



Modern Cooling, Freezing & Heating combined

The REWE store in Lonnerstadt, Germany, was developed as a newbuild project on a greenfield site. From the outset, the goal was to implement a refrigeration solution that would meet the highest standards in energy efficiency, operational reliability, and ease of ${\sf maintenance-all\ key\ criteria\ in}$ today's competitive food retail environment. To achieve these goals, AHT Cooling Systems Germany delivered a complete system solution built entirely on natural refrigerants. The project featured the installation of AHT's latest SPI (Semi Plug-in) system, designed with a dual-circuit architecture to maximize system reliability.

In addition, AHT supplied the new BOREA refrigeration racks and integrated a heat recovery system, which was combined with DAIKIN Altherma heat pumps to fully comply with REWE's building requirements. For refrigeration, the system runs on R290 (propane), while the heat pump uses R32 refrigerant.

AHT provided all key refrigeration components for the project The core refrigeration units installed included the SPI upright cabinets and AHT plug-in freezers — all aligned with the store's need for efficient, flexible cooling across various product categories.

_Year of installation

2025

_Installed System

_AHT Semi Plug-In System
_BOREA CHILL
_KALEA FREEZE
_Zanotti Cold Room units
_ATHEN XL
_KINLEY X5
_SPI CIRCUMPOLAR
_DAIKIN Altherma heat
pumps
_Serve over counter

_Project requirements

System with maximum reliability, simple maintenance and high energy efficiency.





Full SPI / Waterloop Turnkey Solution with Heat Recovery

The solution's simplicity and intelligent design resulted in a straightforward installation process, which was highly appreciated by the installation company involved in the project. The system architecture also allows for low ongoing maintenance costs - a significant operational advantage for the store.

Environmental performance was a key factor in the project's design. By utilizing natural refrigerants and avoiding complex centralized systems, the solution offers a minimal environmental footprint while ensuring future regulatory compliance. The operator of the REWE Lonnerstadt store has expressed high satisfaction with the new system. The positive experience and performance have already helped inspire further projects within the REWE network and with other retail partners.

The project clearly demonstrates that AHT's SPI technology - combined with innovative heat recovery and modular system design — offers retailers a scalable, energy-efficient, and future-ready solution for both new stores and retrofit projects



