

Wood construction

Tool programme for the professional processing of solid wood



Introduction

New challenges & technologies for the oldest construction material in the world – future-oriented, design-led and high-quality

From today's point of view, wood as a renewable raw material, CO₂ storage and material with excellent insulating properties is probably the most sustainable raw material currently available worldwide. In modern architecture and craftsmanship, wood is experiencing a true renaissance from an aesthetic point of view, for environmental awareness, material properties and workability. The mechanical processing of wood is subject to a multitude of different demands, and this becomes particularly clear in the area of structural wood construction.

Leitz, with vast experience in solid wood applications and extensive knowledge of the challenges in manual and

industrial production, make its innovative tool range the preferred solution for wood construction companies.

For Leitz, the success of its customers and a long-term partnership is the main focus. As a leading supplier of technically high-quality tool solutions, it is our goal to increase efficiency, productivity, quality and sustainability for our customers.

This is made possible by our more than 140 years of experience in tool manufacturing and our particularly deep knowledge of our customers needs and that of the market. All of this and a worldwide Leitz service network with more than 120 of our own service stations as well as our certified quality promise, make Leitz the partner for your success.



Glulam, CLT ...

Core products for wooden house construction

Meeting challenges with innovative solutions

The demand for wood-based construction elements in the building industry continues to grow unabated. Increasing demand and the resulting growth in consumption of materials such as glulam (BSH) or cross-laminated timber (BSP) are forcing the timber construction industry to optimize its manufacturing processes in terms of cost and time. In addition, quality-forming aspects such as appearance, surface finish and gluing ability are increasingly coming into focus.

These goals can only be achieved with resilient and robust tool systems that allow high feed rates, are easy to handle, deliver perfect results and are convincing in terms of ease of maintenance.

Planerheads

Dimensional accuracy, shape accuracy and surface quality

The first operation after cutting the raw wood is planing. It is primarily the most important step in woodworking. Here, the shape and material thickness are determined, and surfaces and reference surfaces are created. When planing, the selection of the right tool and the appropriate machining strategy are decisive for the results in all subsequent machining processes.

Further information can be found from page 28 ►





Minifinger jointing tools

High-strength joints with excellent appearance

The dimensionally stable jointing of several short wooden parts to form a large component creates wooden construction elements that would not occur in nature in the required shape, size or load-bearing capacity. Particularly important is the quality and stability of the corresponding type of joint. The production of high-quality flat or upright minifingers requires tools that are optimally matched to the material, adhesive and final use.

Further information can be found from page 45 ►

Optimization cross-cut sawblades

Excellent cross-cuts with short cycle times

Perfect fitting accuracy in the shortest possible time – with precisely placed saw cuts. The prerequisite for perfect results here is the performance and stability of the circular sawblades under high loads.

Further information can be found from page 18 ►



Joinery

Wood cutting on machine controlled equipment

Precise tool solutions for every requirement

The more precise the fit in the joinery, the more time can be saved during final assembly and the better the appearance of visible components. Nowadays, CNC-controlled production machines are mainly used for this work.

The precision and quality of the joinery must also be reflected in the tools used. Leitz offers tooling solutions, especially for joineries, that more than meet these requirements.



Circular sawblades

Leitz circular sawblades offer above all dimensional stability in machining as well as tear-free and absolutely precise results.

◀ Further information can be found from page 14

Boring bits

Boring tools from Leitz are convincing in terms of shape and position accuracy and allow maximum speeds during boring, without intermediate discharge.

Further information can be found from page 74 ▶



Roughing-finishing routers

When it comes to large chip removal combined with low feed forces, Leitz routers with Marathon coating are the perfect choice for sizing, grooving or routing.

◀ Further information can be found from page 64



HeliCut 11 Roughing router

Perfect machining results, large cutting volumes and easy handling – these are the main features of the HeliCut 11 system from Leitz.

Further information can be found from page 61 ►



HeliCut 15 Cutterhead

Whether on CNC joinery systems or on other machines for solid wood processing – the HeliCut 15 rebate cutterhead from Leitz offers perfect results with maximum performance.

◀ Further information can be found from page 56

Tools for manual machines

Leitz offers a comprehensive range of turnblades, circular sawblades or boring bits for manual joineries or for finishing work on the construction site – for precision and perfection in manual operation.



Profiling

Shaping, appearance and surface

Rough sheet piling, tongue & groove, ceiling elements, profile strips, decking boards ...

Profiling is the final processing step that applies to solid wood processing – from raw wood to the final product. This is where the final shape is given to the workpiece. At the same time, this partial process also determines the quality of the final product and thus also the impression that the consumer perceives.

This and the requirements of modern production concepts need, above all, powerful and adaptable tooling systems that are reliable and flexible.



ProfilCut Q

The ProfilCut Q system stands for highest performance and cutting quality and is the customized solution for almost every requirement, every material and every machine.

Continuity of diameter, high runout quality, no adjustment effort on the machine, as well as quick and easy knife change with absolutely flexible profile design convince users day after day.

Further information can be found from page 37 ►

VariPlan / ProFix



HeliCut

The absolute all-round specialist for tear-free machining results with simple and fast cutting edge change as well as long lifetime.

◀ Further information can be found from page 56





Profile cutter

The Leitz tipped profile cutters are particularly robust and stand for the highest machining quality, long lifetime, low-maintenance operation and significant reduction in set-up times.

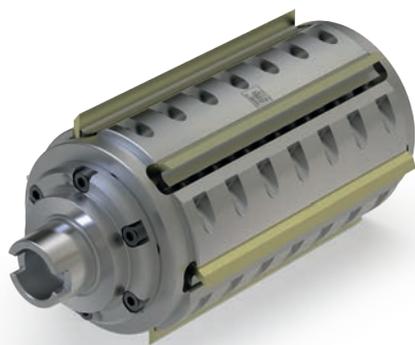
[Further information can be found from page 39](#) ►



Profile cutterheads

Leitz offers a wide range of tools for processing any profile using standard support bodies and individually profiled blanks. By mounting straight knives, the tool can also be used for planing.

◀ [Further information can be found from page 39](#)



Turnblade tools

For more efficiency and flexibility in jointing, rebating, rounding and grooving, Leitz offers an extensive range of standardized turnblade tools for particularly easy on-site service.



Planing

Not all surfaces are the same

What matters!

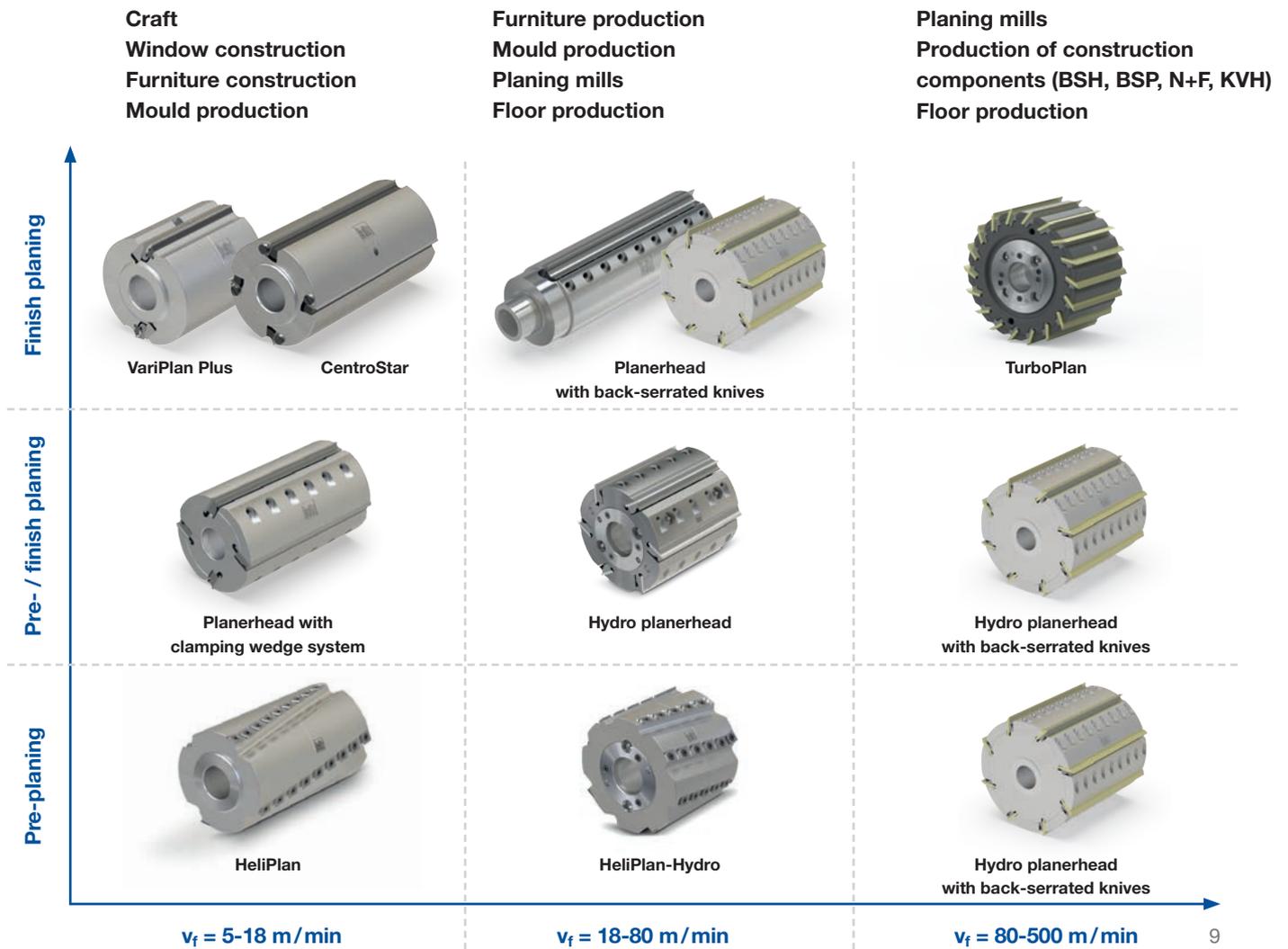
Before choosing a specific tooling system, various parameters must be considered in advance of planning. Only by answering these seven key questions it will be possible to determine the appropriate tooling solution.

Together with application experts on site, Leitz defines the technically suitable solution for each application. We always aim to achieve the optimum added value for the overall process and thus for the customer's economic success.

What type of machine is used?	The machine type determines the dimensions of the tool and how it is mounted within the production unit.
What must be the quality of the surface?	The surface quality to be achieved determines the type of tool. Important: the best technical solution is not always the most economical.
Which application data are required?	Speed or feed rate decisively determine the technical design of the tool and the number of cutting edges.
Which workpiece material is being machined?	The material to be machined and its condition determine the cutting material and the appropriate application data.
What does capacity planning look like?	The throughput of material, whether series production or single application, the goal is an efficient and cost-oriented solution.
How much material is removed?	The difference in thickness between the raw material and the finished product determines the process and thus also the choice of the ideal tooling system.
Who will do the sharpening?	The choice of tool is also determined by whether reprocessing is to take place internally or externally. Always with a view to the production costs.



... Leitz planing systems at a glance.

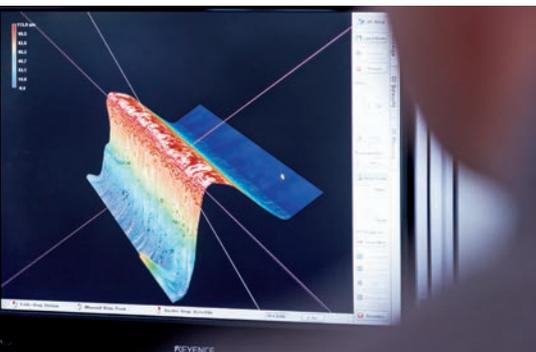


Special materials

... require special tool solutions

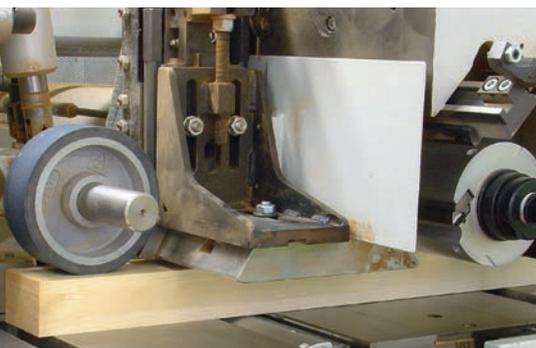
Consulting and process optimization for special requirements

Laminated veneer wood, fiber cement, Alucobond, compact laminates, gypsum fiberboard or wood fiberboard – the variety of new types of materials is great and so are the challenges that go hand in hand with them in machining.



Knowledge and experience around cutting materials or coatings

Every material has its own special features, which are reflected in the machining process. To ensure that this can also be designed optimally from an economic point of view, it is important to use the ideal cutting material for the respective application. Leitz has decades of knowledge in the development of cutting materials – whether in the form of various coatings or specially developed carbide mixtures.



Process analysis and process definition for the most economical solution

The basis for the development of feasible strategies and tool solutions is always a thorough examination of the conditions on site. Leitz engineers and technicians deal with the daily challenges that arise in ongoing production. The aim is always to find the most economical and reasonable solution in the interest of the customer and thus to support his business success.



Leitz supports its customers from a wide range of sectors and industries with individual solutions when it comes to machining new materials, increasing tool life, reducing set-up times, minimizing cutting forces, conserving resources or simply making machining more efficient.

Machining strategies around the optimal process

Leitz offers an extensive programme of training courses for its customers.

Practice-oriented training courses and workshops impart valuable user knowledge and are always oriented to the current state of the art. From tool optimization, process sequences, machining methods, milling strategies, and production optimization to the optimum use of extraction systems – the range of topics is optimally customized to individual needs.



Tool combinations or hybrid solutions

Especially when machining combined materials, each tool used must be optimally adapted to the respective machining operation. Leitz offers tool combinations or hybrid solutions that are always aimed at achieving the optimum machining result – and always under the guideline of not losing sight of the efficiency and thus the cost-effectiveness of the overall process.



Special solutions

Special tools – anything but ordinary



Three steps for the optimal process ...

Special requirements for the end product always require special solutions within the manufacturing process. Here it is important to know the numerous influencing components within a production and to understand their interdependencies in order to achieve the optimum result in the end.

Leitz, with its extensive process knowledge and wide range of products, offers the possibility to fall back on universal tooling systems and to adapt them individually to the customer's requirements.

1

Workpiece

Relevant information:

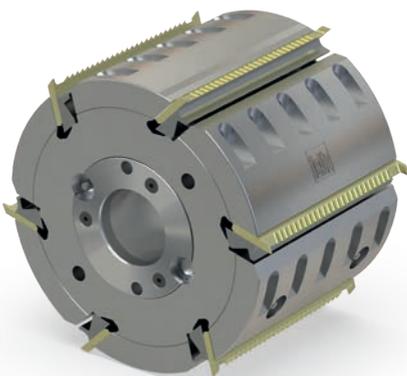
Machining task, cutting direction, profile type, material type, material properties

2

Machine

Relevant information:

Machine type, application parameters, spindle sequence, engine power,





3

Tool system

Relevant information:

Dimensions, service options, cutting material, type of adaptor

meter, manufacturer, type, year of construction, direction of rotation





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