



The demanding conditions of food production plants made evaporative cooling the optimal choice for a reliable, efficient cooling solution.

MASPEX

Food and beverage industry

System installed

Direct Evaporative Cooling System

Supplier & Installer

WEST AIR

Equipment & Configuration

8 x Breezair units

Maspex is one of the largest companies in Central and Eastern Europe in the food products segment and the owner of well-known brands.

In Romania, the company owns several ultra-modern production centers, one of the most important being the one in Valenii de Munte, Prahova. In recent years, Maspex has been strongly involved in implementing solutions with a direct impact on reducing the carbon footprint and reducing energy consumption in their production units.

The challenge

One of the major challenges in the food and beverage industry, particularly in the production of alcoholic and non-alcoholic drinks, is maintaining optimal working conditions in environments with high temperatures and humidity. In such conditions, traditional cooling systems struggle to perform efficiently, as they must first condense large amounts of moisture from the air before achieving any significant temperature reduction. This process results in high energy consumption, with most of the system's power being used for dehumidification rather than effective cooling.

The solution

After thoroughly analyzing various air-conditioning options, Maspex's technical team selected adiabatic cooling as the perfect and most efficient solution. Unlike conventional systems designed to overcome thermal loads, adiabatic cooling relies on the principle of hot air displacement — expelling accumulated warm air from the upper part of the hall while introducing fresh, cooled outside air. This method leverages “free cooling”, using the natural cooling potential of outside air whenever possible. When ambient temperatures rise, the system automatically activates evaporative cooling, where water evaporation absorbs heat from the air, significantly reducing its temperature. For industrial environments with high thermal loads and humidity, such as Maspex's production facilities, adiabatic cooling provides a highly energy-efficient and sustainable alternative to conventional systems.

The result

Maspex implemented a spot cooling system consisting of eight Breezair TBS 580 Supercool units to deliver cool, fresh air to one of the production areas where summer temperatures had previously reached extremely high levels. This solution effectively overcame the significant thermal load using the natural process of water evaporation, while consuming only 14 kWh of energy — a remarkable demonstration of efficiency. Beyond energy savings, the installation now ensures a comfortable and healthy working environment, continuously supplying fresh outdoor air to employees in the production hall.



Improving Indoor Air Quality (IAQ)



Cool, fresh outside air



Low running costs



Only water used



Sustainable technology



Easy to install and maintain

