

CASE STUDY

Al Hammadi Hospital – Riyadh

“

Electricity consumption decreased by 35% after the installation of the intelligent adiabatic **Smart Cooling™** system on cooling equipment.”

CHECKED AND TESTED FOR PROVEN RESULTS.

Efficacy assessment has been conducted and validated. Testing was performed with a **BTU** liquid flow and temperature meter **RIF600** and **Eniscope** energy monitoring equipment.

CUSTOMER

Al Hammadi Hospitals Group is one of the largest comprehensive medical care providers in Riyadh, Saudi Arabia, meeting the healthcare needs of local patients. The hospital is one of the most respected institutions in Riyadh, with 202 outpatient clinics and 1328 beds and equipped with the latest modern medical equipment in the region and has received investments of over 400 million dollars.

CHALLENGE

Al Hammadi Hospital office is equipped with ten identical Trane RTAC500J chillers. Eight units operated at the same load, which resulted in excessive consumption of electricity, particularly during heat season, when chillers operate at peak performance, which is detrimental to the efficiency and longevity of the chillers' compressors.

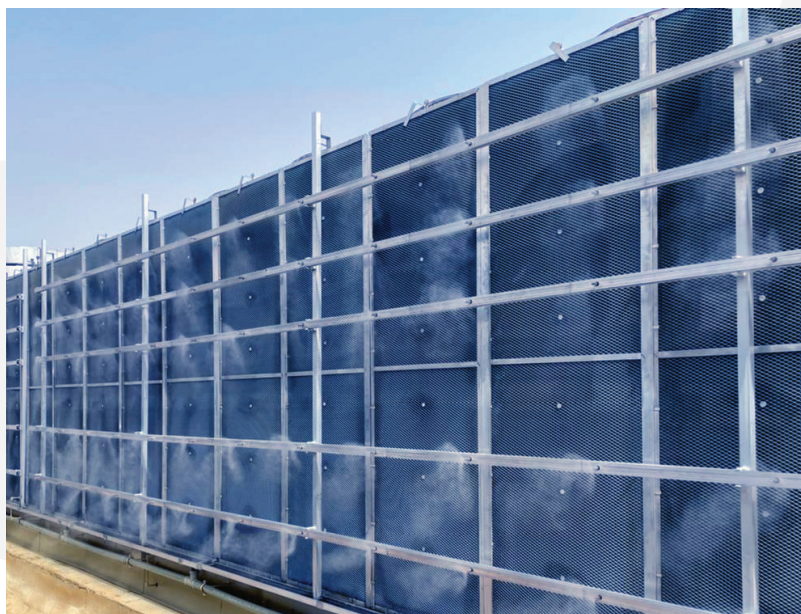
SOLUTION

The intelligent adiabatic Smart Cooling™ system provides condenser pre-cooling, allowing the condensers to operate at lower temperatures, thus reducing load and increasing COP levels and reducing electricity consumption.

The chillers at Al Hammadi Hospital were fitted with customized **Smart Cooling™** equipment, allowing them to operate at sustainable rates, even during heat season, and deliver optimum cooling output while consuming less electricity.

RESULTS

After the installation of the intelligent adiabatic **Smart Cooling™** system on Al Hammadi Hospital cooling equipment the chiller efficiency increased by 44.5%. The return on investment (ROI) period of the installed equipment is less than 36 months.



COOLING CAPACITY
INCREASED BY

↑ **45%**



ELECTRIC ENERGY
CONSUMPTION
REDUCED BY

↓ **35%**

ROI
15
MONTHS

The intelligent adiabatic Smart Cooling™ system is a proven, state-of-the-art cost-saving pre-cooling technology.

- Modular system
- Suitable for all types of dry coolers and chillers
- Easy and fast installation
- Certified system and approved by major cooling equipment manufactures
- Minimal maintenance

