

Ice cold cooling with the Carbon Trust

When an Ice Rink in the North of England required a chiller replacement. ICS helped them with not only a new system but also brought them in line with new R22 legislation and it was all funded by the Carbon Trust.

Following an initial site survey by an experienced technical sales engineer, it was calculated that for every meter squared of ice on the rink 200 watts of cooling was required. This meant that the Ice Rink required a larger cooling duty than currently in operation.

The increased cooling duty was required because the ice was being indirectly cooled using a water-glycol mix rather than the refrigerant being passed under the ice pad itself. This was due to current F gas regulations which state you cannot use gas as your primary method of freezing an ice rink directly.

Ice Rink Requirements

The proposed system was based on a **fluid supply temperature of -8°C and a return temperature of -3°C**. Taking efficiency into consideration at both full and part loads the **Climaveneta FOCS unit** was recommended.

In addition to their efficiency the FOCS unit features screw compressors, twin R134a refrigerant circuits and is operational at low ambients.

Installing The New Unit

To install the new system a skid was built to mount the unit, once mounted to the skid the unit was craned to the roof of the ice rink.

From the roof, the chiller then circulates onto a new 2,000 litre weir plated buffer tank via a new pair of run/standby chiller pumps. New flow and return pipework then draws chilled water from the cold well of the tank via a new pair of run/standby process circulation pumps. Internal pipework was then connected to the rink matting.



Complete Project Management



The install on the roof of the Ice Rink

The Benefits Of Upgrading

The Ice rink is now set up with a **new energy efficient cooling system**, significantly more reliable than older models, the impact of this new system is saving the ice rink over **£38000 per annum** on energy costs and to aid in the funding of the project the ice rink applied for a loan from the **Carbon Trust**.

Their loan covered all equipment and installation costs and with significant energy savings will **pay for itself in just over 3 years**.

Energy Efficient Range from ICS

To find out more about energy efficient equipment and funding from the Carbon Trust call us today on 0800 169 3861 to see how we can save you money.