SMART COOLING

SIET SWISS INTEGRATED ENERGY TECHNOLOGIES AG

CASE STUDY
Institute of meteorology – Italy

"Electricity consumption reduced by 27%, cooling capacity increased by 37% and COP boosted by 1.9% at INRIM thanks to the installation of the intelligent adiabatic ***Smart Cooling™*** *system. "*

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

INRIM is a public scientific research center and Italy's national metrology institute. The institute maintains and develops national reference standards of measurement units.
To meet the needs of industry, INRIM has a structure dedicated to innovation and advanced technological services, which collaborates with companies and the manufacturing world, providing consultancy, calibration and testing services.

CHALLENGE

Turin is located in Northwest Italy. It is surrounded on the western and northern fronts by the Alps and on the eastern front by other high elevations. Its position on the east side of the Alps makes the weather drier than on the west due to the foehn wind effect: a dry, warm, down-slope wind.
Tech and innovation industries are booming in Turin, which was ranked third in number of innovative startups and firms in the information- tech sector, and has one of the highest rates of patent applications among all European cities.

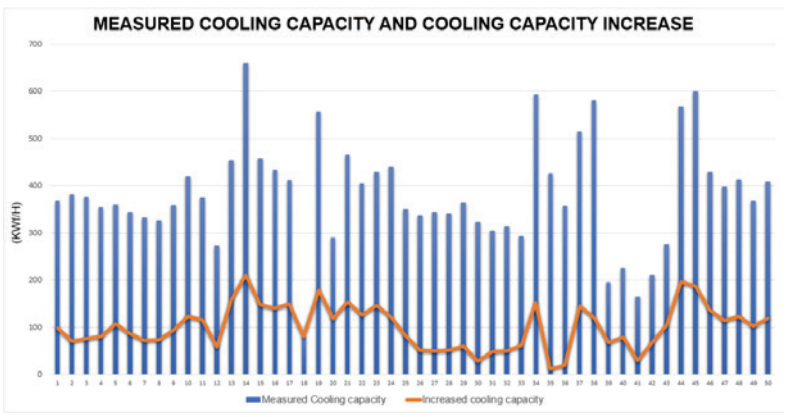
SOLUTION

In June 2019, the intelligent adiabatic **Smart Cooling™** system was installed on a TRANE RTAF 310 chiller.
Our solution considerably boosts cooling efficiency at INRIM, ensures more cooling power for the chiller and reduced electricity consumption.

Smart Cooling™ continues to equip new chillers with the new generation intelligent chiller-boosting PRO 10 device.

RESULTS

Test reports at INRIM indicate that after the installation of the intelligent adiabatic Smart Cooling™ system, the cooling equipment generated noticeably more cooling capacity with an average increase of 37%. Electricity consumption decreased by 27% at an average temperature of 35°C.
The Smart Cooling™ system allowed the TRANE RTAF 310 chiller to increase its cooling capacity and at the same time reduce electricity consumption, so as to achieve an above-5 COP level. The ROI (return on investment) period for this project is as low as six operating months.



COOLING CAPACITY INCREASED BY ↑37%

ELECTRIC ENERGY CONSUMPTION REDUCED BY ↓27%

ROI 6 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

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