

10  
good  
reasons

to choose Aereco's Demand Controlled Ventilation Systems

# advantage no. 1



## humidity sensitive

Demand Controlled Ventilation (DCV) automatically adapts the level of ventilation in each room to the actual level of use. To do so, our products measure relevant indicators: humidity is the most commonly used in dwellings, together with presence in bathrooms. The humidity sensitive technology is applied to the air inlets as well as to the air extract units. The cross sectional area of the ventilation units is modulated according to the local relative humidity.

### Did you know?

Aereco invented the humidity sensitive ventilation in 1984. The actual products are still based on the same technology: a reliable mechanism composed of nylon strips. Today, Aereco is the only company offering extract units containing both a humidity sensor and a Passive Infra-Red lens to detect presence.

## advantage no. 2

~~CO<sub>2</sub>~~ ~~VOC~~

# air quality, without VOC nor CO<sub>2</sub>

Human activity, and the building or interior decor materials employed, produce the indoor climate of pollutants. Excessive moisture is probably the first one, supplemented with pollutants such as carbon dioxide (CO<sub>2</sub>) and volatile organic compound (VOC). The emission of carbon dioxide, mainly due to human breathing, is often accompanied by a steam emission; that's why the reading of the water rate is a relevant means of measurement of the state of pollution of housing.

### Did you know?

A person breathing emits an average of 19 l/h of CO<sub>2</sub>. To ventilate is the best solution in order to maintain the indoor air quality in new airtight constructions.

# advantage no. 3



## **compatible** with **all ventilation designs**

Whether you prefer Passive Stack Ventilation, Mechanical Extract Ventilation or Hybrid Ventilation, you can get Demand Controlled terminals and benefit from all the advantages of our technology. Each technique will have specific advantages in newly built dwellings as well as for retrofit. We can advise you about the best solution in each case.

### **Did you know?**

Aereco's DCV products have been installed in more than 3 million dwellings worldwide over the last 26 years. Because they are automatically demand controlled, they adapt to all rooms, all life styles and all weather.

## advantage no. 4



# low energy consumption

Human activities vary during the day so the humidity sensitive ventilation systems from Aereco automatically and continuously adapt the extracted airflows in each room. Not only do they ensure a very good indoor air quality, they can also reduce the heat losses linked with ventilation up to 50 % compared to a constant airflow ventilation system, as many studies have shown. On the other hand, this system presents perennial energy savings throughout the building's life. Based on a simple mechanism without electricity, its performance does not weaken over time.

### Did you know?

Aereco Demand Controlled MEV system has been proved to offer nearly the same energy performance as an 80 % Heat Recovery system. This result has been established in the framework of a simulation study realised in 2008 by Fraunhofer Institut Bauphysik in Germany.

## advantage no. 5



# comfort

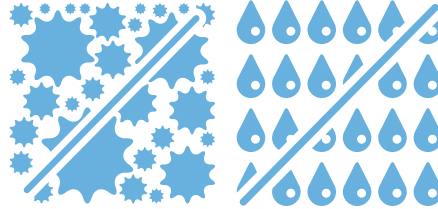
Aereco components and ventilation systems combine simplicity of operation and technical performance. They are controlled by intelligent sensors able to automatically detect humidity rates, presence or levels of activity, which reveal the local indoor pollution.

Aereco ventilation products are discreet. They have a particularly neat design for perfect integration into any type of housing. They are noticeable only by the comfort and wellness they silently provide.

### Did you know?

Occupant comfort is essential: if occupants are disturbed by draughts or noise, they will interfere with the ventilation system and put their health and the fabric of the dwelling at risk. This is why we put so much emphasis on this aspect.

## advantage no. 6



# no mould, no condensation

Because mould and condensation may appear in wet rooms, Aereco has adapted this humidity sensitive technology to extract grilles. Thus, they adjust automatically the airflow to the humidity rate to ventilate the room and evacuate excessive humidity. Therefore bathrooms and kitchen are free of pollutants and mould cannot develop. This way, Aereco protects the health of the occupants as well as the fabric of the dwelling.

### Did you know?

Dust mites can proliferate only under optimal conditions of temperature and humidity: 24°C and 75 % of relative humidity. A 5 % drop in relative humidity divides by six the number of dust mites. They disappear with a moisture rate lower than 45 %.

## advantage no. 7



# excellent life time costing

With low capital cost, low installation cost, low maintenance cost, no running cost and passive robust products which save energy, Aereco's Demand Controlled PSV gives both landlords, tenants and home-owners a fully cost effective solution. Similarly, Aereco's Demand Controlled MEV system offers a real alternative to Heat Recovery, at only a fraction of the investment and installation cost and with virtually no maintenance cost. According to a study by the Fraunhofer Institut Bauphysik in Germany in 2008, the additional cost caused by the extra heat losses generated by Aereco Demand Controlled MEV system represents only 47 € (around £40), in comparison to an 80 % heat recovery system. This is much less than the annual cost of filter changes for HR units. In the long run, the initial extra cost of the Heat Recovery (supply and fit) in comparison with the Demand Controlled MEV is never paid back - even without taking the required annual filters change into account.

### Did you know?

A study from the BRE has also clearly shown the energy savings generated by our Demand Controlled PSV systems. Visit our websites for more details.



## advantage no. 8



# easy to install

Air inlets, extract grilles, individual or collective fans, canopies: the Aereco product range is especially adapted to refurbishment. There is no need to create new ducts for air supply. Installation costs are kept to a minimum. Aereco is partnered by specialist ventilation installers.

### Did you know?

In terms of cost, PSV ventilation compares very favourably with individual fans; MEV requires just half the cost of installing Heat Recovery.

advantage no. 9

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## 30 years warranty

Aereco invented the humidity sensor back in 1984. Our state-of-the-art manufacturing facility in France has produced more than 16 million sensors since then. We are so confident in the quality and reliability of our humidity sensors that we warranty them for 30 years.

### Did you know?

All our humidity sensors are designed to retain all of their properties over time. Furthermore, they are never positioned in the air flow, to reduce their exposure to dirt.

advantage no. 10



## Recommended by the new **ADF 2010**

Control of ventilation has always been considered important. The new Part F coming into effect in October 2010 now mentions Demand Controlled Ventilation systems in paragraph 4.18. It recognises their benefits: maintain a good Indoor Air Quality without over-ventilating and therefore reduce energy consumption. BRE IP13-94 recommends controlled grilles reacting to humidity for PSV since 1994.

### Did you know?

Unlike standard PSV grilles, Humidity Controlled PSV grilles are rated 'good practice' in EST's Good Practice Guide 268. DCV Hybrid system ('assisted') is rated 'best practice'.



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