

## ADM website an instant hit

Our new website has literally been an instant hit since we launched it in September. That's because we have had hundreds of visits from new and existing customers all looking to find out how we can help them find and create more efficient, comfortable homes.

The all-new website, [www.admsystems.co.uk](http://www.admsystems.co.uk), gives visitors instant access to the most comprehensive information about heat recovery ventilation (MVHR) and other ventilation systems. We have made sure it features the complete range of products and brands we offer, along with detailing their benefits.

Also included on the new website is the recently introduced Ground-to-air Heat Exchanger (GAHX). This super efficient system significantly reduces the amount of energy the MVHR system requires to heat or cool the incoming air.

Homeowners have reported how useful the case study downloads on the new website are. That's because it gives them direct feedback from our other customers who are benefiting from an MVHR system.



These actual case study examples have been compiled using feedback from customers and therefore provide visitors to the new website with a useful insight into choosing the most appropriate MVHR system. The new website includes a 'knowledge base' section highlighting latest requirements in terms of Building Regulations, Code for Sustainable Homes and other Government energy saving targets.

Chris Marriott, our Managing Director, said: "This is an exciting time for ADM and our customers with the launch of our brand new website. It features all the information visitors need, in a clear, professional-looking and easy-to-use site. And, of course, it advises on the specification and installation of our full range of MVHR and other ventilation systems."

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## Keeping away the winter blues!

The four coldest winters in the UK over the last century were, in order of chilliness: 1963, 1947, 1940 and 1979. The winter of 2010 looks like it is on track to be one of the coldest in many years.

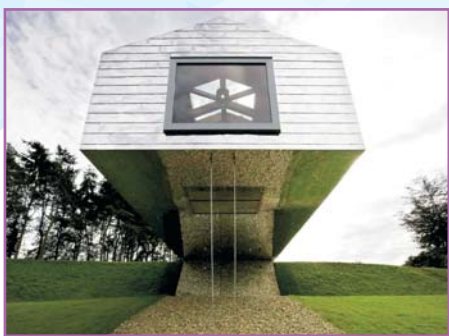
However, it was 1963 that had the distinction of being the coldest winter for more than 200 years. It was so cold that the sea froze over in places such as Poole in Dorset. Although 1947 was not the coldest winter of the 20th century, it was certainly one of the snowiest, with the white stuff falling somewhere in the UK every day from 22 January to 17 March.

Even though we hear a lot about global warming, winters in the UK can still be extremely severe, and the last two years show that there is still a lot homeowners can do to keep warm.

With rising fuel bills, installing an MVHR system is still one of the best ways of keeping away the winter blues. They are able to recover over 90 per cent of the heat from the outgoing air, irrespective of the outside temperature, which means they would have made a huge difference to homeowners in the four coldest UK winters over the last century.



# Balancing barn weighs in with ADM's MVHR system



We have just supplied one of our most unusual projects in our 30 years of experience – and that's saying something as we must have installed thousands of systems!

The 'balancing barn' is a 35m long house that, as the name suggests, 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 offered for holiday rents and was designed by award-winning Mole Architects in collaboration with Dutch Architects MVRDV. Along with our MVHR system, energy efficiency in the Balancing Barn is improved further by having high levels of insulation. Heating is provided by a ground source

heat pump, all of which results in a highly energy efficient building.

"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 the company isn't restricted to just offering one manufacturer's products and was therefore able to recommend a system most suitable for this project."

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 windows 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.

The four bedroom Balancing Barn is clad in reflective stainless steel and internally lined with plywood. It 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](http://www.living-architecture.co.uk)**



## Make sure you are compliant

Here, Chris Marriott, our Managing Director, looks at the reasons why installation standards have been tightened as part of the updates to Building Regulation for England & Wales Part F (Ventilation).

**What are the changes to Part F (ventilation)?**  
Changes to Part F are designed to ensure adequate ventilation provision in more air-tight buildings, whilst also covering new requirements and guidance for installation and commissioning of ventilation systems.

**When did the updates to Part F take effect?**  
The 2010 revisions to Part F came into force in October 2010.

**What are the implications of the update?**  
The update is good news for standards in the industry as it now makes it legally binding to ensure that all fixed mechanical ventilation systems are commissioned by a qualified person and that the relevant Building Control Body is notified. The updates to the Regulations also ensure that the householder is given sufficient information about the ventilation system and its maintenance requirements, ensuring correct operation.

**Why was Part F updated?**  
One of the reasons for updating Part F is that all new build properties now have to achieve a higher level on the Code for Sustainable Homes and to do that it is essential that all ventilation systems, whether simple extract fans or a whole-house MVHR system,

are correctly installed. Homeowners who decide to install an MVHR system in an existing property will benefit too, as it means it now has to be installed by a qualified person.

**Was there an issue before?**  
The previous unregulated approach, prior to the October updates of Part F, meant that it was not uncommon for ventilation systems to be installed that were inadequate or failed to deliver the energy efficiency savings promised. In some cases, lack of adequate ventilation could actually put the health of the occupants at risk.

**What will be the benefits of the update?**  
The updated legislation will create what is in effect a common standard across the industry. This is similar to that of a Gas Safe installer, but in this case for domestic ventilation.

**What other reasons brought about the change?**  
The changes to Part F were brought about due to recent updates to Part L (conservation of fuel and power), which introduced the concept of pressure testing buildings, to ensure they were energy efficient. This woke housebuilders and specifiers up to the fact that they would need some form of powered ingress/extraction - such as an MVHR system - that would provide adequate ventilation, whilst keeping the building warm and comfortable. That is one of

the reasons why Part F now requires that post-completion testing of ventilation equipment is carried out to ensure it delivers the required air flow efficiently and quietly.

**What should I do to make sure my property complies?**  
We are recommending to all our customers that they use a qualified supplier and installer when they purchase an MVHR system. One of the best ways of doing this is to choose an HVCA (Heating and Ventilation Contractors Association) member.



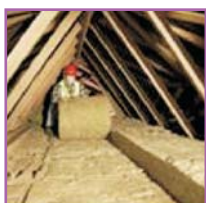
In reality, updates to Part F are simply putting into legislation what is essentially a common sense approach, making sure the ventilation system does what it is supposed to do. Housebuilders and specifiers can meet the new requirements by choosing a 'qualified person' to install it. That can be either an HVCA member or an installer that has attended an appropriate training course, many of which are currently available - it really is as simple as that.

# Top tips on saving money this winter

This winter has already shown its teeth with temperatures plummeting to well below zero across the country. Low temperatures, combined with rising gas and electricity prices, means that more homeowners are looking at ways to save money on their heating bills. Here are our top 5 tips:

## Insulation

This is still one of the most effective ways to reduce heat loss in your home. The best way to find out whether your home is adequately insulated is to check to see if there is any insulation in the loft. If there isn't, then make sure you get some fitted as the Energy Saving Trust estimated that insulating an un-insulated loft could save you around £145 a year and reduce your carbon dioxide (CO<sub>2</sub>) emissions too.



## Switch to low energy lightbulbs

This is a really easy step and they last up to 10 times longer than ordinary bulbs, and using one can, according to the [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk), save you around £45 over the lifetime of the bulb.



## Install Heat Recovery Ventilation

The Energy Savings Trust recommends a number of MVHR systems on its website. For example, a Single Room Heat Recovery Ventilator (SRHRV) similar to those we offer can be fitted for under £400 and can save over 80 per cent of the heat that would normally be lost to the outside through an extract fan. These types of self contained units are easy to fit and reuse much of the valuable heat generated in your home.



For even greater energy savings, why not consider a whole house MVHR system, which can capture over 90 per cent of the heat from outgoing stale air, delivering back into your home as pre-warmed, clean filtered air.

## Turn down your thermostat

Even turning down your thermostat by a barely noticeable 1°C could cut your heating bills by up to 10 percent and typically save around £50 per year. Also, if you have a programmer, set your heating and hot water to come on only when required rather than all the time.



## Check your windows

It doesn't get much simpler than this, but closing curtains is really effective and acts as another barrier to prevent heat escaping. If you do still feel a draught, it might be time to consider replacing your windows for modern, energy efficient alternatives.



# How does an MVHR system work?

A heat recovery system can significantly improve the energy efficiency of your home by recovering heat that would otherwise be lost using normal extract ventilation.

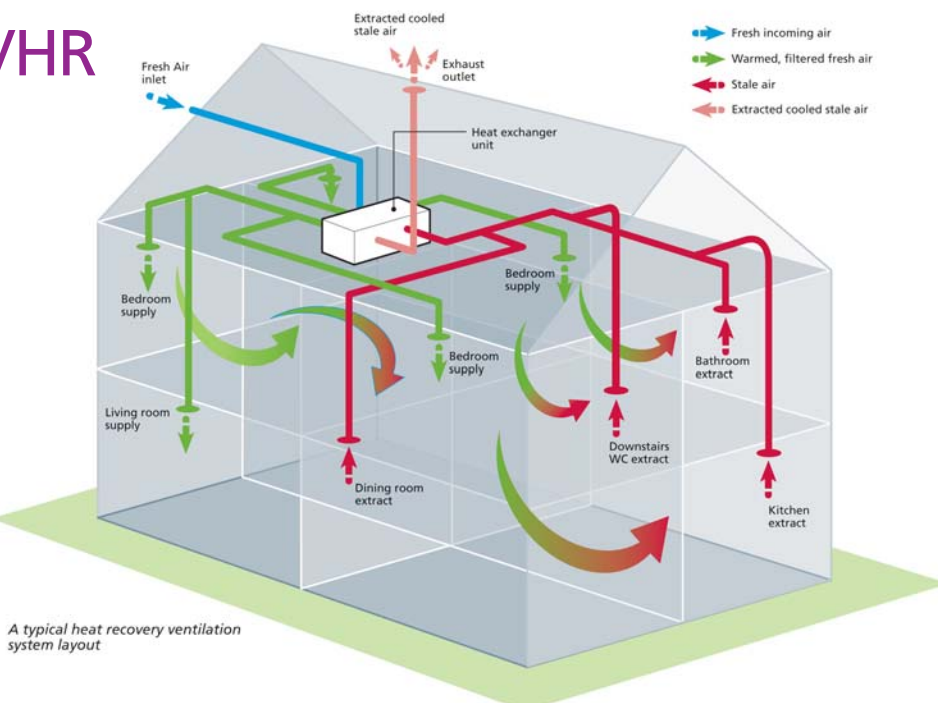
It does this by a series of ducts that collect stale moist air from inside the house, from areas such as the kitchen, laundry and bathrooms. This stale contaminated air passes through the HRV unit and is exhausted to the outside.

Clean fresh air is then drawn from the outside and, as the two air streams pass each other, the heat is transferred from the outgoing stale air to the fresh incoming air.

There is no mixing of air streams. During winter, the system is able to capture over 90 per cent of the energy from the outgoing stale air before delivering it as warm, filtered, preconditioned air into the living areas of the property through the ducting.

Improving energy efficiency is not the only advantage of fitting an MVHR system. Here are some more of the benefits it provides:

1. If you have a problem with condensation, an MVHR system is an excellent method of addressing this issue. It does this by reducing humidity levels below 70 per cent, reducing the amount of condensation that occurs on cooler surfaces such as windows.



2. Fitting an MVHR system can help asthma sufferers. It does this again by lowering relative humidity, which limits house dust mite numbers and therefore the airborne allergens they produce. This airborne detritus has been shown to exacerbate asthma and allergies

3. If you suffer from hayfever, an MVHR system can help. That's because filters on the system remove dust and pollen down to the microscopic level, which

means that it feeds clean, filtered air into your home. Importantly, it means that you can keep the windows closed in summer and still remain cool and fresh.

4. If you live near a noisy street, an MVHR system can help you reduce noise intrusion in your home. This is because sound waves pass through trickle vents in the windows or air grilles in the wall. Fitting an MVHR system means you don't have to rely on these passive types of ventilation that allow noise into your home.

# MVHR system helps secure planet for future generations.

We were delighted when ADM was asked to supply an MVHR system to Trelander Children's Centre in Truro, Cornwall. The £330,000 Community Hall will be used as a children's centre, hosting toddler play sessions and parenting groups.



The building is designed to offer children and adult users, a natural, day lit, stimulating environment, internally and externally. High levels of energy efficiency are achieved by the MVHR system, along with straw bales and sheep's wool to insulate the floor, walls and roof.

Untreated green oak sawn timber boards provide the external wall finish. Simple roof planes of sedum

and corrugated fibre cement sheeting provide generous outdoor covered spaces.

U-values of 0.12, 0.13, 0.14W/m<sup>2</sup>K for roof, walls and floor respectively, air tightness detailing, the MVHR system, and passive solar design, all mean that annual space heating requirements are very small.

Space heating is provided by a small domestic gas condensing boiler, supplying low temperature under-floor heating. Hot water is supplemented by a solar thermal installation. All the hot supply pipework is highly insulated and of small diameter, to reduce water wastage whilst waiting for hot water to reach the tap.

The MVHR system installed at the community hall is able to capture over 90 per cent of the energy from the outgoing stale air, before delivering it into the building as warm, filtered, preconditioned air.

The ducting for the MVHR system is fitted in the loft void of the Community Hall, above the WC, in the middle of the building. Two heat recovery units from ADM are also located in this space, with rigid galvanised ducting to rooms and main hall.



ADM recommends the use of rigid ducting with MVHR systems, wherever possible. This avoids the possibility of 'slump' that can sometimes occur with non-rigid ducting. This can be detrimental to the efficiency of the system, resulting in elevated noise levels and pooling of condensation moisture.

"We have been very impressed with the improvements in energy efficiency of the building achieved by installing the MVHR system," said Nick Donaldson of ARCO<sub>2</sub> Architecture Ltd. "We wanted to make the new Community Hall as sustainable and energy efficient as possible. The MVHR system was a central part of achieving this."

ARCO<sub>2</sub> Architectural Ltd is an International Award winning Cornish based RIBA Chartered Architectural Practice, which specialises in sustainable design.

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All products and their specifications referred to in this newsletter are subject to change and ADM reserve the right to alter these.

# ADM comes to the rescue of Eco champion

After scouring the market for an effective way of reducing heating bills, an eco champion in Buckinghamshire has installed one of our MVHR systems in two barn conversions.



The barns, one of which has been sold and the other is now occupied by Ray Marzec, the eco champion, will form part of what will eventually become an eco centre, including cafe, farm and holiday apartments.

"I bought the MVHR system from ADM because they offer one of the widest choices of ranges on the market, which meant I found exactly what I needed," said Ray Marzec, eco champion. "The service and advice offered by ADM was second to none and I would highly recommend them."

An MVHR system from ADM can be used in any type of property – in this case they were installed in the 19th Century timber framed barns that still retain elements of the original weatherboarding.

"The MVHR systems have made a huge difference to the comfort and energy efficiency of the properties," added Ray Marzec. "They were a central part of helping us achieve the very highest standards of sustainability on this development."

One of the properties uses a domestic oil heating system, whilst the other, occupied by Ray, uses multi fuel – in this case mainly timber. The barn conversions are built from a mix of brick and timber weatherboarding.

Ray also noticed that the MVHR system eliminated condensation from everyday activities such as cooking and washing. It does this by reducing relative humidity to below 70 per cent, creating a much healthier indoor air quality.

Lower relative humidity prevents the proliferation of house dust mites that thrive where there is warmth and moisture. The detritus from these organisms has been shown to cause asthma and other breathing related conditions, along with damp, fusty odours.

Ray Marzec expects to open his eco café early next year and has already designed it with another MVHR system from ADM.

 **adm systems**  
fresh air by design