



INNOVATIVE TIMBER SOLUTIONS FOR COMMERCIAL AND INDUSTRIAL PROJECTS

COST-EFFECTIVE - SUSTAINABLE - EFFICIENT



EFFICIENCY MEETS SUSTAINABILITY

THE CLEVER ALTERNATIVE TO STEEL AND CONCRETE

Our customised timber structures combine proven system construction with exclusive state-of-the-art technology and sustainable materials. Achieve maximum stability, large spans and a resource-saving construction method for every building project. Discover how your construction projects (>1.000 m²) can be made more efficient, faster and more environmentally friendly.

„Our timber structures are ideal for construction projects with spans of 20 metres or more - fast, resource-saving and economical. A comparison is worthwhile.“

KEY FACTS:



LARGE SPANS

Our timber structures are particularly economical from 20 metres and allow spans of up to 70 metres - perfect for open room concepts without additional supports.



SUSTAINABILITY & CONSERVATION OF RESOURCES

Our timber structures made from sustainable wood and resource-saving construction processes create environmentally friendly, long-lasting construction projects with a low CO₂ footprint, reducing CO₂ emissions by up to 60% compared to traditional steel structures. With up to 50% less wood consumption, they promote circular construction - ideal for environmentally conscious building owners and planners.



FAST AND SIMPLE ASSEMBLY

Thanks to the high degree of prefabrication and the low weight of our timber structures, transport is significantly simplified, resulting in reduced transportation fees and quicker construction timelines, ultimately leading to substantial cost savings. The clever connection technology ensures quick assembly and reduces construction costs at the same time.



EFFICIENT SYSTEM CONSTRUCTION

Proven system construction method for fast, cost-saving construction processes - ideal for building contractors, planners and architects who want to realise projects on time. For example, our recent project for a logistics facility benefited from these efficiencies, reducing construction time by 20% and saving significant labor cost.



FLEXIBILITY WITH DESIGN AND TECHNOLOGY

Our timber supporting structures can be flexibly adapted to different building projects - an ideal solution for architects, engineers, contractors, and business owners for individual and modern architecture.



NATURAL AESTHETICS AND INDOOR CLIMATE

Wood creates a warm, natural atmosphere and promotes a healthy indoor climate - the perfect choice for builders who prioritise comfort and sustainability. Additionally, timber helps reduce energy costs and improve worker productivity, making it a practical solution for enhancing overall project value.



WHY TIMBER STRUCTURES FROM LIGNA SYSTEMS?

Our timber structures are based on a tried-and-tested system construction method that combines flexibility and stability. You benefit from a solution that is characterised by high cost efficiency and short construction times. Thanks to modern production technologies, such as CNC machining and automated prefabrication, our supporting structures can be precisely planned and easily integrated into any construction project - perfect for demanding large-scale projects and individual requirements.

Need an example? An average project with a span of 30 metres can reduce the amount of wood required by several cubic metres with our supporting structure - saving thousands of euros and conserving valuable forest resources at the same time!



TIMBER STRUCTURES IN SYSTEM CONSTRUCTION FROM LIGNA SYSTEMS

SCORE AND CONVINCING WITH SUSTAINABILITY



FIRE PROTECTION INCLUDING

Our timber structures for hall construction fulfil the F30 fire protection requirement (in accordance with German industrial building guidelines) without additional coatings, thus saving you costs and effort. This unique feature reduces maintenance needs significantly, highlighting the value and rarity of achieving such fire resistance without expensive treatments. Thanks to precise calculation of the burn-off rate and flexible fire protection solutions up to F30, our timber structures offer reliable and calculable safety - without any expensive special measures.



HIGH PRECISION 3D PLANNING

Our engineering department enables lightning-fast structural calculations and provides you with exact fixed prices as well as all the necessary data in an IFC file for direct further processing - without delays, without uncertainties, for fast and precise planning. This level of precision can lead to significant cost savings and ensures compliance with regulatory standards.



RELIABLE JUST-IN-TIME DELIVERY

Our timber structures are delivered efficiently. With our powerful 3D configurator and fixed delivery times, we guarantee a smooth, predictable project process. The powerful configurator simplifies the concept phase of design, making it easier to visualize and plan effectively. Thanks to prefabricated construction elements that are delivered in assembly sequence, you reduce expensive labour hours on the construction site and save valuable time.



OUR BUILDING SYSTEM INTEGRATES CRANES

Our building system is fully designed for the use of an indoor crane. The building supports have an excess width up to the lower edge of the crane runway girders, on which the crane runway can be safely placed. Overhead cranes from various manufacturers with a load capacity of up to 20 tonnes can be easily integrated on our glulam crane runway girders.



You can find detailed information about our services on our website.
<https://ligna-systems.com/en/our-service>

KNOW HOW

WHICH SERVICES ARE INCLUDED IN THE PURCHASE OF A STRUCTURE?

Precise planning forms the foundation for every successful construction project. With our comprehensive service, we accompany your construction project from the initial concept idea to the final realisation. Our fixed services such as planning, structural analysis, design and production of the supporting structure as well as the delivery

of execution plans and 3D models (IFC) and our reliable just-in-time delivery are included in the purchase.

In addition, we offer optional services such as assembly, measuring/aligning the structure or construction supervision by an experienced site manager - all to ensure a smooth construction process.



01

KNOW HOW PLANNING & STATICS

In-house solutions from experienced engineers for maximum efficiency and safety, supported by state-of-the-art 3D planning.



02

PRODUCTION

With over 15 years of experience and development, our automated production in Europe guarantees quality, precision, and efficiency for sustainable building solutions.



03

DELIVERY

Optimised logistics for reliable and safe delivery anywhere in the world



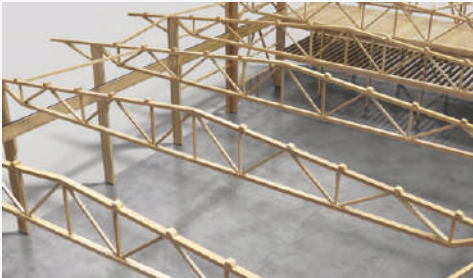
04

OPTIONAL SERVICES

Take advantage of our optional services such as structural assembly, construction supervision & measuring/aligning the supporting structure to ensure smooth and precise realisation.



A detailed description of all components can be found on our website:
<https://ligna-systems.com/en/products/timber-structures>



THE LIGNA SYSTEM SUPPORTING STRUCTURE

WHAT IS A TIMBER STRUCTURE AND WHAT DOES IT CONSIST OF?

A timber supporting structure forms the centrepiece of modern building projects. It combines stability, flexibility and sustainability in an economical load-bearing structure that has been specially developed for large-scale construction projects. Thanks to its modular design, the timber structure can be customised to the requirements of your project - ideal for industrial and commercial buildings.

THE COMPONENTS OF OUR TIMBER STRUCTURE:

- Supports: Pendulum and clamping supports, Truss systems
- Crane runway girder in timber construction
- Different types of binders
- Beam layers and mezzanines
- Stairwell and lift shaft
- Substructure for façades, window and door frames, Gate and door reveals
- Concrete base



LIGNA

SYSTEMS®

THE LIGNA SUSTAINABILITY CONCEPT



SUSTAINABILITY AND ECOLOGY

Efficient and sustainable

Maximum conservation of resources, hybrid construction and recycling. With our timber frame construction method, you save up to 50% wood and build more sustainably and cost-efficiently, for environmentally friendly, long-lasting projects with a low carbon footprint.

LET'S SHAPE THE FUTURE OF SUSTAINABLE CONSTRUCTION TOGETHER.

Contact us and let us develop innovative solutions for your next construction project together. - Sustainable, Durable, Efficient



You can find a detailed description of our 3 pillars on our website. <https://ligna-systems.com/en/sustainability/>



www.ligna-systems.com/en/contact/request@ligna-systems.com
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OUR LOCATIONS



St. Vith, Belgium
Head office with production



Aachen, Germany
Engineering office and distribution







Beiler, Luxembourg
Project management, design and sales



Hatley Quebec, Canada
Branch office

LIGNA
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