

DORING WILL BE PART OF THE INTERNATIONAL PROJECT NXTHPG NEXT GENERATION OF HEAT PUMPS WORKING WITH NATURAL REFRIGERANTS.

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Natural refrigerants have the following benefits:

- Low ODP value close to zero or even zero;
- GWP value almost non-existent;
- They are 100% natural therefore no climate impact due to industrial waste;
- Some of them like the CO₂ and HC, in certain conditions, have substantially higher outputs than their matching synthetic refrigerants;

The project foresees the study and development of safe, reliable, and highly efficient heat pumps that, through the use of natural refrigerants such as CO₂ and HCs, can represent the future key for heating and conditioning of any type of building.

Our general object is to provide the technical knowledge to the industry producer of the Sector, we are therefore determined to bring and disseminate these technological discoveries among the market.

By complementing the building's energy system with these solutions, the professional will be clearly contributing not only to lowering the energy consumption and increasing cost savings, but also they will contribute by spreading the alternative culture of eco-friendly solutions in the refrigeration and air conditioning fields.

The only real barriers to spread this new culture are: the lack of knowledge to manage natural flammable gases such as HCs, the use of systems that operate at a very high pressure levels like CO₂, and finally the high cost of equipment and devices needed to guarantee high levels of safety and reliability.

Thanks to the growing number of systems that use natural refrigerants (CO₂, NH₃, HCs), the equipment and devices to install these systems are now reaching lower prices in the market, making it more affordable to buyers. Simultaneously, cost savings resulted from energy savings can be observed from the first year (ie. the ROI of the investment). Therefore, these results prove how convenient is to face a greater investment by installing new eco-friendly systems but looking forward to a long term cost savings.



Prototype in climatic testing room



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Officine Mario Dorin is a company established in 1918, manufacturing compressors since 1932. Based in the area of Florence (Tuscany), Italy, OMD reaches all over the world thanks to its commercial partnerships and internal technical-commercial personnel. OMD is present in more than 90 countries supplying always perfect and reliable products, following the principle of its founder Mr Mario Dorin "...the main thing is that our products must always be perfect..."

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