



# PROJECT REPORT

## CENTRE HOSPITALIER SUD FRANCILIEN

TrilliumSeries Coolers, the best solution for one of the most modern hospitals in France



(15) TrilliumSeries Coolers, DFCV-S9026-S616B-AD

The Southern Paris Region Hospital, located South of Paris, is realised by the public-private partnership between the French government and the Eiffage Group and is one of the largest and most modern hospitals ever built in France. For this prestigious project one central cooling plant will handle all cooling needs within the building, reaching from the air conditioning system to process cooling (as scanners, IRM, ...).

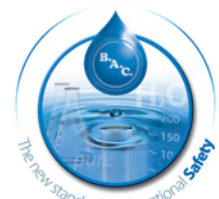


### The most advanced heat transfer concept

Eiffage who handles the design and construction will also be responsible for the maintenance of the entire hospital during a 30-year period. No need to say that Eiffage carefully analysed every aspect of the project in an attempt to apply the most reliable solution, which offers them **an operational safety at a minimum operation and maintenance cost.**



For the heat rejection equipment of the cooling plant multiple options were evaluated going from conventional dry to adiabatic, hybrid and evaporative cooling equipment. Dry heat rejection equipment was not an option because of its low thermal efficiency and from the remaining high efficient heat rejection equipment the adiabatic TrilliumSeries Cooler of Baltimore Aircoil was selected to be the best solution to all the needs.



## Unique operational safety and hygiene

Compared to the other equipment the major advantage of the TrilliumSeries Coolers was determined to be their unique operational safety. The coolers work completely dry during the majority of the year. Up to an ambient dry bulb temperature of 23.2°C the coolers can reject the full thermal load in dry mode.

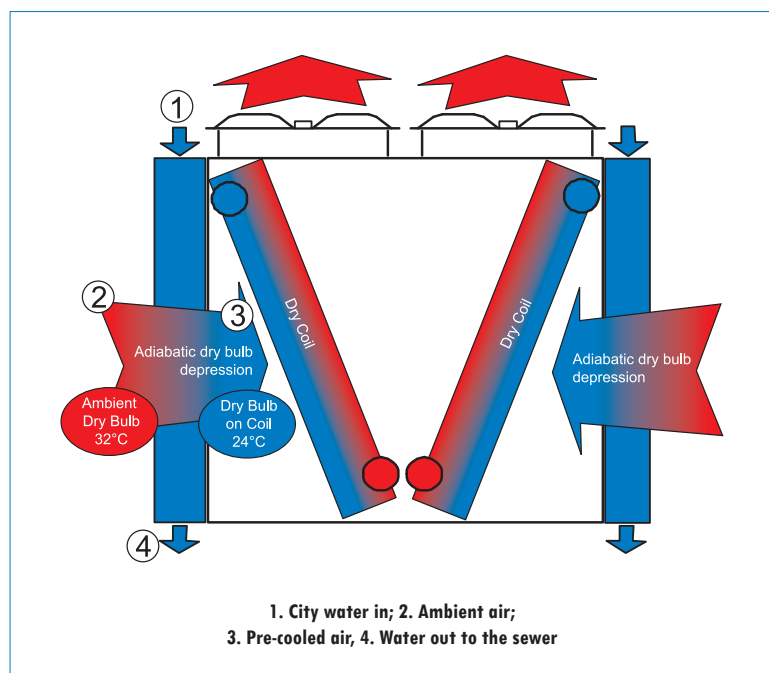
In conditions where dry cooling becomes ineffective, the adiabatic pre-cooler sections enhance greatly the cooler's capacity. The aerosol free once-through-system, which doesn't require any water treatment, eliminates any health and safety hazard to the environment.

The sophisticated controls of the TrilliumSeries Coolers are entirely integrated in the building management system and minimise the water and energy consumption as per the customers requirement, ensuring an accurate control. This closely anticipates on the heavy varying thermal loads of the multiple cooling processes.



## Selection parameters

15 times 25,4 l/s of H<sub>2</sub>O from 33.1°C to 27.1°C at 31°C entering ambient dry bulb and 21 wet bulb.



**When the designer/contractor and operator are one and the same person,  
only the BEST is good enough.**

**That's why the adiabatic TrilliumSeries Coolers from Baltimore Aircoil  
have been selected for the cooling of this new modern hospital.**