

**Evaporative coolers installed in the multi disciplinary sporting center in Sevilla La Nueva, improving comfort of children training there.**

**Supplier:** Australair Ecoclimatización

**Design Engineer:** Australair Ecoclimatización

**Adolfo Suarez Sport Center is situated in Sevilla la Nueva, a small municipality of 9,000 inhabitants, near Madrid.**

**The Center hosts many athletes, specifically children attending extra-curricular activities.**

**The new municipality decided to switch to evaporative cooling to improve thermal comfort.**

**Project requirements**

Adolfo Suarez Sport Centre hosts many athletes coming from the small municipality of Sevilla La Nueva, a district in the South West of Madrid. Users of this Sporting Complex are mainly children attending extra-curricular activities and the public watching the matches.

The roof of the building is made of aluminium sandwich panels with poor insulation during hot summer days. Moreover, the same roof produces a greenhouse effect, multiplying temperatures inside the building. If we add to this the gym's lights, the windows (with no curtains) and the athletes' heat load, the result was that inside the Sports Center temperatures could reach several degrees higher than the outside temperature.

The heating issue had been solved several years ago, by means of a diesel boiler system, but cooling was still the great unresolved matter, with no other means of mitigation than extractors, which could dissipate part of the heat generated, but introducing outside temperature air only.

**Solution**

Australair Ecoclimatización, official distributor of Seeley International products, came up with an interesting solution involving evaporative cooling, suggesting the installation of Coolair direct evaporative coolers.

## Installation

To cool the 1000 m<sup>2</sup> building, Australair suggested to install 4 x Coolair CPQ1100X units, with a cooling capacity equivalent to 14.1 kW each unit, air flow of 10,120 m<sup>3</sup>/h per unit and a maximum consumption of 1.2 kW per element (4 in total).\* The average water consumption approximately 30 l/h.

With this installation the problem of air conditioning of the Sports Center has been completely solved, reaching much more comfortable internal temperatures between 25 and 27 °C. For what concerns saving in energy costs, we should consider that the extractors can be now removed or not used anymore: in fact, they were low efficiency machines with higher energy consumption, compared to Coolair.



## Results

With this solution, the Municipality of Seville la Nueva has become a pioneer in the implementation of bioclimatic solutions in public buildings, with an eco-friendly and energy efficient cooling solution that takes care of the environment as well.

## Benefits

Industrial and commercial buildings but also gyms and sport centres, 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.

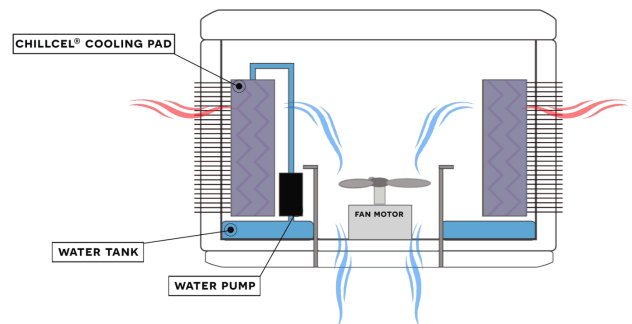
Easy to install and maintain, Coolair evaporative coolers are the best solutions when cooling large and semi-open areas. Running only with water and electricity, they use up to 80% less energy than conventional air conditioning, thus resulting in a significant saving in running costs.

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

Coolair 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.



\* Cooling capacity measured to Australian Standard AS2913-2000, ambient of 38°C dry bulb and 21°C wet bulb, with room exit temperature of 27.4°C.



[eurosales@seeleyinternational.com](mailto:eurosales@seeleyinternational.com)  
[uksales@seeleyinternational.com](mailto:uksales@seeleyinternational.com)

[www.seeleyinternational.com](http://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

