

Green Office Attains Highest Ever Breeam Rating



Fläkt Woods has helped to meet the exacting ventilation demands of Britain's greenest building, the Innovate Green Office, Leeds, which has attained outstanding environmental credentials including the accolade of the building with the highest ever BREEAM score.



■ FACTS

Customer:

Thorpe Park, Leeds

Need:

Energy efficient ventilation solution

Solution:

Fläkt Woods' EC air handling units with thermal wheels, heating & cooling coils, low set point velocity fans and pre wired inverters.



Award winning products and solutions from Fläkt Woods

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Working for the Nottingham & Ossett based M&E contractor, Goodmarriott & Hursthouse Ltd, Fläkt Woods has supplied mounted EC air handling units with thermal wheels. These were installed in the building together with heating and cooling coils, low set point face velocity fans and pre wired inverters.

Designed by Cardiff-based Rio Architects, the project at Thorpe Park Business Park has a BREEAM rating of 87.55 % – the highest ever given to a building of any kind in the UK. The 4,500 sq metre scheme is designed around an atrium street that divides the two office wings and allows maximum daylight penetration to the offices.

A combined heat and power system assists with heating the building during winter and provides comfort cooling through an Absorbition chiller in the summer. Ventilation is supplied via TermoDeck hollowcore concrete, using the thermal mass of the building for storage. The building has a recycled concrete frame, a sedum roof and a rainwater harvesting system.

Fläkt Woods has developed a number of advanced features on the EC to enhance energy efficiency and provide a rapid payback on investment.

Each EC compact unit saves space and time. Supply and exhaust air functionality is contained within the same casing which is built on the same design platform as the modular unit. Units were delivered complete with an integrated control system.

The £5.5 million office is fitted with a control system which allows the chiller to run overnight to store cooling in the thermal mass which can be drawn on during the day. Annual emissions from the building are predicted to be over 80% less than for a typical office-park building, saving over 350 tonnes of CO2 a year.

"We were stepping into the unknown when we initiated the development of Innovate Office Leeds," said Stephen Dargavel, Joint Managing Director of Innovate Holdings Ltd. "However, the fantastic score given to us by the Building Research Establishment has reinforced our vision of combining cutting edge environmental considerations with a business environment that is second to none."

"Thanks to Fläkt Wood's award winning products, the project team was able to include a fresh design approach. An engineering design exercise, led by King Shaw Associates, produced an environmentally friendly and commercially sustainable prototype building design which was then applied to the specific plot at Thorpe Park" says Craig MacFadyen, Business Development Manager at Fläkt Woods.



Project team

Developer: *Innovate Property*

Architect: *Rio Architects*
Sustainability and building services

consultant: *King Shaw Associates*

Structural engineer: *Cameron Taylor (now part of Scott Wilson)*

Main contractor: *GMI Construction Group*

M&E contractor: *Goodmarriott and Hursthouse (using Hoare Lea for detail design)*

Fläkt Woods Group

Fläkt Woods is a global company providing energy efficient solutions for ventilation and air treatment for buildings as well as fan solutions for Industry and Infrastructure applications.

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