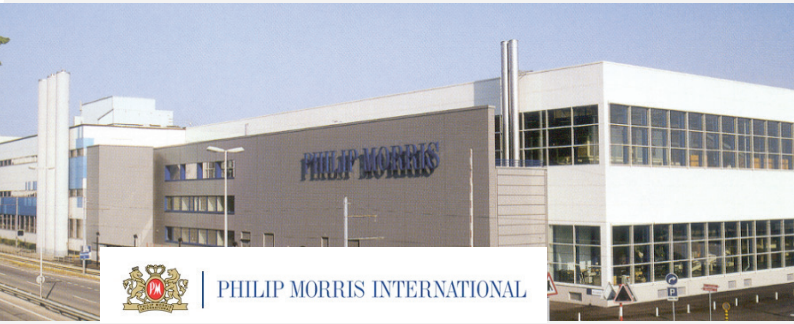


CASE STUDY

Philip Morris factory - Italy



Electricity consumption decreased by 37% and cooling capacity increased by 35%, on average, after the installation of the intelligent adiabatic **Smart Cooling™** system at Philip Morris' Intertaba plant."



SHAKED, TESTED AND PROVEN.

Efficacy results were tested, analyzed and validated. Tests were performed using **BTU** liquid flow and temperature meter **RIF600** and energy monitoring equipment **Eniscope** analytics.

CUSTOMER

Philip Morris International or PMI, is one of the leading tobacco manufacturers in the world. With massive production capacity, a large component of PMI's energy consumption is the electricity consumed by air-cooling and air conditioning equipment. One of PMI's strategic goals is the reduction of energy consumption aiming at cost-savings but, most importantly, in reducing the environmental impact of its production processes.

CHALLENGE

Reducing electricity consumption of cooling equipment, particularly during increasingly frequent hot summers was PMI's priority. As air temperature increases, the cooling equipment operates at peak levels, which negatively affects efficiency and longevity. The intelligent adiabatic **Smart Cooling™** system offered PMI the solution to reduce electricity consumption with the use of an environmentally friendly technology that boosts chiller efficiency, supports compressor operations and reduces compressor load.

SOLUTION

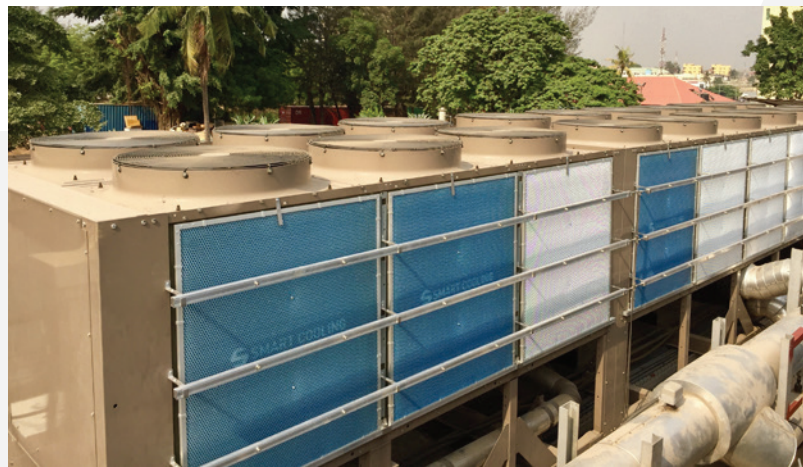
PMI trusted the intelligent adiabatic **Smart Cooling™** system to achieve their energy efficiency objectives. All PMI factories have electricity consumption monitoring installed in their production plants, which facilitated the assessment of the results granted by **Smart Cooling™**. In this case, it was PMI's factory Intertaba in Italy that had the customized **Smart Cooling™** system installed in its York cooling units (models YCAS 0835EB and YAES 0785SA).

RESULTS

The year-on-year data comparison, starting from when the intelligent adiabatic **Smart Cooling™** system was not installed on to after its implementation shows a massive distinction. The evidence states that, on average, electricity consumption was 37% lower while cooling capacity increased by 35%.

A staggeringly short return on investment period (ROI) was also one of the positive outcomes granted by the **Smart Cooling™** system: just five months.

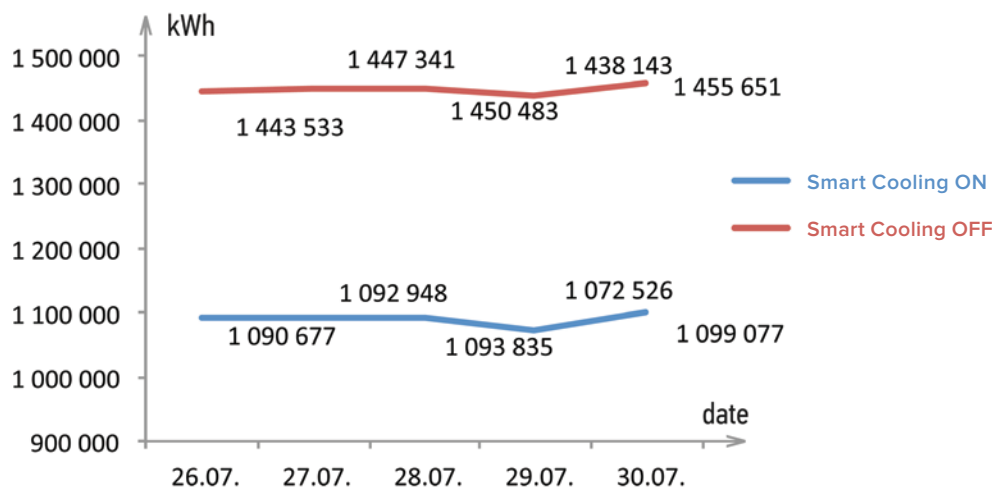
Detailed measurement results are presented below.



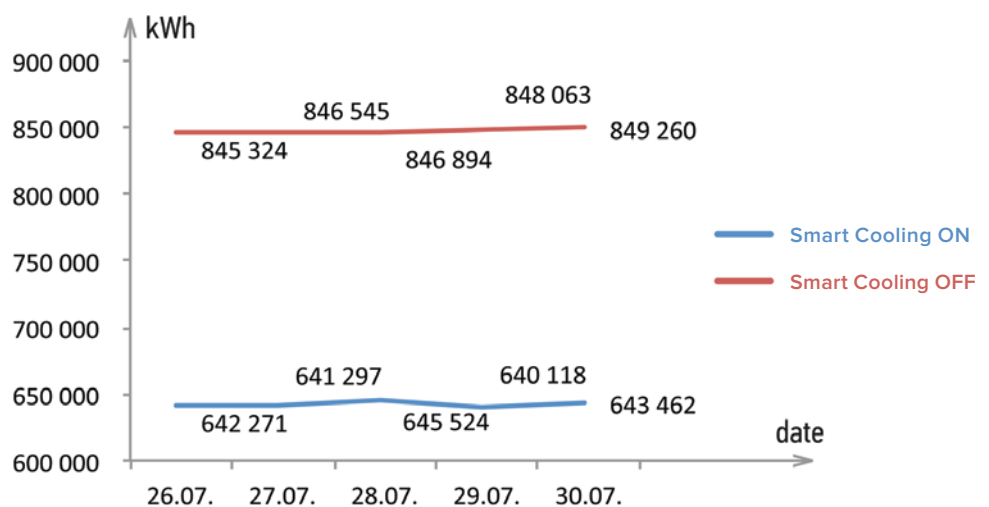
COOLING CAPACITY INCREASED BY **↑ 35%**
 ELECTRICITY CONSUMPTION REDUCED BY **↓ 37%**
ROI 5 MONTHS



York YCAS 0835EB chiller cooling capacity in KWh over an identical period and T, °C in regime Y2012/13 (five-day period measurements).



York YAES 0785SA chiller cooling capacity in KWh over an identical period and T, °C regime Y2012/13 (five-day period measurements).



- 3x Filtration WATER TREATMENT
- NO LEGIONELLA RISK
- PROTECTS CONDENSER
- NO CALCIUM CARBONATE RISK
- NO FANS PRESSURE DROP

- 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

