

PROJECT CASE STUDY: CO2 Refrigeration proves to be the Healthy Option...

Project Objective

CO2 refrigeration is now being accepted as a practical and proven option for many varied applications and is fast becoming a mainstream cooling solution within the healthcare sector.

Green Cooling has seen the specification levels of CO2 cooling and heating systems increase dramatically in 2015, applications range from food service to manufacturing and commercial offices through to the healthcare sector.

A CO2 refrigeration installation has recently been completed by Green Cooling at one of the UK's largest University Hospitals. The hospital is a major regional facility, focused around delivering the highest level of efficiency and quality within all of its operational areas. For this reason a Green Cooling-Enex CO2 refrigeration system was specified in a recent construction project completed within one of the hospitals major new departments.

Hospitals across the UK are seeing a huge number of construction projects either underway or planned, with refrigeration playing a major part in many of these projects the attention is now moving towards applying refrigeration systems that provide both efficiency and sustainability.

Green Cooling-Enex CO2 refrigeration systems are able to deliver significant energy savings whilst providing the obvious environmental & sustainable benefits that can be achieved by a natural refrigerant, due to these factors CO2 systems are being specified and applied across an increasing number of healthcare projects.

The design team at Green Cooling have over 20 years experience with regard to the design, specification and installation of cooling systems within a variety of hospital applications.

Therefore having designed the first CO2 hospital cooling project in 2009, the team at Green Cooling are well placed to continue developing their reputation as a leader in delivering efficient and sustainable refrigeration systems, by providing the latest Enex CO2 equipment.

Garry Broadbent of Green Cooling commented, "Our early 2015 appointment as the exclusive UK distribution and service partner for the CO2 manufacturer Enex now enables us to provide a complete package", continuing, "we provide a full service which includes system design with manufacturer application support, through to supply & installation."

This appears to put Green Cooling in a strong position within this fast growing CO2 refrigeration sector. Because of the continuing resurgence of CO2 as a practical refrigerant, the sector needs equipment providers that provide a high level of application and technical specification support.

For this reason the company have been contracted to supply CO2 refrigeration systems on two hospitals so far in 2015 with more in the planning stage. This appears to demonstrate that the diligent approach to promoting the most efficient CO2 application methods practised by Green Cooling is being very well received within the demanding healthcare sector.



Project equipment & specification:

1 x 45kW Enex CO2 centralised refrigeration system, multi-compressor configuration operating at -10°C

1 x Green Optimisation Web based Management & Maintenance System (G0 Plus system)

1 x Packaged Remote Dry Cooler/Condenser Unit

All inter connecting pipe work and ancillaries

Design, specification, application and installation/ commissioning support



PROJECT OUTCOME

The CO2 system installed provides critical cooling to an important area of the hospital; multiple points of cooling are supplied by a CO2 centralised system, which comprises of a multiple inverter driven compressor configuration in order to provide efficiency & contingency.

A complete design and specification support service was provided to the main contractor on the project which enabled a system to be provided which satisfied all aspects of the project brief in terms of the performance and sustainability of the installation as a whole.

Major Hospitals demand high standards at every stage of a project from design to completion, as such the Project Delivery Team at Green Cooling understand these requirements and are able to run a controlled installation with a flexible approach geared towards efficient delivery.

Being the UK distributor for the manufacturer Enex, the Green Cooling team are able to deliver the high level of support that would be expected from one of Europe's leading CO2 manufacturers along with an experienced and knowledgeable UK application team.

This has resulted in a CO2 Hospital cooling system being installed that meets all of the project requirements, was delivered on schedule and provides the application with efficient & sustainable operation.