



Improved indoor temperatures during summer, by installing cost-effective Breezair evaporative cooling.

Supplier: Italkero SRL
Design Engineer: Italkero SRL

AEC Illuminazione operates in the business of public lighting for over 60 years.

The Company's philosophy, based on the concept of "total quality system," predicts the concentration of all the production phases in the Italian headquarters in Arezzo.

Project requirements

AEC Illuminazione SRL is a manufacturer of indoor and outdoor public lighting based in Arezzo, Central Italy. The company is market leader in street, urban, tunnel and indoor industrial lighting.

The industrial building located in Arezzo extends over an area of 50,000 square meters (including buildings & external areas). The temperatures in the production line, which covers 2,000 square meters, could reach 40-42°C in Summertime. These temperatures could seriously compromise staff wellbeing, as well as decrease productivity.

Solution

Italkero, official supplier of Breezair evaporative cooling products for Italy, suggested evaporative coolers as a solution to meet management's requirements to decrease temperatures, in a situation where traditional air conditioning was not an option due to high running costs.

Breezair in fact is the perfect solution to cool such big areas, ensuring significant savings, since it only uses water and electricity to run. The evaporative cooling choice is part of AEC environmental commitment, trying to reduce carbon footprint and energy consumption.

Installation & Results

Italkero has assessed the plant's requirements in terms of temperature and air changes and calculated the need of 32 Breezair units to be installed in the roof of the factory building.

Since the installation, the inside temperature has been kept to a more comfortable 26-27°C. As a result, the working conditions were improved, allowing the company to continue its operations without letting the CNC machines to stop due to heat load.

AEC needed to control the humidity level inside the building, setting a certain level of relative humidity, since the components involved in the production are mostly electrical. Above this set point the machines would stop running with evaporation and provide ventilation only.

"Breezair works perfectly and really improved staff wellbeing. We are using the water drained from Breezair to fill up the firefighting water tank, so we can save twice. First of all, we are using a cooling system that only uses water and electricity: second, we re-use the water, opting for a green choice and preserving the environment."

- Alessio Nuti, Production Manager at AEC

Benefits

Industrial and commercial buildings usually have heat issues. Air conditioning might seem the obvious solution, but it is expensive to install and maintain; and requires doors and windows to be kept shut. As outside temperatures increase, buildings with inadequate ventilation become unbearably hot and stuffy.

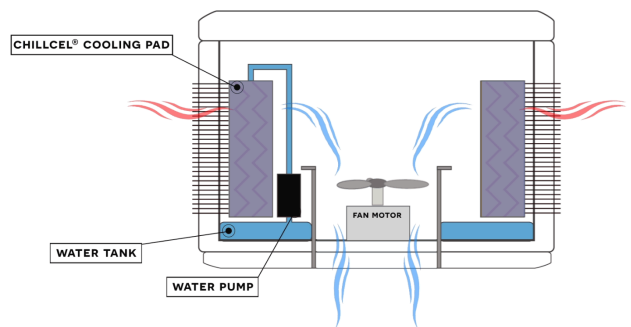
Easy to install and maintain, Breezair evaporative coolers are the best solutions when cooling large and semi-open areas. Running only with water and electricity, they use up to 87% less energy than conventional air conditioning, thus resulting in a significant saving in running costs.

Drawing 100% fresh air from outside, evaporative coolers offer a great health advantage over refrigerated air conditioning, which recirculates the same stale dry air over and over.

How it works

1. Hot outside air is pumped through water soaked pads
2. As the air blows through the pads, water is evaporated and the heat in the air is absorbed
3. A fan then pushes the cool air through a ducting system, which then lets the cool air inside the whole building

Breezair cooling units feature a patented fan: they can also be used in fan mode only (with no water), to blow fresh air through the vents.



eurosales@seeleyinternational.com
uksales@seeleyinternational.com

www.seeleyinternational.com



Seeley International France
320 Avenue Berthelot
69371 Lyon Cedex 08
France
Phone: +33 (0) 472 7847 80

Seeley International Italy
Loc. Policiano 72/M
52100 Arezzo Italy
Phone: +39 (0) 575 97189

Seeley International UK
Unit 11 Byron Business Centre,
Duke Street
Hucknall Nottingham
NG15 7HP United Kingdom
Phone: +44 (0) 115 9635630

