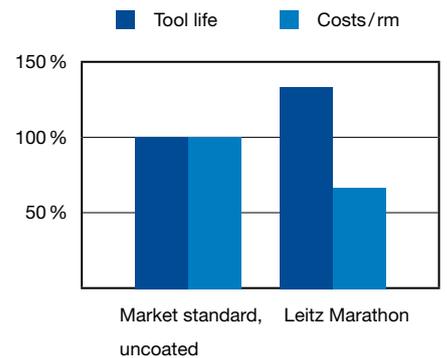


For highest performance and cutting quality

The Marathon high-performance coating for profiled cutters, routers and drills extends the tool life by at least 30 percent and ensures a consistently excellent cutting quality. This saves resources, costs are lowered and machine downtimes are reduced.



Comparison after identical running performance: The uncoated knife (left) shows heavy washouts in the carbide, while the Marathon knife (right) has an intact cutting edge and surface



YOUR BENEFITS

- Resource-friendly through 30% longer tool life at least
- Shorter machine downtimes
- Lower running costs

AT A GLANCE

- Standard for all ProfilCut Q tools
- Use with profile knives, reversible knives, routers and drills



3

RipTec

In the end grain machining and pre-cutting during planing

Even with strongly pre-splitting woods, twisted growth or incoming branches a Leitz innovation provides the optimum surface finish: RipTec pre-cutting reduces the reject rate to almost zero. This technology significantly increases the feed rate and decisively improves the productivity of every system. Compared to smooth profiling, the small glue lines created by the corrugated profile provide increased joint tightness and considerably more stable corner joints. The tool life of the tools increases significantly.



Surface without and with RipTec



Extremely tight joint at the edge and highest strength of the joint



Typical surface with RipTec, without tear-out

YOUR BENEFITS

- 30 % longer tool life
- 30 % higher feed speeds
- Reduction of the reject rate to almost zero
- Particularly stable corner joint

AT A GLANCE

- Ideal for the production of frame corner joints, in end-grain machining and for rough planing
- Can be used in profile and planing tools

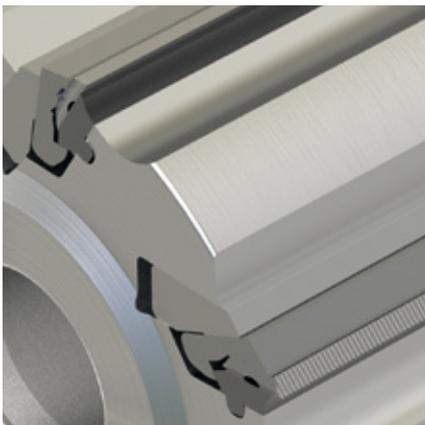
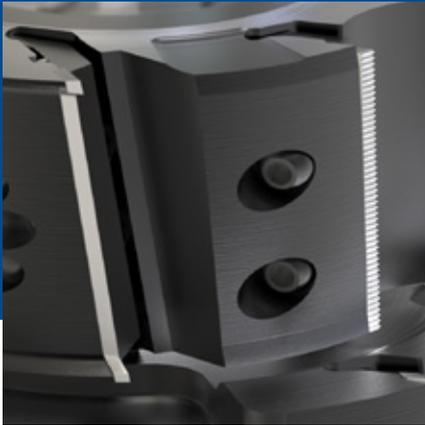


QUALITY



PRODUCTIVITY

4 Integral technology



Pre-cutting and finish cutting edge in one tool



Integrated pre-cutting during lengthwise cutting

Integral technology is the combination of a RipTec cutting edge for pre-cutting and a finishing cutting edge in one tool. The unique feature is the specialized arrangement of both knives: the finish knife, positioned directly behind the pre-cutting knife, takes on the role of finish processing. This optimum division of work extends the tool life of the finish cutting edges by 20 to 30 percent.

YOUR BENEFITS

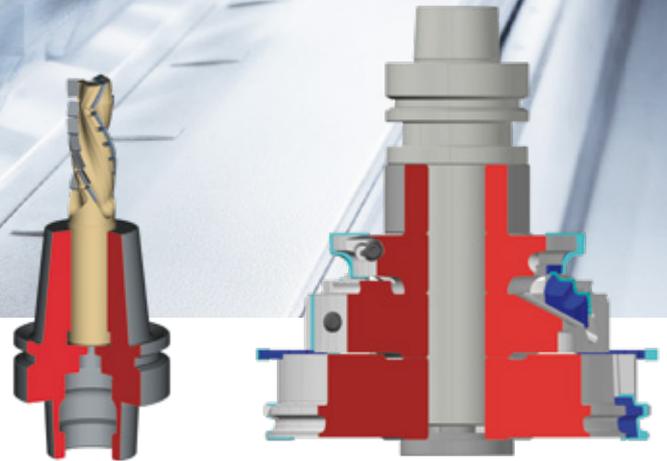
- Optimal finish quality
- At least 20 % longer tool life of the finish cutting edge

AT A GLANCE

- Pre- and finish cutting in one tool
- Can be used in profiling and planing tools
- Perfect for visible profiles



5 High Speed Cutting

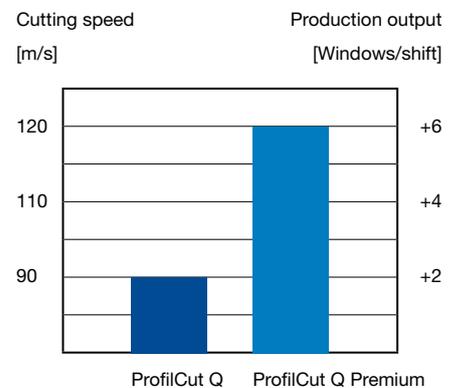


The fastest profile tool system in the industry

ProfilCut Q Premium is the ultimate solution for companies that want to get more out of their production. With cutting speeds of up to 120 m/s, it is the fastest tooling system in the industry. The resulting reduction in milling time saves users time and money.

Clearance-free tool clamping for maximum performance

ShrinkFit clamping technology overcomes the limits of conventional tool clamping. The tool is connected to the shrink clamping arbor or the ThermoGrip® shrink chuck as if they were cast in one piece. This allows for maximum speeds, longer tool life and precise cuts even with high cutting forces. The higher concentricity quality is also noticeable in the form of optimum cutting quality.



Productivity increase of up to 20% with High Speed Cutting (starting point 30 windows per shift, cutting speed 80 m/s)

YOUR BENEFITS

- Up to 50 % shorter milling time
- Optimal finish quality
- Long tool life
- Maximum cutting performance

AT A GLANCE

- Cutting speeds (v_c) up to 120 m/s with shrinking arbor for boring tools
- ThermoGrip® shrink chuck for shank tools

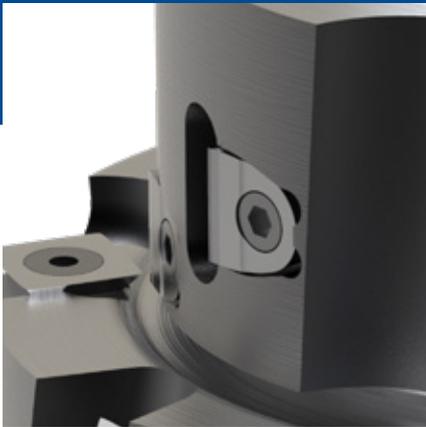


PRODUCTIVITY

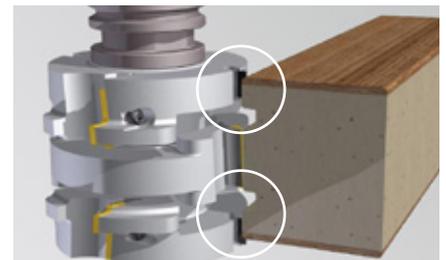
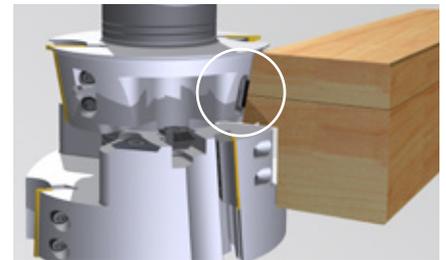


EFFICIENCY

6 Hybrid technology



Diamond cutting edge



Efficient machining of glue joints and abrasive surface layers with the hybrid technology

Multifunction in perfection

The hybrid technology combines two cutting materials and thus reduces the costs significantly when machining composites, glue joints and abrasive coatings. This saving is achieved through the combination of carbide tool systems with diamond cutting edges. This reduces the wear on the cutting edges enormously.

The diamond cutting edge acts as a protective edge for the carbide blade and thus decisively extends its tool life. For the user this means consistently high quality over a long product life cycle. A reduction in rework and scrap rates, as well as reduced set-up times further reduce production costs noticeably.

YOUR BENEFITS

- Resource-friendly through 50 % longer tool life of the tungsten carbide knives
- Consistently high quality
- Reduction in rework

AT A GLANCE

- Use in the area of glue joints and abrasive surface layers
- Combination of tungsten carbide and diamond tool systems



QUALITY

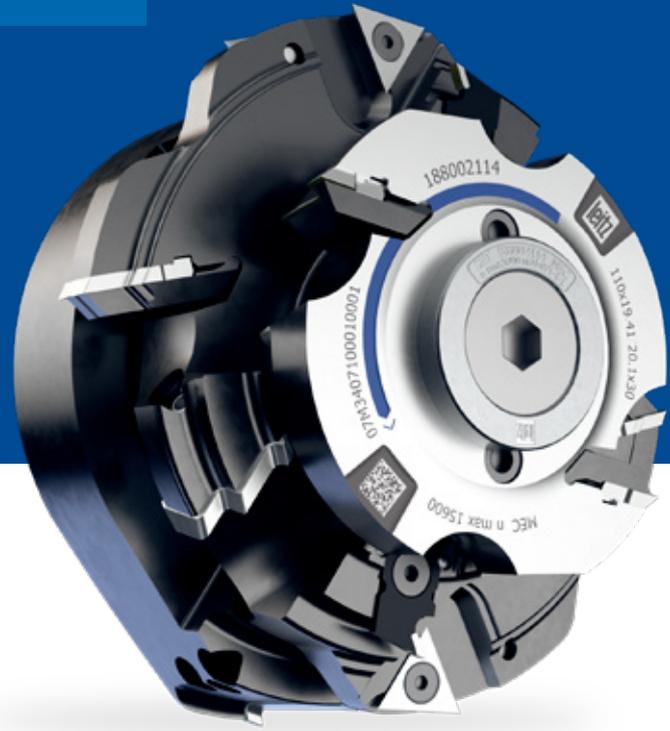


SUSTAINABILITY

7 Smart tools



Data Matrix coding
is standard with ProfilCut Q



Definite tool recognition

A serial number that can be read automatically via RFID transponders or Data Matrix codes each individual tool can be identified. This definite serial number is the key to tool-specific information or additional tool management functions.

Integrated memory chips contain important geometrical and technological data such as length, diameter, speed and direction of rotation of the tools. The data are read in automatically. Errors due to manual input are thus eliminated. Even after sharpening, the tool data are automatically adjusted. This means fewer missing parts.



RFID memory chips can be integrated into the tool

YOUR BENEFITS

- Maximum operational safety
- Shorter set-up times even for resharpenable tools

AT A GLANCE

- Data Matrix Code or RFID chip for networked communication
- Basis for digitalised manufacturing



RELIABILITY



EFFICIENCY

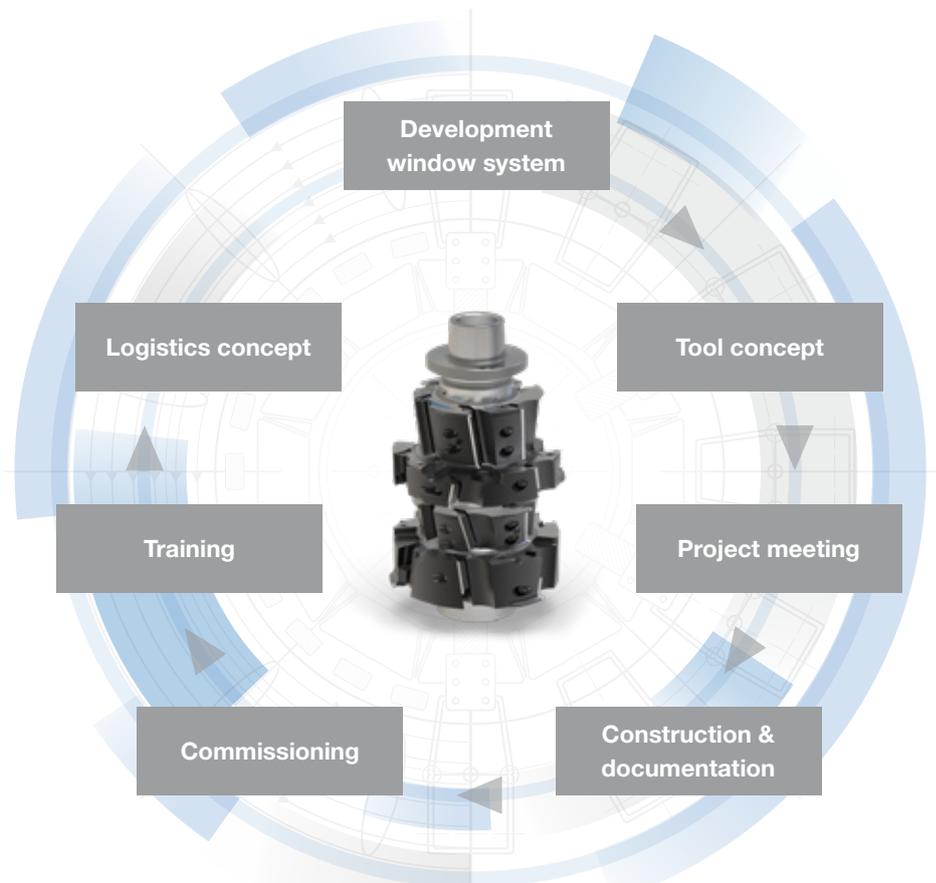
8 Leitz engineering



More than just tools

Those who want to have a head start even in the planning phase against growing international competition can count on Leitz. As a competent partner we provide economic, customised solutions for every project.

Ask us, our application engineers will find together with you the optimal solution to achieve your project goals – from a sustainable sales product through to successful implementation in production including analysis and optimisation of processes.



YOUR BENEFITS

- Customised solutions for every application
- Competent contact persons
- Shorter project times

AT A GLANCE

- Consulting and analysis
- Planning and design
- Tested system solutions
- Comprehensive technical documentation





**Your contact partner
on site:**

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visit www.leitz.org.

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