



PLANINNG
PRODUCTION
TIMBER CONSTRUCTION

USD M LLC - TIMBER CONSTRUCTION

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ABOUT USDM LLC

USDM LLC

USDM LLC is a construction and production company with over 15 years of experience. We have completed hundreds of buildings with a total area of 35,000+ m², including **10,000 m²** built using **timber-frame-panel** technology.

EXPERIENCE

Most of our projects are prefabricated **timber frame-panel** buildings. **USDM LLC** has extensive experience in the industrial production of timber frame and panel elements for buildings and structures.





ABOUT USDM LLC

TEAM

USDM LLC employs a highly qualified and experienced team capable of handling design and engineering, production management, and quality control — from project coordination and cost planning to the delivery of finished products or completed buildings



PRODUCTION

USDM LLC produces prefabricated timber elements using structural timber (KVH) and CLT panels. Mineral wool is used as the insulation material. Production on CNC-controlled machines ensures high precision and consistent quality





PLANINNG

ARCHITECTURE & DESIGN

USDM LLC provides a comprehensive range of building design services, including architecture, foundation design, and interior design.

System planning covers fire and acoustic protection, HVAC systems (heating, ventilation, air conditioning), electrical systems, drinking water and wastewater networks, as well as photovoltaic and heat pump technologies.

In addition, photorealistic 3D visualizations are created to realistically present the architecture and materials at the planning stage.





PLANINNG

EXPERIENCED TEAM

Planning is carried out by an international team with over 13 years of experience in the design and realization of timber buildings in Germany, France, Sweden, and Ukraine. The team uses advanced CAD and BIM systems (SEMA, Dietrich's, ArchiCAD) to ensure the highest level of accuracy and efficiency.



TECHNICAL PRECISION

Thanks to 15 years of experience in timber frame and panel construction, USDМ LLC delivers fully detailed technical and execution-ready documentation in compliance with EU standards. The BIM models are directly linked to CNC-controlled production systems, enabling the precise manufacture of wall, floor, and roof elements (e.g. WEINMANN, MiTek).





PLANINNG

PROJECT MANAGEMENT

As part of the planning process, USDM LLC develops budget and schedule plans, prepares cost and financing concepts, and coordinates all project phases with clients and specialist consultants.

The result is a precise, balanced, and cost-efficient design that aligns architecture, sustainability, and energy efficiency.





PRODUCTION CONTROL

PREFABRICATION OF TIMBER STRUCTURES

The timber construction of USDM LLC is based on the principle of full prefabrication, whereby all timber elements of a building are manufactured under controlled workshop conditions.

The production facilities enable a closed manufacturing process—from timber processing to the fabrication of complete wall, floor, and roof elements.

Production is carried out under the supervision of an international team of technologists and engineers. The process is based on modern timber-processing technologies, precise CNC-controlled assembly, and the use of materials of certified origin and sustainable quality.





PRODUCTION CONTROL

TIMBER PROCESSING

The timber used is sourced exclusively from responsibly managed forests and is FSC® certified. It is kiln-dried in technical drying chambers to the moisture content specified by EN 14081-1.

After drying, the timber is calibrated, cut, and strength-graded into classes C18, C20, C22, and C24, with marking in accordance with EN 338. Structural timber (KVH) for load-bearing components is produced on CNC-controlled machinery.

Wood residues and chips are reused or recycled in compliance with FSC® Chain of Custody (CoC) requirements.





PRODUCTION CONTROL

TIMBER FRAME PANEL STRUCTURES

Timber frame panel structures for walls, floors, and roofs are manufactured on automated CNC-controlled production lines. FSC®-certified structural timber and glued laminated timber (KVH) are used. Basalt wool, a mineral, durable, and environmentally friendly insulation material, is applied as insulation.

OSB panels from leading European manufacturers, certified according to FSC® or PEFC, ensure material quality and traceability. The entire production process is BIM-based and corresponds precisely to the structural and architectural design.





PRODUCTION CONTROL

CLT PANELS (CROSS-LAMINATED TIMBER)

CLT (cross-laminated timber) panels are solid timber elements manufactured by crosswise bonding multiple layers of timber lamellas. This process provides the material with high dimensional stability and load-bearing capacity.

The production process includes the grading and preparation of lamellas, the application of environmentally friendly adhesives, and high-pressure pressing to form a homogeneous multi-layer panel. After bonding, the panels undergo calibration, CNC machining, and surface finishing.

All cut-outs and openings for building services are manufactured at the factory on CNC-controlled machines in accordance with the BIM model. The timber used is FSC® certified, and the adhesives comply with European standards EN 301 and EN 15425.





PRODUCTION CONTROL

TIMBER TRUSSES AND ROOF TRUSSES

Timber trusses and roof trusses are manufactured using the MiTek system, in which individual elements are connected with metal nail plate connectors. This technology enables lightweight, load-bearing, and dimensionally accurate structures for roof and floor systems.

Production is based on a BIM model, from which production and CNC data are generated directly. The nail plates are pressed in under controlled pressure, ensuring durable and secure connections. Only FSC®-certified structural timber is used, and all products comply with the requirements of EN 14250.





PRODUCTION CONTROL

AUTOMATED MANUFACTURING

Building components are produced on fully automated production lines with CNC-controlled precision. The manufacturing process is fully integrated into the BIM system, ensuring that each component exactly matches the project documentation.

This approach increases production speed, reduces sources of error, and ensures consistent quality. Thanks to the high level of prefabrication, on-site assembly is fast, clean, and requires minimal effort.



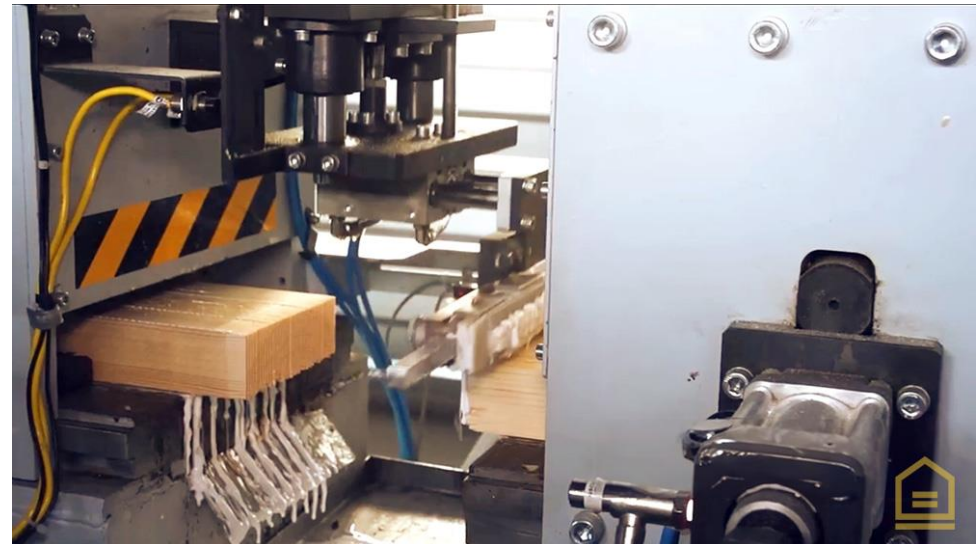


PRODUCTION CONTROL

GUARANTEED QUALITY AND PRECISION IN EXECUTION

USDM LLC covers the entire project scope—from design and production of timber frame and panel structures to on-site assembly. This ensures that all critical project phases are fully controlled and perfectly coordinated.

Each component is inspected at every stage, from BIM modeling through to final installation. This integrated approach guarantees the highest execution quality, structural safety, durability, and energy efficiency, in full compliance with current EU standards for sustainable timber construction.





TIMBER CONSTRUCTION

SPECIALIZATION

The core expertise of USDM LLC lies in the manufacture and assembly of timber and hybrid construction systems with a high level of prefabrication, including the supply and installation of windows and external doors, as well as the execution of all external works such as façades, roofs, terraces, balconies, loggias, and roof drainage systems.

Thanks to extensive construction experience, USDM LLC can also act as a general contractor, providing the full scope of services for timber-based buildings and structures—including turnkey delivery, overall project planning, and the coordination of all subcontractors during the construction phase.





EXPERIENCE





EXPERIENCE





EXPERIENCE



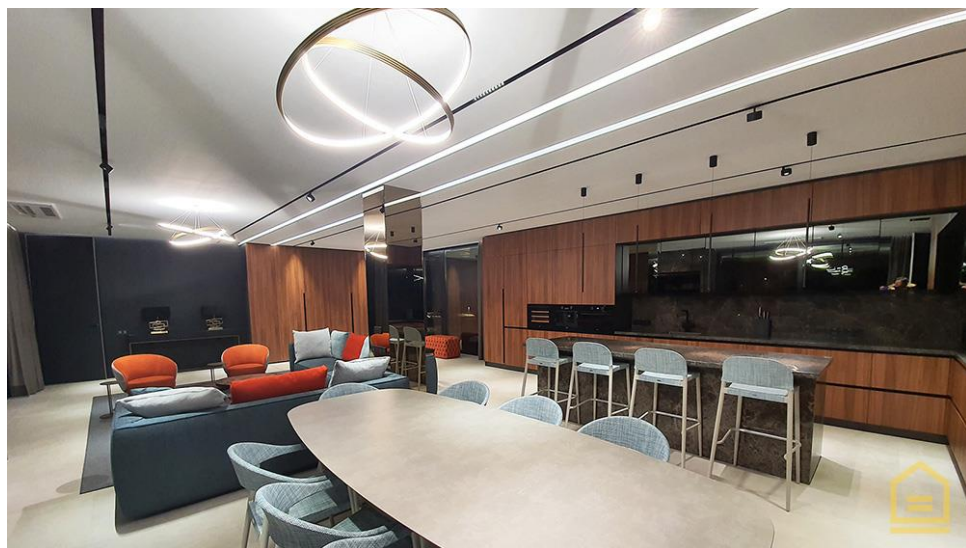


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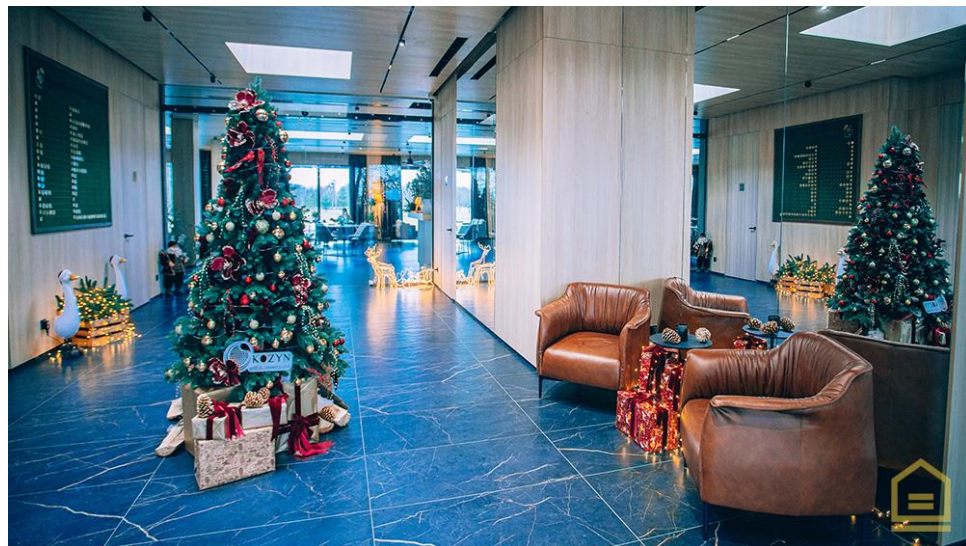


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