

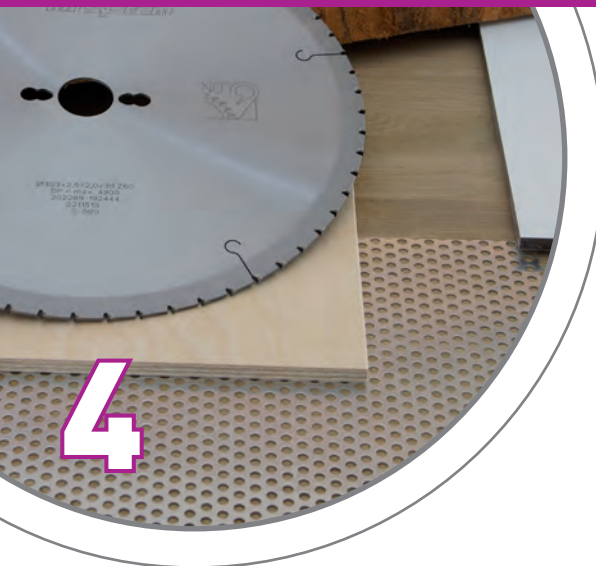
LEUCOline

H I G H L I G H T S 2 0 1 6

GOOD IDEAS

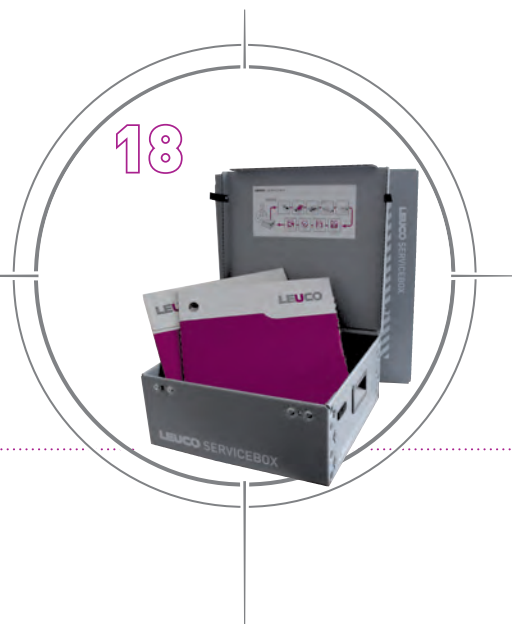
need

GOOD SOLUTIONS



LEUCO nn-System saw blades

From solid wood to plexiglas. Master carpenter Stefan Böning puts the saw blade through its paces.



LEUCO sharpening service

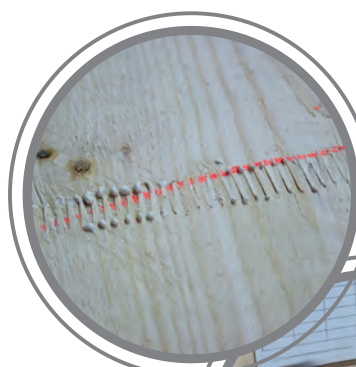
The ServiceBox means: Manufacturer-quality sharpening service with a flexible logistics concept.

LEUCO sharpening service with manufacturer quality

LEUCO has a worldwide network of large, state-of-the-art service centers. Take a look inside one of these service locations in Austria.



LEUCOline



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Good ideas need good solutions

Rubner Holzindustrie triples its service life with top-coated "HS Solid 34" finger jointing cutters.



8

Continuous processing

Which jointing cutter is right for which application? What effect does the axis angle have? What is the advantage of replaceable knives?



Good ideas need good solutions!

LEUCO helps manufacturer HocoHolz create a completely new, innovative joint concept thanks to professional consulting and precision diamond-tipped tools.

CONTENT

5-axis CNC processing

You can read how owners of 5-axis machines with smart tools can get more out of their equipment; see page

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GOOD IDEAS NEED GOOD SOLUTIONS

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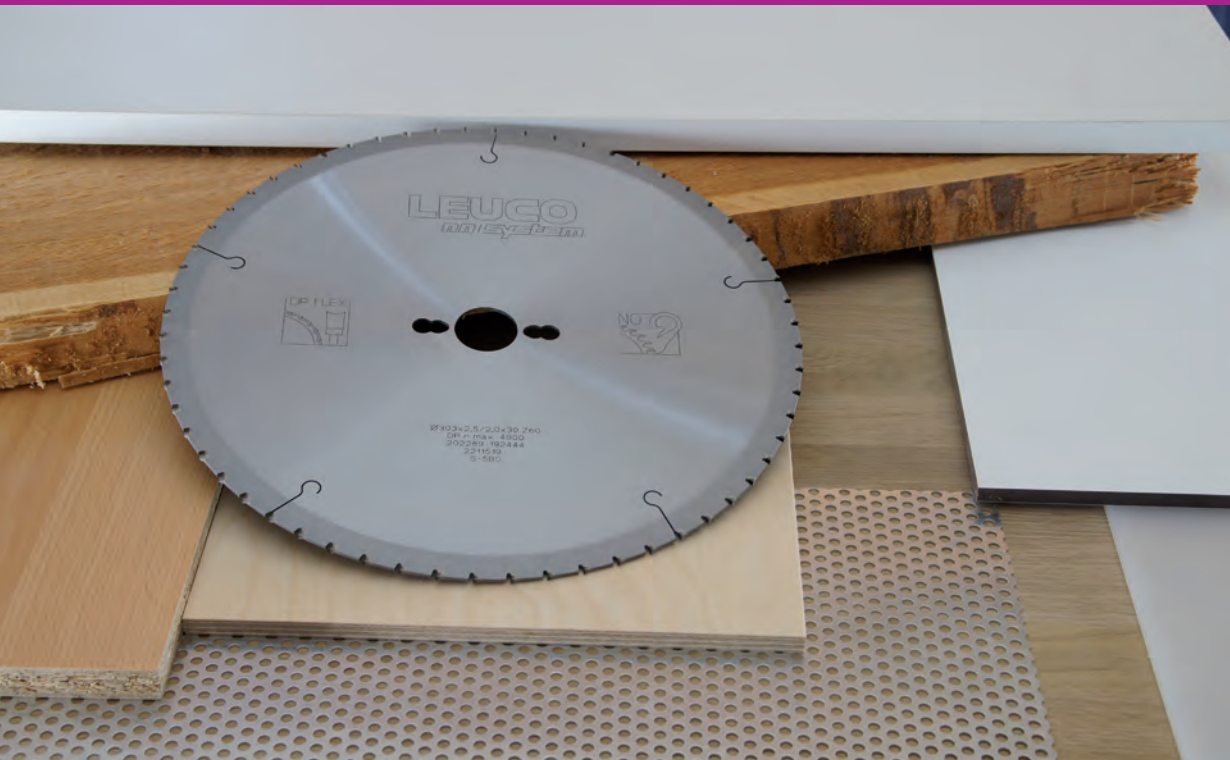
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INNOVATIVE | TREND-SETTING | RELIABLE



From solid wood to plexiglas: The NoNoise saw blade from LEUCO is suitable for cutting many different materials.

LEUCO Solutions

SHARP ON MORE THAN WOOD!

LEUCO's diamond-tipped NoNoise saw blade promises better cutting results, less noise and longer service life. Master carpenter Stefan Böning has put the saw blade through its paces.

One of the most elemental tasks in carpentry is cutting. Since the first circular saw was invented, the technology has stayed fundamentally unchanged. One round, rotating saw blade cuts all materials. However, the machine technology has dramatically advanced since the first circular saw machine. In addition to circular table saws, various machine models are available that are adapted to handling a variety of raw materials. They include panel saws, which enormously simplify separating panel materials horizontally or vertically, or edging and dividing saws designed and used for processing solid wood planks. Even handheld circular saws, and miter and assembly saws — which don't just ease the work of mobile carpenters at the construction site — are now available in a wide array of models. A second unit for scoring is built into many stationary saws and is meant to prevent tearing at the bottom of the workpiece. The processing center may also have a saw blade that doesn't just allow folding corners, but also cutting extremely sharp bevels. Both are examples of continuous development of material sawing technology in carpentry.

INFLUENCE OF MATERIALS

The materials that need to be sawed have a great influence on the development of saw technology. In many shops, countless new materials need to be sawed. Besides solid wood, panel materials from wood, shavings, MDF, lumber core, plywood or multiplex panels, artificial non-wood materials, such as laminates, solid-core and mineral-material panels are also cut on

the saw. Use of new materials places new demands on the tools. This harks back to the rise of particle board, whose dulling effect on the tools of the time ushered in hard-metal-tipped saw blades. Now, in many carpentry shops, several saw blades are often in use. One is for cutting solid wood along the grain, another for cutting against the grain, still another for cutting panels, and one with a negative hook angle for cutting plastics, aluminum or plexiglas.

A NEW SYSTEM

With the diamond-tipped NoNoise saw blade (the nn-System), LEUCO has launched a completely new system. This system does away with frequent changing of saw blades, decreases noise, and also delivers better cutting

»I was very impressed by the excellent cutting quality. Where there is no tearing, no reworking is needed.«

STEFAN BÖNING

results. A number of saw blade diameters are on offer. Saw blades are even available for the scoring unit and for CNC. Suitable for many materials, the saw blade has an extremely long life. Since the saw blade has a cutting width of just 2.5 mm — thinner than usual — the splitting wedge only needs to be 2.0 mm to 2.4 mm thick. In most cases, it has to be replaced. For some saws, such as Altendorf, Holz-Her, Striebig, Putsch and Martin, it can be factory ordered through the catalog. If you don't find your saw type in the catalog, LEUCO offers a special service for that. In cases like that, a suitable splitting wedge is prepared. This requires the contour of the current splitting wedge and the dimensions of the mounting slot. Give these data to the manufacturer, LEUCO, and you can get the saw blade with the right splitting wedge for your saw.

LESS NOISE

At first sight, you can see the much smaller chip spaces. Even the hollow back of the "Diamax" diamond teeth LEUCO uses are visible. It is meant to decrease the cutting pressure and provide excellent cut quality. The teeth are equipped with a 7/10 mm resharpener zone and can be resharpener up to two times by the manufacturer. During the first test run, it was immediately noticeable that the saw blade produces much less noise. A considerable relief for the ears of carpenters, who are often assaulted by noise. The test involved a wide range of materials. Besides solid wood with and against the grain, plastic-coated particle board, priming foil coated MDF panel, plywood and multiplex panel, veneered particle board, aluminum pegboard, plexiglas, and Trespa solid-core material were processed. Various miter cuts were also made, so as to evaluate the saw blade's tearing behavior. Before proceeding, carpenter expertise had to be called on regarding the effect of the saw blade height on cutting quality in coated or veneered materials.

Without using a scoring unit, the results were very acceptable. It was amazing that the edge material was almost undamaged when the saw blade exited. Solid wood was also sawn.

To spare the saw blade, I fell back on the standard saw blade for large material thicknesses in the direction of the grain. For other straight or angle cuts, however, the new LEUCO saw blade was used. It leaves nearly no tears, scratches or burn marks that require reworking. This is a big advantage, for example, when component corners have to be glued after sawing. Or when separating slats, which only needed sanding and no additional planing. This saves valuable time, material and energy. The veneered particle board also sawed tear-free. For me, it was quite amazing that the aluminum pegboard could be sawed without flutter or kickback. The plexiglas also sawed trouble-free. Anyone who occasionally saws solid-core material can also use this saw blade. However, for continuous use, I would advise an efficient special saw for solid core material.



Tooth comparison: The nn-System (left) and the saw blade for solid wood against the grain (lower right), and the blade for panel material (upper right).

CONCLUSION

The LEUCO "nn" saw blade is a relief to the noise-plagued carpenter. You get an extremely solid-working saw blade that very cleanly saws an amazingly wide range of materials. I was very impressed by the excellent cutting quality.

Where there is no tearing, no reworking is needed. Production doesn't bog down, and time, energy and material are saved.

The purchase pays for itself with the wide range of materials that can be sawn, with the longer service life experienced with the diamond-tipped saw teeth and with the considerably decreased reworking, such as grinding in the end-grain area. Even the best saw does not guarantee a clean cut, but it is an important foundation. But together with the right saw blade for the material to be cut and the right operator, success can be achieved.

Yours Stefan Böning



To work successfully with the nn-System, the right splitting wedge must be used. For these saw blades, it must be 2.0 mm to 2.4 mm thick.

A VARIETY OF MATERIALS



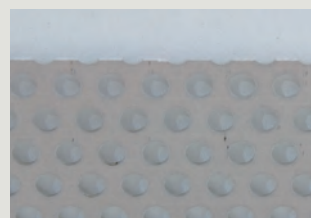
When sawing plastic-coated panel materials without a scoring unit, the saw blade did an excellent job.



The nn-System sawed through plexiglas without any trouble. The bottom also didn't tear out.



The cross-section of larch shows how cleanly the saw blade works along the grain.



There is no flutter or kickback when sawing aluminum pegboard with the nn-System.



Two cut surfaces compared. The one on the left was made with the "nn" saw blade, the one on the right with a conventional saw blade for solid wood.

HAVE YOU HEARD ALREADY?

The nn-System DP FLEX saw blades are on everybody's lips

!

!

THE NEW „LEUCO NN-SYSTEM DP FLEX“ SAW BLADES ...

... have all ...

... extremely small chip gullet spaces! And are extremely quiet when idling and during operation! With a noise level of just around 70 dB(A) when idling, the wearing of hearing protection is virtually a thing of the past.

They surprise the industry by their ...

... usability in numerous materials.

They impress their users by their ...

... super cutting quality thanks to their special hollow back tooth configuration (HR);

Exception: Scoring saw blades: WS tooth configuration.

And to top it off, they are surprisingly thin! The ...

... cutting width is a mere 2.5 mm.

The blades generate noticeably ...

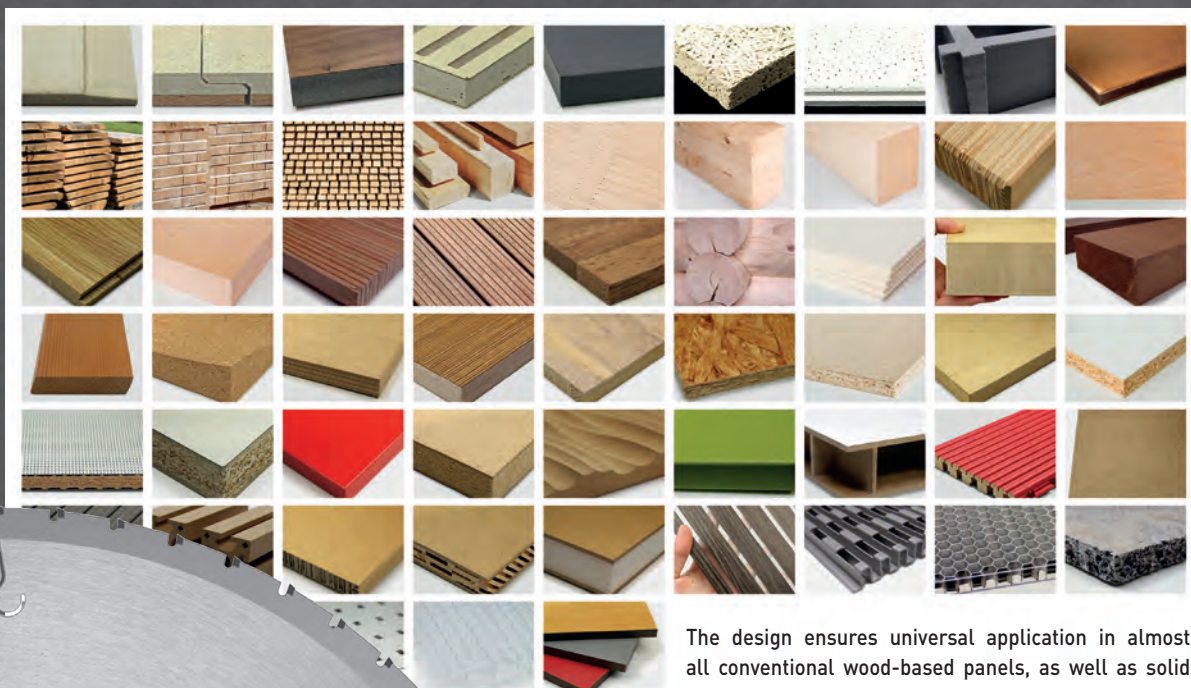
... lower cutting pressure and therefore also require less power during usage.

The edge lives are measurably ...

... longer thanks to the diamond tips.

Users profit from the "LEUCO nn-System DP FLEX" on ...

... many types of machines such as table saws and chop saws, vertical panel sizing saws, CNC's and through-feed installations.



The design ensures universal application in almost all conventional wood-based panels, as well as solid woods, and provides excellent cutting quality. The vast number of materials recommended for processing make this clear:

LEUCO
nn system

PANEL SIZING: VERY QUIET, AND WITH THE FINEST CUTTING QUALITY

Innovative "LEUCO nn-System Geometry" and "FinishCut plus" quality in a blade

The new LEUCO panel sizing saw blade "FinishCut plus" brings together the best features of two successful LEUCO circular saw families and is called "FinishCut plus NoNoise". The blade's chip spaces are based in the innovative, patent-pending LEUCO nn-System chip space geometry. This makes the new line of saw blades extremely quiet, with as much as 6 dB (A) less noise at idle.

From the previous FinishCut plus family, the saw blade has the "trapeze-trapeze" (TR-TR) tooth shape. The entire cutting geometry creates a measurably reduced cutting pressure and lower power consumption. The saw blade range with "HL Board O3 plus" type hard metal provides long tool life with production cutting quality in film-covered, plastic-coated or veneered wood materials. The FinishCut plus NoNoise is used for individual panel cutting or for packages with up to 100 mm cutting height.

All in all, the new blade meets the highest performance standards. If the finest quality is desired for finished edges, the panel sizing saw blade has impressive cutting quality thanks to exact, dimensionally stable cuts without chipping.

The "FinishCut plus TR-TR NoNoise" line of panel sizing saw blades includes a variety of dimensions, with diameters of 350 mm to 450 mm.

DID YOU KNOW?

Machine manufacturer Holzma delivers panel sizing saws with the "LEUCO FinishCut plus TR-TR NoNoise" as standard equipment.



SAW MAGNETIC PANELS –

New saw blade for chip-free cuts and long edge lives

Magnetic panels are currently in high demand at exhibitions, in interior construction, and in shop construction. The material is prized for its very high level of adhesion, combined with the writability of the surfaces and diverse areas of application. An iron foil 0.2 mm thick embedded in the laminate provides the high level of adhesive force. This layer, however, brings with it a new challenge: Using common HW-tipped circular saw blades for woodworking only allows users to saw magnetic panels in some conditions or with only very low edge lives.

LEUCO has developed a new kind of saw blades for cutting of magnetic panels. Starting now, companies have access to a saw blade for chip-free cuts and long edge lives. They are tipped with a highly specialized type of tungsten carbide, and are used alone for trimming cuts in laminate and with a support plate to size materials.

Frequently, sawing with common tipped circular saw blades can even cause sparks. To ensure these didn't become dangerous, users used to

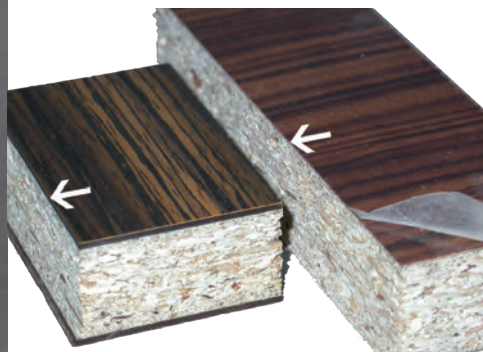


have to decouple the machine from the dust extraction. Using the new LEUCO blades, sparks are reduced to a minimum. No special precautions need to be taken when making trimming cuts in magnetic plates.

The circular saw blades are available for sizing saws with a 350 mm diameter, as well as a variation for use in horizontal panel sizing saws.

LEUCO "POWERTEC III" HOGGER FAMILY:

„PowerTec III topline“ henceforth on the low-noise trip



Clean edges: High-gloss laminate machined with the LEUCO PowerTec III topline "LowNoise" principle! Even for milling with protection film!

An impressive feature of the proven "LEUCO PowerTec III hogger" is the intelligent arrangement of prechipping and quality cutting with one gullet. This principle allows high-quality chipping with half the teeth of other hoggers. Reinforced DP cutting edges prevent large breakouts at the periphery. This means that less has to be removed when resharping. Customers report that this increased the number of repairs. Another advantage of the PowerTec III is that the special design of the cutting geometry and sectioning keeps the chip hogger's cutting width constant.

This hogger type is always recommended when perfect cutting quality and long tool life is in demand, such as for use with hard and sensitive high-gloss materials. The hogger can be used with a material thickness of 8 mm and above. When using double-end profilers, feeds up to 120 n/min are possible.

Programme complement PowerTec III in Low Noise-version: Thanks to its new aerodynamically optimized low-noise design, the PowerTec III tool body reduces air turbulence. For machine operators, this means an audible reduction in noise, up to 2 dB(A) during use, compared to ordinary hoggers on the market. This makes work conditions significantly more comfortable.

**NEW:
LOWNOISE
VERSION**



For the invisible joint optics tear-free, razor-sharp joined edges are a must

„HIGH-END“ EDGE IN THE FURNITURE INDUSTRY

Holistic approach leads to the high precision tool solution

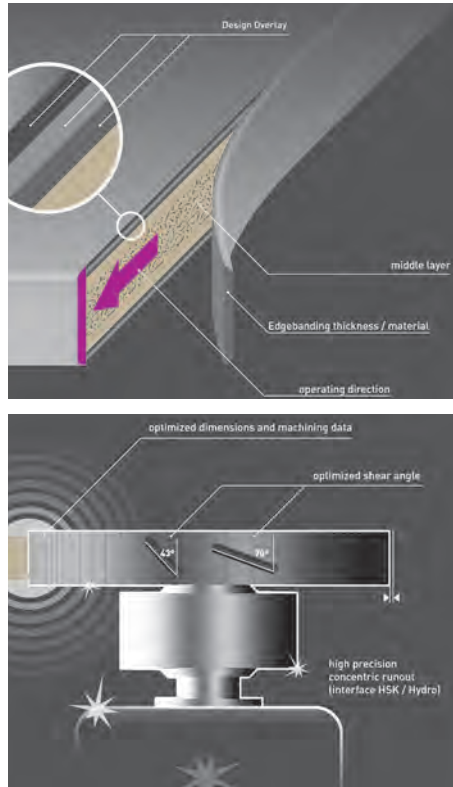
For the furniture manufacturers the issue zero joint is diverse. For several years, machine and edges manufacturers offer new methods, in which a heat source such as laser, plasma, hot air or infrared activates the functional layer of the edge band material and immediately glues it to the workpiece.

Regardless of the very process, for the invisible joint optics tear-free and razor-sharp joined edges are a must.

It is exactly this claim which the appropriate LEUCO tool solutions meet. Together with the furniture manufacturer LEUCO discusses individually every little detail and tailors the tools to the very situation.

The base: Analysis of material and machine

Which wood-based materials are used, what is the overlay of this material, what does the core of the panel look like, which material thicknesses are being processed? Which kind of edge is used? What is the configuration of the machine? Which and how many motor units are available for the joining process? What is the expected throughput? Which flexibility does the furniture manufacturer want to keep open?



Holistic tool solution for „high-end“ edges for through-feed jointing

LEUCO defines the machining sequence and the tool design such as cutting widths, cutting edge tip height and the application data exactly according to material and machine requirements – with the tear-free, razor-sharp joined edge -with maximum economic efficiency- in the focus, always. Therefore LEUCO recommends jointing cutter with a shear angle of 43° resp. 70°. The interface between the motor and tool affects the quality of the joint cutters.

Therefore LEUCO strongly advises to pay close attention to the concentricity of tool clamping. Hydro or HSK toolholders ensure the most stable concentricity. A clean working environment contributes - particularly in the high-end range with microfine surfaces and tight tolerances at high feed speeds- to better quality. Tools with optimized chip flow design and an optimum suction prevent the so-called „multiple hogging“ which, among other things, may adversely affect the jointing quality and reduce the edgelifetime of the tools.

CHANGE SEGMENTS YOURSELF

Jointing cutter with exchangeable, diamond-tipped segments

Conserving resources and reusing the aluminum body as often as possible – SmartJointer users achieve this goal thanks to the LEUCO-specific segments with integrated steel chip gullets. As is well-known, the knives, followed by the chip gullets, are the areas of a cutting head which are most susceptible to wear. The chip gullets on the SmartJointer are therefore simultaneously replaced during a segment change at the LEUCO ServiceCenter.

SmartJointer PLUS. The next generation of the DP cutter head.

Sharpening and replacing segments, with their integrated chip gullets, was previously exclusively carried out at the LEUCO ServiceCenter. In the SmartJointer PLUS, LEUCO has optimized the design of the segment seat. This now allows customers to change the diamond-tipped knives by themselves, with the greatest precision.

The Plus with the SmartJointer PLUS

Independent replacement of the segments provides users with a „new“ or „freshly sharpened“

tool directly and at any time – with the edge life of a diamond tool. The LEUCO SmartJointer PLUS is ideal on edge banding machines, for jointing in jumpmilling of melamine resin and paper-laminated HPL and foil-coated and veneered woodbased panels:

In stock and now available are the LEUCO SmartJointer PLUS for Brandt machines. The entire previous SmartJointer product line will be converted to the „PLUS“ version in the future. Contact us!

Change the segments by your own: You need only the diamond-tipped knives of LEUCO, a SmartJointer Plus body and a torque wrench. Advantage: After insertion of cutting inserts the jointing head diameter remains constant.

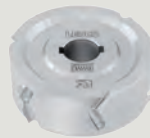


THE RIGHT JOINTING-CUTTER FOR ALL CASES

Jointing cutter for each demand

Which jointing cutter is the most economical one for which purpose?

DIAMAX
LowNoise



SmartJointer
LowNoise



SmartJointerPLUS
LowNoise















DIAREX
LowNoise



LEUCO
p-System



Features

Tool body features	Steel	Aluminum	Aluminum	Steel	Steel
Shear angle	35°	35°	35°	43°	70°
Flow optimization / LowNoise design	++++	++++	++++	+++	+
Resharpener area	1,5 mm	1,5 mm	1,5 mm	3 mm	4 mm
Suitable for zero joint edge-banding	++	++	++	+++	++++
Running meter performance	++	++	++	+++	++++
Cutting quality cover layer	++	++	++	+++	++++
Cutting quality middle layer	++	++	++	++++	+++
No. of teeth	2-3	2-3	2-3	3-5	2-4
Cutting inserts	-	LEUCO ServiceCenter	At customers site	-	-
In detail	 	  	  	 	 
Legend	+ suitable	++ good		+++ very good	++++ maximal

HERE'S HOW IT WORKS:

Complete information on the replacement of cutting inserts on SmartJointer Plus jointing cutters

New tool:

LEUCO delivers the SmartJointer PLUS, segments are mounted and sharpened in the body. It conforms to the requirements/tolerances of a brazed jointing cutter.

The jointing cutter becomes partially dull:

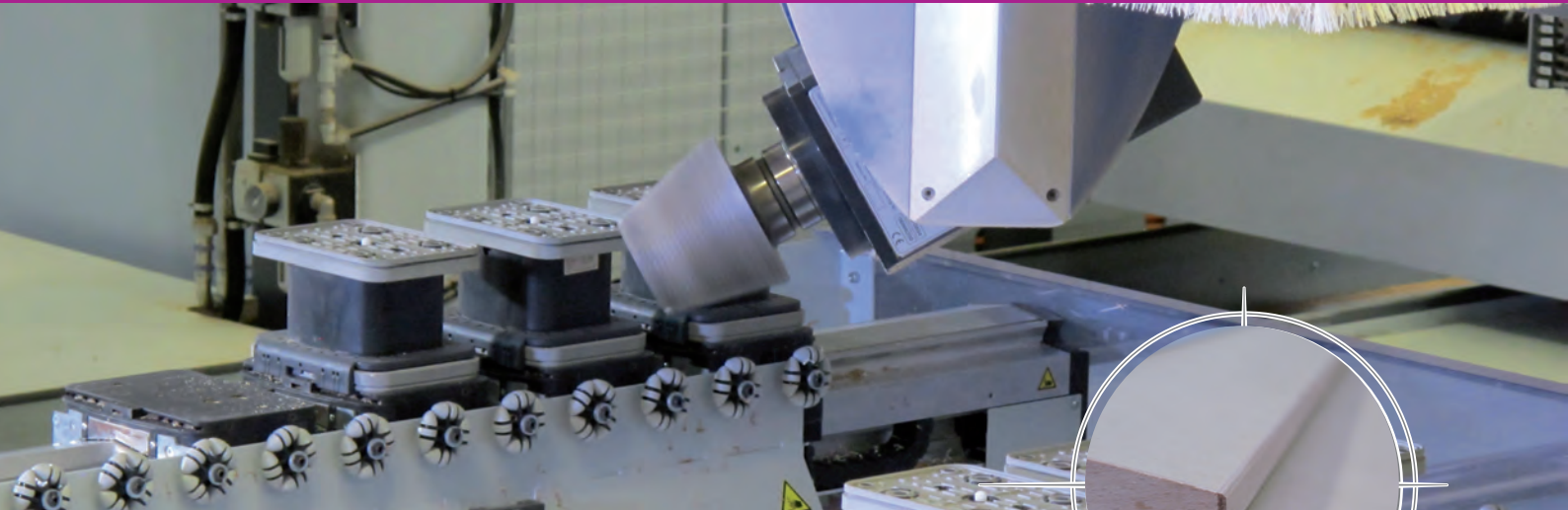
Generally one change of teeth rows is possible within a segment set. Teeth rows which process the cover layer and are already worn can be replaced with teeth rows from the middle layer. More edge life can be gained, depending on the joint quality requirements.

The segments are ready for resharpener:

Option 1: The user can change the segments in the SmartJointer PLUS themselves and send dulled segments to LEUCO Service for refurbishment. A high-quality, diamond-tipped cutter head is available to the customer for immediate use, without significant production downtime. Its precision meets the requirements of a cutter head.

Option 2: After reaching the end of its edge life, the tool is refurbished by LEUCO Service. The segments are sharpened in the body. The cutting quality is equivalent to that of a new tool.





Economical, complete processing: No tearing, despite the tool's exit over the veneer edge, and smooth surfaces after milling.

Exploiting potential

BRINGING THE 6TH SENSE TO THE 5TH AXIS

Tool solutions for 5-axis processing

SMART SOLUTIONS FOR FREEFORMS

"Yes, with the 5th axis we can mill wild 3D freeforms," is what many say in joyful anticipation when buying a machine with five axes. But no sooner is the machine in the shop, the first cavities programmed, the usual milling tool clamped on, than suddenly things don't go as planned. There is a collision, the assembly comes down, the tools swing up, and in the worst case, the tool breaks. What happened? Often, 3D freeforms result in hard-to-reach tool areas. Long to extra-long tools are called for. Specially made tools made of heavy metal would be one solution. Smarter and more flexible are the extra-long collet chuck mounts (up to A=225 mm), long heat-shrink chucks (A=160 mm), and heat-shrink extensions (A=up to 250 mm). TRIBOS extensions (A=160 mm) also offer high rotation accuracy and allow the use of standard VHW or DP tools for sure milling up to 24,000 rpm for molded parts with deep cavities.

RAZOR-SHARP 90° ANGLE WITH NO MANUAL WORK

Freeforms for demanding three-dimensional objects are not what every shop does. But milled internal 90° angles in sheet material have been sought after for many generations. With a V-groove shaped folding bevel miller with Z1 and corresponding 5-axis programming, razor-sharp 90° angles can be milled in pockets. The tool is also suitable for beveling, decorative grooves and folding cuts in solid wood and wood materials.

FORMING SURFACES

Contour millings such as bannisters for stair construction, wave profiles on furniture parts or wall panels are classic applications for radius and ball cutters. Depending on the material to be processed, tungsten carbide or diamond tool tips are used.

Also V-groove shaped is the relief ball cutter for shaping surfaces. The diamond-tipped milling cutter is controlled by special software that adopts image information from grayscale millings on wood materials. The effect is particularly striking when panel surfaces and middle layers are made of different materials, such as a metal surface combined with a dyed-through MDF panel.

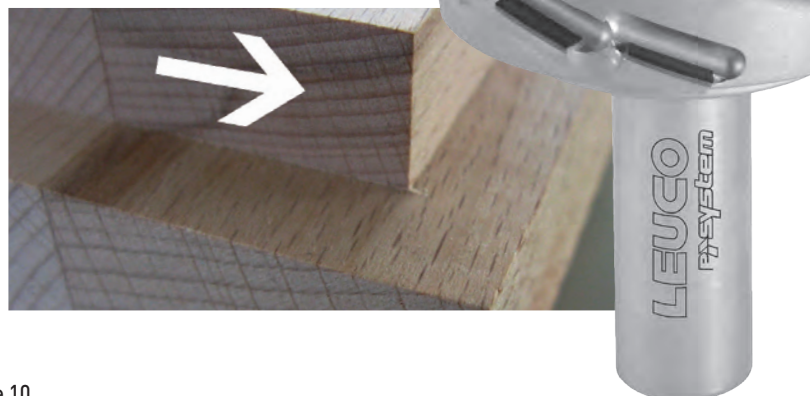
5-AXIS TECHNOLOGY IS CLEVER TO USE

The shank-type cutter for Lamello Clamex P® profile grooves is both simple and intelligent. The hard-metal or diamond-tipped milling cutter makes use of the 5-axis technology and mills the T-groove with a pendulum motion. The process is suitable for grooves in panel edges and bevels, and is ideal for millings farther into the upper side of the panel. Without 5-axis technology, such grooves are milled using a groove cutter with a drill hole and an assembly swiveled 90°. Often, the assembly sits on the panel.

MILLING A 90° FOLD DESPITE A 5° INCLINE?

This solution is used, for example, when folds in solid wood need to be done in one step, with outstanding cutting quality on the fold and peripheral side, and the fold exit. With the LEUCO p-System prism fold milling cutter, with a spindle angle of 5° with the motor side turned to the fold, one can get the cutting quality of a milling cutter with a 70° axis angle not

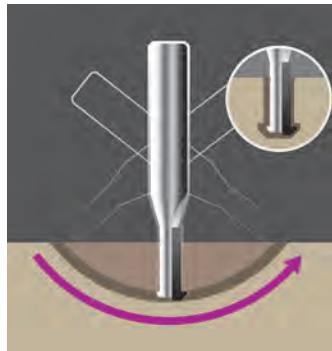
This folding mill cutter comes with a 5° incline on the machine. Both the peripheral and fold base are milled with a 70° axis angle. This provides maximum quality fold height, depth and exit, naturally without exchange milling.



only in the peripheral side and fold exit, but even in the fold base. With low cutting pressure, the diamond-tipped milling cutters guarantee a long tool life — impressive even for “jaded” diamond users.

THE SUPREME SKILL: COMPLETE PROCESSING

Complete processing means performing as many work processes as possible during one clamping. It is a supreme skill, because a lot is efficiently achieved when whole work processes no longer have to be done manually or on various machines. It is also a supreme skill because often machine and tool manufacturers don't reach optimum technology and efficiency without close communication among users. A German tabletop producer is representative of such a solution: The Ruhsi company produces barrel-shaped tabletops in large quantities with very shallow bevels on the bottom with complete processing at the machining center. The highlight of the tool solution is a compact, truncated cone-shaped LEUCO p-System milling cutter. It mills the wide MDF oblique profiles of at least 12° in any gradation in one work step and moves out of the workpiece tear-free, even with veneered edges. With the truncated cone shape, the milling cutter is relatively short, despite a 70 mm cutting width, and therefore always cuts within the area of the machine's extraction hood, keeping the machine bench almost dust-free.



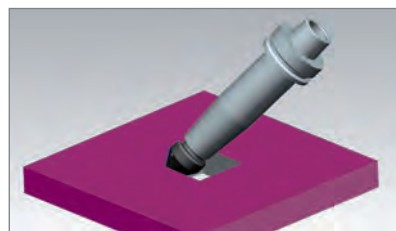
The pendulum movement creates the profile groove for the Lamello Clamex P® connector.



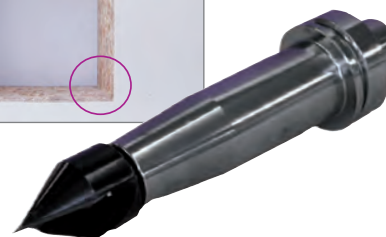
Smart accessories, such as extra-long clamping devices, give 5-axis users great flexibility with freeform parts.



➔ SMART TOOL SOLUTIONS AND COMPETENT TOOL CONSULTING ARE AN IMPORTANT KEY TO RECOGNIZING AND MAKING THE MOST OF THE POTENTIAL OF THE 5-AXIS MACHINE.



The V-groove shaped folding milling cutter, shown with an extra-long clamping device, cuts a razor-sharp 90° in the corners.



INFO

THE 6TH SENSE FOR THE 5TH AXIS...

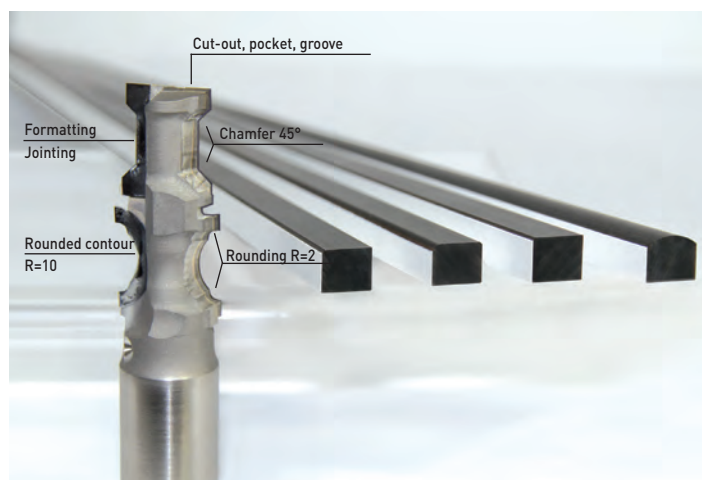
... clearly brings the company economic advantages. The 5th axis allows solutions you won't find in textbooks. The processing possibilities will rapidly expand in the future. The 6th sense can be seen as an outstanding spatial imagination that machine programmers and operators will understand, coupled with expertise and joy in experimentation. Acquiring a 5-axis machine has given companies new perspective overnight, and in the most positive sense — from performing process steps in a new way to full processing during one clamping.



Even in abrasive materials, the diamond-tipped bull-nose cutters achieve maximum tool life, and are available in radiuses of 10, 15 and 20 mm.

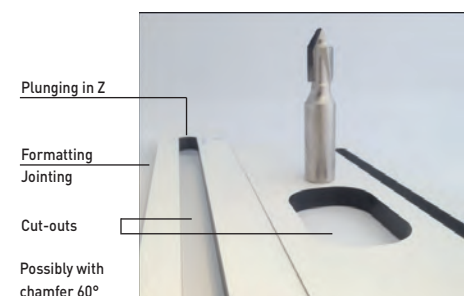
1 FLEXIBLE CUTTER FOR 5 APPLICATIONS

Joint, chamfer and round solid core and mineral material panels, mill barrel profiles and pockets



Example of the "5-in-1 concept" — many other combinations can be used. Talk to a LEUCO tool specialist.

The many possible applications spare users from operating multiple individual tools and taking up valuable tool changer spaces on the CNC machine. It is perfect for anyone processing a wide range of materials in small series for a broad customer base, or anyone purchasing a cutter who is unsure which edge shapes their customers will request in the future. The curves, bevels, joint heights, etc., are produced for customers to the dimensional data from the panel processor. Those who wish to order will not find this tool in the LEUCO catalog, but can contact the LEUCO tool consultant directly with the desired dimensions.



Example of the flexible milling cutter design from LEUCO: here as "3-in-1"

A new, flexible milling cutter design from LEUCO:

With the diamond-tipped shank-type cutter, users can now joint, chamfer, round, and mill barrel contours on solid core and mineral material panels. Thanks to its plunge tip, the cutter can also dip for pocket milling and more — making it a 5-in-1 solution. Chucked in a precision clamping device, the tool can create chip-free, smooth edge surfaces without grooves. The diamond tips guarantee the longest available edge life for these abrasive materials.

LEUCO's core mission is to work with customers to find the best, most economical solution. That is why LEUCO will also be offering diamond-tipped cutters for specialized solid core and mineral material panel processors who work with clearly defined panel thicknesses, bevels, or radii. These can be purchased from the LEUCO stock program or manufactured according to customer desires. In contrast to the new, flexible "multitasking cutter," LEUCO recommends these tools when standardized jobs need to be milled in large quantities.

LEUCO P-SYSTEM QUALITY, NOW AVAILABLE FOR WEEKE BHX 050/055

Optimized shank-type cutter for space-saving CNC solution

The LEUCO p-System laser line has been expanded with a shank-type cutter that is ideally designed for use on Weeke BHX 050/055 machines. The new p-System milling cutters for this type of Weeke machine are available in unlimited quantities for delivery starting September 1, 2015. After that, a plunging depth of 5 mm will be available for these machines, compared to older models with 2–3 mm. Weeke can also update BHX 050/055 machines with the controlled convex (servo) with a delivery date of January 1, 2014, to the greater plunging depth.

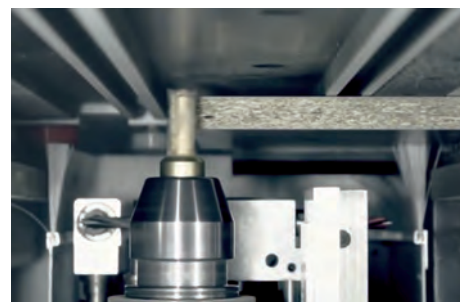
When working on the Weeke BHX 050/055, immersion blades on new LEUCO p-System shank-type cutters must at least exceed 4.5 mm. The p-System blades, with their 70° axis angles, achieve maximum quality. The milling cutters are used for tear-free high-performance joining and separating of knot-free solid wood lengthwise and crosswise to the grain, for jointing and dividing of melamine-, paper-, HPL-laminated, film-coated and veneered wood materials and lacquered surfaces. Users also retain finish quali-

ty with fibrous materials such as fabric-laminated panels, linoleum with jute fibers, cork etc. LEUCO recommends operating this new p-System shank-type cutter with Weeke BHX 050/055 machines, because they achieve maximum cutting quality and tool life, as well as tear-free cuts even on the exit side. The extremely high axis angle of this tool creates higher surface pressure than comparable shank-type cutters and significantly reduces vibration in the standing panels.

For the Weeke BHX 050/055, the diamond-tipped LEUCO p-System jointing cutter is available from stock with diameters of 20 mm and 25 mm and cutting widths from 25.1 mm to 25.7 mm.

TIP

No other p-System milling cutter should be used on a BHX 050/055. Conversely, this LEUCO p-System milling cutter can be used on other types of CNC machines than the Weeke BHX 050/055.



When working on the Weeke BHX 050/055, immersion blades on new LEUCO p-System shank-type cutters must at least exceed 4.5 mm. The p-System blades, with their 70° axis angles, achieve maximum quality.

THE NEW LEUCO HW “LIGHT” CYLINDER HEAD DRILL

Tear-free fitting holes - even at the edges

The new LEUCO "Light" HW cylinder head drill is a powerful all-purpose device for tear-free drilling of fitting holes and edge holes in solid wood and wood materials. This hard-metal-tipped drill soon will be indispensable in every shop that drills fitting holes on CNC processing centers, automatic drills and fitting drill machines.

The drill contains plenty of intelligent technology, such as a very wear-resistant hard metal for the taper tap, a special taper tap geometry, large chip spaces and a short, effective center point of less than 1 mm. The drill offers a long service life, has outstanding chip ejection, and works with measurably far lower cutting pressure. These features allow the user to use the Light cylinder head drill to bore very close to the bottom cover layer. The center point doesn't poke through. The decoration doesn't arch.

The new LEUCO Light cylinder head drill is available with bore diameters of 15 mm to 35 mm and drill lengths of 57.5 mm to 70 mm, as a right or left version, directly from stock.



TIP

The new "Light" cylinder head drill can bore standard fitting holes faster. The low cutting pressure and good chip ejection make for better performance.



Processing solid woods

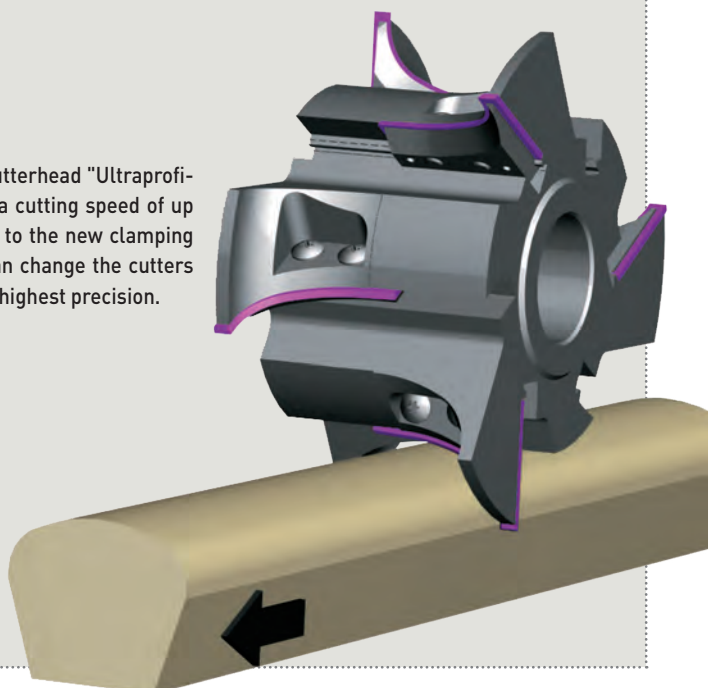
HIGH-PERFORMANCE CUTTER HEAD „ULTRA-PROFILER PLUS“

Change cutting knives manually, fast and with highest precision!

The knives on the new high-performance cutterhead „UltraProfiler plus“ from LEUCO are changed manually yet quickly with the highest level of precision. With the innovative cutting insert clamp the knives position themselves on their own without clearance. The user requires a max. of 10 seconds for the change. The blades have a precise and firm seat; the safety of the head is guaranteed.

This way the new UltraProfiler plus reaches a cutting speed up to 80 m/s. With its aluminum base frame, the cutterhead is used in double end tenoners and molding machines as well as in spindle molders and machiningcenters to shape solid timber and wood materials. The cutterhead body and mounting plates will be profiled according to customer specifications.

The new LEUCO cutterhead "UltraProfiler Plus" enables a cutting speed of up to 80 m/s. Thanks to the new clamping set-up the user can change the cutters manually with the highest precision.



The joint between two boards must be absolutely precise for manufacturing with products with the CE symbol.



LEUCO solutions

TRIPLE THE SERVICE LIFE

Complete package from tool manufacturer impresses wood worker

Rubner Holzindustrie places great value on precision. From round timber processing to planing, finger jointing and the finished product, the company relies on Oertli and LEUCO tools. In Austria, LEUCO is represented by Oertli. Use of coated high-performance high-speed steel for dovetailing cutters increased edge life by a factor of 3.

Every year, Rubner Holzindustrie in Rohrbach, Austria, cuts about 250,000 fm and specializes in producing glue-laminated timbers. A hundred employees mainly process spruce and pine into sawn and glue-laminated timber. Of the latter, they produce about 32,000 m³ a year. They produce double and triple beams, as well as glue-laminated timbers for further processing at other Rubner sites.

Sawing, planing and milling technology LEUCO tools are used in everything from sawing and planing technology to mini finger jointing. For profile hogs, the manufacturer's saw blades are used for pre- and finish-cutting. At the same time, the pre-cut blades are turned back. In areas with less mechanical stress, the saw blade's base body is thinner than in other areas. This allows the raker to move the chips out of the saw kerf more easily. During timber production, a one-sided

» Using the 'HS Solid 34' doubled the edge life. Combined with a PVD coating, the edge life increased by a total factor of 3 «
ROMAN EDELHOFER, KEY ACCOUNT MANAGER AT OERTLI

NKT finger joint machine with a turning device takes care of the longitudinal joint. The tool's service life is measured by the number of milled tables. One cycle represents milling of a 600 mm wide table on which the timbers are clamped. A conventional finger joint cutter lasted for about 5,000 tables before the quality of the milling was too poor for gluing.

From 5,000 to 15,000 tables

When the collaboration started, the high-performance high-speed steel came into use for the first phase. This increased edge life to 10,000 tables. In the second phase, the tool received an additional PVD coating. PVD stands for physical vapor deposition. The base body is covered with the coating in a vacuum. "Because the tools are sharpened before coating, the layer cannot be too thick. Otherwise, the cutting edge will round and dull," explains Roman Edelhofer, key account manager at Oertli. With this method, the tool life of the "HS Solid 34 topcoat" finger joint cutter increased another 50 percent to 15,000 tables.

Tip breakage no longer an issue

"Before, besides the short edge life, we often had to deal with tip breakage on the tool. In 2013, we started using LEUCO finger jointing cutters. Since then, the problem is gone.

The longer edge life was part of the optimization and continues after multiple sharpenings,” says Rene Karner, technical manager in production. “The tools’ reliability is as good as at the beginning, right to the time we retire them, when the sharpening zone is used up. For the entire edge life, we and the customer follow the tool and keep records. During all the sharpening processes, we make sure the profile is consistent,” explains Edelhofer.

In addition to purchase advice, Karner also values LEUCO’s service. The tool manufacturer doesn’t just rely on application consulting, but also on repairs during the life of the tool. Once a week, an Oertli service employee comes to Rohrbach to pick up the tools that need to be sharpened. That is done in the company’s own large sharpening facility.

Specifications met

When the collaboration started, the specifications were clearly defined to Oertli. The longer edge life and the process safety after service were the goals clarified. Process safety means that the edge life remains constant after sharpening and doesn’t fail,” says Edelhofer. For the account manager, the tool supplier’s responsibility is to deliver the customer a complete package. In addition to delivering tools, optimal on-site consulting is crucial. Here one concentrates on the right conditions of use and optimization of the environment to increase the edge life. Sound knowledge of the adhesives used and adequate machine knowledge lead to satisfying results. At the Holz-Handwerk trade fair in Nuremberg, LEUCO provided information on its products and gave a look at future developments.

This article appeared in Holzkurier issue 08/2016



Once a week, dull tools are exchanged for sharp ones. Service technician Jürgen Grabner with Roman Edelhofer in front of the service truck (from left)

Even after two years of use and several sharpening cycles, records show that the milling cutter’s performance has not decreased.

Anton Pausackl, sawing production manager at Rubner, and Roman Edelhofer of Oertli-LEUCO (from right) with a LEUCO finish-cutting circular saw blade.



The coated HS Solid 34 milling cutter is used on the NKT finger jointing machine.

The base bodies of the LEUCO circular precutting saws are turned back, which makes it easier for the reamer to clean out chips.



Rene Karner, technical manager of production, and Roman Edelhofer of Oertli-LEUCO (from left) are satisfied with the cutting results and the development of the tool.

SEAMLESSLY SATISFIED

Parquet floors form joints - that is a reality. Parquet manufacturer Hoco hits it big with a solution to prevent the natural effects of very dry residential air on parquet floors. With LEUCO as a tool partner, a unique, sophisticated profile was created with a through-feed process on their production equipment.

Parquet floors are perennially popular. Customers especially value the naturalness of the wood, their resilience, and their positive effect on the climate of the room. The properties of wood positively influence room climate by absorbing and releasing humidity. This absorption and release of humidity swells and shrinks the parquet, which has a varying effect, depending on the type of wood. "The phenomenon has increased due to the modern, energy-optimized way that houses and apartments are built. With buildings becoming more and more airtight, at the same temperature in the winter and

summer months, the air humidity can fluctuate between 20 percent and 80 percent," says Andreas Reisinger, technology director at HocoHolz. Despite good design in the bid phase and expert installation, the shrinking of parquet flooring can cause joints to form in the winter. "Unfortunately, we have to reject complaints about shrinkage joints due to low air humidity, because we have no direct influence over the climate of the customer's room," continues Reisinger.

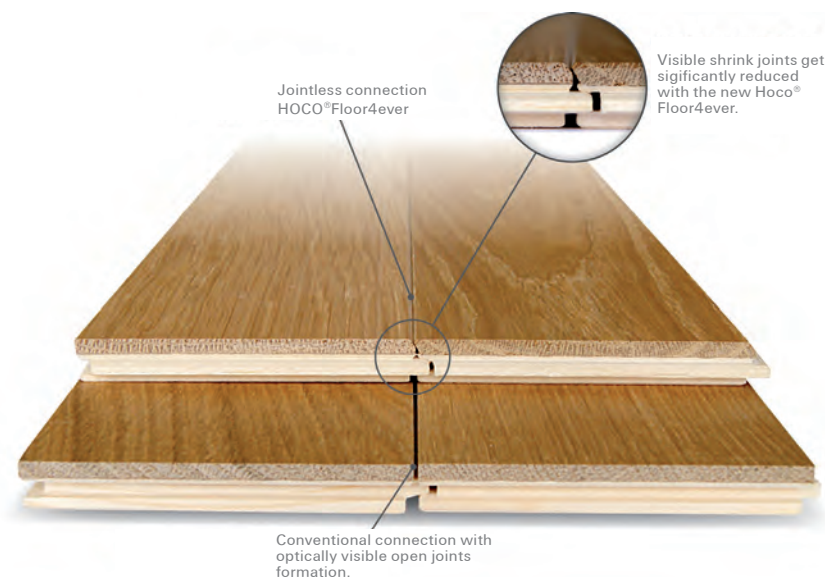
AN IDEA FOR IMPROVEMENT

For HocoHolz, there is no point in being right just for the sake of winning. "The customers have a problem with the shrinkage gaps. We wanted to find a solution to that, searched for one, and hit on one," Reisinger says. Instead of the usual tongue-and-groove connection for parquet slats, Hoco came up with something new — a sequence of coordinated angles on the connection profile creates a wedge at the seam. Upon installation, this is laid over the opposing overlay. If the parquet then pulls together due to decreasing moisture in the wood, the wedge-shaped form of the overlapping cover layers prevents a view into the seam below. This patent-pending system called "Floor4ever" was one of the most innovative new products at Domotex 2016 in Hanover.

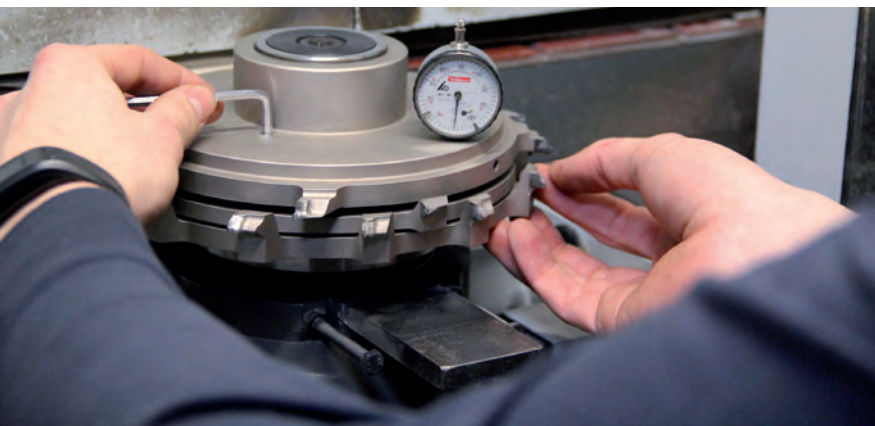
The new seamless connection profile is used all the way around the floorboards. What is relatively easy on the lengthwise edge soon became a challenge when working the wood crosswise, due to oak's tendency to tear. The details of how to implement the angles, and how they had to be adjusted to the lengthwise and crosswise wood connections required some testing if production was to succeed on typical double-end profile machines for floor manufacturing.

THE PATH TO PRACTICAL USE

Hoco relied on LEUCO to develop the right tool for the innovative profile. Employees at Hoco had always appreciated LEUCO's application consulting, which is a separate department at the tool manufacturer. "Because you don't get a salesperson with a pad of order forms showing up. LEUCO application technology consultants bring genuine expertise," says Reisinger. To ensure that such delicate processing really works in practice, the developers worked closely with Hoco to come up with a unique tool for a patented product that is equally unique. The custom design is a multi-part, adjustable tool set. "It is especially important that the tool is adjustable. This lets us ensure consistent profile precision and quality in production and provide seamless adjustment even for short setup times," explains Ralf Kreidler, application consultant at LEUCO. The tool set for crosswise processing is designed with an extra-high axis angle. It ensures that the oak veneer can be processed crosswise without tearing. The tool also required creation of a high-precision clamping device as a connecting piece between the machine and tool. This allowed precision of concentricity and axial run-out, as well as radial stiffness to be



No other parquet manufacturer has taken the customer's annoyance about wood floor shrinkage gaps as seriously as Hoco. The result is unique on the market, is patent pending, and most importantly, there are no more visible gaps. Photo: HocoHolz



The combined, adjustable diamond-profile milling requires a smooth run to deliver consistent premium quality. The tool was therefore mounted on high-precision hydraulic bushings.



achieved for the smooth operation required. For this, the tools are mounted on high-precision hydraulic bushings.

"The collaboration with Hoco underscores how important it is to establish communication, understanding in both directions, along with ample, frequent exchange of expertise. Then you come up with a good solution in the end. But this assumes that the tool manufacturer can deliver the precision planned by the application consultants. And LEUCO can," says Christian Freundorfer, key account manager at LEUCO and customer adviser to Hoco.



In a run-through process, the angle combination is milled at high speed on a double-end profiler. A challenge for all involved, including Andreas Reisinger, technology director at HocoHolz (l.) and Christian Freundorfer, key account manager at LEUCO (r.). Especially considering how fine the profile is and how clean the end of the cover layer has to be, even crosswise.

INFO



HocoHolz Hofstetter & Co. Holzindustrie GmbH, located in Eggenfelden, Germany, has set the benchmark in wood trim and parquet flooring for 60 years. They produce products with the high-quality craftsmanship traditional in Germany.

Their offerings include 2- and 3-layer parquet and a comprehensive line of trim (solid, veneer or film-coated) that match the parquet line and more. The company exclusively supplies dealers and professional floor layers. FSC and PEFC certifications underscore HocoHolz's commitment to sustainable forest management. Photo: HocoHolz



Confident collaboration between producer Hoco and tool manufacturer LEUCO helped the idea for the new profile be implemented on target and on time. This is echoed by Andreas Reisinger, director of technology at HocoHolz (l.) and Christian Freundorfer, key account manager at LEUCO (m.), along with Stephan Huber, double-end profile machine operator at HocoHolz.



LEUCO solutions

A PICKUP? WE HAVE 7,500 DRIVERS!

Parcel services pick up tools right from the customer

LEUCO is meeting a lot of demand for its service offering. In it, a parcel carrier picks up blunt tools in a specially designed ServiceBox.

How does sharpening through ServiceBox and package carrier work?

Using the LEUCO hotline, the production manager can easily launch a pickup order for his dull tools, as needed. Within 48 hours, the ServiceBox is picked up by the package courier at the workshop and delivered to the relevant LEUCO service center for repair. After manufacturer-quality repairs are made, within 9 business days for tungsten carbide tools, the ServiceBox is returned.

What does the ServiceBox look like?

LEUCO's specially-designed ServiceBoxes are made of plastic and come in two different sizes. In these light but stable ServiceBoxes, 13 saw blades can be transported from the customer's production facility to the LEUCO service center. The saw blades' maximum diameter is 450 mm.

Advantages of this service

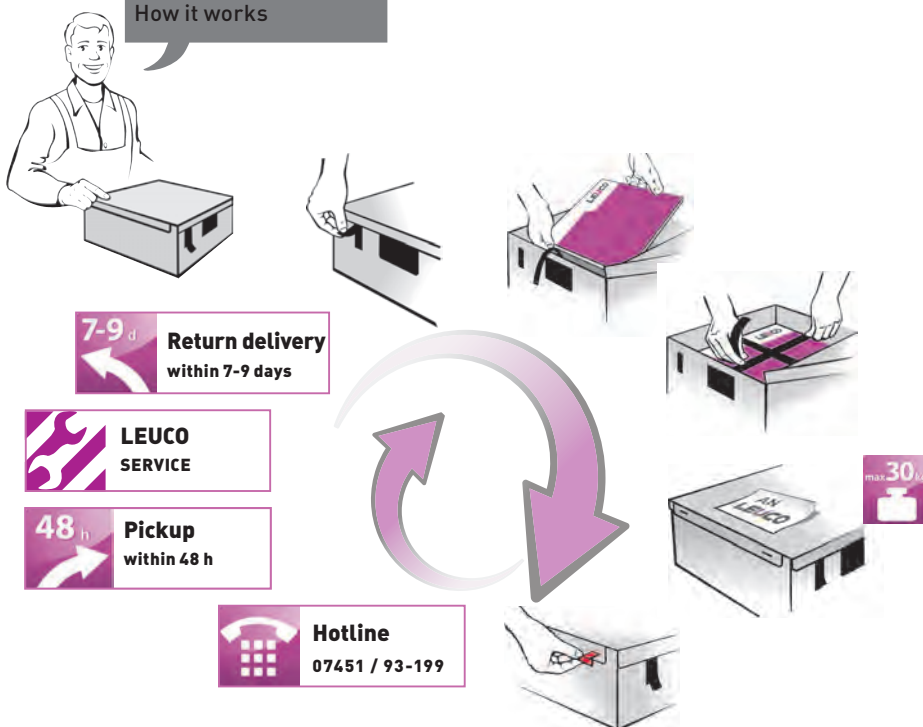
With this service concept, LEUCO provides the customer with a means he can control himself for having his dull tools picked up conveniently according to his individual needs, with familiar quality and reliability. At the same time, he gains flexibility for his processes.

The package carrier logistics is best suited to small and middle-sized companies in the wood and furniture industries with moderate to frequent sharpening needs and for irregular sharpening cycles.

The LEUCO internal and external sales team is the contact for the LEUCO ServiceBox and would be glad to advise you:

Contact:
servicebox@leuco.com
Hotline 0 74 51 / 93 199

**The LEUCO ServiceBox:
How it works**



LEUCO solutions

A MANUFACTURER-QUALITY SHARPENING SERVICE

At the service center in Weigelsdorf, Austria, tungsten carbide saw blades, diamond tools, shank type tools and cutters with bore, including finger jointing cutters, are resharpened and repaired.

Tools delivered to the Oertli sharpening center in Weigelsdorf are cleaned, measured and sharpened. Before it goes to that department, it is cleaned in a washing system.

TOOTH FACE AND BACK

The tungsten carbide blades are processed with a combination grinding machine. It can grind tooth faces and backs in a single clamping process. The unique clamping reduces the tolerance between two clamping processes to zero. For all machines, grinding is done with a special grinding oil, which is then cleaned and reused

POINT-PRECISE EROSION

The edges of diamond tools are sharpened with electrical discharge machining. When the electrode device comes near the tool, a spark strikes and removes the point-like material on the edge. This results in a sharp cutting edge. Before processing, an employee cleans the tool by glass bead blasting, in order to measure it through a lens system. For sharpening, the dulllest point serves as the standard. The system is loaded automatically. The tools are placed in a feed device and automatically loaded and unloaded. At the end, an employee measures the edge again.

PROFILE CONSISTENCY WITH FINGER JOINT CUTTERS

For cutters with bore — which includes finger joint cutters — three processing machines are available. They allow a single milling cutter or a whole milling set to be processed. For Karl Penicka, head of the sharpening facility, profile consistency is an important topic. “We deliberately intervene in the hook angle to keep the joining’s profile constant. Our machines are state-of-the-art, and our employees are constantly trained. For our customers, consistent service until the end of the tool’s life is important,” explains Penicka. To achieve this, good communication between the customer and supplier is also crucial. Shank type tools, such as drills and routing cutters, are processed to customer requirements. After the sharpening process, the tool is measured again to determine the state of the edge. Oertli collects all tool data during the process to give the customer information on the tool’s condition at all times.

CONSISTENT EDGE LIFES

“When sharpening topcoat-covered milling cutters, absolutely nothing chips off, even after multiple sharpenings. The customer can rely on consistent edge life after sharpening,” stresses Roman Edelhofer, key account manager at Oertli.

This article appeared in Holzkurier issue 08/2016



Above: Roman Edelhofer and Herbert Wallinger (r.), department head for circular saws, in front of the combination grinding machine that sharpens tooth faces and backs.



At left: When processing individual milling cutters, changes can easily be made to the geometry.



Roman Edelhofer and Karl Penicka (from left) are satisfied with the sharpening results.



An employee works the erosion machine that is automatically loaded and unloaded by the tool magazine.

INFO

- I Oertli is LEUCO's sales partner in Austria and has an innovative, state-of-the-art sharpening service center.
- I Internationally, LEUCO has an efficient network of sharpening service centers and globally values the latest machine technology to consistently ensure manufacturer quality from the sharpening service.
- I LEUCO has developed an intelligent logistics concept for picking up and delivering customers' tools.

iBlade – the tool intelligence

TRANSPARENCY AND COST CONTROL

The "iBlade" makes it possible for LEUCO to offer its customers a system for tool data tracking



Which tools are currently installed on my machine? Which are currently being serviced, which are expected to require servicing in the near future, which of them have worn out blades? Which are in the warehouse? What are the setup parameters? When did I actually buy the tool? How much did I pay for it? What has it produced? How often has it been serviced so far? Is it worth while buying such a tool again?

Every company has these requirements – always maintain a precise overview of the inventory and know at a glance how the costs and benefits look. The "iBlade" tool management system makes it possible to record and manage all relevant data – and it ensures the desired overview.

„iBLADE®“ TOOL DATA MANAGEMENT

The whole system consists of a RFID-Chip (Radio-Frequency Identification) which is attached to the tool, an iBlade® data reading pen and the iBlade® software. The chip allows a savings of more than 30 service cycles as well as other information. It can be attached to almost every tool. The existing tool inventory and new tools can easily be equipped. The chip is resistant to interferences such as magnetic fields, ultrasound, temperatures of up to 150° etc.

The „iBlade® Reader“, a scanner

and writing pen, reads and writes the data at a distance of up to 3 mm from the chip.

OVERVIEW OF TOOL INVENTORY

As soon as all data is in the system you only need two mouse clicks in the tool management program to find out which tools are in operation, in service or in the storeroom.

The iBlade® allows new concepts in the woodworking and furniture sector, no matter if it is an industrial enterprise or a craftsman's workshop, and regardless of whether with through-feed and stationary processing, sawing or drilling. The only decisive factors are the company's requirements and its desired level of tool transparency.

With the new „RFID-System iBlade“ LEUCO provides its customers with a system, where data stored on the chip in the tool can easily be transferred to a PC and then processed using the i-Blade software, whether as protocols, analysis, or use and production flow optimisation.



INFO

New in Hanover for the “non-LIGNA year”:

LIGNA CONFERENCE 2016

MAY 3 - 4, 2016, HANOVER FAIR GROUNDS

“Networked production in wood processing - The sector heads for Industry 4.0”. What value does digitization add? How do industrial companies use “Industry 4.0” for their production processes? What is economically sensible and technically feasible?

This international conference is for decision-makers and managers from the secondary industry, such as the furniture industry, woodworking, interior construction and wood construction.

Learn about the conference and apply at www.ligna.de/de/con



At the exhibition accompanying the conference, information on tool management is available at the LEUCO booth.

Toolcloud: Joint project for modern supply chains

PAPER IS OUT

Information in the cloud

One of the popular catchphrases in supply chain management is "media disruption". Anyone interested in configuring his production efficiently and transparently should avoid media disruption at all costs. This is exactly what Toolcloud is for.

Behind this project, which is backed by the German Federal Ministry of Education and Research, there is a diverse team of partners: Homag Holzbearbeitungsmaschinen, Walter Maschinenbau, Egger, LEUCO Ledermann, GS1, Formware GmbH and TU München. Together they are developing automated tool management that is first intended for industrial work processing, and later will come into use across industries.

Ulrich Doll, Head of R&D Methods & Systems at Homag Holzbearbeitung GmbH: "We want to create an open system with potential not only for our industry, but for any industry that works with tools." Specifically, it looks like this: Unique identification is used to store both the entire inventory and the status of each individual tool to the cloud. Linking the machines to the software lets everyone know at all times which tool is where and what work is being done with it. Toolcloud consists of tool planning and tool logistics.

In tool planning, the requirements for the individual tools are defined, so that the system knows which tool is needed for which work step. Tool logistics is about inventory management, needs assessment, storage and repair, and finally use of the production machines. This requires that the specific data, such as edge life, purpose, optimal RPM and cost of the tools from each manufacturer are maintained in the database. Even companies that repair tools, such as Toolcloud development partner Walter Maschinenbau, should indicate what the device's interval is from repair to the next maintenance. In addition, tools must be measured again and the resulting data entered. The sum total of this data — stored on servers — is Toolcloud.

"The concept has been worked out and is now in implementation," explains Markus Röschinger, chair of conveyor technology, material flow and logistics at the Technical University of Munich. "At Ligna 2017, we should be able to present a usable system," adds Paul Götz, product manager for floors OEM-M at LEUCO Ledermann.

"The challenge in the implementation," says Tim Bartram, senior project manager of conveyor projects at GS1, "is that the entire value creation chain of the machine and tool producers — all the way to the machine operator — has to be integrated into the system. With users from the furniture industry, we now often run into developed structures that are not easy to break down." This is because at the moment, in practice, tool management is mostly done with paper tool tags. The parameters not only have to be changed by hand if the tool has been repaired, but also manually entered into the machine. This paper-based information flow creates not only costs, but also risks.

Manually entering tool parameters into the machines can cause great loss of production efficiency, and even breakdown of the machine. What is more, the actual status of the tool is unclear, because the tag is only updated during repair. This makes frequent readjustments necessary on the machines. In

»The concept has been worked out and is now in implementation.«
MARKUS RÖSCHINGER, CHAIR OF
CONVEYOR TECHNOLOGY



A photo of the development group, which met on October 20–21, 2015: From left: Daniel Dünnebacke (GS1 Germany), Tim Bartram (GS1 Germany), Ulrich Doll (Homag Holzbearbeitungssysteme), Roman Winter (GS1 Germany), Marcus Röschinger (TU München), Alexander Steinhart (LEUCO), Orthodoxos Kipouridis (TU München), Paul Götz (LEUCO).

the worst case, the tag completely gets lost, and it is no longer possible to identify the tool.

With Toolcloud, however, each and every tool carries all parameters with it at all times. This makes it possible to transfer the tool data to the machines automatically. Once the system is implemented, the whole supply chain will not only be less prone to error, but also much more user friendly for all those involved. For example, after a sharpening process, the new parameters can automatically be transferred from the measuring machine to the cloud.

Currently, tools are identified in Toolcloud both by RFID and barcode. Every partner in the supply chain can access the tool data over the Internet.

As a partner for securing the Internet infrastructure, the project group has brought Formware GmbH on board. The company operates its own computer centers according to the latest security standards. Special value has been placed on it, although the tool parameters are basically not critical. The only prerequisite for using Toolcloud is relatively new machines, because they have to be Internet-capable. But for producers with older machines, the project group at least has a workaround up its sleeve: All of a tool's data can be accessed through a smartphone app and always has at least one virtual tool tag available.

Toolcloud is not patented, and the development partners intentionally strive for an open system for the entire industry. At the beginning, distribution will be through Homag and LEUCO.

Source: möbelfertigung 07/2015

This demo version is already fully operational and reads tool data both by RFID and barcode. The data can also be viewed on a smartphone. by an App.



LEUCO THAILAND – 15 YEARS

Precision tools for the panel and furniture industries

Bangkok is the fast-moving capital of Thailand, with a population near 8.5 million. Also in Bangkok is the headquarters of LEUCO Thailand, with a service center for diamond- and tungsten carbide-tipped tools. This year, LEUCO Thailand is celebrating its 15-year company anniversary.

Since its founding, tools for processing panel materials have been one of the company's main focuses. The large panel material manufacturers in Thailand produce a variety of materials in large volumes, so the performance of cutting tools is important to them. Our applications technology consultants at LEUCO Thailand provide the right choice and design for economically optimal tools. Over the years, panel expertise and experience have built up locally in all fields — cement fiber board, chip board, MDF and plywood panel.

Over the past 15 years, production volume in the panel industry has strongly increased, and continues to. Thailand is one of the main suppliers of panel materials for the entire Southeast Asia region. This is partly due to the presence of raw materials, such as wood and limestone, in large quantities. Closely tracking coming developments, LEUCO Thailand

will closely cooperate with the industry.

LEUCO Thailand also focuses on the Thai furniture industry. It mainly stands out for its export orientation, the size of the setups and the use of imported wood processing machines. These features are clear indicators for the use of precision tools. LEUCO Thailand assists furniture manufacturers with

state-of-the-art tool solutions, application technology consulting and a sharpening service that meets LEUCO quality standards. To gradually and sustainably expand our team at LEUCO Thailand, Kumpol Charoentripob, a colleague with plenty of industry experience, was hired. He took over the organization's leadership on October 1, 2015.

LEUCO
THAILAND



LEUCO Thailand is an important contact for the growing panel and furniture industry and a hub in LEUCO's Asian network. 3rd from left Udo Leiber, Managing Director LEUCO Asia, 4th from left Kun Wha Goh, Managing Director LEUCO Thailand, 5th from left Kumpol Charoentripob, General Manager LEUCO Thailand

Charoentripob and his team represent LEUCO in Thailand as an innovative, trailblazing, reliable company. To ensure that this happens, in the future, LEUCO Thailand will benefit even more from communication within the LEUCO companies in Asia and the LEUCO Group.

70° SHEAR ANGLE BRINGS LEUCO HIGH DISTINCTION

The Schweighofer Prize, the innovation prize for the European forest management and timber industry, was awarded on May 7. The Austrian timber industrialist and innovator Gerald Schweighofer presented prizes in front of numerous guests from the political and economic world.

Projects, products, technologies and people from Austria, Germany, Sweden, Italy and Switzerland were recognized. Dr. Martin Dressler of LEUCO accepted one of the coveted innovation prizes for the p-System. This universal tool system, with extreme shear angles of 70°, enormously extends edge life and additionally provides exceptional cutting quality, said to Dr. Brandstätter of the jury in his laudatory speech.

The bandwidth of options for using these tools ranges from the smallest shank-type cutter to the giant p-System corner cutter for sawmill use. The

Schweighofer innovation prize is already the second recognition for the p-System. The p-System corner cutter already received an award at LIGNA 2013, together with the sawmill manufacturer EWD.

"It is naturally a great honor that one of our innovations was able to win a prize which is so esteemed in the European timber industry. The award demonstrates the importance of our technology and once again highlights our claim to innovation leadership in wood processing tools," emphasized Frank Diez, chairman of the executive board.



Awarded: Daniel Schrenk (LEUCO CEO, Sales and Marketing), Jury member Dr. Manfred Brandstätter, award winner Dr. Martin Dressler, Gerald Schweighofer, chairman of the LEUCO executive board Frank Diez, from left

DANIEL SCHRENK NEW PRESIDENT OF EUMABOIS TOOLGROUP

Daniel Schrenk, director of sales and marketing of LEUCO, is the new president of the Eumabois Toolgroup.

"I'm very excited about the new job. The European machine manufacturing industry will face great challenges in coming years, including the accelerating transformation from supplier to provider of comprehensive services. Users should significantly benefit from the tool manufacturers' process expertise. This business needs to cultivate that segment of the industry to be equipped for the future. In this way, as representatives of European interests, we wish to provide active support for the companies," says Schrenk.

Schrenk especially thanks his predecessor in the job, Mr. Paul Oertli from the Swiss tool manufacturer that bears his name, for his commitment to safety standardization and to developing the industry's image among the public.

The Eumabois Toolgroup represents the interests of about 250 manufacturers of precision tools for woodworking under the European umbrella of the wood processing machine manufacturers association (Eumabois). For its part, the Eumabois association combines the technical and business concerns of 14 European woodworking machine manufacturer associations and operates from its office in Milan, Italy.



Daniel Schrenk

TOOLS ARE EASY TO FIND IN THE ONLINE CATALOG

CHOOSE TOOLS BASED ON MATERIAL, MACHINE, FEATURES OR APPLICATION

Innovations in tools and tool solutions are always exciting for customers who want to work even better and more economically. And it's great when tool info is also easy to find. **The LEUCO online catalog at the LEUCO website www.leuco.com makes things easy for the wood and furniture industries.**

FILTER TOOLS BASED ON NEED

From the entire LEUCO tool line, with about 8,500 items, customers can target the right tools to choose. The filters "Material", "Machine", "Feature" and "Product name" narrow down the choice of possible tools further and further. Example: The user has a certain material and wants a tool for processing it, so he clicks on the Material filter for that material. He is shown a number of LEUCO tools and tool types that are suitable for processing the material. If the user gets too many hits, he can easily narrow down the selection, such as by specifying the tool type more precisely by selecting "circular saw" and the diameter he wants. The online catalog is extremely flexible. Another of many search options can be chosen, such as first the machine that the tool is needed for, then closer specification of the tool's features, and finally the material to be processed, for example.

NEW!

FILTER BY "APPLICATION"

Starting in March 2016, the LEUCO online catalog is offering the innovative, practical tool filter "Application". A customer might say that he wants to process doors on a CNC machine. Then he chooses his other operations, such as cutting overhangs, fold processing, lock cases or turn-up milling. The LEUCO online catalog then shows him the matching tools from the LEUCO stock program. The customer has the further option to query from stock other dimensions than those offered.

Comparison option and price queries

The "Compare" function shows the features or relevant tools side by side. Promising tools are placed in the "Get price" basket. After the address is provided, there is always the option to ask for tool prices.

INFO

LEUCO ONLINE-CATALOG

FIND TOOLS EASILY!

- | **Where:** www.leuco.com/products
- | **What:** Filter tools from the comprehensive, up-to-date LEUCO line precisely, quickly and easily
- | **When:** 365 days a year, round the clock for everyone
- | **How:** Intuitive to use, without a password, login, etc.

Languages: German, English

→ See for yourself how easy it is at www.leuco.com/products



STILL MORE ABOUT LEUCO:



LEUCO videos are always up to date: Information on our tools, such as the LEUCO p-System, the LEUCO nn-System, tips & tricks for the tool from our LEUCO coach. About LEUCO, e.g. trade shows and events, and much more



Tip: Subscribe to the LEUCO YouTube



About LEUCO

THAT IS LEUCO

**INNOVATIVE, TREND-SETTING AND
RELIABLE - RIGHT FROM THE BEGIN-
NING!**

In 1954 the businessman Willi Ledermann and the engineer Josef Störzer founded the company Ledermann & Co. The LEUCO brand was born.

Wealth of ideas and technical know-how have been the heart of LEUCO since the beginning. The product range includes circular saw blades, hoggers, bore-type and shank-type cutters, drills, clamping systems and inserts.

Sharpening service, application consulting and service packages bundled under the term „Tool management“ complete the spectrum. LEUCO sells via direct sales. Our customers are sawmills, building-, furniture- and paneling-industry as well as interior finishing.

Internationally, around 1,100 employees work for LEUCO. Sales affiliates are in Australia, Belgium, England, Japan, Poland, Singapore, Thailand, Ukraine and Belarus. Sales and production subsidiaries are in China, France, Malaysia, Russia, Switzerland, South Africa and USA.

Welcome!
Dates:

LIGNA Conference
Hanover Fair grounds, 03./04.05.2016

LEUCO meeting point
at LEUCO in Horb a. N.
20.09. – 23.09.2016



LEUCO symposium
at LEUCO in Horb a. N.
27.10.2016

Title image:
Diamond-tipped shank cutter production
at LEUCO in Horb am Neckar

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