



## Breathing Buildings hybrid ventilation solution contributes to double Award winning project solution for East Anglian Air Ambulance, Norwich Airport

The charity, East Anglian Air Ambulance (EAAA) tasked Architects Feilden+Mawson to create a practical, sustainable and pleasant place to work at their new HQ at Helimed House.

A double Award winning project incorporating Breathing Buildings Hybrid ventilation as the solution for improved air quality and temperature control.



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<b>PROJECT</b>	East Anglian Air Ambulance, Head Quarters
<b>LOCATION</b>	Helimed House, Norwich Airport
<b>SECTOR</b>	Commercial and Industrial
<b>PRODUCTS</b>	NVHR 1100 natural ventilation with heat recycling units together with S1500L e-Stack ventilation units
<b>AWARDS WON</b>	HVR Collaboration of the Year 2022 and CIBSE East Anglia Project of the Year 2022



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EAAA's CEO, Matthew Jones was not familiar with the concept of hybrid ventilation so a visit to the Breathing Buildings factory in Soham was arranged enabling the team to see the system for themselves. They also visited the Dyson Building in Cambridge that utilises Breathing Buildings solutions on a record breaking temperature day at the Botanical Gardens just down the road. Once the performance of the system had been demonstrated, EAAA were on board with the proposed solution and they were satisfied that the building wouldn't overheat in summer.

The Architect was tasked by the EAAA charity to create a new HQ for them at Norwich Airport. The objective was to create a practical, sustainable and pleasant place to work whilst also consolidating the charities resources. This includes several functions; administration, fundraising, training and Helicopter Emergency Medicine Service (HEMS) with the ability to provide increased flying and medical facilities to allow 24 hour operations.

Having previously used Breathing Buildings' hybrid ventilation solutions in several new build schools, it was the M&E Consultant, Johns Slater and Haward who recommended this solution.



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The brand new section of the EAAA HQ building now features Breathing Buildings' NVHR 1100 natural ventilation with heat recycling units together with S1500L e-stack ventilation units.

Hybrid ventilation provides good indoor air quality and comfortable internal temperatures without the need for mechanical cooling that increases energy consumption. The EAAA building was thermally analysed using dynamic thermal modelling and working closely with key stakeholders, the Breathing Building solutions was chosen.



### The Breathing Building solution

The Breathing Building NVHR® units assist in maintaining a comfortable internal temperature even in very warm weather without the need for mechanical cooling which increases energy consumption.

The NVHR® product is now integrated into the building. Key rooms had opening windows and South facing rooms low level motorised louvres installed that allow additional air change rates during periods of high external ambient temperatures. By operating the hybrid ventilation at night to use the cooler ambient temperatures, natural, passive cooling is provided which ensures internal spaces are comfortable and fresh in the morning.

Fitted with external and internal temperature sensors and an intelligent controller, the system monitors conditions to create the ideal indoor environment, this helps boost both productivity and wellbeing. The NVHR® optimises indoor air quality, comfort and efficiency by automatically switching between natural, hybrid and mechanical ventilation, maximising benefits.



Delivering a healthier office environment for the EAAA's team and enabling them to monitor and help manage carbon dioxide levels was very important. Not only does the building utilise sustainable technologies and achieves the functionality required of a multi-use facility, it also has the desired visual impact that the Architect wanted. We are certain that the team at EAAA will thrive in their new building and continue with their fantastic work.

NVHR® is suitable for the majority of buildings due to its small size and can be deployed in offices, meeting rooms, schools, public areas and other deep plan spaces.



## For More Information Contact Breathing Buildings at:

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