

press release

## DEVELOPMENT AND INDUSTRIALISATION OF MODULATING EJECTORS

### “THE END OF THE CO<sub>2</sub> EQUATOR”

**Brugine, ITALY, 18 April 2016** - CAREL, a multinational firm specialising in control solutions for the air-conditioning, refrigeration and air humidification sectors, and Carrier Commercial Refrigeration Europe\*, one of the key players in high-technology heating, air-conditioning and refrigeration solutions, have joined forces to develop and industrialise a range of modulating ejectors, the solution that puts an end to the concept of “CO<sub>2</sub> equator”, the until-now accepted geographical limit for cost-effective construction of CO<sub>2</sub> systems in all store formats.

The modulating ejector is a cutting-edge solution that **increases the energy efficiency of transcritical CO<sub>2</sub> systems in warmer climates**, sustainably extending the possibility to use CO<sub>2</sub> as a natural refrigerant, from smaller convenience stores to large hypermarkets.

The modulating ejector moreover reduces installation costs and complexity, as it can **continuously and instantly adapt to specific operating conditions**. Continuous modulation in fact means just one simple auto-adapting device can be used to guarantee optimum energy efficiency.

**Simple installation and use** are further keys to the success of this solution. Indeed, integrated and intuitive controllers are used to automatically configure the new solution, making technology based on quite complex physical principles - the Venturi effect, in the case of these ejectors - easily usable.

CAREL has contributed to this project with the design experience acquired in the development of its own range of continuous-modulation electronic valves and high-efficiency control solutions. Carrier's experience in transcritical CO<sub>2</sub> refrigeration systems brought a significant reduction in fluid-dynamic design times.

*“The cooperation between CAREL and Carrier represents an example of synergy in which different competencies combine to bring to market technologically innovative solutions”,* stated Francesco Nalini, CAREL Group Managing Director. *“Through this cooperation we have made a tangible contribution to extending the use of natural refrigerants, in line with our guiding strategy: innovate to generate energy savings and reduce environmental impact”.*

\* Carrier is a part of UTC Climate, Controls & Security, a unit of United Technologies Corp. (NYSE: UTX).

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#### **About CAREL**

CAREL is one of the world leaders in control solutions for air-conditioning, refrigeration and heating, and systems for humidification and evaporative cooling. Our products are designed to bring energy savings and reduce the environmental impact of equipment and systems. Our solutions are used in commercial, industrial and residential applications. CAREL has 19 fully-owned subsidiaries and 7 production sites, as well as partners and distributors in a further 75 countries.

For further information, go to [www.carel.com](http://www.carel.com)