PowerPack by Leitz

Efficiency and quality when producing windows and doors

- Ripple technology
- Integral solution
- High-speed cutting
- Innovative tooling systems
- Functional coating
- Hybrid flexibility
- Industry 4.0 compatible
- Consultative approach
Leitz RipTec technology for planing and cutting across the grain

Leitz RipTec handles difficult-to-machine wood prone to pre-splitting and knots with unmatched finish quality, reducing the reject rate to nearly zero. Ideally used as a pre-planing tool, this innovative technique has proven to increase feed rate and finish quality while reducing rejects and rework. Used in slot and tenon applications, RipTec offers benefits far beyond tooling. The innovative ripple design reduces blow-out and increases knife life, and the micro-V’s in the ripple profile help to increase the strength and stability of slot and tenon joints—further improving the end product.

Leitz Integral technology for cutting along the grain

Ripple and finish edges in one tool provide the best combination for performance and quality. Strategic arrangement of the pre-cutting ripple knives extend the life of finish knives by 30%. They sever the grain fibers and prepare the wood for an unmatched finish.

Problem: Tear-outs on the surface
Solution: Pre-cutting with Leitz RipTec

Maximum joint strength

- Rejects reduced to nearly zero
- 30% increased tool life
- 30% faster feed rate
- Significantly improved product quality
Leitz ProfiCut Q Premium

Leitz ProfiCut Q Premium represents the latest version of the ProfiCut system and sets the new benchmark in cutting speed and quality. The knives and clamping system have been re-designed to surpass the old standard by 50% with a wave of innovation and technology. At 120m/sec cutting speed, ProfiCut Q Premium is the unchallenged leader in insert tooling technology. Higher cutting speed means faster processing speed and greater through-put. The unique design ensures knives stay locked in place.

Leitz ThermoGrip

Concentricity and balance quality are crucial elements of superior tool design. Leitz ThermoGrip is the leading technology to join the machine interface and the cutting tool as “one piece”. This results in a highly accurate, durable and economic tooling system which is able to achieve higher rpm and feed rate with unmatched finish quality.

HSC-TECHNOLOGY BY LEITZ:
PEAK PERFORMANCE AT HIGH SPEED

- Cutting speed up to 120 m/s
- 35% higher RPM
- Up to 50% higher feed rate
- 35% reduced cutting time

Leitz ThermoGrip

<table>
<thead>
<tr>
<th>Cutting speed vc [m/s]</th>
<th>Revenue [Mo. $/year]</th>
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<tr>
<td>130</td>
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<td>1.4</td>
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<td>60</td>
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Calculation based on an estimated production of 30 windows per working shift
Tailor-made versatility and know-how

The combination of resharpenable ProFix and ProFix C with disposable insert system, ProfilCut Q, means optimized solutions for your needs. The wide range of variation is as unique and diverse as our customers.

ProfilCut Marathon MC knives for best performance and cutting quality

Marathon high-performance coating prolongs knife life 25-200% longer than uncoated knives while maintaining cut quality.

MC coated router cutters—cost-effective right from the start

- Reduced processing time by combining roughing and finishing passes into one
- Increased productivity with higher feed rates
- Extended tool life
- Reduced machine downtime

New solid tungsten carbide spiral drills – fast, accurate and clean

- 30-50% longer tool life
- Reduced cycle time by eliminating peck-drilling
- Zero deflection
- No chipping at the entrance cut
- Optimized chip evacuation
- Precision drilling, even on angled surfaces

Aluminum alloy tools: less weight, more performance

- Precision balance = optimized finish quality
- Machine bearings are protected
- Closed-body tools = high-speed, quiet running
- Ideal for zero-tolerance assembly with Leitz ThermoGrip chucks and arbors
- Lightweight for easy, safe handling
- Steel Heli-Coil® thread inserts
- Corrosion-resistant tool bodies

Hard-coated tools for the toughest applications

- Hard-coated tool bodies are further protected from the dust generated in abrasive cutting applications
HYBRID TECHNOLOGY: PERFECTION BY LEITZ

- 50% extended life time of TC knives
- Consistent quality over the product life cycle
- Reduction of rework and reject rate
- Reduced set-up times

At Leitz, true hybrid technology involves combining and maximizing the user benefits of two tooling systems into one. For example, combining ProfilCut Q carbide insert tooling and diamond-tipped WhisperCut is a solution for machining glued-up profiles. This system utilizes DP knives to protect carbide inserts in glue lines, while MC-coated carbide knives provide the ideal finish in natural woods. This yields longer knife life, consistent quality, reduced set-up time, and decreased production costs.

Efficient processing of glue joints

...and abrasive coatings with Leitz hybrid tool systems
Leitz offers smart tools with integrated memory chips for use with industry 4.0-ready CNC machines. These chips are coded with all of the relevant tool geometry and technical data (lengths, diameters, rpm, rotation, etc.) and transfer the information to the machine. After reading the chips, the machine automatically updates the tool library. Changes in length and diameter due to sharpening are automatically synced with the machine, eliminating the chance for human error.

- Maximum operator safety through easy and secure handling
- Reduction of set-up costs
- Significant increase in productivity
Those who want to be one step ahead of growing international competition—from the planning phase through implementation—can rely on Leitz. As a dedicated partner, we approach projects with tailor-made, cost-effective solutions for the industrial production of modern window and door systems. We work closely as a team with the client, machine manufacturer and software developers.

Leitz is on the forefront of market trends, well-connected with leading testing agencies, component manufacturers and architects. We know what is required for quality window design and construction. Using this know-how, Leitz develops its own designs of different types of windows and is eager to pass this information on to manufacturers.

Don’t hesitate to ask—our application engineers can advise you on the best practices for your next project.
Leitz is your dependable partner

Leitz offers market-leading tool knowledge and technology and provides three components for your success:

- Innovative tooling systems that conserve resources and enhance quality for better production
- Customized, modular or comprehensive tool management for enhanced efficiency
- Excellent, reliable service for customers all around the world

Leitz Locations

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