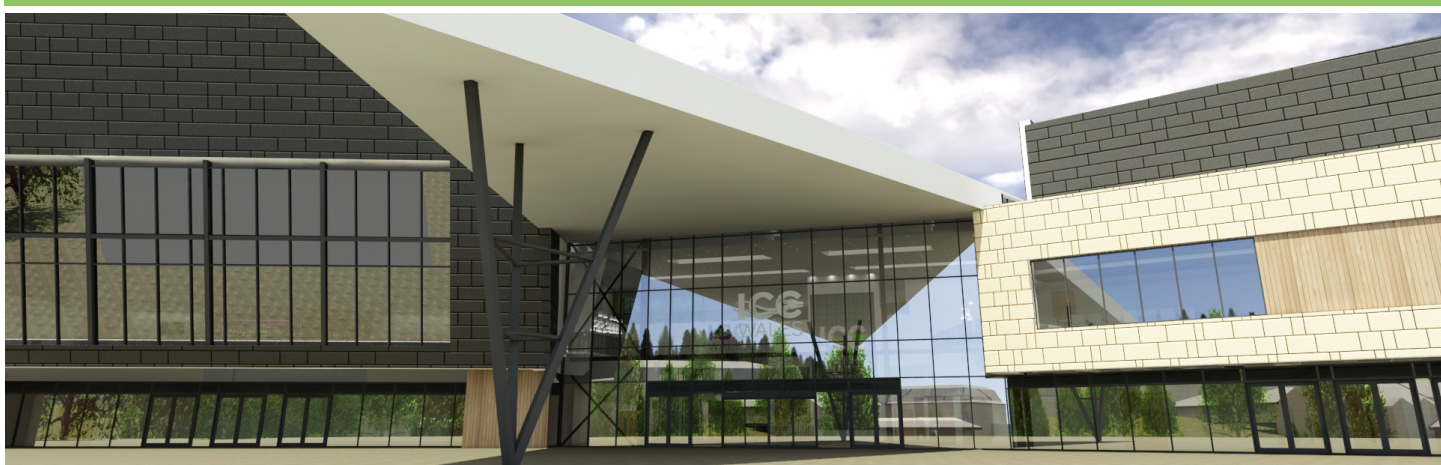


ICC Wales

Case study



Overview

The ICC in Wales is a new iconic landmark Welsh building. Developed as a result of a joint venture between the Welsh Government and the Celtic Manor Resort, which was host of the 2014 NATO summit and 2010 Ryder Cup, the new ICC is a stunning venue specifically designed for world class conventions, events and meetings. The venue offers 26,000 square metres of conference space and can accommodate up to 5,000 delegates.

At a cost over £83 million to build, it is striking and innovative in design. With an imposing red dragon on the roof, the building eliminates any doubt about where in the world you might be as you cross the M4 Bridge into Wales.

Such a significant investment from the both the government and private investor meant that every detail had to be attended to and every design specification adhered to.

CMB Engineering, who have a long-standing and well established relationship with Celtic Manor, approached Barkell with their specification for air handling units. Having enjoyed a positive working relationship with one another previously, CMB felt sure Barkell could deliver this complex project. The 23 AHUs required were all bespoke in design to cater for a different extremes of footfall – anything up to 5,000 visitors had to be accommodated, whilst optimising energy output for lower volumes.

Barkell solution

- 23 AHUs with volumes ranging from 1.55 m³/s to 10.00 m³/s
- Majority of units located externally and protected from saline air
- High efficiency EC fans fitted
- Large thermal wheels supplied in sections and assembled on site by Barkell
- Compliant to ErP 2018 and Part L
- Site leakage testing to BS EN 1886

In more detail

International Conference Centre, Wales

With energy saving a priority for such a huge building, heat recovery was essential and all units had to meet site leakage testing to standard BS EN 1886.

The AHUs, which were required to serve the main halls, meeting rooms, kitchens and auditoriums, were mainly located externally and as such height restrictions had to be met, along with being saline resistant due to its coastal environment.

With all the above factors taken into account, along with consideration for how the units could be transported and installed, CMB Engineering appointed Barkell to deliver the 23 air handling units for the new ICC in Wales, an order worth nearly half a million pounds.



Barkell worked closely with CMB Engineering to deliver the perfect AHU for each of the applications. With many revisions to the initial designs, Barkell consulted with CMB Engineering at every step along the way to reach a set of final approved designs, that were then manufactured at Barkell's manufacturing plant in the UK. Each unit was delivered and installed on time and in full, meaning the overall construction plan could continue without any disruption from the air handling unit installation.

The state-of-the-art new venue has already hosted many prestigious events since it opened in September 2019, from the three-day UK Space Conference for 2,100 delegates, to the two-day Green Party Conference for 750 delegates and An Experience with Arnold Schwarzenegger gala dinner for 1,300.

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With such a large value, complex order we could only consider working with an AHU supplier we trusted in terms of quality and reliability and also someone we could work with day to day to develop the right design. Barkell were the perfect partner for this project. We were able to work closely with them during the development stage due to them being so personable, whilst maintaining professionalism and demonstrating expertise at every step along the way.

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Neil Thomson, Operations Manager

CMB Engineering