

# Warehouse Steiner AG, Walkringen BE

1996



The log yard of the company Steiner Sägewerk und Holzhandel is located in a hollow between the railroad line and the road. On a width of approx. 60 m and a length of 400 m, a superstructure and logistics concept for the future operation had to be created.

## The project

The gradual building over of the area with halls should enable the management of the log yard at any time. The chosen concept provides for a hall across the axis of the railroad and the road, which can be extended in both directions. With a floor plan of 14 x 55 m, only the first of four halls will be built. The details The supporting structure was built on a grid of 5.00, or 5.50 m in order to still obtain economical cross-sections for the solid wood rafter purlins.

## The construction method

Since the hall was relatively narrow at 14 x 55 m and no frames could be used for the supporting structure due to lack of space, we opted for a combined supporting structure solution: Curved gable roof girders on pendulum columns formed the primary supporting structure; a spatial steel core with flexurally rigid frame corners was installed at the passageway. Horizontal wind forces are transferred to the steel crosses in the end walls and to the steel core by horizontal truss bracing. The details were specifically designed for rapid erection: Supporting structure as pure skeleton construction, steel brackets inside, walls prefabricated as elements and inserted from the outside. This means that, in theory, any wall element can be removed without affecting the supporting structure. This also ensures flexibility for conversion and expansion.



Exterior view



Assembly of the wall elements



Assembly of the wall elements



### Construction Data

- Glulam 35 m<sup>3</sup>
- Sawn timber (purlins  
- elem.) 41 m<sup>3</sup>
- Inverted formwork 430 m<sup>2</sup>
- Cover strip formwork 100 m<sup>2</sup>
- Storage area 690 m<sup>2</sup>
- Roof area 820 m<sup>2</sup>
- Facade elements 530 m<sup>2</sup>

### Timber construction contractor

Boss Holzbau AG  
3600 Thun

### Owner

GEBAWO Cooperative for Building and Living  
3600 Thun

### Construction management

Müller + Messerli Architekten  
3600 Thun

### Architect

Metron Architekten  
5200 Brugg

### Timber construction engineer

Stefan Zöllig c/o Boss Holzbau AG  
3600 Thun