Solstice

LEADING FOODSERVICE SUPPLIER ENSURES ITALIAN OPERATIONS F-GAS COMPLIANT WITH SOLSTICE TECHNOLOGY

CASE STUDY



Global equipment manufacturer and supplier, Carpigiani, leads the foodservice industry by transitioning its entire production in Italy to Solstice A2L refrigerant R-455A, well ahead of upcoming EU F-Gas Regulations.

BACKGROUND

Founded in 1946 near Bologna, Italy, Carpigiani was quickly renowned for developing and patenting the "Autogelatiera," an innovative gelato machine.

Following the booming popularity of Italian gelato in the 1960s and 1970s, Carpigiani rapidly expanded all over the world, and is now one of the largest and most diversified global leaders in the foodservice equipment industry.

Innovation underpins Carpigiani's position as a technology leader, and the company invests heavily in research, design and the selection of premium components.



CHALLENGE

EU F-Gas Regulation enforcement on the elimination of fluorinated greenhouse gases is set to go into effect by June 30, 2026.[2]

As an industry leader, Carpigiani made the key decision to become an early adopter of next-generation refrigerants with low global warming potential (GWP), well ahead of regulatory requirements.

Carpigiani also has a broader strategic goal of dramatically reducing its environmental impact by 2030.



EU F-Gas Regulation is to reduce emissions of fluorinated greenhouse gases by progressively shifting from high global warming potential (GWP) gases to low-GWP alternatives, thereby supporting the EU's climate neutrality targets.



SOLUTION

As an international player in the frozen dessert sector, Carpigiani had no hesitation pursuing a path of technological adaptation and testing refrigerant alternatives.

Solstice R-455A proved to be the best match for Carpigiani's Italian operations.

R-455A is a zeotropic blend, mildly flammable refrigerant (rated as A2L) designed to serve as an alternative for low-, medium- and high-temperature applications in new systems. Its GWP of only 146 makes it an ideal long-term, F-Gas-compliant solution.[3]

It provides a close capacity match to R-404A, with a similar operating envelope when compared to propane, and high energy efficiency.

The transition required testing and fine-tuning the machines with the new refrigerant, and the Honeywell team collaborated with Carpigiani to exchange information and data on how the machines performed in the trials.

Carpigiani reported that Honeywell's support helped overcome early-stage issues and ensured a reliable supply chain for testing and development phases.

By January of 2025, Carpigiani was able to transition its entire production line in Italy, which accounts for 66% of its global production, to R-455A. All new machines produced and sold will use the new refrigerant solution.



CUSTOMER RESULTS

Carpigiani's sustainability initiatives, such as introducing low GWP refrigerants, are now aligned with anticipated regulatory changes aimed at reducing global warming.

With an ultra-low GWP of 146, R-455A offered Carpigiani a significantly lower global warming potential than traditional refrigerants like R-404A, which has a GWP of 3,922. This represents a **reduction of over 96% in GWP**[3].

Carpigiani is now EU F-Gas compliant, and its early adoption reflects a commitment to sustainability, innovation and supporting its customers with future-proof solutions.

By acting ahead of the regulatory timeline, Carpigiani helps its partners stay compliant, reduce environmental impact and transition smoothly to next-generation technologies.

REFERENCE NOTES

1. Carpigiani Group - Ali Srl *https://carpigiani.com/en*
2. F-Gas Legislation. European Commission. 2024. *https://climate.ec.europa.eu/eu-action/fluorinated-greenhouse-gases/f-gas-legislation_en*
3. Solstice Refrigerants Europe. *https://www.honeywell-refrigerants.com/europe/*

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