

# CASE STUDY

## BARONS Business Center - Latvia



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

**CHECKED, TESTED AND PROVEN.**

Efficiency results have been tested, analyzed and validated. The tests were performed with BTU liquid flow and RIF600 temperature meter, as well as analytics from an Eniscope energy monitoring equipment.

**CUSTOMER**

BARONS Business Center is one of largest office complexes in Riga, Latvia, with a total commercial space of 21,800m<sup>2</sup>. 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.



**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.



COOLING CAPACITY INCREASED BY

↑ **20%**



ELECTRICITY CONSUMPTION REDUCED BY

↓ **23%**

ROI **9** 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

