

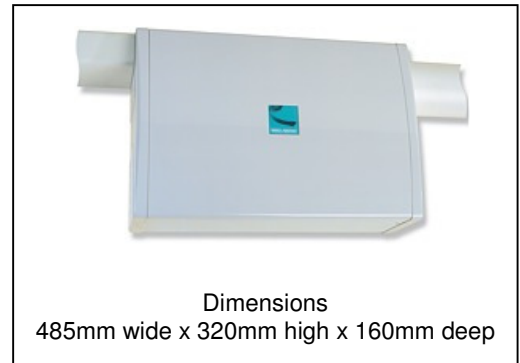
# Flatmaster 2000

## Positive Pressure Condensation Control Unit

LOW ENERGY CONDENSATION CONTROL UNIT FOR HOMES WITHOUT A LOFT

### Features & Benefits

- Extremely low power consumption— as little as 8 watts
- Very low maintenance requirement (replace filter every 1-2 years)
- High efficiency Grade G3 air filter
- Heater and manual boost switch included
- Slow running fan
- Significantly improves indoor air quality



### Redistributes heat from ceiling level

- Input air is directed across the ceiling (usually in your hallway). This uses a scientific principle called the Coanda effect, which has the impact of mixing with the wasted warmer air that has risen above head height in your home. It therefore increases the efficiency of your heating system.

### Highly effective filters

- G3 grade, which means that they are so fine they will exclude pollen (great for hay fever sufferers) as well as the dust and grime of outside pollutants. Filters are very simply replaced/washed every 1-2 years.

### Whisper quiet operation

- Flatmaster uses a slow running fan. In this way any noise generated is minimal. Most of the time it is unlikely that you will be aware that your Flatmaster is operating other than a fresher feeling in your hallway caused by the movement of the incoming air.



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### WHAT IS CONDENSATION?

Condensation accounts for approximately 70% of reported domestic damp and is undoubtedly a contributing cause of some infestation by wood boring beetle and dry rot outbreaks.

Condensation can commonly be attributed to a lack of balance between heating and ventilation resulting in a rise in relative humidity. Air can hold more water vapour when warm than when cold. When warm air is cooled, such as when the heating system is switched off at night, it will deposit the water that it can no longer retain, as condensation on a cold surface.

A similar effect can be demonstrated by breathing onto a mirror or other cool surfaces. In its more obvious form, condensation may “steam up” windows and mirrors.

In more severe cases, it can be absorbed by surface wall finishes and underlying plaster causing dampness although the underlying brickwork or masonry will normally be of lower moisture content. It may cause mildew on fabrics and leather and, in extreme cases, can cause walls to be visibly wet. It is frequently accompanied by mould growth, of which the most common is “black spot” (*Aspergillus Niger*)— a mould, which appears, first as small soot-like spots, of which can join up and cause large black areas.

Tumble dryers, even the ‘condensing’ models, exude condensation, drying clothes on radiators or anywhere within the home all cause condensation.

Condensation may occur at any height on almost any cool surface. This distinguishes it from rising damp, which almost never occurs at heights of more than four feet above external ground level and which is confined to walls that are in contact with the ground. Unlike condensation, rising damp normally results in the brickwork or masonry being of higher moisture content, than the plaster/render.

### WHAT ARE THE PROBLEMS ASSOCIATED WITH CONDENSATION?

In domestic properties condensation may cause peeling wallpaper, crumbling plaster, spoiled paint-work, discoloration of carpets, curtains and furniture, and the growth of mould, which, as well as being unsightly and smelling unpleasant, can be damaging to health.

### TOXIC MOULD—*ASPERGILLUS NIGER*

This mould growth may appear in various shades of green, yellow, pink, black, grey, or white. It will form on almost any surface where it can find a good source of condensation and organic matter. Paint, plaster, timber, clothing and leather are common hosts to the spores, whilst paper and fibre building fabrics may be softened because some mould species are capable of digesting cellulose.

Mould, in some cases, may be a health hazard as it produces large numbers (millions) of spores, which may create respiratory problems, cold like symptoms or rashes, which can be worse in the case of infants, and distressing allergic reactions to householders in frequent contact with them.

*Royal Institute of Chartered Surveyors*

The rooms which are affected may smell ‘musty’. Wardrobes in these areas may contain clothes and leather items such as shoes and belts, which would be subject to mould growth.

*In 1995 BRE advised that: 'Mould may affect the occupants' health by inducing anxiety. It is also possible that people prone to asthmatic or allergic conditions (which adds up to roughly 10% of the population) may be affected by long-term exposure to concentrations of airborne spores'*

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Condensation on windows

**WHY NOT A DEHUMIDIFIER?**

Dehumidifiers are designed to operate in the room in which they are placed. Generally a home with condensation has the problem in more than one room. This means it will be necessary to move the unit around, not easy if it has to be moved up and downstairs. The other solution is more than one dehumidifier – expensive. The Flatmaster operates throughout the home by constantly replacing the contaminated air with drier tempered air.

There is usually significant noise from a dehumidifier which means it would be irritating especially overnight in a bedroom. Generally most condensation appears on a bedroom window overnight. Whereas a Flatmaster operates continuously without you realising it.

A dehumidifier removes water from the air and deposits it in a bucket – emptying this can become tiresome. Dehumidifiers are energy negative. They consume electrical power. A dehumidifier runs at 250 watts whilst a Flatmaster uses just 5 watts, that's 50 times better! Flatmaster is energy positive, saving around 550 kilowatt hours of energy a year.

Dehumidifiers do not ventilate the home and therefore you will miss out on all the health and comfort benefits of breathing filtered, tempered air, 24 hours a day, as supplied by a Flatmaster. Because of noise and the cost, dehumidifiers are often switched off until a noticeable amount of condensation exists. This is really too late. By that time much damage can have been done. Flatmaster avoids this by preventing the problem occurring in the first place.

**WILL EXTRA HEATING DRY THE PROPERTY?**

Turning up the heating may make the problem worse as stated previously, warm air will hold even more water vapour!

**THERMOSTATICALLY CONTROLLED HEATER**

Many central heating systems are programmed to switch off around 9.00am and switch on again at around 5.00pm, perhaps because the occupants are out to work, but this is exactly the time when the sun can be shining and Flatmaster takes full advantage of this to build up some warmth in the home. This means that when the heating system switches on it uses much less fuel to bring the home up to temperature. .

**FILTERS**

The filters on a Flatmaster will prevent dust, pollen, insulation fibres and other floating pollutants from entering the home. Flatmaster has over twice the filter area of any competitor. Nuaire have arrived at this filter area following 20 years experience. In addition, only Nuaire use the high efficiency G3 filter material, fine enough to take out pollen. Replacement filters can be purchased through your supplier



Condensation 'Black Spot' (*Aspergillus Niger*)

## THE DUST MITE

The ventilation of homes is so important in controlling Dust Mite infestations.

In reality the Dust Mite grows up to about 0.3 of a millimetre and thank goodness that's too small to see with the naked eye. Since these creatures can be present in our soft furnishings and bedding by the tens of thousands this really is a blessing.

Dust Mites are related to ticks and spiders and they actually live on our dust. As many will know, most of household dust is actually our skin, or more specifically the dead skin that we constantly shed. This is one of the reasons they are so happy to live in our beds, we lose a goodly amount of skin overnight and having such a plentiful supply of food on the doorstep is heaven on earth for a Dust Mite.

In fact, there is not a house without Dust Mites. Some houses, however, contain huge numbers whilst others very few. This variation in infestation does not depend on cleanliness alone, it is greatly influenced by the amount of moisture in the house.

Allergy to Dust Mites is the single biggest cause of asthma attacks. It is now confirmed that some 80% of asthma sufferers have a Dust Mite allergy.

So why are moist houses so prone to Dust Mite infestations?

Understanding the biology of this invasive and damaging creature will help you appreciate why positive input ventilation with a Flatmaster can help to alleviate asthma attacks. It will have two additional positive effects on the home. With this mode of ventilation the moisture laden air throughout the home is gently diluted and replaced with tempered, fresh and drier air from outside. The relative humidity levels will drop, so creating a humidity level that is not friendly to the breeding habits of the Dust Mite.

The effects of replacing the air also remove the airborne faeces of the mite replacing it with filtered air from outside and remember that the filters on a Flatmaster will prevent even particles such as pollen from entry.

By adopting this method of ventilation and utilising barrier systems on pillows and mattresses (they prevent Dust Mites from entering and breeding within these micro-climate) asthma attacks for those who suffer from the Dust Mite allergen can be significantly reduced.



Dust Mite

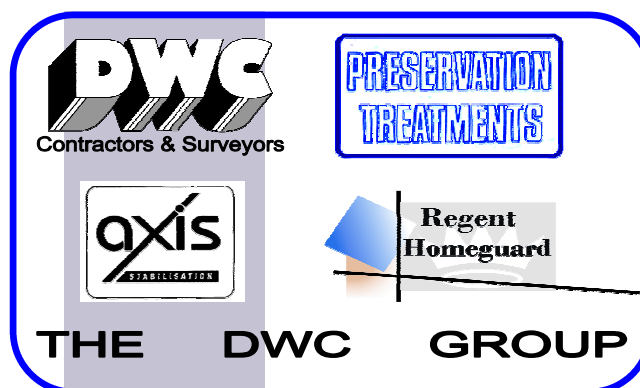
### **CAN THESE PROBLEMS BE CURED?**

Yes! Adequate ventilation will control the production of condensation. The NuAire Condensation Control System achieves this air change by gently introducing filtered air into the living space and creating a very slight positive pressure. The result of this positive pressure is to expel all the moisture-laden air out through leakage points that are found in all properties unlike leaving windows open, which creates drafts and a security problem. In addition, the heat generated by central heating is then 'lost' to the outside.

Where there is no loft access we recommend a Flatmaster 2000 which is wall mounted and has a heater and boost switch. The cost of this unit is £898.00 including installation and VAT. This price assumes a flat constructed of 225mm brick walls and one 100mm diameter hole cut into the external wall.

We are so confident that this system will work that we offer a 60-day money back guarantee if you are not satisfied that the unit is working or curing your condensation problem. In addition, the filters contained in the unit prevent dust, pollen, insulation fibres and other floating pollutants from entering the home. The unit costs around 2p per day to run. The heater, when operating, will cost up to 3p per hour.

**For Further Details Please Contact  
Your Nearest Supplier:**



DWC Contractors & Surveyors  
Essex Offices: 01702 471 666  
East London Office: 0208 947 7605

Regent Homeguard  
Sussex Office: 01435 864 424  
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Preservation Treatments  
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West London Office: 0208 212 7273

Axis  
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**All Technical Information Supplied by Manufacturer**