



Dantherm provides a long-term solution with low operating costs

Doncaster Dome is one of the region's premier sports, leisure & entertainment destinations, and is operated by Doncaster Cultural and Leisure Trust.

Swimming at Doncaster is centered around the lagoons that comprise of seven free form interlinked pools with a children's area and flume water rides. Other features include two whirlpool spas, eighteen 'Water Bubble Beds', two artificial geysers, four water cannons, three massage channels, four water gargoyles and a mushroom drench shower.

In the 23 years since The Dome opened, the swimming pool ventilation and humidity control equipment had failed and been replaced twice. A pool environment is harsh on the mechanical services but an average life of just 11½ years was not acceptable.

Doncaster Metropolitan Borough Council therefore looked for a solution with an increased lifetime, (upwards of 20 years), with reduced operational costs, and importantly gave a pleasant environment for bathers and effective protection for the building.

As a direct funded project one of the principle directives from Doncaster Metropolitan Borough Council was the longevity of the new Dantherm Air Handling Unit (AHU), whilst maintaining the running cost and preserving the integrity of the buildings' environment and structure, optimising the comfort and conditions for the bathers whether it was for "pleasure or competition swimming".

It was also critical for the installation to be carried out with minimal disruption to the operation of the swimming pool. Initial plans were to demolish the exterior masonry wall, to enable the decommissioning of the existing AHU and the positioning/siting of the new AHU in the plant room. This would represent a huge cost to the local authority and a substantial loss of revenue for the leisure centre. Not an acceptable option!

Solution

Dantherm advised the installation of two DanX 16/32 XKS pool air handling units complete high efficiency plate heat exchanger, three way mixing box and inverter controlled direct drive fans with TREND IQ.

In order to keep the pool operational during the works, a new plant room was constructed in an existing store room. Access was difficult but overcome by Dantherm's installation team by breaking down the new units to component parts before reassembling in situ.

Dantherm's team of technical surveyors and engineers introduced an innovative approach to solving the inevitable problems on a project of this complexity and ensured that the project remained effortlessly on schedule.

The DanX AHU's arrived fully assembled to factory standards. It was now down to the qualified team of Dantherm engineers to dismantle, re-assemble and commission the DanX air handling units.

To keep the leisure centre open and with restricted access, the Dantherm engineers started the process of dismantling both air handling units to a size that allowed access to the plant room through the existing main entrance doors to the reception area of leisure centre, still enabling customer to have access with minimal disruption to the workings of the leisure centre and meeting the Health & Safety require for the customer and Dantherm engineers.

They then re-assembled the bespoke DanX's back to the factory specification. This is quite an achievement given the limited space and the height of installation of the units. They achieved the specified work with minimal disruption to the leisure centre and bathers.

The final part of the works was carried out by specialist ductwork contractors Glen Wilson Ltd. For this final part of the project it was necessary for the pool hall to be closed to the public.



For more information on our pool ventilation air handing units contact our Pool Ventilation Sales Manager, Jamie Herdman on 07831 094 556 or email jamie.herdman@dantherm.com

