SMART COOLING

CASE STUDY

BARONS Business Center

Latvia

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Electricity consumption dropped by **23%** and cooling capacity increased by **20%** at BARONS Business Center when **Smart Cooling™** was installed on their cooling equipment.”

SOLUTION

To improve the efficiency of cooling equipment Trane RTAC 300 SE STD we equipped the cooling facilities of the business center with the intelligent adiabatic pre-cooling **Smart Cooling™** system.

Smart Cooling™ adiabatic system reduced air temperature flowing into the cooling system by 10 to 15°C. The resulting efficiency gains allowed BARONS’s cooling facilities to operate in a lower outdoor temperature mode even with air temperatures of +30°C.

Located on the rooftop of the building, the cooling facilities were exposed to direct sunlight, amplifying the effects of the heat. By installing **Smart Cooling™** uniquely designed membranes, the equipment was provided with additional shading and less impacted by the combined effects caused by hot weather and sunlight. BARONS’s cooling equipment now operates with considerably more cooling capacity and consumes less electricity.

RESULTS

BARONS’s Chief Engineer states that after the installation of **Smart Cooling™** their Trane RTAC 300 SE STD does not overload even in critical outdoor air temperatures. Electricity consumption has been lowered and cooling capacity boosted.

The outcome: cooling capacity raised on average by **20%** while electricity consumption reduced by **23%**.

Return on investment period for the adiabatic pre-cooling system **Smart Cooling™** of only 9 months.

CHECKED AND TESTED FOR PROVEN RESULTS

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

CUSTOMER

BARONS Business Center is one of largest office complexes in Riga, Latvia, with a total commercial space of 21,800m2. BARONS’s cooling equipment is a Trane RTAC 300 SE STD, located at the main building.

CHALLENGE

During peak hours in heat season, the cooling equipment overloads and consumes large amounts of electricity. Consumption can increase by up to 30% in peak hours.

The client presented us the challenge of boosting cooling efficiency and capacity and reducing electricity consumption during their busiest hours in heat season.

COOLING CAPACITY INCREASED BY ↑20%

ELECTRIC ENERGY CONSUMPTION REDUCED BY ↓23%

ROI 9 MONTHS