

## *Middlesbrough College invests in a lifetime of energy savings*



Fläkt Woods has won one of its largest ever turnkey contracts, matching the precise air handling needs for Middlesbrough's new state-of-the-art College, on the Tees Valley's biggest regeneration site.



### ■ FACTS

**Customer:**

Middlesbrough College

**Need:**

Energy efficient integrated system for ventilation, cooling and heating.

**Solution:**

EU air handling units, CoolMaster evaporative humidifiers, chillers and IQID chilled beams.



# Fläkt Woods match every customer's precise air handling needs

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The £68m project will cater for a total of 20 000 students and more than 600 staff when it is completed in summer 2008. The 32 000 square metre building will play a key role in Tees Valley Regeneration's ambitious master plan for Middlehaven.

## Energy savings

The Company is supplying 17 air handling units from its EU range. Most of the units are fitted with the Fläkt Woods' thermal wheel energy recovery system, working in combination with a CoolMaster evaporative humidifier. This unique configuration will allow the College to reduce the peak cooling load on the chiller by as much as 30-40%.

## CoolMaster

CoolMaster is an evaporative cooling system that utilizes the evaporation of water to absorb excess heat from the extract air. This heat is then transferred to the supply air during cool weather via a rotary heat exchanger, or "thermal wheel", to raise the incoming air temperature. During warmer weather the temperature of the extract air is reduced to below that of the incoming air and the "coolth" transferred to the incoming air by the thermal wheel. Using this method can normally reduce the temperature of the supply air by some 4 or 5 degrees C.



## Chillers and chilled beams

The contract also includes the supply of chillers and over 560 chilled beams from the new IQID range. These vary in length from 1.8m to 3.0m. IQID is an integrated system for ventilation, cooling and heating, which can be adjusted almost like a ceiling diffuser with a complete range of functions, fulfilling most needs for indoor air climate.

Commenting on the contract award, Linden Shuttleworth, sales manager at Fläkt Woods said "The College has selected its air handling requirements based on potential energy savings over the life-time of the equipment. Fläkt Woods was selected because it is able to offer a complete range of products that match exactly the needs of the diverse requirements of the new buildings."

Laing O'Rourke is the main contractors on the project, which will be open for students in September 2008.

## The EU range

The EU range offers all needed functionality and high degree of flexibility. The sturdy frame members and corner pieces form a very stable framework which is well suited to the full range of sizes.

## Fläkt Woods Group

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

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