



Lusophone world embraces CO₂ - latest R744 investments by Verdemar and Minipreço

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Following the success of the first CO₂ installation in a Verdemar supermarket in Nova Lima, Minas Gerais, Brazil, the pioneering retailer has worked with Danfoss and Plotter & Racks to install two more CO₂ refrigeration plants in another Verdemar supermarket and distribution centre. R744 was also chosen as the refrigerant for the remodel and enlargement of a DIA/Minipreço distribution centre in Alverca, Portugal.

In 2010, Verdemar opened its first store using CO₂ as a refrigerant in the suburb of Jardim Canada, Nova Lima - in the State of Minas Gerais, in Brazil. As part of its sustainability plan, Verdemar invested 5 million reais (5 million EURO) in developing the eco-friendly Jardim Canada store. Since then Verdemar has invested in another two CO₂ refrigeration plants. The Verdemar CO₂ supermarket installations now include:

- Verdemar's 5th store, Belo Horizonte, MG, operational since 2009
- Verdemar's 6th store, Belo Horizonte, MG, operational since 2011
- Verdemar's Distribution Centre, Belo Horizonte, MG – operational since 2012



Potter Racks and Danfoss supply CO₂ refrigeration that is 42% more efficient than industry average

Following Verdemar's successful 2010 collaboration with Plotter and Racks and Danfoss, the retailer chose to work with them again for their third CO₂ installation. From the start, the cascade CO₂ refrigeration solution installed at Verdemar achieved an energy efficiency that is 42% above the market average.

Plotter Racks General Manager Marcelo Merolli says, "CO₂ is the most efficient working fluid, although this depends on how the refrigeration system is designed and ensuring the most reliable components are used." Merolli explains that the lower the condensation pressure the higher the evaporation pressure, the more efficient the system.

The 3rd Verdemar CO₂ refrigeration system includes the following components:

- AKV electronic expansion valves
- ETS electronic expansion valves
- AKSC 255 electronic controllers

Brazil to see 10 to 15 CO₂ refrigeration installations per year

Danfoss expects that there will be 10 to 15 CO₂ installations per year in Brazil. To ensure that professionals with the highest level of CO₂ refrigeration knowledge maintain and service the CO₂ systems, retailers such as Verdemar have access to continuous support through the Danfoss' Customer Application Services (CAS), through which they can share experiences with specialists and the local CO₂ Champion.

Portugal: DIA/Minipreço opts for CO₂ for distribution centre

A CO₂, ammonia and glycol refrigeration system has been selected for the remodelling and enlargement of a DIA/Minipreço distribution centre in Alverca, Portugal. The company H Sebra will undertake the remodel.

Background

Originally started in Spain, DIA Group – International Food Distribution, is an international company of food distribution company present in seven countries: Portugal, Spain, France, Turkey, China, Argentina and Brazil.

Based in Belo Horizonte, Minas Gerias, Verdemar Supermarket first opened in 1991. The retail chain now operates 6 stores.