



Epta Group: 'CO₂ can become standard everywhere'

The Italian manufacturer's new FTE solution will overcome traditional barriers to CO₂ uptake, heard Refrigeration2030 participants in Paris yesterday.



At EuroShop 2017 in March, the Epta Group launched its new Full Transcritical Efficiency (FTE) solution for improving the efficiency of CO₂ refrigeration systems in warmer climates. With FTE, there is no reason why CO₂ shouldn't become a standard solution everywhere, Francesco Mastrapasqua, the group's sales and marketing manager for refrigeration systems, told Refrigeration2030 participants in Paris yesterday.

Organised by European industry associations Eurovent and Uniclimate, Refrigeration2030 – held in the Espace Hamelin in the 16th arrondissement of the French capital – brought together refrigeration experts from a host of French and European manufacturers and industry associations.

"The FTE system represents the new industrial way for CO₂ refrigeration. FTE is not just a technical solution – it's a new business model," Mastrapasqua told R744.com in an exclusive interview at the conference.

"It combines low cost, energy efficiency, and reliability in a very simple, global and industrial way," he said.

The FTE system works by overfeeding the evaporators of MT (positive) cabinets. "We operate positive cabinets without any superheat," Mastrapasqua told Refrigeration2030 participants. "Eliminating superheat by flooding the evaporators is the key to increasing efficiency in warm climates," he said.

By operating all the positive cabinets with flooded evaporation technology, the patented FTE solution – based on adding an intelligent liquid receiver – allows the operating temperature of the cabinets to be increased.

The liquid is delivered from the main liquid receiver to the positive and negative cabinets. "We introduce an additional low-pressure receiver to collect the liquid that's coming out of the empty cabinets. Flooding the evaporators means having a mix of liquid and vapour," Mastrapasqua explained.

With FTE, today we're sure that there are no more limits for CO₂."

– Francesco Mastrapasqua, Epta Group

Simplify, industrialise and globalise

"As an industry, our task is to make innovative solutions available on a large scale – and to break down barriers," Mastrapasqua told R744.com.

Epta's decision to develop the FTE solution was driven by the desire to "simplify, industrialise and globalise" CO₂ refrigeration.

"We understand the benefits and we understand the limits of CO₂ solutions – particularly the limits. With FTE, today we're sure that there are no more limits for CO₂. All the limits of traditional CO₂ refrigeration systems are now completely cleared," Mastrapasqua said.

"We're sure that the FTE system is the key to mass deployment of CO₂ and will give a significant contribution to making CO₂ the new technological standard everywhere in the world," he said.



By Andrew Williams
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