Usine 8

Design-build of a furniture factory extension featuring a timber frame.

CLIENT

Fournier

TEAM

Patriarche (Architecture, EBQ, BIM, Urban planning, Landscape)
Autumn | Patriarche (Main contractor)
Partners:
Plantier, Arbonis

KEYPOINTS

Low-carbon building.
Timber frame.
Project in seismic zone.

The project is part of Fournier's site expansion strategy, aimed at increasing its production capacity. The factory, now extended by more than 20,000 m², includes a large manufacturing hall as well as rack storage areas reaching up to 12 meters in height. It enables the production of decorative panels, custom-made storage solutions, façades, and much more.

Subject to particularly stringent construction standards, the operation represented a major technical challenge for our design-build teams (Autumn | Patriarche), especially regarding fire stability.

These constraints, combined with our commitment to low-carbon buildings – driven by our Building Environmental Quality team – led us to opt for a timber structure. This choice is perfectly aligned with the project's identity, as wood is one of Fournier's most emblematic raw materials.

Typology
Industry

Construction cost
60 M€

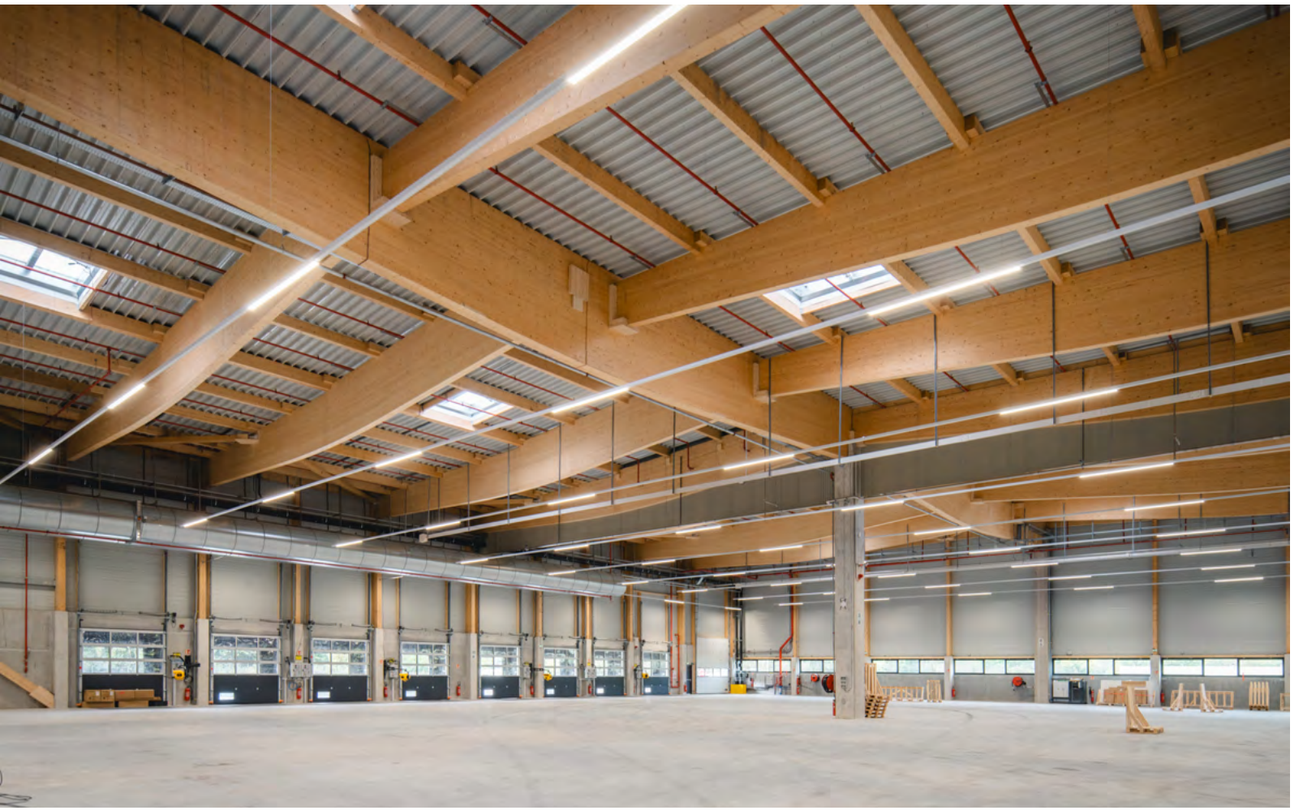
Status
Delivery 2023

GFA
20 000 m²

Location
Alex, France

Project delivery
Design and production

A challenge for the timber structure



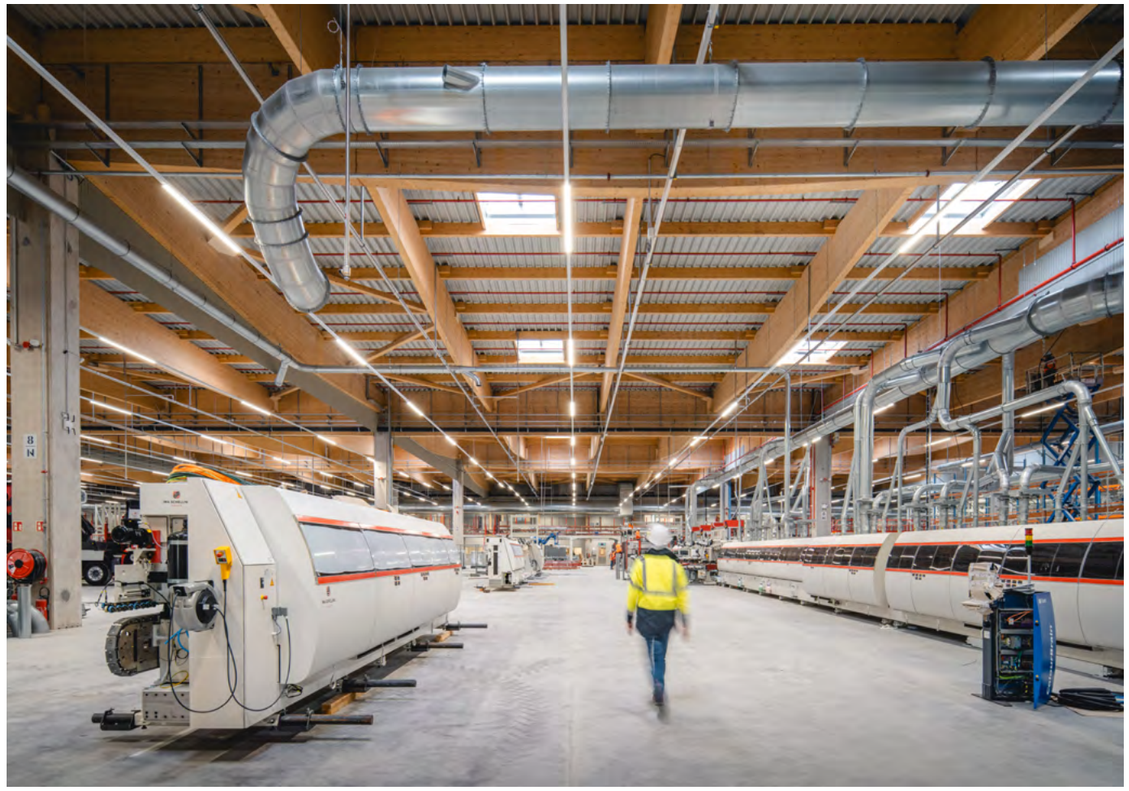
Located in one of the snowiest and most seismic zones in France, the building required an in-depth structural design to ensure stability while providing resistance to seismic shocks.

The overall structure was built using pendular frames: concrete columns, hinged at the top and bottom, support timber glulam rafters with variable inertia.

The workshop, adjoining the warehouse, consists of concrete columns fixed at the base, supporting a glulam timber frame. This frame features long beams spanning 24 meters, using rafters—a configuration that is extremely rare for timber structures of this length.

Around the perimeter, timber columns complete the structure, while timber bracing panels help ensure overall stability.

To ensure the stability of the structure, timber diagonals were used, forming wind bracing beams and stability panels. The longest of these beams measures 60 meters in length.



Factory 8

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