

EMBRACO'S EMC COMPRESSOR DEMONSTRATES UNPRECEDENTED LEVELS OF ENERGY EFFICIENCY

EMC Compressor Case Study

to be Presented at **ATMOsphere** America

Embraco, one of the largest manufacturers of hermetic compressors and cooling solutions for refrigeration, is presenting a case study on the **EMC Compressor**, an industry-leading and environmentally friendly compressor that uses natural refrigerant R290, at **ATMOsphere America**. **ATMOsphere America** is a conference focused solely on natural refrigeration being held in San Diego, CA June 5-7. The first **ATMOsphere** conference was held in Europe in 2009. Conference attendance has grown year-over-year and in 2017 there are five **ATMOsphere** conferences being held around the world – *Europe, Japan, Australia, America and Asia*.

The **EMC Compressor** is a highly innovative compressor designed for use in beverage coolers, vending machines, under-counter coolers and reach-ins. The EMC Compressor is one of the world's most efficient single-speed compressors for light commercial applications, generally consuming up to 30 percent less energy than traditional compressors currently sold in the United States. It features a smaller platform with an extended cooling capacity that can replace larger compressors, releasing more internal space in the equipment.

“The **EMC Compressor** is one of the most efficient R290 single speed compressors available in the U.S. market,”

said **Michel Moreira**, *North America Commercial Sales Manager, Embraco.*

“Since the **EMC compressor** became available, it has helped OEMs in the U.S. meet new regulations. We are thrilled to share this new case study at **ATMOsphere America**, which showcases how the EMC can significantly improve energy efficiency to meet new requirements and ultimately limit the impact on the environment.”

The case study being presented at **ATMOsphere America** is a collaboration between **Embraco** and **Continental Refrigeration**, a commercial foodservice refrigeration equipment provider. The study examined a 7-cu. ft. worktop freezer using an R134a compressor. **Embraco** worked with **Continental** to replace the compressor in order to meet a number of challenges, including the new energy efficiency standards defined by the Department of Energy (DOE), continuing to meet the NSF Food Safety Requirements and finding a long-term solution for the Environmental Protection Agency's (EPA) new regulation that phases out hydrofluorocarbons (HFCs), which took effect this year.

In this study, **Embraco** and **Continental** replaced the R134a compressor with the EMC Compressor that uses R290. There were changes made to the expansion device, but no modifications in any other component of the cabinet were made.

Following the compressor replacement, energy consumption was reduced by

32%

allowing the cabinet to surpass the new **DOE** allowance, as well as the new challenging **ENERGY STAR 4.0** standards.

Overall, changing the compressor resulted in an

85%

reduction on the environmental impact due to CO2 emissions.

“We were very pleased to see the results the **EMC Compressor** provided in this worktop freezer cabinet,”

stated **John Prall**, Embraco Technical Support Engineer.

“The **EMC Compressor** allowed the cabinet to reach a whole new level of efficiency. The **ENERGY STAR 4.0** is the most stringent voluntary energy efficiency standard and is typically only achieved by **20%** of equipment. This case study truly demonstrates the benefits R290 provides compared to traditional compressors using HFCs.”

Continuing the Conversation on Natural Refrigerants

Beyond the EMC case study, **Embraco** has representatives participating in the Industry Standards and Regulations Panel and the Training Panel. Marek Zgliczynski, Manager of Commercial Refrigeration, Product Engineering at **Embraco**, will be a presenter in the Industry Standards and Regulations Panel where he will discuss the evolution of the Refrigeration Equipment International Safety Standards. In 2016 Marek was elected as Chair of the International Electrotechnical Commission, where he helps to ensure world safety standards for the refrigeration segment.

Additionally, Johari Gregorio, Senior Technical Support Specialist, will be presenting in the Training Panel. During this session, Johari will discuss the benefits of hydrocarbons (HCs), how to simplify the process of converting to HCs and the safety and handling of HCs and equipment that use them.

“**Sustainability and innovation** drive our company’s strategy,”

stated **Moreira**.

“We are focused on developing new technologies and refrigeration solutions that meet our customers’ needs, promote **energy efficiency** and **reduce consumption** of natural resources. The work we are presenting at **AMTOsphere** fully supports our belief that hydrocarbons are the ideal solution for the future of refrigeration.”

Embraco is a multinational company focused on innovation and one of the world's largest manufacturers of hermetic compressors and cooling solutions for refrigeration. With global operations and an annual production capacity of 40 million units, the company holds over 1,700 patents in force and offers solutions that are differentiated for their innovation and low energy consumption. Embraco directly employs 11,000 employees worldwide, with 11 business units located in Brazil, China, Italy, Mexico, Slovakia, USA and Russia, and is present in more than 80 countries.

To learn more about **Embraco** visit www.embraco.com

To learn more about **natural refrigerants** visit naturalrefrigerants.info

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