Obermayr Holzkonstruktionen: Innovators in sustainable timber construction!

"Our company has gained considerable visibility and our building contributes to a positive corporate image: a significant benefit that cannot be measured in numbers!"

Hans-Christian Obermayr, Managing Director

A wood-processing company constructing its own building out of wood is hardly worth mentioning. However, Obermayr's production hall sets new standards for energy technology and design. In addition to offering high energy efficiency, low operating costs and an optimal work environment, it attracts considerable attention to the innovative company.

The project

Production hall in timber construction and passive building standard

Year of construction
2004

Usable area
3,500 m² usable floor space
900 m² canopy

Energy performance indicator
8 kWh/m²a (space heating demand)

Investment costs
About 2 million Euro

Lighting concept
- daylight-driven lighting control
- additional investment costs: 28,000 Euro
- energy cost savings: around 7,000 Euro/year
- payback time: 4 years
- daylight optimisation (sky lights)

Construction
- 7,000 m² of prefabricated wooden roof and wall elements
- laminated timber trusses and supports
- insulation made of wood chips and recycled mineral wool

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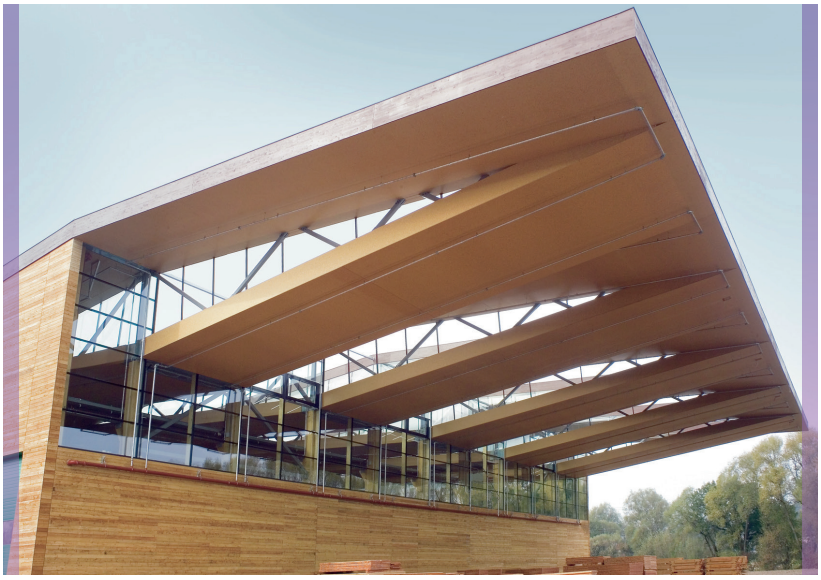

Specialist for commercial buildings and industrial halls in timber construction

Obermayr is one of the most innovative companies in its field and has shown by example that timber multi-story residential buildings and industrial halls are possible. It has dared to carry out ambitious projects – many of which award winning. Recently honoured projects include the "Dragonerquartier", a six-storey apartment building in Wels, and the "Grüne Erde-Welt Almtal", a 9,000 m² production and sales building that stands out due to the complex structure of its roof and the absence of any visible steel parts.

Obermayr's production hall: Pioneering work and showcase example

Triggered by an increase in sales and the need to expand, Obermayr built a production hall that has made the company a pioneer in timber construction. This first large-scale industrial hall in timber construction and passive building standard features remarkable wide spans and an 18-meter support-free projecting roof.

The heating demand of 8 kWh/m² and year is around one sixth of the typical value at the time. The innovative building requires neither a heating nor cooling system. This was achieved through a number of smaller and larger measures: high-speed gates, high airtightness, night ventilation, activation of the concrete floor slab and construction using highly thermal insulated wood sandwich panels.

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Artificial light: on demand only

The daylight-driven lighting concept reduces the electricity demand for lighting by up to 70%. This enables energy cost savings of 7,000 Euro compared to conventional lighting. The additional investment costs for the lighting control system were 28,000 Euro and had a payback time of only 4 years.

One project – many benefits!

Today, almost 15 years after construction, it is clear that the building delivers what was promised: minimisation of operating costs, optimal work environment, increased employee performance and benefits from the company's forward-looking, environmentally conscious image. The project anchored the company's position as a pioneer in innovative, energy-efficient timber construction for commercial and industrial buildings. Obermayr uses its experience and implements many of the solutions from its own production hall in customer projects.

Producing with renewable heat from wood residues and solar power

Obermayr has implemented many measures to exploit its energy efficiency potentials and switch to renewables. 99.9% of the space heating and process heat for wood drying comes from its own wood residues. Additionally, a biomass boiler heats 5 single-family houses via a local district heating network. A 175 kWp PV plant reduced the electricity consumption from the grid by around 30%, resulting in a payback period of only 8-9 years. A screen at the reception displays the self-sufficiency level of the production hall in real-time: a diagram illustrates the current share of self-generated electricity in the building's total electricity consumption.

There is more!

Managing Director Hans-Christian Obermayr is continuously on the lookout for ways to save energy and to use more renewables. There are already plenty of ideas for trendsetting projects that would further increase the company's energy self-sufficiency, such as switching to electric forklifts and replacing the biomass heating system with a biomass cogeneration plant to generate electricity and heat from wood residues.

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The company – key facts & figures

Obermayr
Holzkonstruktionen

Founding year
1933

Products
Timber construction for residential, commercial, industrial and municipal buildings, silos for road salt, timber bridges, laminated timber constructions

Employees
80

Location
Schwanenstadt, Austria

Processes
Production of laminated timber, hall construction, production of wood, roof, wall and ceiling elements

Ownership structure
Owner-managed family business

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