

## EVAPORATIVE COOLING SYSTEM FOR A FOOD PRODUCTION COMPANY

FOOD INDUSTRY



### THE NEED:

The customer carried out a study of its existing ventilation system. This analysis highlighted the need to upgrade the ventilation system in phase A of its in-house production project.

The main objectives were to:

- Improve thermal comfort in production and packaging areas.
- Guarantee optimum indoor air (maximum temperature of 26°C, humidity management, prevention of condensation and oil mist).
- Optimise Delta Neu's existing ventilation units.
- Minimise the acoustic impact of the system (sound measurements planned before and after installation).
- Comply with health and safety standards (VDI 6022 requirements, installation of insects barrier on extraction units).
- Guarantee simplified maintenance and effective monitoring to limit production interruptions.

### THE SOLUTION:

Installation of an adiabatic ventilation system based on Econoclim C technology, supplemented by Extractair extraction units to guarantee an optimal working environment in the areas concerned.

#### Main features of the solution:

##### Adiabatic ventilation with Econoclim C 20/40 :

- Generation of cool air by evaporation of water for efficient, energy-saving cooling, with a flow rate of **40,000 m<sup>3</sup>/h** per unit.
- Low power consumption (15 kW per unit).
- Stainless steel structure for durability and ease of maintenance.
- Two-stage filtration: **G4 pre-filter and F7 filter** (55% PM1 efficiency).
- Extraction system with Extractair H90 : Low-speed fans to reduce wear and noise.
- Insects' barrier with the G4 filter and filtration system to ensure extracted air. Integrates into existing structure for efficient installation.

**Air distribution via textile ducts** adapted to the needs of each production area and distribution of a uniform air flow.

