

# CASE STUDY

## Fiat plant Foggia, Italy



Electricity consumption reduced by 21%, cooling capacity boosted by 23% and COP by 1.9% at FIAT's Foggia plant 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**

Founded in 1899, Fiat Automobiles is the largest automobile manufacturer in Italy and one of the longest lasting brands in the world. During its more than century-long history, it became the largest automobile manufacturer in Europe. After merging with Chrysler in 2014, the FCA group became the world's eighth-largest auto maker. Fiat Automobiles have received innumerable international awards, including nine European Car of the Year awards. FCA brands include illustrious brands such as Alfa Romeo, Jeep and Maserati. 2 emissions by vehicles sold in Europe.

**CHALLENGE**

Located in Foggia, Italy, FPT Industrial is the FCA division responsible for all activities related to powertrains and transmissions. Foggia is home to the largest of FPT Industrial's plants: the 150,000m<sup>2</sup> factory has produced over six million units to date. Foggia has a dry summer and hot Mediterranean climate. With searing summers, temperatures in July and August can often reach 33 to 38°C. Temperatures exceed 40°C at times.



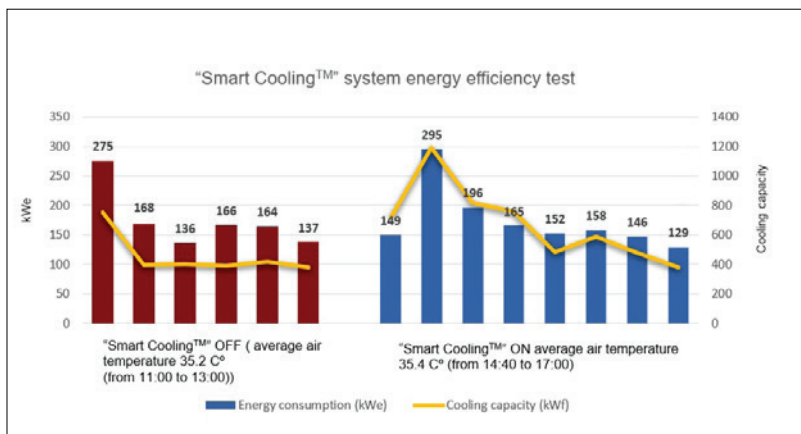
**SOLUTION**

In September 2018, the intelligent adiabatic **Smart Cooling™** system was installed on an RC Group chiller, model Glider 920 V2 F10. The chiller is responsible for cooling the Engine Test Room and operates under very stringent conditions.

With the installation of the tailored new generation adiabatic **Smart Cooling™** system equipped with the intelligent chiller-boosting PRO 10 device, the cooling system serving FPT Industrial's Engine Test Room gained more cooling power and electricity consumption was greatly minimized.

**RESULTS**

Test reports at FPT Industrial indicate that after the installation of the **Smart Cooling™** system, their cooling equipment now generates noticeably more cooling capacity, with an average increase of 23% and electricity consumption of 21% at an average temperature of 35°C. By retrofitting **Smart Cooling™** on a cooling unit serving a production process with an operating coefficient close to 80%, FPT Industrial gained sizable cost and resources savings with an estimated ROI (return on investment) of just eight operating months.



COOLING CAPACITY INCREASED BY

↑ **23%**



ELECTRICITY CONSUMPTION REDUCED BY

↓ **21%**

**ROI**  
**8**  
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

