



# LICEO MALPIGHI - BOLOGNA

## WOOD EXTENSIONS AND ROOFS

In Bologna, Sistem Costruzioni has created the new roofing for the exteriors and the wooden extensions in the headquarters of the Malpighi High School. The use of laminated wood has allowed us to obtain extremely flexible results from an architectural point of view, with a significant aesthetic impact and at the same time resistant to the elements.

### PRODUCT SPECIFICATION

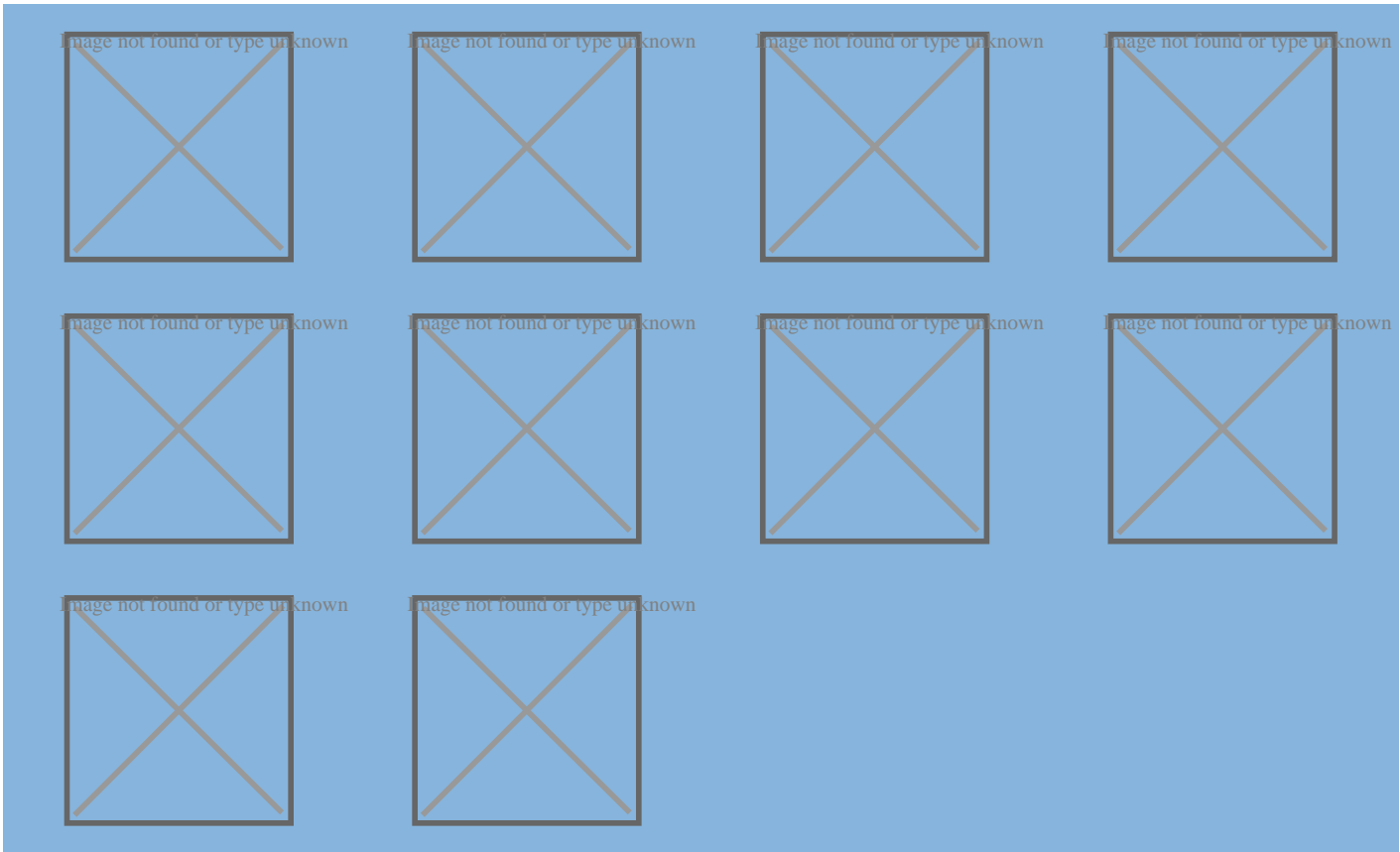
Wooden cover

**Localization:** Bologna

**Intended use:** Schools

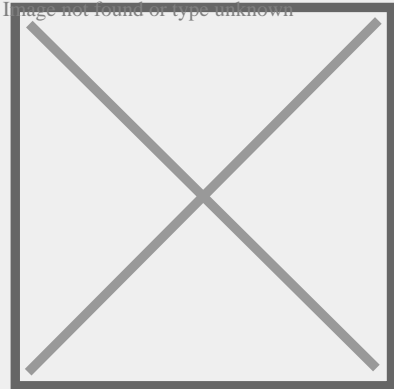
**Architeturale and structural design:**

**Total area:** ft



# BUILDING SYSTEM

## Laminated and Solid



### Reasons for choosing the Laminated and Solid system

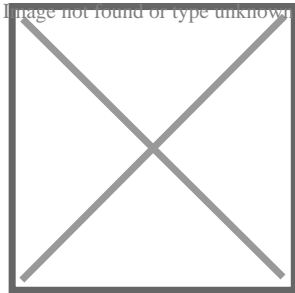
This construction system guarantees **the creation of timber roofs of various sizes and of different levels of complexity** in compliance with specific static loading calculations and transferring vertical and horizontal loads to the foundations by means of conventional building elements, in certain cases.

#### A durable and versatile timber roof

The unique characteristic of laminated wood and the connections between the various elements make it possible to create roof spans of more than 30 metres and **to build roofs of very large surface areas without having to break up the ground plan of the building with awkward intermediate pillars.**

#### High levels of insulation and strength

Depending on the thermal requirements, the **roof** can be completed with an insulating package and outer covering. The joists of the web roof structure can be designed in accordance with a very diverse range of geometries: the ridge beam establishes the shape of the roof while the wall plate beam can be adapted to match architectural, static or application requirements. The nodes of the web support structure can be created with metal plates fastened to the wood with screws and pins, with wood to wood joints, or by means of direct fastening with normal screws or full-threaded screws. Because they are extremely slender elements, timber joists or rafters must be braced with timber or steel elements designed to prevent the occurrence of lateral out-of-plane instability.



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