

EPTA WELCOMES THE NEW F-GAS REGULATION AND CELEBRATES 3,000 CO₂ INSTALLATIONS WORLDWIDE

redazione ZZ 27/05/2024



*Epta – Independent global player and leader specialised in commercial refrigeration – welcomes the **new European Regulation (EU) 2024/573 on fluorinated greenhouse gases**, while celebrating **3,000 CO₂ installations worldwide**. This document acknowledges **natural refrigeration**, a cornerstone of the Group's technologies, as the **best solution to minimise the environmental impact** of the whole industry.*

The **new legislative milestone**, published on February 20th 2024 in the Official Journal of the European Union (OJEU) and formally effective starting from March 11th, mandates **the complete phase-out of hydrofluorocarbons (HFCs) by 2050**, with a gradual decrease in consumption quotas, particularly notable from 2024 to 2030.

The restrictions and prohibitions outlined in the approved text, aiming **to redefine the technological landscape of refrigeration**, represent a significant step towards the continent's climate neutrality, in line with the ambitious goals established by the Green Deal.

EPTA: SUSTAINABILITY AT THE FOREFRONT

Epta *naturally* takes a forefront stance, **setting new standards for the entire industry** in support of the recent regulatory framework, increasingly aimed at combating climate change.

As a **pioneer in the design** and development of **high-performance technologies based on natural refrigerants** such as hydrocarbons and CO₂, Epta boasts the distinction of having been **the first to implement a CO₂ system in Europe in 1999 in Sweden**, combining sustainability with energy efficiency.

Epta's strategic choice, which has proven successful, has enabled the Group to **anticipate market trends** and introduce innovations that offer **clear and quantifiable benefits**. The natural refrigerants employed in Epta's refrigeration systems not only have an **environmental impact 4,000 times lower** than the commonly used hydrofluorocarbons but also guarantee **superior efficiency, resulting in energy savings over 20%**. This is a significant value considering that refrigeration is one of the most **energy-intensive sectors**, accounting for **40% of the energy consumption** of a medium-sized supermarket.

*"Epta's technological leadership goes beyond regulatory compliance, aiming to promote **innovation towards sustainability for the entire sector**" states **Francesco Mastrapasqua, Institutional Affairs Manager at Epta**, who continues "As a **Green Transition Enabler**, Epta leads the **transition towards natural refrigeration** through the collaboration with institutions and industry associations **to support Clients in facing future challenges, combining excellent performance with environmental and economic sustainability**".*

THE FUTURE OF NATURAL REFRIGERATION IS NOW

Thanks to the **complementarity of its brands**, Epta offers a wide range of products, from both positive and negative temperature remote cabinets to modular refrigerator packs for advanced refrigeration systems, catering to the **Retail, Food&Beverage and Ho.Re.Ca. segments**.

Within the range of natural refrigerants used by Epta, **propane R290 and carbon dioxide R744** have historically played a pivotal role. Employed respectively in all the Group's **plug-ins** and in **remote and central cabinets**, both refrigerants are characterised by **exceptional thermodynamic properties**, such as a **zero ODP** and a **negligible GWPvalue**, almost null if compared to synthetic fluorinated refrigerants.

Additionally, Epta designs **Integral solutions with natural refrigerants and air or water condensation**, featuring a **fully integrated and pre-assembled refrigeration unit in the cabinet**. These self-contained units, ideal for small stores without a machine room, not only meet Retailers' needs for greater display flexibility but also ensure **quicker installation and excellent energy performance**.

MODULARITY, PERFORMANCE AND CUSTOMISATION AT THE HEART OF EPTATECHNICA'S COMPLETE OFFER

EptaTechnica, sub-brand of the Group, **designs and industrialises a wide range of transcritical CO₂ systems** with a high degree of **customisation, adhering to** stringent international **regulations**. In specific, **Eco2Small, Eco2Middle and Eco2Large** by EptaTechnica represent excellence in refrigeration plants, thanks to their modular and tailor-made structure, which is perfectly fitted to the various installation contexts.



For instance, **Eco2Small** is ideal for outdoor and indoor installations in **small stores**, **Eco2Middle** offers **high flexibility**, making it suitable for a wide range of applications, while **Eco2Large** is engineered for **larger Retail spaces**.

THE GAME CHANGERS: ETE, FTE 2.0 AND XTE

Epta demonstrates its leadership in CO₂ technology with **its innovative systems for transcritical CO₂ units**, such as **FTE 2.0 (Full Transcritical Efficiency)** and **ETE (Extreme Temperature Efficiency)**, designed to **maximise efficiency and reduce energy costs, at any latitude**, even in climates with temperatures exceeding 40°C. In extreme conditions, **FTE 2.0** is particularly effective when combined with the ETE subcooler, ensuring **100% refrigeration capacity** and **considerable savings**. Both developed within the Life-C4R project, these systems guarantee an annual **energy consumption which is 15% to 23% lower** compared with traditional CO₂ systems, whilst at the same time reducing **CO₂ emissions by up to 20%** in high-temperature environments.

In conclusion, Epta's latest technological innovation, **XTE (Extra Transcritical Efficiency)**, enhances system performance **in all conditions throughout the year**. In this sense, XTE not only **reduces consumption peaks during warm months**, guaranteeing **energy savings by more than 30% above +40°C** compared with a traditional transcritical system, but also offers **significant benefits in cold months**, during which the XTE system starts running at temperature exceeding +10°C.

*"This new legislation signifies a turning point for commercial refrigeration and steers the entire industry towards more sustainable solutions" says **Francesco Mastrapasqua**, who concludes "An opportunity that the Group, standing as a **virtuous market role model**, embraced over 25 years ago, as a demonstration of its commitment to a healthier and safer environment".*