

# Timber Building Systems



**ZÜBLIN**  
WORK ON PROGRESS





1 Ruhestein visitor information centre (DE);  
© Achim Birnbaum

# Outstanding solutions for sustainable construction

ZÜBLIN Timber can support your project in the areas of timber buildings and façades, turnkey prefabricated construction and delivery of the necessary timber elements. With the production and delivery of prefabricated wall, ceiling and roof components for timber frame or cross-laminated timber systems at our Aichach (Germany) location, we can ensure maximum flexibility while offering a consistently high level of quality.

Our innovative strength, combined with high material, construction and engineering expertise, makes ZÜBLIN Timber your reliable partner for the supply of timber construction elements.

## We know what matters

Our design solutions are industrial prefabricated. All construction systems are based on our personal experience in construction, gained in the design and realisation of international, complex timber structures. Knowledge of the day-to-day construction site routine, feedback from our project managers, listening to the concerns of the trades staff – all of this know-how is incorporated into our research and development. Our goal: to provide future-proof, high-quality, affordable solutions to the challenges of sustainable construction.



## YOUR PROJECT



**YOU ARE:  
CARPENTER, TIMBER BUILDER,  
ARCHITECT, ENGINEER**



**EXPERT ADVICE AND DELIVERY  
BY ZÜBLIN TIMBER**



# Wide variety of systems

## LENO® Cross Laminated Timber (CLT)

### Large format, solid elements with no need for grid systems

The solid, large-format building elements made of cross-laminated softwood boards can be used as wall, floor/ceiling and roof panels. All of our components are individually produced for each project and cut to precision. The solid timber elements can be produced with dimensions of up to 4.80 m x 20 m. The thickness varies from 60 mm to 320 mm, which ensures the most cost-effective cross-section for every possible load combination.

### Applications

- External walls
- Internal walls
- Floor/ceiling elements
- Roof elements
- Partition walls
- Special constructions



## LENO®-ADD

### High performance ex works

Load-bearing LENO® cross-laminated timber elements form the basis for the prefabrication of the further wall panels. For interiors: in unfinished or visual quality, with a substructure for a wall lining or furred out with drywall. For exteriors: with insulation up to the finished wall assembly including wood façade. Everything to customer specifications.

### Your benefits

- Flexible scope of services
- Shorter construction times
- High product quality through industrial prefabrication



## MOLENO timber hybrid system

### Serial construction: fast and cost-effective

Extensively prefabricated external walls made of LENO® cross-laminated timber form the foundation of the MOLENO concept. The solid, large-format spruce panels provide a strong dimensional stability and are capable of withstanding high loads. In combination with wide-span concrete floors, the result is an affordable building construction. The system allows non-bearing internal walls to be placed with greater flexibility, which enables a high degree of freedom to configure the building for specific uses.

### Your benefits

- Short construction times due to serial construction system
- Minimised planning and design effort due to standardised details
- Turnkey construction including planning and design



# The right combination

## LENO®-HYBRID

### LENO® cross-laminated timber for special requirements

The flexible manufacturing process of LENO® cross-laminated timber makes it possible to easily exchange specific material layers in the panel structure. Component properties can be adapted to special structural requirements. This is useful wherever standard cross-laminated timber comes up against its structural limits.

### Special features

- Replacement of highly stressed layers with e.g. laminated veneer lumber or OSB
- Useful for large spans or point-supported constructions
- Flexible dimensions up to a maximum of 4.80 m x 20 m
- Approved under ETA-10/0241



## LENO®-Surfaces

### Variety of special finishes

In addition to the standard finishing qualities of industrial, industrial-visual and Nordic, LENO® cross-laminated timber is also available with a variety of other surfaces – refined with a glaze varnish of the customer's choice, for example, or with a brushed surface. Other options include wall panels clad with drywall or roof panels coated with weather sheeting.

### Your options

- Industrial, industrial-visual or Nordic quality surfaces
- Fineline finish
- Stain and UV protection
- Additional layers of gypsum board
- Temporary weather membrane



## LENO®-3D

### Curved shells of cross-laminated timber

LENO®-3D is uniaxially or biaxially curved cross-laminated timber that offers a wide range of design possibilities. Barrel roofs, domes, shell structures – LENO® 3D opens up a whole new dimension for design-and-build services. Available in all variants of visual quality surfaces.

### Special features

- Radi  $\geq 9$  m
- Components with minimum of 5 layers
- Approval: ETA-10/0241
- Dimensions: 4.50 m x 14.50 m





1 Cabin, Vancouver (CA); © Design Kariouk Architects; photography Scott Norsworthy



# Solutions that make sense

## Stressed skin panels

### High-performance panel construction

Spans of up to 20 m without load-bearing partition walls, large ceilings without supports or long roof overhangs – our timber systems can make it happen. Stressed-skin panels consist of vertical ribs spaced next to each other, structurally connected via an upper panel. Where smooth soffit, insulation, or acoustic surfaces are required, or where specific fire protection requirements are stipulated, closed stressed skin panels are the right choice.

### Applications

- Roof and floor/ceiling panels
- Design as GLT-CLT combination or made of laminated veneer lumber
- Dimension up to 3 m x 20 m



## Solutions with laminated veneer lumber

### Reglued and pressure impregnated

Special shapes and lengths, large dimensions, high strengths – and equally applicable indoors as well as for weathered outdoor areas. Using multiple-gluing processes and pressure impregnation, we can modify our laminated veneer lumber components for special requirements. The gluing process also makes it possible to realise special components, whether flat or curved, cost-effectively from basic panels measuring up to 1.80 m x 20 m.

### Applications

- Long-lasting, low-maintenance façade elements
- Heavy-duty columns and beams
- Rollercoaster rails
- Load-bearing structural components for outdoor use



## Tools and joining technology

### Special tools and joining technology

In addition to a wide range of standard products, we also offer customised solutions. ZÜBLIN Timber's years-long experience in timber construction is a guarantee of our ability to offer efficient solutions even for unique special requirements.

[www.zimmereibedarf.com](http://www.zimmereibedarf.com)

### Our product portfolio (selection)

- Column supports
- Tension resistant anchors
- NHT (beam) connectors
- Screw connectors
- MGA screw foundations
- Tools





# Safely into the future

## Residential buildings

The quality of the housing is a significant factor influencing the quality of life. There is just one natural material capable of offering a pleasant and healthy interior with minimal energy requirements for heating and air-conditioning, and that is wood. Our modern timber construction systems allow for individual design while ensuring that your property will retain its value for a long time to come.



## Urban redensification and roof extension

Combining the individual building systems is a way to ensure reliable and integrated design. Our building systems provide the best possible solutions to key criteria such as maximising living space through the use of thin building components, cost-effectiveness due to short construction times, project reliability thanks to intelligently detailed solutions and the greatest possible flexibility in floor plan design.

## Kindergardens and schools

The experiences children make in their early years have a lasting impression on the rest of their lives. Used as a building material, wood conveys a sense of warmth, security and well-being. Applied to new school buildings or extensions during ongoing operations, our fast construction times and the high structural stability of our building systems make many things possible.



1 Residential house, Rickenbach (DE); © Markus Guhl  
Fotografie / 2 Rottmannstraße vertical extension, Munich (DE); © Brígida González / 3 Witten/Herdecke University (DE); © Johannes Buldmann

# VERSATILE APPLICATIONS

## Commercial and industrial buildings

Efficiency in building use, construction times and costs are especially important in commercial construction. Our building systems work with individual modules without the need for grid systems. This allows for project-specific adaptations, while the high level of prefabrication significantly shortens the construction time.



## Civil engineering and specialised construction

When implementing unconventional architectural ideas, we work closely together with everyone involved in the project, from the design and planning stage through to the actual construction. The delivery of our custom building components is preceded by a high quality of consulting and additional services in technical design. Upon request, we continue to offer our support throughout the construction phase.



## Cultural buildings

Cultural buildings are often visually appealing and stand out as lighthouse projects for the respective region. Here, economic, environmental and social aspects need to be considered along the entire value chain and building life cycle. With flexible building systems and circular architecture, our cultural buildings leave a positive footprint.



4 Staff restaurant, Allendorf (DE); AB Blocher Partners (DE); © Joachim Grothus / 5 Fuggerei NEXT500 pavilion, Augsburg (DE); © Eckhart Matthäus / 6 Stroud Chapel (UK), © Fernando Mañosa



# You value quality? So do we!

Wood is the only construction material that can store CO<sub>2</sub>. In conjunction with our energy-saving production processes, the result is a particularly positive carbon footprint for our timber construction systems.



## We don't just talk – we deliver

The wood used for our building systems is sourced from sustainable, mainly PEFC-certified forestry. With our intelligent timber construction systems, we can realise sustainable, energy-efficient and attractive buildings in the best possible way.

The HOLZ VON HIER® certification (German for “Wood from Here”) is a dependable criterion for our customers to choose locally sourced timber.

**Our manufacturing processes are controlled and certified. We do everything we can to produce your timber construction elements to the highest quality possible. Always with an eye on sustainability.**



1 EBELU, Stuttgart (DE); © Sandra Sitzmann / 2 Kiez Kaffee, Berlin (DE); © Yves Sucksdorf



**IN GERMANY  
THE WOOD NEEDED  
TO BUILD  
A SINGLE-FAMILY HOME  
GROWS BACK EVERY  
12 SECONDS**



# From the detail to the whole

## We show what we're made of: professional and honest

Having a large team on site is not the norm. We offer you the advantage of our comprehensive interdisciplinary team with services that goes far beyond production and delivery.

- Consulting
- Structural pre-analysis
- Construction proposals
- Structural design and workshop planning



## Design process/element planning

Smooth project execution requires the conversion of the architectural and structural drawings into individual element drawings that clearly depict the necessary machining operations to be carried out.

We can gladly handle this for you if you desire.

1 Fuggerei NEXT500 Pavillon, Augsburg (DE); © Sandra Sitzmann /  
2 LENO®-element, robot cutting



## High-quality production made to measure

Production is carried out at our headquarters in Aichach using modern CNC cutting systems and robot technology.

Whatever work cannot be done by machine is performed by our skilled employees – who enthusiastically go above and beyond the usual market standard. We produce all components individually and in a resource-efficient manner by working without standard dimensions or stock items. Each part is an exact fit, with special trimming, weather protection and colour.

# We build on your design and support you in the process

## Your project

We are constantly growing so we can constantly offer you new and fresh ideas. It is our aim to always produce efficient systems for the tasks you set us.

## Good partnerships are increasingly a factor for success

The tasks and challenges for everyone involved in the construction process are becoming increasingly extensive, complex and specialised.

The SOLENO network is a platform where everyone involved in the design-and-build process using wood as an essential building material can exchange ideas, share experiences and support each other. The partnership network also bundles different competencies and disciplines as a benefit for all.

As a partner at your side, we think in the long term and over the entire project cycle, from the start of the design and planning phase to the just-in-time delivery and assembly of our timber construction elements on your building site. Together with our clients, we are focused on reliability, honesty and mutual trust. We are there for you today, and we will continue to be there for you tomorrow!

**FROM PERSON TO PERSON**  
PERSONAL AND AUTHENTIC

**PLANNING CERTAINTY**  
IN FORM AND DESIGN

**CERTIFIED PROCESSES**  
ACCREDITATION AND CERTIFICATION

**TIMBER / HYBRID**  
SUSTAINABLE, PEFC, LOCALLY SOURCED

**HIGH-QUALITY PRODUCTS**  
PANEL PROCESSING, MANUAL TRIMMING, CNC MACHINING

**ON-TIME DELIVERY**  
INCLUDING SPECIAL TRANSPORTS

[ZÜBLIN Timber](#)  
[Visions of Wood:](#)  
[timber construction](#)  
[as a passion](#)







1 Boathouse on Freibergsee, Oberstdorf (DE); © Frithjof Kjer

# Work On Progress

STRABAG and ZÜBLIN are reimagining the construction industry. Our clear goal, perhaps the most important in our company's history: becoming climate neutral by 2040. But we won't achieve this goal overnight. It is a process that requires technologies, some of which we must – and will – develop before we can begin. We need completely new ways of working, ways that conserve resources and make us less dependent on fossil energy. And we need to walk this path together from this moment on. If you're looking for innovative answers to tomorrow's challenges, you've got to ask the right questions today. Using wood as a building material, in combination with our sustainable building systems, will help to achieve this change.

[For more information on how we are transforming the construction industry, see](#)



[work-on-progress.strabag.com](https://work-on-progress.strabag.com)

**PROGRESS NEEDS  
ONE THING ABOVE ALL:  
PEOPLE WHO KNOW  
WHAT THEY WANT AND  
WHO WILL ACT  
ACCORDINGLY.**



2 Residential building, Rickenbach (DE); © Markus Guhl Fotografie





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All information, technical specifications and drawings are the latest available at the time of publication (July 2023) in accordance with our experience. The applications described in this brochure are examples and should be reviewed on a case-by-case basis.  
All liability is excluded, including the liability for printing errors or subsequent changes to technical specifications.

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**1** Hofgut Maisenburg (DE); © Matthias Just

