



air conditioning

refrigeration

cold stores

co, refrigeration

The background of the slide is a close-up, high-angle shot of several large, circular cooling coils. The coils are made of metal and have a grid-like pattern. They are arranged in a staggered fashion, with one coil in the foreground and others receding into the background. The lighting is bright, creating strong highlights and shadows that emphasize the texture of the coils.

# CO<sub>2</sub> Cooling Systems

A low-angle, upward-looking photograph of modern buildings and lush green trees against a clear blue sky. The image is split horizontally by a solid green band that serves as a background for the text. The top half shows the tops of trees and the upper floors of buildings. The bottom half shows the lower floors and glass facades of the buildings, with a glass-enclosed staircase visible on the right side.

Save up to **20%** on energy by  
replacing HFC's with CO<sub>2</sub>

# Why CO<sub>2</sub>?

1

## **Sustainable Choice**

Insignificant Global Warming Potential (GWP)

2

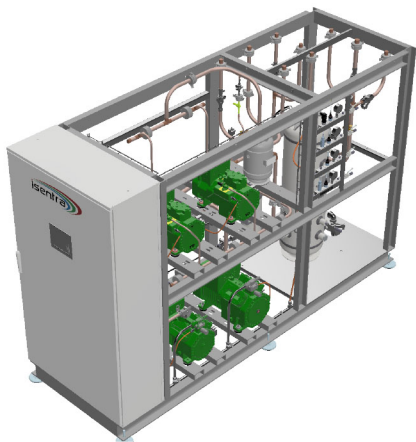
## **Properties**

High efficiency, small volume, high capacity

3

## **Cost Effective**

Widely available, low cost



**From an environmental perspective, CO<sub>2</sub> is a naturally occurring substance and is abundant in the atmosphere.**

CO<sub>2</sub> is a very attractive refrigerant, as it has a ODP (Ozone Depletion Potential) rating of zero and a GWP (Global Warming Potential) rating of 1.

As the Global Warming Potential value, for HFC refrigerants are several thousand times higher than for CO<sub>2</sub>. Any potential leakage of CO<sub>2</sub> gas from a refrigeration system, is consequently several thousand times less damaging to the environment than the release of any HFC gas.

CO<sub>2</sub> is suitable for both heating and cooling and maintains high level efficiency, across the whole temperature range. Ideal across both commercial and industrial applications, from frozen/chilled storage, process cooling through to heat recovery.



**CO<sub>2</sub> provides the lowest cost of ownership for end-users. This is due to high volumetric efficiency, low power consumption, and refrigerant charge reduction.**





# Environmental Impact

Utilising a natural refrigerant within your new cooling system, can help reduce energy costs across your building and help to achieve your environmental objectives.

When comparing system efficiency, it is normal for a CO<sub>2</sub> system to provide an efficiency level that can be in excess of twice the standard coefficient of performance (COP), that could be expected from a HFC refrigerant.

BREEAM is an international scheme that provides independent third party certification of the assessment of the sustainability performance of individual buildings, communities and infrastructure projects. Utilising CO<sub>2</sub> as a refrigerant can also greatly assist in achieving BREEAM points, to contribute to a high standard of overall performance.

# Global Warming Potential (GWP) Comparison Rating

**CO<sub>2</sub> = 1**

**Typical HFC = 1600**

## How we work



### 1. Concept

Initial discussion to identify your requirements &



### 2. Design

Presentation of design



### 3. Benefits

How will the new proposal benefit the business in terms of cost & energy



### 4. Implementation

Installation of system & project management



### 5. Commissioning

Testing, validation &



### 6. Aftercare

Client training & aftercare service program including 24/7 on call support

With an established reputation and client base across the UK, DD Cooling are the number one choice for all your CO<sub>2</sub> refrigeration requirements and installations nationwide.

From small domestic projects through to large scale industrial and commercial installations, DD Cooling deliver full turn-key CO<sub>2</sub> refrigeration packages.

With a qualified and dedicated team, we support you through the entire process from design and quotation of your refrigeration system to installation, maintenance and aftercare support.

**Give us a call to discuss  
your next project on  
01772 780806**

## Case Study & Testimonial



*"As part of our ongoing expansion plan at Ribble Farm Fare in Preston, we needed to increase the capacity at our facility. We were looking to build a new cold store, to not only house our fresh produce, but to also help reduce our energy usage that could offer cost saving benefits to our business.*

*Following a meeting with DD Cooling and hearing the benefits of CO<sub>2</sub> Refrigeration system over a standard refrigerant we decided to install a CO<sub>2</sub> system throughout the new facility. DD Cooling handled the fit out for our new 56m x 28m building, including the cold store build to maximise storage area and the installation of a CO<sub>2</sub> Pack with ceiling mounted evaporators.*

*The current facility is showing excellent cooling throughout the complete store while delivering energy savings against a comparable standard HFC system. CO<sub>2</sub> cooling is a must for any future projects at Ribble Farm Fare."*

Richard Coulston - Managing Director  
Ribble Farm Fare

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