

case study



Independent Heat Recovery
Ventilation Specialists

Balancing barn weighs in with MVHR system from ADM

ADM has supplied a heat recovery with mechanical ventilation (MVHR) system to one of the UK's most unusual new build projects.

The 35m long house is balanced on the edge of a slope, with half of the building cantilevered out over a meadow 5m below.



Known as the 'Balancing Barn', the four bedroom property is available for holiday rents and was designed by award-winning Mole Architects in collaboration with Dutch Architects MVRDV.

The Barn has high levels of insulation, whilst ventilation is provided by an MVHR system from ADM. Heating is provided by a ground source heat pump, all of which results in a highly energy efficient building.

The MVHR system is able to recover over 90 per cent of the heat from the outgoing stale air, before feeding it back into the property as warm, fresh, filtered air. Reusing this heat, which would normally be lost to the outside air through passive ventilation, has created a much more sustainable building.



The heat recovery files

Client:	Balancing Barn
Architects:	Mole Architects
Projects:	Holiday property that is balanced on the edge of a slope
Ventilation:	Heat recovery ventilation (MVHR) system.
Heating system:	Ground source heat pump
Local conditions:	The property was cantilevered out over a meadow 5m below.
Construction:	Timber frame system

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Ian Bramwell of Mole Architects

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The MVHR system provides a continuous low level of background ventilation, which has been designed to regularly change all the air in the Balancing Barn. This means any occupiers who suffer from hay fever can keep the window closed whilst the rooms remain comfortably ventilated even on the warmest summer days.

This will be a welcome benefit for occupiers who suffer from hay fever, as the property is located on a beautiful rural site by a small lake in the English countryside, near Thorington in Suffolk.

Installing an MVHR system also prevents solar gain from the large windows and rooflights, which would otherwise require energy intensive cooling systems, such as air conditioning units.

The MVHR system reduces relative humidity to below 70 per cent, which means less condensation when the property is fully occupied with eight people. Cooking and bathing, as well as people breathing, can create up to 18 litres of moisture per person, per day and left unchecked, can result in mould growth and fusty smells.

“ The MVHR system from ADM, was a central part of creating an energy efficient and more comfortable building,” said Ian Bramwell of Cambridge-based Mole Architects. “ We had evaluated a range of alternative systems and eventually specified ADM. This is because they are not restricted to just offering one manufacturer's products, therefore, are able to recommend a system most suitable for the project.”

The four bedroom Barn is clad in reflective stainless steel and internally lined with plywood. The Balancing Barn was commissioned by Living Architecture, an organization dedicated to the promotion and enjoyment of world-class modern architecture.'

For more information on Living Architecture or to rent the Balancing Barn, visit: www.living-architecture.co.uk



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