



Nick Heaton, managing director of EnviroVent discusses how changes in society and a focus on energy efficiency has altered the way building and refurbishment professionals should view their requirements for future ventilation needs.

SUSTAINABLE VENTILATION VITAL FOR PUBLIC BUILDINGS

The first building control legislation in England dates back to the Great Fire of London in 1666. The rapid spread of fire through the city's closely built timber buildings destroyed 80% of the capital. The Government had to act to prevent similar tragedies from occurring, so in 1667 they introduced the London Building Act which provided surveyors with forcible regulations. Hazardous living conditions created by the Industrial Revolution forced Disraeli's Government to take measures which resulted in the prohibiting the construction of shoddy housing. In 1875 the Public Health Act was born, giving the construction industry a greater responsibility for Health and Safety, it was replaced (along with a few other local building-by-laws) by the Building Regulations of 1965.

Fast forward to 2009 and carbon emission levels of buildings are top of the agenda for our current government with a new set of challenges to take action on. Through revisions to Part L (Conservation of fuel and power) of the Building Regulations, the aim is for all new non-domestic buildings to be net zero carbon by 2019. The new legislation will require a 25% reduction in carbon emissions in 2010 and another reduction in 2013.

The energy conservation of existing buildings is also currently being reviewed so that there is more of an appropriate balance between heritage, character and sustainability.

50% OF THE WORLD'S ILLNESSES ARE CAUSED BY INDOOR AIR

The right ventilation is a vital component of ensuring good health and creating a more energy efficient building. The current "Build tight, ventilate right" mantra puts added pressure on developers to create and retrofit buildings that save energy, whilst providing a healthy environment for its occupants. Older buildings which may have sufficient natural ventilation are now considered 'leaky' and are losing too much energy. Meanwhile, as many newer buildings are built tight they can often suffer from higher levels of humidity, CO₂ and other indoor air pollutants. The answer to both of these problems is a properly installed, low maintenance, low energy ventilation system.

In the case of many buildings the ventilation systems are decades old with the major concerns being the running costs and noise. With the right product, utility and maintenance bills are reduced and the ventilation unit is virtually silent.

LONG TERM SUSTAINABILITY

Over the past few decades hundreds of thousands of commercial wall fans have been installed in our pubs, schools and other non-domestic buildings. Legislation such as the smoking ban and tighter regulation on energy efficiency has slowly made these products redundant. Consequently as we push to make our buildings more efficient we are now left with the prospect of huge building costs as we have no alternative but to take out these redundant fans and throw them onto our fast disappearing landfill sites.

This is a waste because plastic is very sustainable, once made it becomes non biodegradable and will last for hundreds of years. By selecting a ventilation product that has been designed to match the lifecycle of our commercial buildings, Facilities Managers across the UK can make a real improvement on the energy performance and the indoor air quality within their buildings, giving them the opportunity to design out disrepair, save on building repair costs and prevent tonnes of plastics from ending up on our landfill sites. You can ensure that your carbon footprint is kept to a minimal by choosing a product that is manufactured in the UK, which in turn gives the economy a welcome boost.



Of course, each type of public and commercial building has its own set of issues. For offices and schools, the main ventilation priority is likely to be regulating the temperature, whilst pubs, restaurants and gyms will often be most concerned with eliminating odours. Publicans may have thought that the smoking ban would create a more welcoming environment, but in fact the smoke was just masking other repellent smells such as body odour and stale beer.

SIMPLE SOLUTION

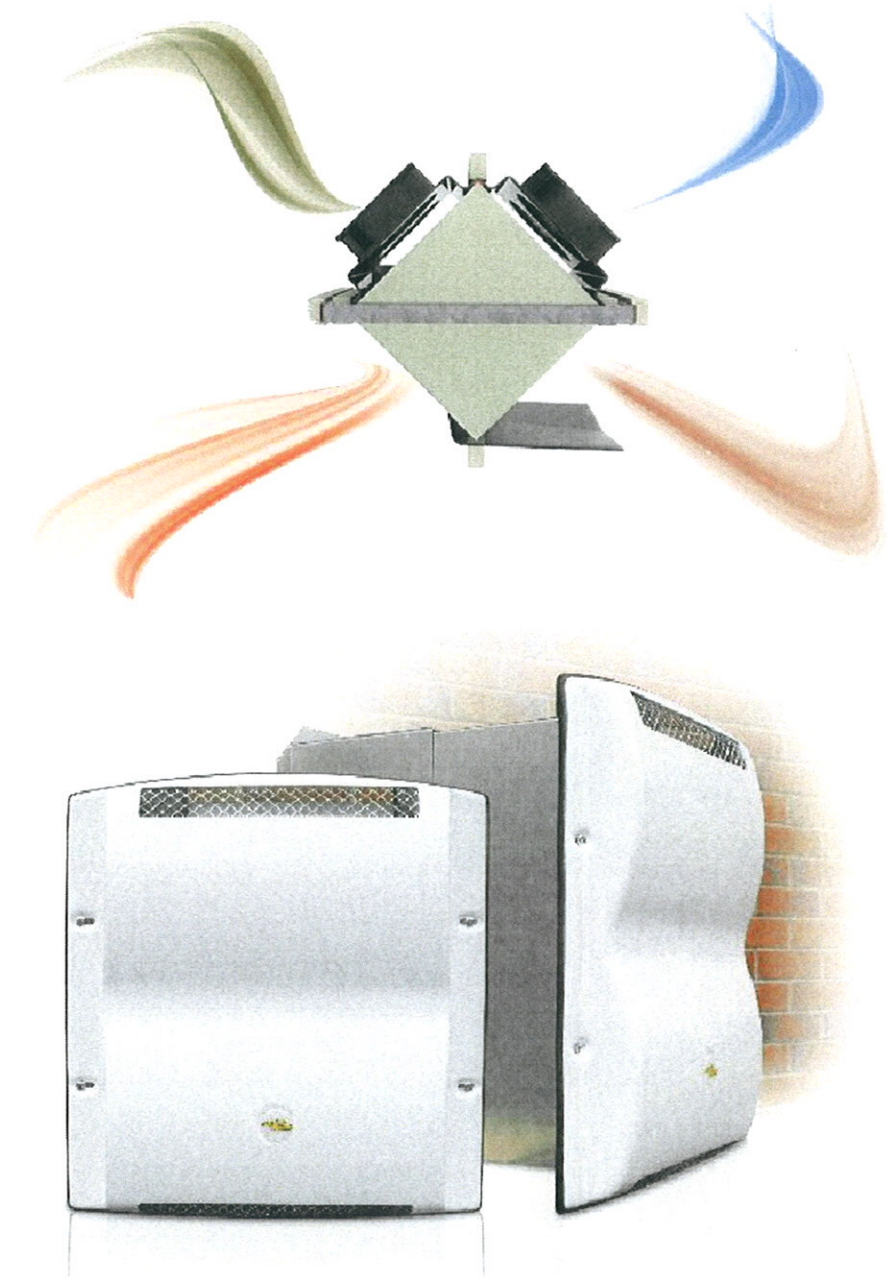
Sustainable ventilation manufacturer EnviroVent has come up with an innovative solution for those managing new build public building projects and retrofits. The new energiVent Impact heat recovery unit, which will be available from January, can directly replace the former best selling commercial ventilation unit and recovers 73% of heat which would otherwise be lost.

Fitted with robust plastic grilles, the system is capable of sustaining high impact and it is immensely durable. This is an application that goes beyond the limitations of traditional extract fan technology by incorporating a state of the art heat recovery element to deliver significant energy savings. A compact unit that is simple to install, the 12 inch unit is ideal for smaller commercial and public premises. It uses Ultra Low DC Watt Motor Technology with a two-speed operation and wireless manual boost switch to provide continuous extract ventilation.

The extracted air passes through the robust aluminium heat exchange cell before reaching atmosphere. Simultaneously, fresh air is drawn into the unit from the outside and is filtered before being warmed by the heat exchanger and delivered back into the room. The system has the facility to be switched to a 'summer' mode which enables extract only and shuts down the heat recovery process – perfect for the warmer months of the year.

The energiVent Impact has been designed for a fast installation which should take no longer than an hour to complete. It is supplied with an innovative wall kit so the system can be fitted into wall thickness up to 600mm which provides a secure, clean and completely air-tight application. Alternatively, for replacement installations, the system can utilise an existing wall sleeve. As the unit features simple electric fittings and wireless technology there is no further need for additional wiring.

EnviroVent's Impact has also been



designed for rapid, no fuss maintenance, achievable from inside the building. The four powerful axial fans will run continuously for a minimum of five years, after which the fan compartment can be easily accessed to enable rapid replacement. The exchanged fans can then be taken back to the EnviroVent factory to be reworked.

The heat exchange cell in the unit has been designed for life and should never require replacement. It can be easily and safely removed to be cleaned in a commercial dishwasher or by hand. And, as part of the acclaimed Lifetime Range® the energiVent Impact comes with a five year guarantee and the components that may need replacing after this period are recycled. The product also has a

significant acoustic benefit. As the noise passes through the unit, the heat recovery cell modulates the frequency level which results in considerable sound reduction.

DON'T DELAY

With the government's sustainability regulations and landfill taxes becoming increasingly stringent year after year, it is advisable to take action now to start saving energy and cut fuel bills.

Nick Heaton is managing director at EnviroVent. For further information telephone 01423 810810 or visit www.envirovent.com. EnviroVent are members of TEHVA and RVA.