

Use Case

Efficient and environmentally friendly

Retail business chooses energy-efficient refrigeration technology for sustainable freshness



Background

A leading company in the food retail sector attaches great importance to sustainable operating processes. With numerous locations throughout Germany, the company faces the challenge of offering fresh food to high sustainability standards and at competitive prices. Refrigeration technology is of crucial importance here, as it guarantees the freshness of the products and also accounts for a large proportion of energy consumption.

The Challenge

In view of the F-Gas Regulation and the need to reduce its carbon footprint, the company was looking for a refrigeration solution that was both energy-efficient and environmentally friendly. The existing systems were increasingly reaching their performance limits and were no longer efficient. The challenge was to find a refrigeration solution that could meet various cooling requirements - from deep to normal cooling - in different store sizes and comply with the latest environmental standards.

The Solution

After careful consideration, the company chose the environmentally friendly *carbo-Rack system from compact Kältetechnik, which uses CO₂ as a refrigerant. With a flexible combination of deep and normal cooling as well as modern technology such as frequency converters, the system could be easily integrated into existing shops. Multiple compressors ensure high operational reliability and optimum performance.

The system has lowered operating costs, increased energy efficiency and reduced CO₂ emissions. It supports the company in achieving its sustainability goals and remains future-proof for the food retail sector.

carbo-Rack

The CO₂ complete system with maximum flexibility

Application

- Commercial cooling
- Supermarket cooling
- Hypermarkets
- Discounter



Freely combinable compound system for LT and MT

For food retailers up to approx. 2,000 m² sales area

The *carbo-Rack series is perfectly tailored to the requirements of the food retail sector. By using the environmentally friendly refrigerant CO₂ with a GWP of 1, all refrigeration tasks can be performed safely, efficiently, and in compliance with all applicable standards and laws.

*carbo-Rack is a booster with flash gas bypass. The system works with up to 4 compressors for LT and up to 4 compressors for MT stage. Thanks to Bitzer CR2 capacity control, it is ideally suited for low partial loads. This increases the operational safety and provides a fine adjustment of the cooling capacity for LT and MT.

Technical Data



LT

4.0 - 60.0 kW

at t₀/t_c= -30/-8°C

MT

30.0 - 140.0 kW

at t₀/t_g= -8/+38°C



Receiver volume

100 - 250 Litre

as a function of total output

24/7
Plan cooling
solutions

smartR-tool

The online configurator for the compact CO₂ standard products *carbo-Line and *carbo-Rack

- Plan cooling solutions 24/7
- incl. price information*, flow chart, technical data
- fast & flexible quotation creation*



www.compact-kaeltetechnik.de/smartR-tool

* Registration required. Activation can take up to 48 hours once, then can be used without restriction.

compact
KÄLTETECHNIK

Phone: +49 351 20797 - 0

Email: mail@compact-kaeltetechnik.de

www.compact-kaeltetechnik.de/en



Your contact person

Sebastian Reupricht

Sales & Aftersales

Phone: +49 351 20797 - 50