

CASE STUDY Manufacturing



After installation of intelligent adiabatic pre-cooling system “Smart Cooling™” on Schneider Electric Lexel factory cooling equipment electric energy consumption dropped by 31% and produced cooling capacity increased by 29% on average.”

CUSTOMER

Schneider Electric - one of world’s leading automation components, equipment and systems manufacturing companies. It operates more than 180 factories and is using intelligent adiabatic pre-cooling system “Smart Cooling™” since 2011.

CHALLENGE

Heavy electrical energy consumption used by cooling equipment, which forms the largest part of total energy consumption in factories. As cooling is critical to ensure technological processes of manufacturing and associated costs of energy are high, company was searching for solutions to reduce the energy consumption used by cooling equipment and to boost the efficiency of cooling facilities.



SOLUTION

In order to reduce energy costs, it was decided to install intelligent adiabatic pre-cooling system “Smart Cooling™” on the factories’ cooling equipment and provide it with electrical energy consumption monitoring for the purpose of objective assessment of acquired effect - the economy on energy consumption and the increase in the produced cooling capacity (the increase in the efficiency of cooling equipment).

RESULTS

In order to assess the benefit (the economy of consumed electrical energy and increase in the produced cooling capacity), monitoring was conducted in one of Schneider Electric factories and comparison was drawn between the data on Year 2010, when the “Smart Cooling™” adiabatic system was not installed yet, and Year 2011, when this equipment was already operating. Conclusion was made that cooling equipment consumed on average by 31% less electrical energy at the time when it was equipped with Intelligent adiabatic pre-cooling system “Smart Cooling™”. Current changes in electrical energy consumption are depicted in the graph below.

The return on investment period (ROI) of installed adiabatic pre-cooling system “Smart Cooling™” – 7 months.



Electric energy consumption before and after “Smart Cooling™” adiabatic system installation



COOLING CAPACITY INCREASED BY

↑ 29%



ELECTRIC ENERGY CONSUMPTION REDUCED BY

↓ 31%

ROI
7
MONTHS

New intelligent adiabatic pre-cooling system “Smart Cooling™” is state of the art technology ensuring excellent energy saving results.

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

