

Enex Technologies Introduces the R290 Indirect System

The Sustainable, efficient, and innovative choice for refrigeration with Natural Refrigerants ideal for food storage and food processing facilities up to 1MW.

Treviso, 25 June 2025 – Enex Technologies is pleased to present its R290 Indirect System, an All-In-One Solution designed to meet refrigeration needs in a sustainable, safe, and reliable way.

The R290 Indirect System uses only natural refrigerants, R290 (GWP=0.02) and, in case of low temperature needs, CO₂ (GWP=1), which comply with F-gas regulations and are free of PFAS. This innovative technology offers numerous advantages, including:

- **Sustainability and Safety:** The modular design with a small charge of R290 per circuit ensures maximum safety and reliability.
- **Ease of Installation and Maintenance:** The hydronic system and subcritical CO₂ make installation and maintenance simple and quick.
- **Flexibility and Adaptability:** The system is ideal for new installations and for replacing existing HFC/HFO chillers, with brine temperatures down to -15°C and ambient temperatures up to 48°C.
- **Versatility.** The indirect system delivers hot water for all needs (defrost, heating, drying, sanitary, etc), reaching temperatures up to 77°C at zero cost.

"With our 4-pipe system and high-temperature hot water production above 70°C, we're delivering real, tangible advantages that competitors simply can't match," said Massimiliano Sfragara, Product Management Director at Enex Technologies. "These features enable precise humidity control and simultaneous heating and cooling, critical for multi-evaporator cold rooms, while also eliminating the need for traditional boilers. In industrial sectors like meat and dairy processing, the operational savings and energy efficiency gains from our solution are truly game-changing. This is where Enex Technologies sets a new benchmark for industrial refrigeration."

Particularly suitable for food storage and processing applications up to 1 MW the R290 Indirect System can be installed entirely outdoors, without the need for a machine room, even in noise-sensitive environments.

According to the report "[End-of-life treatment of Hydrofluoroolefins \(HFOs\)](#)", published in 2024 by the Nordic Council of Ministers – which brings together the Northern European countries most sensitive to the challenges of the twin transition – the use of natural refrigerants in food processing facilities can reduce energy consumption by up to 30% compared to traditional HFC systems.

Moreover, replacing HFC/HFO systems with natural refrigerant technologies can cut direct greenhouse gas emissions by up to 50%. This aligns with the Nordic Council's broader goal of making the region the most sustainable and integrated in the world by 2030.

Enex Technologies is already leading this change by offering high-level consultancy, a wide range of innovative HVACR products, technical support and comprehensive customer service throughout Europe, including on-site or remote technical assistance, management of routine and preventive maintenance, technical training for customers and installers, remote monitoring, and spare parts management.

Another strength comes from the extensive portfolio of components made directly by Enex Technologies, such as the aircoolers with a wide range of evaporators, and brine coolers including special units for IQF and spiral freezers.

Information: For more details on Enex Technologies R290 Indirect System check out the dedicated infographic video: <https://youtu.be/RiBKDqK6dRo>. If you want to learn more about Enex Technologies All-In-One Solutions, visit: <https://www.enextechnologies.com/products-list/>

About Enex Technologies: Enex Technologies is the Climate Tech company born from the ambitious vision of HVACR industry veterans and pioneers in natural refrigeration systems, with the aim of transforming the industry with innovative solutions for the energy transition. Its journey began in the 1930s by producing natural ammonia refrigeration systems, to which CO₂, propane and water were subsequently added as natural refrigerants with low global warming potential.

Enex Technologies supplies HVACR equipment installers and end customers such as office buildings, hotels, hospitals, supermarkets, data centers, distribution centers, cold storage warehouses, cold rooms and other industrial applications. Today, Enex Technologies employs over 1,000 people in 12 production sites distributed across 4 countries (Italy, France, Spain and Slovakia).

As a participant of the United Nations Global Compact, Enex Technologies is committed to aligning strategies and operations with universal principles on human rights, labour, environment and anti-corruption, and take actions that advance societal goals.

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