

# 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.”



### 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.

### 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.

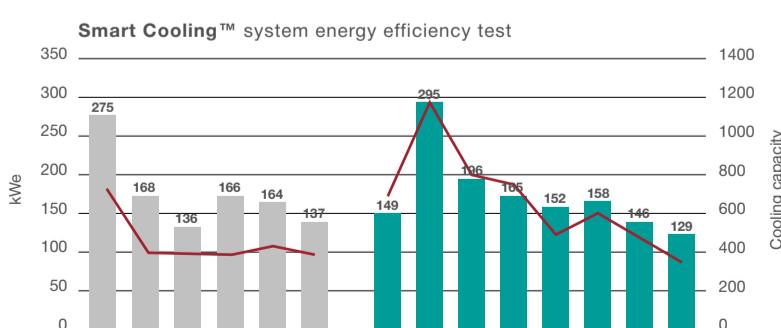
### CUSTOMER

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.



- Smart Cooling™ OFF" average air temperature **35.2°C** (from 1:00 to 11:00)
- Smart Cooling™ ON" average air temperature **25.4°C** (from 05:00 to 11:00)
- Cooling capacity