



**envirovent**<sup>®</sup>  
Because Air Matters

The guide to indoor air quality  
**4<sup>th</sup> Edition**



# Company Introduction



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## Welcome to the 4<sup>th</sup> edition of the EnviroVent Guide to Indoor Air Quality!



Breathing is our first ever instinctive action and the most natural thing we do, over 20,000 times a day in fact!

The importance of good indoor air quality is as vital now as it ever has been. Startlingly, statistics from the World Health Organisation show that 6 million people die annually from exposure to indoor and outdoor air pollution. A recent study by the University of Reading, a leading UK Institution for Environmental Studies, in the report 'Indoor air quality in UK homes and its impact on health' states a predicted 80% increase in asthma sufferers by 2050, which is found largely due to energy efficient upgrades to homes. As a consequence, there are now over 5.5 million Asthma sufferers in the UK, costing the NHS over £1.5 billion to treat the symptoms. This latest Guide to Indoor Air Quality reflects what's going on in the UK and includes some ground-breaking new products to enable homeowners, landlords and developers to ensure they can provide the correct levels of indoor air quality without compromising the energy efficiency of their homes.

Back in 1987 we began our mission to rid homes of the damaging and debilitating effects of poor indoor air, condensation and mould. Over 25 years later, with over 500,000 condensation problems solved we feel even more able to call ourselves experts when it comes to advising on indoor air quality and condensation in UK homes.

Government figures show that there is a requirement for an additional 200,000 homes to be built each year in the UK. This is much higher than the number of houses built in 2014 - approximately 117,000 completions -, which means the housing shortage is set to continue. At the same time that the Housebuilding Federation (HBF) has reported that the housing deficit has reached one million.

The Government has pledged to build more houses, which includes 200,000 new starter homes for first time buyers. The focus is on new homes being built to the zero carbon homes standard in 2016, reinforcing the need for housing to be of a sustainable design.

The Government has pledged to build more houses, which includes 200,000 new starter homes for first time buyers. The focus is on new homes being built to the zero carbon homes standard in 2016, reinforcing the need for housing to be of a sustainable design.

Part of achieving this standard is ventilation and this means whole house systems are becoming increasingly important. This approach was reinforced by the 2010 updates to Building Regulations, which placed greater importance on the effective design, installation and operation of ventilation systems, along with the introduction of the Domestic Ventilation Compliance Guide and BPEC training. These revisions to Part L and Part F have paved the way towards ventilation becoming more of a 'controlled' service, focussing on energy efficiency and correct installation to ensure optimum performance of the installed system. EnviroVent believe passionately in supporting these guidelines in conjunction with our philosophy of having products and services capable of meeting the 'real world' demands of consumers.

In the new build sector, this 'systems approach' is becoming increasingly widespread, with housebuilders more widely adopting MVHR (Mechanical Ventilation with Heat Recovery).

The introduction of the new ErP (Energy related Products) Directive covering ventilation units, introduced in January 2016, is set to generate further demand for whole house heat recovery systems. It represents a step-change in the specification of ventilation systems, focusing on ventilation units using energy above 30W, impacting mainly on Mechanical Extract Ventilation and Mechanical Ventilation with Heat Recovery Systems. ErP is set to have a major influence on the ventilation products that are available on the market. All products we sell feature a CE mark, so distributors and installers can be assured they are compliant with the legislation.

Installers, too, have to be ever more aware of changes to regulations and that often means having to undergo specific training to carry out work to the required standard - since 2010 updates to Building Regulations Approved Document F classed domestic ventilation as 'notifiable work'. This has led to significant demand for our BPEC-Approved Training Programme 'Ventilation Installer Training'.

## Innovative New Products



As heat recovery systems increase in demand, we have responded by enhancing our range of MVHR systems. This includes introducing a new Slimline ceiling-mounted range ideal for restricted spaces such as within ceiling voids. These systems are designed to offer low energy consumption and low noise levels, making them ideal for applications such as care homes, offices and student accommodation, providing optimum ventilation rates and control for specifiers and end users.

In addition, residential MVHR units are also experiencing an upwards trend in demand. Our new energiSava 300 and 400 units cater for larger properties and incorporate constant flow technology. This ensures ease of commissioning and that the required airflow rate is constantly delivered despite any resistance encountered in the ductwork or filters.

Our passion for providing good indoor air quality is a strong now as it was over 25 years ago. As part of one of the largest ventilation companies in the world, the Soler and Palau Group (S&P VG), with manufacturing facilities on four continents, our philosophy is to provide an outstanding service through the design, manufacture, expert installation and on-going maintenance of our sustainable ventilation products for the long term. This philosophy has helped EnviroVent to become the fastest growing ventilation manufacturer through the creation of our Lifetime Range®, which has resulted in many new jobs during extremely demanding times and allowed social housing providers to save millions of pounds in maintenance costs.

We have big plans to keep our success going for many more years to come and hope to create many more jobs as a result. Obviously, this can only have been achieved by gaining and keeping good customers. So on that note if you are an existing customer we thank you whole heartedly for your support over the years, it means so much to us.

If you are new to EnviroVent please call us, email us or try out our products or services, we guarantee that you will not find better value for money from anywhere else in our industry and we will not let you down.

*Andy Makin*

**Managing Director**



Scan the QR code to see how our products can improve indoor air quality, solving condensation and mould problems or visit <http://bit.ly/1T3nYee>



The Lifetime Range® products are proudly made in Harrogate, UK.

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Did you know that 1 in 5 homes suffer from condensation and mould?



The effect of not having good quality air in the home is dramatic. Condensation is a serious problem. Turn to pages 09-10 to find out why.



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Did you know that we now offer bpec approved training programmes? Call us on 01423 810 810 for more information.



Scan the QR code to see how our products can improve indoor air quality, solving condensation and mould problems or visit <http://bit.ly/1T3nYEe>

At EnviroVent, we believe that what truly makes us different is a unique set of values that have grown out of our philosophy and long-standing heritage for delivering sustainable products that are designed for the lifecycle of a building

KEEP IT SIMPLE

WE UNDERSTAND "WHY?"

OPPORTUNITY FOR ALL

MAKE IT HAPPEN

WE ARE IN IT TOGETHER



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## WE UNDERSTAND “WHY?”

We make a difference and are passionate about providing solutions that improve people’s health and homes

In order to live in clean, healthy and fresh homes we need good ventilation. Our products create fresh and healthy indoor environments free from condensation, mould and other indoor air quality problems. What’s more, because they control humidity levels, dust mite populations are reduced which can significantly improve the health of asthma sufferers and people suffering from respiratory problems.

In a recent survey 97% of customers noticed an improvement in their indoor air quality and 91% in asthma or breathing issues after an EnviroVent product was installed in their home.

### Lowest Lifetime Costs & Energy Consumption

The EnviroVent Lifetime Range® products have been designed for ease of maintenance and servicing to cut down on landfill and carbon emissions. This allows you to save up to half the maintenance costs over a 25 year period compared to traditional products.

At the heart of every product in the Lifetime Range® lies the latest DC/EC Motor technology. This eco technology allows fans to operate using the lowest possible energy, generating efficient power and thereby reducing carbon emissions. What’s more, many of the EnviroVent products such as our Positive Ventilation and Heat Recovery Units provide excellent solar gain and heat distribution benefits, which can save you over 10% on your annual heating bill.

### Long-term ongoing warranties

The Lifetime Range® products offer 5 year on-going warranty services.

This is possible because our products have been designed to enable us to easily exchange faulty or worn out components in-situ and bring these back to the factory to be reworked or recycled. The unit can then be issued with another 5 year warranty. Based on 3 million ventilation product installations per year over a 25 year period, this warranty service saves 1.8 million tonnes of plastic ending up on landfill sites and 80,000 tonnes of carbon emissions being produced through the plastic injection moulding process.



## OPPORTUNITY FOR ALL

We value our people; encourage their development and equip them with skills, experience and confidence to be the best they can be

We recognise that our people play a huge part in our success and embody the values of our business.

Many of our colleagues have been part of the company for many, many years, experiencing how the EnviroVent brand has grown and how our markets have developed.

As the company expands into new sectors, further opportunities open up to both our customers and trusted suppliers. We believe that everyone should have the opportunity to benefit from an EnviroVent product fitted in their home, creating an ideal and healthy environment.



Scan the QR code to check out our latest case studies for EnviroVent’s range of ventilation solutions.



Every product in EnviroVent’s Lifetime Range® is manufactured in Harrogate, United Kingdom.

**envirovent**

06

EnviroVent Way



## WE ARE IN IT TOGETHER

We operate as a team with trust and integrity, sharing our skills, knowledge and experience irrespective of position to deliver the best results and celebrate our success together

Our suppliers play a vital role in EnviroVent's production and services. As a UK manufacturer we recognise that local sourcing has a great impact on supporting the local economy and community. With this in mind we endeavour to choose local suppliers, which in turn help to reduce our carbon footprint.

Having our factory in Harrogate enables us to:

- Save hundreds of tonnes of carbon emissions
- Save 8 weeks lead time in delivery
- Create 2 local jobs for every 10,000 products specified
- Bench test our products three times before they leave the factory



## MAKE IT HAPPEN

We are enthusiastic, positive, proactive and driven. We show initiative and a 'can do' approach to work. We are accountable for making it happen!

Every 6 minutes an EnviroVent product is installed somewhere in the UK.

Certified to current IEE wiring regulations and HVCA standards our installers are provided with an extensive 3 month training programme when they join EnviroVent and equipped with the latest tooling and equipment worth over £50,000. This ensures that they have both the knowledge and expertise to install the correct ventilation solution to meet the unique requirements of your home or project.

What's more, our dedicated internal team use bespoke programming and tracking software to plan our installations into your programme of works.

Creating award winning products that are packed with innovative features is what our Research & Development Department does best. Our expert product designers are constantly keeping up to date with new innovations and technical advances to develop the EnviroVent products and improve efficiency levels.

With our unique Rapid Response Service for Registered Providers we will take care of your condensation problems in two weeks or your money back. Enough said!



We offer a range of stylish heated towel rails and hand dryers. Check out pages 130-131.



Scan the QR code now to watch cyclone separation in action! The unique and patented technology behind our Filterless Extract Fans.



All EnviroVent's product ranges are ErP Compliant. Turn to page 21 to find out more.





## KEEP IT SIMPLE

We are open, honest and straight forward and treat customers how they would like to be treated

By offering a complete service solution including manufacture, surveying, project design, supply, installation and commissioning EnviroVent saves you time, hassle and cost in providing everything under one roof.

Give us your problems and we will come up with the best solution for both your pocket and your properties.

We are part of a family owned company that is one of the largest ventilation groups in the world. This means that we can deliver on our promises and ensure that we will always honour our long-term warranty periods.

Our people reflect the ethos of a family-run business and are passionate about educating people around the world about the importance of good indoor air quality.



THE **envirovent** WAY



Check out the ECO dMEV on pages 83-84, it has been designed to offer the market a constant volume, continuously running decentralised extract fan.



The Lifetime Range® products are proudly made in Harrogate, UK.

# Why Ventilate? Because Air Matters!

A guide to the importance of good ventilation

This is why we do what we do.  
We are passionate about  
providing good indoor air  
quality air to everyone



*Did you know...*

50% of all illnesses  
are either caused or  
aggravated by poor  
indoor air quality

We inhale and exhale approximately 17,000 times a day. By sealing up our homes we are breathing in a viral soup of many contaminants and pollutants consisting of:

- Volatile Organic Compounds (VOC's) created from the use of aerosols and formaldehydes found in furniture and carpets
- Carbon monoxide from smoking and combustion appliances
- Humidity created from cooking, showering, washing and ironing amounting to 16 pints a day in an average family home
- Mould spores found in household dust
- Odours from cooking and pets
- Allergens from house dust mites
- Carbon dioxide from household appliances and people
- Hazardous carcinogenic chemicals from indoor drying and fabric softener

## Because Air Matters

The effect of not having good quality air in the home is dramatic. The average person spends 90% of their time indoors and 70% of this time is spent in their own home. The indoor living environment is therefore crucial to the health of the occupants.

Modern housing has become increasingly energy conscious. In order to save energy we have blocked chimneys, insulated, draught proofed, double glazed etc and progressively sealed our homes from an essential supply of fresh air.

This may save energy and make our homes more comfortable, however we pay the penalty by living in and breathing in this stale, contaminated, humid air for 70% of the time. That is why our homes are making us ill.

## Could our homes be making us ill?

In addition to general moisture build-up created from washing, bathing, cooking and breathing, a large concoction of other pollutants and contaminants is present within the indoor air in our homes and at work.

This is having a detrimental effect on our health and the fabric of our homes. The effects of this poor air quality can lead to a number of ailments such as headaches, fatigue and respiratory illnesses.

Even more harrowing, the World Health Organisation has recently published that the air we breathe has become polluted with a mixture of cancer causing substances with 6 million people dying annually from exposure to indoor air and outdoor air pollution.



## Condensation

### What is condensation and how can EnviroVent help?

Waking up to streaming windows is a familiar sight for many people, especially in winter and this is usually the first sign of a condensation problem.

If condensation occurs over a prolonged period of time, other signs will start to appear such as damp patches on walls, peeling wallpaper and ultimately black mould growth. These effects can lead to musty smells, damage the fabric of our homes and can even affect our health.

EnviroVent is on hand to help and has been solving the nation's condensation problems for over twenty five years. Our energy-efficient condensation control units reduce humidity and stop condensation on windows to provide healthy and fresh indoor environments.

### How does condensation form?

Have you ever noticed the droplets of water that form on the outside of a canned drink when you take it out of the fridge? This is condensation and the reason why it happens is all to do with temperature, air and water vapour.

The temperature on the surface of the can is reduced as air passes over it. As the air gets cooler its relative humidity rises and the water vapour turns into moisture. The air passing over the can is unable to hold onto the moisture which ends up as droplets running down the side of the can's cold surface.

This is what happens in thousands of households across the nation when the temperature drops inside the home, especially at night time when the heating is turned off. Just like the canned drink, the air reaches the point where it can no longer hold onto to all the moisture that we create in our homes and it migrates to the coldest surfaces - the windows and walls - where it appears as condensation or the more familiar sight of streaming windows.



The EnviroVent Filterless Extract Fan has been awarded the Queen's Award for Innovation. Turn to pages 41-42 to find out more.

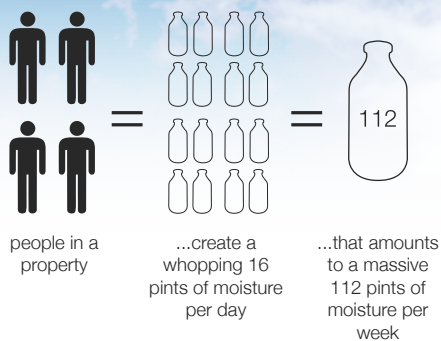


The Lifetime Range® has been designed to achieve the lowest maintenance, energy costs and life-cycle costs. Turn to pages 24-26 to find out more.



Did you know that there are up to 900 chemicals in indoor air?  
Scientific Committee on Health and Environmental Risks (SCHER).





### Why does condensation occur?

Waking up to streaming windows is a familiar sight for many people, especially in winter and this is usually the first

To understand the solutions to condensation the causes have to be identified. In a property of 4 people, each will contribute approximately 4 pints of moisture per day through breathing, showers, baths, boiling kettles, cooking etc.

This adds up to well over 100 pints of water vapour per week - a huge volume of moisture, which must go somewhere. Add the other airborne contaminants which exist in a typical home - dust, tobacco products, exhaust gases - even chemical emissions from furnishings and building products - it's not difficult to understand the scale of the problem.

In the past there would be a natural escape for this hot, damp and poor quality air through ill-fitting windows and doors, uncarpeted floor boards, lofts without insulation and so forth. As the stale air left the building it would be replaced by fresher, but colder air - creating draughts!

Now, with improved building features such as cavity wall insulation, double-glazing and draught proofing, 'natural ventilation' is restricted. Stale, humid air is trapped, making the condensation problem in the dwelling worse, causing streaming windows, which will inevitably lead to musty smells, dampness and ultimately mould growth.\*

\*Scottish Laundry Report



## Mould



### Mould problems?

Mould problems are more commonplace than you think with 1 in 5 British homes suffering from issues with condensation or black mould. Just like embarrassing bodies, mould is an embarrassment that no homeowner wants to shout about.

Removing mould can be problematic, yes you can paint over it but unless you remove what is causing the appearance of black mould it will only come back to haunt you time and time again.

Plagued by mould? Good news... EnviroVent can provide you with a permanent solution to solve all your mould woes through our innovative range of ventilation solutions.

With over twenty five years of successful mould busting across the UK, EnviroVent's products provide an all year round healthy indoor environment free from condensation and mould.

**"Over a third of customers say they experience improvements to their home or health within a week after installing an EnviroVent system"**

Source: Zebra Square Research

### What does mould need to grow?

The three basic ingredients to start a colony of mould are:

- Organic material
- A fungal spore
- Water



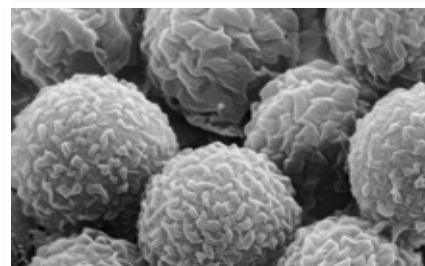
*Did you know...*

Around 3-4 percent of all people and 10 percent of people with allergies get symptoms from fungal and mould spores\*

\*Source: [www.asthma.org.uk](http://www.asthma.org.uk)

### What causes it?

The usual suspect for the cause of mould within your home is prolonged condensation. Continuous condensation problems are usually accompanied by black mould, an unsightly fungus which rears its ugly head around window frames, on walls, doors, ceilings, furniture and, it can even appear on your clothes hanging inside a wardrobe or closet. A home suffering from poor ventilation will be vulnerable to both condensation and mould problems.



Mould moves through the air as miniature spores heading for damp, wet areas of the home such as bathrooms, basements and attics. In fact, any location where condensation or damp is found is a suitable environment for mould spores to thrive.

Mould is a known allergen and irritant with an established reputation as a trigger for respiratory problems. If you have ever smelt a musty mildew like whiff in a basement or loft you probably have had a closer encounter with gas produced from a fungal colony without even suspecting it.

Breathing in this stuff can affect your physical wellbeing. You could be left with a headache or feeling very tired or sick, it really is in your best interest to live in a mould free home.



Mould is a serious problem in the home. If you paint it, it will only come back.



PIV for new build properties offers favourable SAP results, meets building regulations and comes with a 5 year guarantee. Scan the QR code to watch the video.

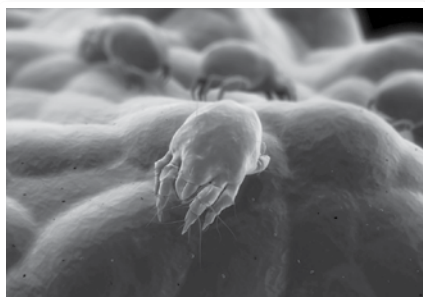
# Why Ventilate? Because Air Matters!

A guide to the importance of good ventilation

## Dust Mites

### The House Dust Mite

Dust mites have 8 legs and are related to the spider. You are probably sharing your bed with thousands of them! Their main breeding ground is in bedding and carpets. They feed on microscopic scales of skin, which we all shed. Their only source of water is from the air, so they prefer to live in areas where relative humidity is high. The higher the humidity, the quicker they are able to breed.



NHS Sefton



In a recent Sefton Council project set up to support families with children suffering from asthma, EnviroVent units were chosen to be installed in sixteen homes to improve indoor air quality and reduce dust allergies. After the units had been installed questionnaires were sent out to the families to monitor the effectiveness of the units. The results were overwhelming. The majority of families involved in the project experienced positive improvements in the health of their children and in the indoor air quality. Not only that, all the problems with mould and condensation had disappeared.



Visit our website to view the project evaluation report

[www.envirovent.com](http://www.envirovent.com)

## Main Triggers

One of the main triggers in aggravating asthma symptoms is the house dust mite and their droppings. Researchers estimate that these microscopic creatures may cause up to 80% of asthma attacks as well as countless cases of eczema. When they come into contact with our skin or are inhaled, this can cause allergic reactions. As well as eczema, other dust mite allergy symptoms include watering eyes, itching, sneezing and a runny nose!

## How do we get rid of dust mites?

No matter how clean our home is, dust mites cannot be totally eliminated. However, to live and breed, dust mites require the following:

- Microscopic scales of skin shed by humans and pets
- A continuous supply of humid air

If there are high levels of relative humidity in an occupied dwelling then you will find a breeding ground for dust mites. The quickest and most effective way in reducing the population of dust mites in a home is by reducing relative humidity by providing adequate ventilation.



*Did you know...*

Did you know the average bed has over 10,000 house dust mites living in it\*

\*Source: [www.allergyuk.org](http://www.allergyuk.org)

## How EnviroVent ventilation products can help?

You are probably wondering where EnviroVent fits into all of this. Our products can help with alleviating the symptoms of asthma or a dust mite allergy by reducing the triggers. The EnviroVent ventilation units provide continuous all year round ventilation to reduce humidity levels within the home. By controlling these to between 45-60%, dust mites are less able to breed and the population will diminish, helping asthma and dust mite sufferers to breathe more easily.

Unfortunately, dust mites cannot be totally eliminated, no matter how clean our homes are. However, by ensuring that there is a continuous supply of adequate ventilation, this is the quickest and most effective method of reducing dust mite populations.



## Radon

### Could your area be more at risk?

Radon penetration occurs in many thousands of British homes, particularly in the East Midlands and the South West but there are pockets of it just about everywhere in the UK.



It is common in and around granite and other igneous rocks where the gas is transferred through the pores in the rock.

The NRPB has advised the Government that the action level for Radon in homes should be 200 bq/m<sup>3</sup> (becquerels per cubic metre) and that Radon levels at or above the action level should be reduced to as low as reasonably practical.

However, according to Brian Ahern, Chairman of the Radon Council, even an exposure to 200 bq/m<sup>3</sup> over an 8 hour period per day will be equivalent to 90 chest x-rays per year\*.

The EnviroVent Positive Input Ventilation Units have proved to be effective in significantly reducing Radon levels where Radon readings are below two hundred becquerels creating a healthy atmosphere in which to live, free from the harmful effects of Radon gas.

They are continuous running ventilation units, which imperceptibly supply filtered air throughout your home. This process changes the airflow direction within the property to gently force the contaminated air out of the home. For more information see pages 26-27.

\*Chest x-ray extrapolation provided by The Radiological Protection Institute of Ireland, based on an average of 8 hours exposure per day.



Our dedicated projects team takes the hassle and complication out of ventilation system design. Take a look at page 14 for more details.



There are now 5.4 million asthma sufferers in the UK of which 1 in 11 are children. Turn to pages 27-28 to find out how PIV can help to reduce the triggers which in turn may help to alleviate symptoms.



To see our extensive range of ancillaries and ducting, turn to pages 133-148.





### What is Radon (Rn)?

It is a naturally occurring radioactive gas, which can enter your home from the ground, exposing you to doses of radiation. According to the National Radiological Protection Board (NRPB), health studies from around the world have linked exposure to Radon to the increased risk of lung cancer.



### How does it affect you?

Radon is produced by the natural breakdown of uranium found in rocks, sediments and water. It then permeates up through the ground and in open air dilutes to harmless levels in the atmosphere.

However, when it enters our homes and work places it decays into minute solid particles known as Radon's Daughters. These particles then become trapped and can accumulate to dangerously high levels. When they are breathed in they can be deposited on the surface of the lungs, where they decay further, emitting harmful radiation directly into the lungs.

## Volatile Organic Compounds



According to a recent NHBC report, indoor air can be found to be significantly more polluted than outdoor air.



As our homes are being built tighter and becoming well sealed, airborne contaminants called Volatile Organic Compounds (VOCs) are released into the indoor air and are dispersed much slower than in a 'leaky' home.

VOC's can cause tiredness, headaches, allergic reactions, respiratory problems and other illnesses. VOC's are found within many consumer products which include household cleaning products and aerosols.



*Did you know...*

Did you know that 81% of people are at risk of suffering from a respiratory or dermatological condition because of poor air quality inside their home\*

\*Source: myhealthmyhome.com

They are also present within the fabric of the building such as in adhesives, solvents and treatments. New furniture and finishings release a pollutant called formaldehyde.

This is now classed as one of the more harmful VOCs which can irritate the mucus membrane and can make people feel irritated and uncomfortable.

With good ventilation the concentration of VOCs is reduced. A variety of methods can be used from bathroom or kitchen extract fans, which remove contaminants directly from the room, to whole house mechanical ventilation systems such as positive input or heat recovery that bring fresh air into the property.

## The solution is correct ventilation!



It's staggering to realise that all of these nasty things can be lurking in our homes, which cause us to suffer from all kinds of side effects. EnviroVent has a solution for every kind of home, whether it be an apartment, flat, bungalow, house or castle! With our wide range of eco-friendly and innovative ventilation systems, manufactured here in the UK, you can be assured that not only will your indoor air quality be dramatically improved, but so will your health and your heating bills.\*

\*Space heating cost savings incurred through PIV and Heat Recovery systems



Check out pages 27-28 to discover how 'input' ventilation can benefit your home, health and lifestyle.



Did you know that we have a full range of industrial ventilation solutions? For more information, turn to pages 117-128.



# Complete Service Solution

EnviroVent's System Design Team & Newbuild Service



Find us on Facebook



Follow us on Twitter



Watch our videos on YouTube





- ✓ BIM Compliant Design Drawings
- ✓ Technical Support
- ✓ Quotations
- ✓ Installations
- ✓ Specifications
- ✓ Training
- ✓ Commissioning
- ✓ 5 Year Warranty



## The Trusted Manufacturer

EnviroVent is Britain's leading manufacturer of low energy, sustainable domestic ventilation equipment. Formed over twenty years ago, EnviroVent is proud to offer an unparalleled integrated service for our clients.

Catering for all projects, from self-build properties through to apartments and larger communal residences, EnviroVent's projects team takes the hassle and complication out of ventilation system design by providing a dedicated and bespoke design service enabling us to easily convert your requirements into a quote quickly and hassle free.

With increasing pressure to meet the required ventilation rates according to the Building Regulations and the Code for Sustainable Homes, our experienced team of system designers will ensure that the most suitable and effective ventilation solution is correctly specified to comply with all relevant regulations.

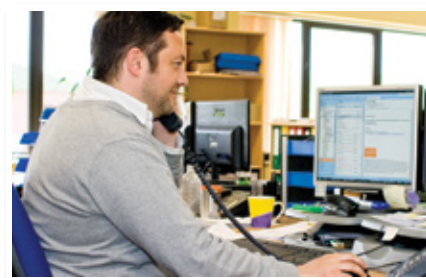
## SAP Appendix Q Products

With the introduction of SAP ratings as a compulsory part of the Building Regulations -Part L (Energy Efficiency) and the SAP Appendix Q database, the Projects Team can provide expert advice and recommendations as to which energy efficient ventilation product can help to improve on your overall SAP rating. EnviroVent mechanical ventilation systems available for project design have been independently tested by BRE and are included in the SAP Appendix Q database.



## Integrated Service

From enquiry right through to hand over, EnviroVent's knowledgeable team will take responsibility for your project. Technical advice and support will be provided at every stage. Customers can choose to utilise the entire integrated service from start to finish or from a certain point along the process – you can use EnviroVent for as much or as little as you need.



## It Starts here...

### Enquiry



Once an enquiry has been received, either direct from the customer or following a site visit from one of EnviroVent's experienced field representatives, the projects team will allocate a project number and time slot in the design schedule in order that all schemes receive the appropriate attention and are completed within the timescales set. The project will then be allocated to the appropriate designer, dependent on the complexity, size and number of dwellings. They will then recommend the most appropriate cost effective and energy efficient mechanical ventilation system solution from the extensive EnviroVent product portfolio.

- We specialise in...
- Private housing developments
  - Social housing code 3, 4, 5 & 6
  - Student accommodation
  - Apartment multi-storey
  - Nursing home / sheltered housing
  - Medical centres
  - Other

## Design and Quote



Using bespoke BIM Compliant Revit design software, our Design Team will provide detailed and technical drawings all fully complying with Governmental Regulations showing system locations, duct runs, ancillaries and quantities required. Plans can be sent and received either electronically or by post enabling us to convert your requirements into a quote quickly and hassle free.



Supporting information consisting of technical data, a detailed proposal summary, details of assumptions and exclusions and a sample of the mechanical ventilation system design is included.

## Placing the Order



On confirmation of order, site specific Health and Safety documentation, method statements and risk assessments are provided by EnviroVent's approved installation engineers. A complete set of installation drawings are also produced.

A site visit is arranged to confirm the designs and make any re-designs if necessary until you are completely satisfied that all design criteria has been met. This will then be followed up with the final drawings and a revised quotation.



Stats: In a recent survey 97% of customers noticed an improvement in their indoor air quality and 91% in asthma or breathing issues after an EnviroVent product was installed in their home.



Turn to page 52 to find out more about the benefits of heat recovery ventilation.

# EnviroVent Training

Expert Supply & Fit Service for all your Newbuild Projects



## The importance of correct ventilation

As part of the 2010 revision to the Building Regulations Approved Document F, Domestic Ventilation became 'notifiable work'. This means that just like installing heating and plumbing systems, ventilation provision must be installed by a competent and qualified person. Essentially, a new vocation has been created – the Domestic Ventilation Installer. To ensure that installers are correctly installing, inspecting, testing and commissioning ventilation products, EnviroVent offers a comprehensive course recognised by the HVCA and NICEIC for fixed domestic systems for both existing and new build properties.

### Price

The course is £45 and candidates will receive a full BPEC training manual and materials. Lunch and refreshments will be provided each day and on successful completion of the course, the candidate will receive the qualification and two vehicle stickers.

### What's covered?

Taking place over two days, the course covers both theoretical and practical training. It focuses on the 5 main types of Domestic Ventilation Systems.

### Location

The BPEC training course is carried out at the EnviroVent Headquarters based in Harrogate, North Yorkshire. Course dates are available throughout the year. To reserve your place, please contact Ashleigh Clark on 01423 810 810 (ext. 277) or email [aclark@envirovent.com](mailto:aclark@envirovent.com).

## Course Aims

Install the most common types of domestic ventilation

Commission and provide information on the systems

Inspect and test systems

*"The bpec course combines both theoretical and practical know-how in understanding the installation, inspection, balancing and commissioning of ventilation systems for today's ventilation installer."*

## CPD's - Continuous Professional Development

Offering the opportunity to enhance your existing professional standards, our range of CPD seminars deliver informative and highly relevant know-how on designing, installing and commissioning the most effective and energy efficient ventilation solutions to comply with Building Regulations and the Code for Sustainable Homes.

As a fully accredited Continual Professional Development (CPD) organisation, all attendees will receive a CPD certificate.

We can deliver a seminar during a lunch hour or a more detailed presentation demonstrating the latest innovative and sustainable technology, which will last approximately 2 hours (catering is provided for both options).

During recent years hundreds of professionals including surveyors, building consultants and architects have participated in this totally FREE service to broaden their knowledge of this ever more important subject.



For further information or to request a booking, please contact us on **01423 810 810**

### Our current CPD's include:

- Designing and Installing Sustainable Ventilation
- Ventilation Strategies to Meet Part F & L Regulations, Health and Environmental Issues
- Ventilation Strategies to Meet Parts 3 & 6 - Scottish Building Regulations
- Condensation and mould in the UK housing stock



*"EnviroVent hosts a series of CPD seminars for both Refurb and Newbuild Construction, which aim to broaden your knowledge of ventilation solutions for new build construction. Over the years, countless professionals including building consultants, architects and specifiers have all participated in this advantageous opportunity."*



PIV for new build properties offers favourable SAP results, meets building regulations and comes with a five year guarantee. Scan the QR code to watch the animation.



Turn to page 22 to check out the new AugVent App, which allows you to see how a product will look in-situ.



Turn to pages 45-46 for the Filterless Infinity Fan, guaranteed for longer than any fan with a 7 year warranty.



# EnviroVent Partnership Installers

Expert Supply & Fit Service for all your Newbuild Projects

## Expert Supply & Fit Service

EnviroVent have a National Network of Partnership Installers, consisting of 5 specialist ventilation partners covering the whole of the UK. Highly trained and experienced in installing the EnviroVent products, the Partnership Installers ensure that the ventilation solution is installed to meet the unique requirements of your projects, compliant with all the required regulations – taking the time, hassle and complication away from you.

We work for a number of main M&E Contractors providing a full design, supply & install service from basic domestic installations through to light commercial systems on projects such as student accommodation, retirement villages, schools, care homes (BUPA and Extra Care) etc.

The process is simple and straightforward. EnviroVent provides a single point of contact for the whole process. The EnviroVent Partnership Installers takes full responsibility for your ventilation installation and ensure that the following requirements are met:

- Approved installer status
- bpec accredited
- Commissioning of systems
- UKAS accredited calibrated equipment
- Certification



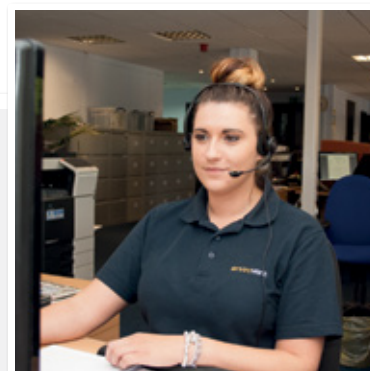
### Commissioning & Balancing

Site supervisors and or installation engineers would be responsible for undertaking the commissioning and balancing of the ventilation systems. Any adjustments are then made to ensure that the system meets the exact design plan.



### Hand Over

Following the completion of a project, a full hand over pack for each property is provided, which includes the completed air flow calculation sheets and technical manuals. Also included are SAP Appendix Q checklists and certificates.



### After Sales Service

We work closely to ensure that each client is delighted with the systems designed, supplied and installed. If there are any issues, you can talk to us easily and instantly.

*“Trained in providing the highest level of customer service and with an intimate knowledge of our products, the EnviroVent installers ensure the ventilation solution is installed to meet the unique requirements of your project.”*



To see our extensive range of ancillaries and ducting, turn to pages 133-148.



Did you know that we have a full range of industrial ventilation solutions? For more information, turn to pages 117-128.

**envirovent**

# The Building Regulations: Part F & L

How to Comply

When it comes to ventilation there are two documents that are key to Building Regulation Compliance

Focuses on



Design

## Approved Document Part F 2010: Ventilation

This outlines the ventilation requirements for both new build and existing dwellings.

Focuses on



Installation

Focuses on



Operation

## Domestic Ventilation Compliance Guide 2010:

This provides detailed guidance on installing, inspecting, testing and commissioning of ventilation systems in new and existing dwellings. It also provides recommendations on what should be provided to the building owner to operate and maintain the ventilation system.

Along with ADF, the documents for Approved Document L: Conservation of fuel and power also play an important part.

## Approved Document Part L 2013: Conservation of Fuel and Power:

This deals with energy efficiency requirements in new dwellings.

## Domestic Building Services Compliance Guide:

Provides detailed guidance on the installation of mechanical ventilation for both new and replacement systems.

## The Building Regulations Part F: Ventilation 2010



ADF 2010 and ADL 2013 of the Building regulations have had a significant impact on the ventilation industry in terms of design, installation and maintenance.

## Our goal towards Zero Carbon Homes

In order to address climate change, the UK Government has reacted strongly to enforce stringent legislation to achieve an 80% reduction in greenhouse emissions by 2050. As 25% of carbon emissions come from homes and a further 17% from non-domestic buildings, every household and business, both public and private must increase their energy efficiency levels.

Since October 2010, the amendments to Approved Documents Part F (Means of Ventilation) and Part L (Conservation of Fuel & Power) have resulted in the following three-fold effect on ventilation, which is an important step in classifying ventilation as a controlled service:



1 Design Performance Criteria



2 Installation, Inspection & Commissioning



3 Operation & Maintenance

## The Pathway to Zero Carbon Homes

Future Target ← 2013 ← 2010

Zero Carbon

Further 6% reduction in CO<sub>2</sub>

25% reduction in CO<sub>2</sub>



Check out pages 27-28 to discover how 'input' ventilation can benefit your home, health and lifestyle.



Did you know that we now offer bpec approved training programmes? Call us on 01423 810 810 for more information.



Turn to pages 69-71 for the heatSava, the most radical breakthrough in Single Room Heat Recovery technology ever...



## Design

New Infiltration Rates



To reflect the fact that properties are being built tighter, ADF 2010 introduced two Air Permeability designs for infiltration rates: one for a leakier home at  $>5\text{ach}$  @ 50Pa and one for a more airtight home at  $<5\text{ach}$  @ 50Pa.

The default in SAP 2009 is assumed to be  $<5\text{ach}$  @ 50Pa with zero air permeability. This means that the house does not allow any air to enter or leave the dwelling naturally through leakage paths within the structure of the building. It is therefore completely reliant on purpose-provided ventilation via controllable air exchange through natural or mechanical means.

*Leaky House*



*Airtight House*



## Ventilation Methodologies for New Dwellings

The following systems are outlined which satisfy the performance standard:

### SYSTEM 01



Intermittent extract fans with background ventilators

### SYSTEM 02



Passive Stack Ventilation

### SYSTEM 03



Mechanical Extract Ventilation

### SYSTEM 04



Mechanical Ventilation with Heat Recovery (MVHR)

### SYSTEMS WITH BBA PIV



Systems with BBA accreditation

'Other ventilation systems and devices, perhaps following a different strategy (e.g. Positive Input Ventilation) may provide acceptable solutions, provided it can be demonstrated to the Building Control Body (e.g. by a BBA Certificate) that they meet Requirement F1'.

The EnviroVent Loft and Wall Mounted Positive Input Ventilation Units are accredited with BBA certification: 03/4043.



We offer a range of stylish heated towel rails and hand dryers. Check out pages 130-131.



The EnviroVent Filterless Extract Fan has been awarded the Queen's Award for Innovation. Turn to pages 41-42 to find out more.



# The Building Regulations: Part F & L

How to Comply

## Ventilation Airflow Rates

| Table 5.1a - Extract Ventilation Rates |  |                    |   |
|--|--|--------------------|---|
| Room                                   | Minimum Intermittent Extract Rate            | Continuous Extract |   |
|  |  | Minimum High Rate  | Minimum Low Rate  |
| Kitchen                                | 30l/s (adjacent to hob) or 60l/s (elsewhere) | 13l/s              | Total extract rate must be at least the whole building ventilation rate in table 1.1b |
| Utility Room                           | 30l/s  | 8l/s               |   |
| Bathroom                               | 15l/s  | 8l/s               |   |
| Sanitary Accommodation                 | 6l/s   |                    |   |

| Table 5.1b - Whole Building Ventilation Rates   |    |    |    |    |    |
|---|----|----|----|----|----|
| Number of bedrooms in dwelling  | 1  | 2  | 3  | 4  | 5  |
| Whole building ventilation rate <sup>1,2</sup> (l/s)  | 13 | 17 | 21 | 25 | 29 |
| <b>Notes</b>  |    |    |    |    |    |
| 1. In addition, the minimum ventilation rate should not be less than 0.3l/s per m <sup>2</sup> internal floor area (this includes each floor, e.g. for a two-storey building, add the ground and first floor areas).  |    |    |    |    |    |
| 2. This is based on two occupants in the main bedroom and a single occupant in all other bedrooms. This should be used as the default value. If a greater level of occupancy is expected, then add 4l/s per occupant. |    |    |    |    |    |

## Background Ventilation

Table 5.2a

| Total floor area (m <sup>2</sup> ) | A Number of bedrooms (b)   |       |       |       |       |
|------------------------------------|--|-------|-------|-------|-------|
|                                    | 1  | 2     | 3     | 4     | 5     |
| ≤ 50                               | 35000  | 40000 | 50000 | 60000 | 65000 |
| 51-60                              | 35000  | 40000 | 50000 | 60000 | 65000 |
| 61-70                              | 45000  | 45000 | 50000 | 60000 | 65000 |
| 71-80                              | 50000  | 50000 | 50000 | 60000 | 65000 |
| 81-90                              | 55000  | 60000 | 60000 | 60000 | 65000 |
| 91-100                             | 65000  | 65000 | 65000 | 65000 | 65000 |
| > 100                              | Add 7000 mm <sup>2</sup> for every additional 10 m <sup>2</sup> floor area |       |       |       |       |

| Total floor area (m <sup>2</sup> ) | B Number of bedrooms (b)   |       |       |       |       |
|------------------------------------|--|-------|-------|-------|-------|
|                                    | 1  | 2     | 3     | 4     | 5     |
| ≤ 50                               | 25000  | 35000 | 45000 | 45000 | 55000 |
| 51-60                              | 25000  | 30000 | 40000 | 45000 | 55000 |
| 61-70                              | 30000  | 30000 | 30000 | 45000 | 55000 |
| 71-80                              | 35000  | 35000 | 35000 | 45000 | 55000 |
| 81-90                              | 40000  | 40000 | 40000 | 45000 | 55000 |
| 91-100                             | 45000  | 45000 | 45000 | 45000 | 55000 |
| > 100                              | Add 5000 mm <sup>2</sup> for every additional 10 m <sup>2</sup> floor area |       |       |       |       |

A - Total equivalent ventilator area<sup>a</sup> (mm<sup>2</sup>) for a dwelling with any design air permeability.

B - Alternative guidance on total equivalent area<sup>a</sup> (mm<sup>2</sup>) for a dwelling with a designed air permeability leakier than (>) 5 m<sup>3</sup>/(h.m<sup>2</sup>) at 50 Pa.

### Notes

(a) The equivalent area of a background ventilator should be determined at 1 Pa pressure difference.

(b) This is based on two occupants in the main bedroom and a single occupant in all other bedrooms. For a greater level of occupancy, assume a greater number of bedrooms (i.e. assume an extra bedroom per additional person). For more than five bedrooms, add an additional 1000mm<sup>2</sup>.

## Domestic Building Services Guide

Minimum standards for mechanical ventilation systems

### Domestic Building Service Compliance Guide

According to the Domestic Building Services Guide in conjunction with ADL, there are minimum recommended standards for both new and replacement systems, this includes existing domestic dwellings:

### 1.0 Fan Power

- Mechanical ventilation systems should be designed to minimise electric fan power. Specific fan power (SFP) should not be worse than:
  - 0.5 W/(l/s) for intermittent extract ventilation systems;
  - 0.7 W/(l/s) for continuous extract ventilation systems;
  - 0.5 W/(l/s) for continuous supply ventilation systems;
  - 1.5 W/(l/s) for continuous supply and extract with heat recovery ventilation systems

### 2.0 Heat Recovery Efficiency

- The heat recovery efficiency of balanced mechanical ventilation systems incorporating heat recovery should not be worse than 70%.

### 3.0 Controls

- Controls may be manual (i.e. operated by the occupant) or automatic.



Our dedicated projects team takes the hassle and complication out of ventilation system design. Take a look at page 14 for more details.

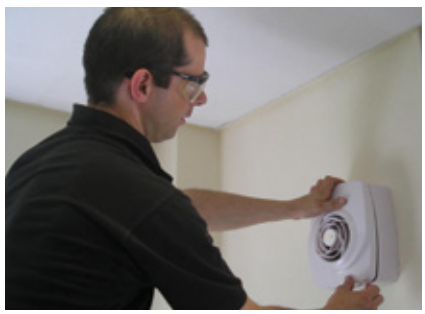


All EnviroVent's product ranges are ErP Compliant. Turn to page 21 to find out more.



The Lifetime Range® has been designed to achieve the lowest maintenance, energy costs and life-cycle costs. Turn to pages 24-26 to find out more.

## 2 Installation, Commissioning and Inspection



A major change to the Building Regulations 2010 was the requirement for installation and commissioning by a competent person. This has been outlined in the Domestic Ventilation Compliance Guide.

Best practice installation guidance is provided within the document. EnviroVent has a team of competent and fully qualified installation engineers. We also offer a bpec approved training programme for installers and electrical personnel who would like to become qualified.

## 3 Operation and Maintenance



Following the completion of an installation into both an existing and a new home, notice of confirmation and commissioning must be submitted to building control within 5 days of completion. Airflow testing should also be carried out in newbuild properties.

In order to guarantee optimum effectiveness of the system, emphasis has now been placed on the importance of ensuring that the end user correctly uses the ventilation system and is aware of the servicing and maintenance requirements.

Additional guidance on a number of practices is also recommended to achieve best practice performance:

- If the boost is controlled manually, the controllers or switches must be within easy reach of the rooms where it will need to be used, rather than a centralised switch.
- Only sensors that are recommended by the manufacturer should be used.
- The user should not be able to switch off a continuous running system unless using the main isolator switch.



Scan the QR code to check out our latest case studies for EnviroVent's range of ventilation solutions.



Scan the QR code to see how our products can improve indoor air quality, solving condensation and mould problems or visit <http://bit.ly/1T3nYee>

# ERP Directive

How it Works and What it Means

As of 1st January 2016 a new regulation has been brought into force in the European Union that affects ventilation units. The regulation is widely known as ERP (Energy Related Products).



There are actually two directives which have been introduced and these are:

## 1. Regulation (EU) 1253/2014 - Ecodesign requirements for ventilation units

The eco-design requirements apply to all ventilation units that are within the scope of the regulation (Residential & Non-Residential).

All products regardless of the power consumption have to meet the information requirements of this regulation, which means there will be a datasheet of technical information made available for each of them\*.

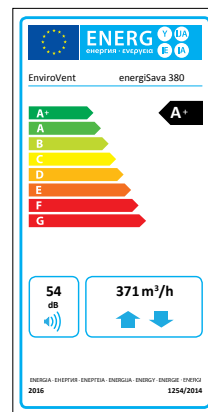
The regulation also details a number of design requirements that need to be met by units that fall under the scope. The design requirements include: heat recovery products needing to have a thermal bypass, a maximum sound level for non-ducted units and a maximum SEC (Specific Energy Consumption) level. A full copy of the design requirements from the regulation is available to download on our website.

\*There are some products which are excluded from the scope of the regulation, for instance fans that are used at very high temperatures or for emergency use are excluded.

## 2. Regulation (EU) 1254/2014 - Energy labelling of residential ventilation units

The energy labelling only applies to residential ventilation units. This regulation requires that all units that fall under its scope are provided with an energy label.

An example energy label is shown below:



### Scope

Any uni-directional ventilation unit with a power consumption over 30W and all bi-directional products fall under the scope of this regulation.

### Which products fall under the scope for energy labelling?

All EnviroVent's product Ranges falling under the scope are ErP Compliant.



Turn to page 52 to find out more about the benefits of heat recovery ventilation.



Did you know that 1 in 5 homes suffer from condensation and mould?



The effect of not having good quality air in the home is dramatic. Condensation is a serious problem. Turn to pages 09-10 to find out why.





## Visualise Your Stylish Extract Fan in Augmented Reality (AR)



Download AugVent, the UK's first ventilation app that allows you to overlay EnviroVent's range of stylish extract fans onto physical rooms in your property.



Pick the right product for your new bathroom or kitchen project and see it in its final location, without having to physically install it first. You can even see how our loft and wall units will look in-situ.

### STEP 1

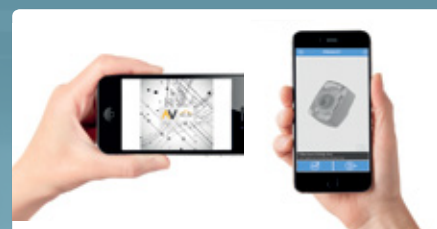
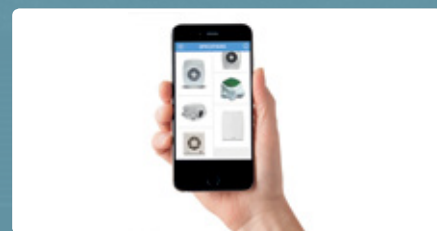
Personalise the colour, options and type of extract fan directly in the app and examine it in full 3D.

### STEP 2

Place the printed app marker on the wall where you would like your fan to appear.

### STEP 3

Focus your phone or tablet at the printed marker and your personalised fan will appear in 3D within the AugVent app, with absolute realism.



Turn to pages 17-20 to find out more about Approved Document Part F: Ventilation.



Check out pages 27-28 to discover how 'input' ventilation can benefit your home, health and lifestyle.

# Lifetime Range®

Designed for a sustainable future



Lifetime Range®



Find us on Facebook



Follow us on Twitter



Watch our videos on YouTube





In order to create a healthy living environment, the correct ventilation in our homes is essential. Without this, both our health and the fabric of our homes can suffer.

Every year over two million ventilation products are installed in UK households. Just about all of them have two things in common:

1. They are made from non-biodegradable plastic
2. They are destined for landfill after a short working life

It has been estimated that if we don't put a stop to the amount of waste that we throw away, we will run out of landfill space by 2020.

This concept is offering housing providers the opportunity to "design out" disrepair problems at the early stages of their major improvement programmes, in addition to saving:

- Tens of millions of pounds in long term repairs and maintenance cost.
- Thousands of tonnes of carbon emissions
- Hundreds of tonnes of plastics going to landfill
- Millions of pounds in household fuel bills
- Thousands of disrepair problems caused by the damaging effects of condensation and mould

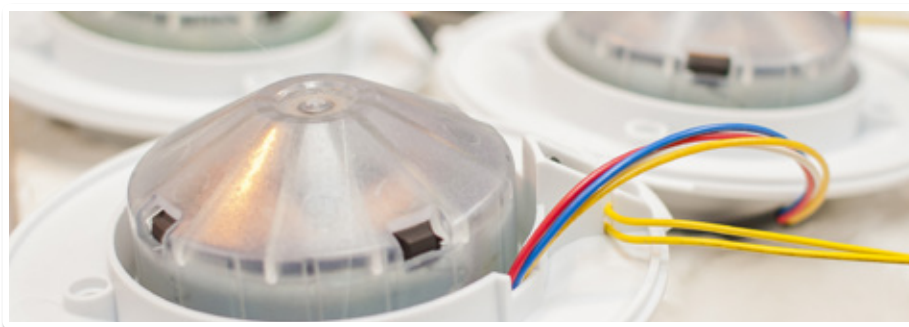
## Fans for Life Programme

In order to further reduce the impact of plastics going to landfill, EnviroVent has taken the responsibility to recycle old, existing traditional extract fans when they are replaced by our products.

This involves the products being ground down and remoulded into plastic parts for other ventilation products within the Lifetime Range®, such as heat recovery units and whole house ventilation systems. By carrying out this process, EnviroVent is ensuring that these plastics should never end up on landfill sites.



Lifetime Range®



## How does this work?

The products in the Lifetime Range® have been uniquely and innovatively designed so that anytime after 5 years the maintenance and replacement occurs by simply and quickly exchanging the worn out components, which are then taken back to the factory to be either reworked or recycled.

## The EnviroVent Ultra Low Watt Motor Technology

At the heart of every product in the Lifetime Range® lies the EnviroVent Ultra Low Watt DC/EC Motor. This eco technology allows fans to operate using the lowest possible energy, generating efficient power and thereby reducing carbon emissions.



### Eco Credits

Indicates specific energy savings or efficiency levels that the product achieves



### Innovative Features

Patented components; vapour tracking functions: twin fan zone controls: wireless technology all providing optimum flexibility for your projects, whatever the size and demand



### Manufactured in the UK

Helping our local economy and ensuring the highest quality products



### 5 & 7 Year Guarantees

Lowest maintenance, reducing time and cost



### SAP Eligible Products

Helping to improve energy and SAP ratings



### DC/EC Motor Technology

Lowest energy use, reduced heat loss and carbon emissions. As well as vastly reduced maintenance costs



### Recyclable/re-useable components

Reducing the impact on landfill, helping you conserve the environment



Scan the QR code to see how our products can improve indoor air quality, solving condensation and mould problems or visit <http://bit.ly/1T3nYEe>



The Lifetime Range® products are proudly made in Harrogate, UK.

envirovent




# Lifetime Range®

Designed for a sustainable future

**Products** Energy-efficient and sustainable, the Lifetime Range® products have been designed to cater for all domestic ventilation applications, such as kitchens, bathrooms and whole house solutions. These include extract fans, mechanical extract ventilation, positive input ventilation and heat recovery systems, providing you with a complete environmentally-friendly solution. Below is the comprehensive Lifetime Range® product matrix which outlines all the key features and benefits of our unique and innovative Lifetime Range®.



**Lifetime Range®**

|                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------|---|---|---|---|---|---|---|---|---|--|---|---|---|---|
| Whole house ventilation               |   |   | •   | •   | •   | •   | •   | •   | •   | •  | •   | •   | •   |   |
| Extract only                          | •   | •   | •   |   |   |   |   |   |   |  |   |   |   |   |
| New build                             | •   | •   | •   | •   | •   | •   | •   | •   | •   | •  | •   | •   | •   | •   |
| Refurbishment/<br>existing homes      | •   | •   |   | •   | •   | •   | •   |   |   | •  |   |   |   | •   |
| Heat recovery                         |   |   |   |   |   |   |   |   |   |  | •   | •   | •   | •   |
| Loft installation                     | •*  | •*  | •   | •   | •   | •   | •   | •   |   |  | •   | •   | •   |   |
| Apartments                            | •   | •   | •   |   |   |   |   |   | •   | •  | •   | •   |   | •   |
| Kitchens only                         | •   | •   |   |   |   |   |   |   |   |  |   |   |   | •   |
| Bathrooms only                        | •   | •   |   |   |   |   |   |   |   |  |   |   |   | •   |
| Summer cooling facility               |   |   |   |   | •   |   | •   |   |   |  | •   | •   | •   | •   |
| SAP Appendix Q eligible               |   |   | •   |   |   |   |   |   |   |  | •   | •   | •   |   |
| Reduces/eliminates condensation       | •   | •   | •   | •   | •   | •   | •   | •   | •   | •  | •   | •   | •   | •   |
| Reduces/<br>eliminates mould          | •   | •   | •   | •   | •   | •   | •   | •   | •   | •  | •   | •   | •   | •   |
| Benefits asthma/<br>allergy sufferers | •   | •   | •   | •   | •   | •   | •   | •   | •   | •  | •   | •   | •   | •   |
| Reduces Radon levels                  |   |   |   | •   | •   | •   | •   | •   | •   | •  |   |   | •   |   |
| Reduces fuel bills                    |   |   |   | •   | •   | •   | •   | •   | •   | •  | •   | •   | •   | •   |

\*In-line version



Scan the QR code to check out our latest case studies for EnviroVent's range of ventilation solutions.



Scan the QR code now to watch cyclone separation in action! The unique and patented technology behind our Filterless Extract Fans.



Did you know that 1 in 5 homes suffer from condensation and mould?



### Manufactured in the UK



EnviroVent prides itself on manufacturing the Lifetime Range® products and DC/EC motor technology at the factory in Harrogate, North Yorkshire - supporting the local economy and the UK manufacturing industry. Consistent with EnviroVent's philosophy to design sustainable products, the EnviroVent factory provides us with the facility to rework or recycle worn out components. Manufacturing on-site also enables us to maintain the strictest levels of quality control and testing.

### EnviroVent Guarantee



The EnviroVent Lifetime Range® ventilation products are covered by on-going 5 & 7 year guarantees\*. Due to our UK manufacturing set-up, we are able to repair or replace any faulty component without charge. In addition, if any failure occurs within the 12 months from the supply date, one of our installation engineers will return to site to repair or replace any faulty component, in-situ, completely free of charge.

### Sustainable Components



The Lifetime Range® products have been designed to outlast the life-cycle of a property, engineered with sustainable components to substantially reduce maintenance and life-cycle costs. The range caters for every domestic ventilation requirement and offers local extract, positive input and heat recovery solutions.

### Reducing plastic going to landfill



Any time after the guarantee period, when the components become worn out, EnviroVent can easily and quickly replace the old for the new, leaving the carcass of the product in-situ for the lifetime of the property, saving tonnes of plastic ending up on landfill sites.

### Packaging



All Lifetime Range® product packaging is already 80% recycled, stamped with clear instructions to return it to the factory to be recycled/reused or to recycle it themselves.

### Installation Service



Trained in providing the highest level of customer service and with an intimate knowledge of ventilation products, the EnviroVent installers and engineers ensure that the exact solution is installed to meet the unique requirements of each property.

\*Only the Filterless Infinity comes with a 7 year warranty.



All EnviroVent's product ranges are ErP Compliant. Turn to page 21 to find out more.



To see our extensive range of ancillaries and ducting, turn to pages 133-148.

**envirovent**

# The Benefits of Input Ventilation

For your Home, Health and Lifestyle

## What is PIV?

Positive Input Ventilation



**PIV is a concept to deliver fresh filtered air into a property at a continuous rate**

### Did you know...

- Hundreds of thousands of homes across the UK are benefitting from having a PIV unit installed
- It's the second most popular method of ventilating homes after extract fans

### The reason is...

In addition to the 112 pints of moisture that an average family produces per week through cooking, bathing, ironing and breathing, a concoction of other contaminants is present in the air within our homes. These can have a detrimental effect on the fabric of our homes and the health of our families. With improved building features in our homes such as cavity wall insulation, double glazing and draught proofing, 'natural ventilation' is severely restricted. Stale, contaminated air is trapped causing streaming windows, which ultimately leads to musty smells, dampness and mould growth.



\*Depending on local conditions

The solution to reducing condensation, mould and indoor contaminants



Mould

Mould spores account for a significant amount of household dust



Dust Mites

You are sharing your bed with thousands of them!



Tobacco Smoke

5-10% of all lung cancer is linked directly to passive smoking



Radon

Studies have linked exposure to Radon to increased risk of lung cancer



VOC's

Can lead to irritation and headaches as well as risk of neurotoxic effects

## Relative Humidity

Adapted from: [www.scotland.gov.uk](http://www.scotland.gov.uk)

|                     | 10 | 30 | 50 | 70 | 90 |
|---------------------|----|----|----|----|----|
| Bacteria            |    |    |    |    |    |
| Virus               |    |    |    |    |    |
| Mould / Fungi       |    |    |    |    |    |
| Mites               |    |    |    |    |    |
| Allergy / Asthma    |    |    |    |    |    |
| Tracheal Infection  |    |    |    |    |    |
| Chemical Reactions  |    |    |    |    |    |
| Ozone Production    |    |    |    |    |    |
| % Relative Humidity | 10 | 30 | 50 | 70 | 90 |

At extremes of low (below 30%) or high (above 70%) relative humidity levels, contaminants and dust mite populations can be exacerbated to trigger illnesses such as, headaches, nausea, fatigue and more serious problems including asthma, allergies and eczema.

## The Solution

The solution is Positive Input Ventilation (PIV) or MIV®. The EnviroVent positive ventilation units are sophisticated whole home ventilation and condensation control units. By drawing in fresh, filtered and clean air from outside, the units gently ventilate the home from a central position on a landing in a house or the central hallway in a flat or bungalow. Moisture laden air is diluted, displaced and replaced to control humidity levels between 45-60%\*.

This significantly reduces or eliminates surface condensation, the main cause for mould growth. With lower humidity levels, dust mite populations are also substantially reduced to provide a significant improvement in the health of asthma sufferers and general indoor air quality. Positive Input Ventilation is also available for flats and apartments. Turn to pages 36 and 37 for further information.



The EnviroVent Filterless Extract Fan has been awarded the Queen's Award for Innovation. Turn to pages 41-42 to find out more.



The Lifetime Range® has been designed to achieve the lowest maintenance, energy costs and life-cycle costs. Turn to pages 24-26 to find out more.



Stats: In a recent survey 97% of customers noticed an improvement in their indoor air quality and 91% in asthma or breathing issues after an EnviroVent product was installed in their home.



## Which product is right for me?



|                         | Wall Mounted Unit | PIV Loft Mounted Unit | PIV Air Source | MIV® Loft Mounted Unit | MIV® Air Source |
|-------------------------|-------------------|-----------------------|----------------|------------------------|-----------------|
| Application             | Wall / Cupboard   | Loft Space            | Loft Space     | Loft Space             | Loft Space      |
| Solar Gain              | No                | Yes                   | Yes            | Yes                    | Yes             |
| Summer Cooling          | No                | No                    | Yes            | No                     | Yes             |
| Multiple Input Facility | No                | No                    | No             | Yes                    | Yes             |
| Guarantee               | 5 Years           | 5 Years               | 5 Years        | 5 Years                | 5 Years         |
| Page Reference          | 36-37             | 30-32                 | 30-32          | 33-35                  | 33-35           |

- ✓ Significantly reduces/eliminates surface condensation
- ✓ Prevents mould growth
- ✓ Reduces house dust mite populations
- ✓ Helps to alleviate the symptoms of some asthma, allergies and other respiratory problems

### Phase One ✓

Shortly after the unit is installed the unit gently ventilates the home with fresh air. Air is pushed back down into the house and redistributed. Humidity is diluted and replaced to leave a healthy, fresh and clean environment to live in.

### Phase Two ✓

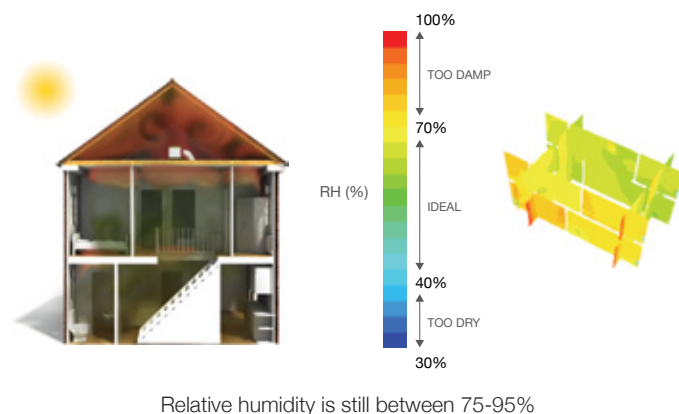
House is now free from contaminants, the unit transforms a stagnant, stale atmosphere into a fresh, healthy and condensation free environment.



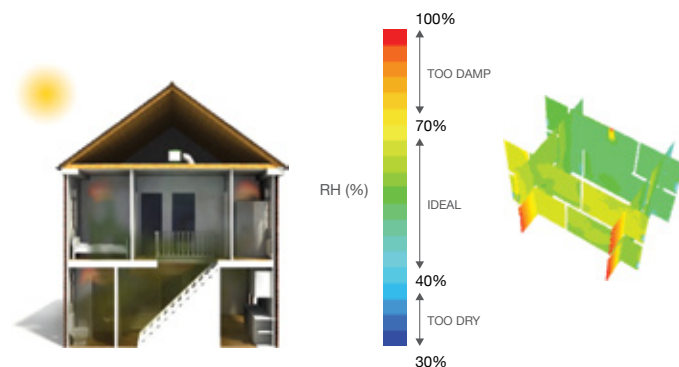
## PIV Study ✓

Below is a scientific study using Computational Fluid Dynamics (CFD). This research was carried out by the University of Nottingham School for the Built Environment.

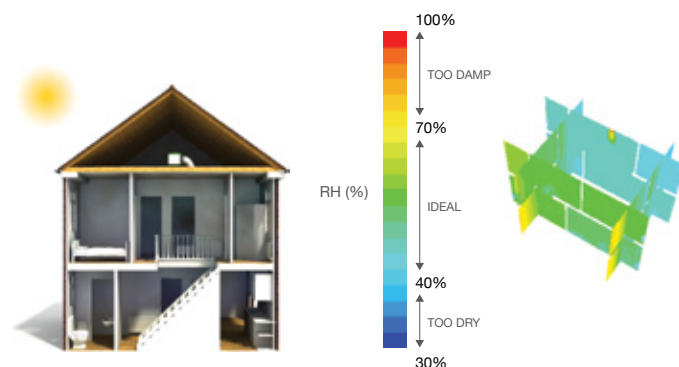
### 1 - Humidity and temperature after one hour



### 2 - Humidity and temperature after three hours



### 3 - Humidity and temperature after six hours



Turn to page 22 to check out the new AugVent App, which allows you to see how a product will look in-situ.

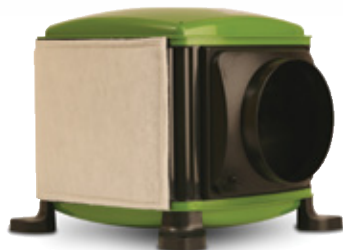


PIV for new build properties offers favourable SAP results, meets building regulations and comes with a 5 year guarantee. Scan the QR code to watch the video.

envirovent

# PIV Loft Mounted Unit

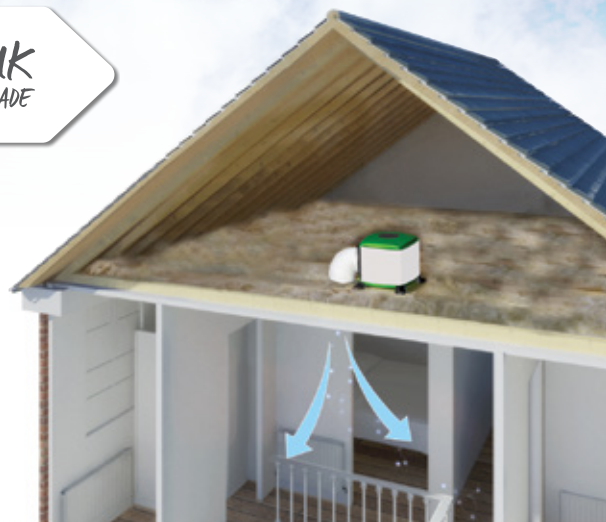
Whole House Positive Input Ventilation Unit



Up to 10% saving on annual heating costs



Lifetime Range\*



## About

The EnviroVent Loft Mounted Unit is a sophisticated whole house ventilation and condensation control unit for homes with a loft space. The unit gently ventilates the home from a central position on the landing in a house or the central hallway in a bungalow to transform a stagnant and stale atmosphere into a fresh, healthy and condensation free environment.

## Features & Benefits

- Superior long life filters
- Ultra Low Watt DC motor technology
- Integral Hours Run Meter (as standard)
- Integral intelligent comfort heater (as standard)
- 5 year guarantee
- Reduces/eliminates surface condensation
- Quiet operation
- Eliminates mould
- Stops streaming windows
- Removes musty odours
- Improves air quality
- Enhances heat distribution
- Takes advantage of the benefits of solar gain
- Benefits asthma sufferers
- BBA approved
- Expert fitting staff

## Energy Saving Benefits

### Minimum Energy Consumption

Powered by an Ultra Low Watt Brushless DC Motor, the PIV EnviroVent Loft Mounted Unit utilises the latest technology to ensure minimum energy consumption and long term trouble free life.

### Solar Gain

The unit takes maximum advantage of the benefits of solar gain from within the loft space - the natural accumulation of heat from the sun on bright days. Temperatures in the loft space are on average 3°C higher than outside, which results in a relative saving of around 150 Watts per day in an average modern family home. This equates to approximately 10% of annual heating costs.

### Heat Distribution

Warm air accumulates at ceiling level. This air can be up to 7°C higher than the internal air at ground level. By introducing an almost imperceptible air supply into the dwelling from the loft space, the EnviroVent PIV Loft Mounted Unit helps to redistribute heat around the home and thus reduce space heating costs.

### No Need To Open Windows

To reduce humidity and condensation during the heating season, significant energy loss occurs by opening windows. By installing an EnviroVent PIV Loft Mounted Unit and providing fresh filtered air to the home humid air is displaced without opening windows and thus making significant savings to the occupier.

### Low Life-Cycle Costs

With 5 year on-going maintenance free warranties and superior long life filters the unit achieves the lowest life-cycle costing. All repairs, maintenance and component replacement is carried out simply and quickly by exchanging the filters and consumable items. The worn out components are then taken back to the factory to be recycled thus reducing the impact on landfill and saving millions of pounds in replacement costs.



## Health Benefits



With improved building features in our homes, such as cavity wall insulation, double glazing and draught proofing, 'natural ventilation' is prohibited. Stale air is trapped causing streaming windows, which ultimately leads to musty smells, dampness and mould growth. These mould spores are known allergens and become airborne at the slightest disturbance. The microscopic spores are then inhaled and can trigger respiratory problems such as asthma, dust allergies and hayfever.

The EnviroVent Loft Mounted Unit draws fresh air into the dwelling from outside and filters it before being delivered into the property. Moisture laden air is diluted, displaced and replaced with clean, tempered and filtered air. This eliminates or reduces surface condensation, which causes mould growth. With lower humidity levels, dust mite populations are also substantially reduced, which can provide a significant improvement in reducing the one of the major triggers for asthma sufferers.



The EnviroVent PIV Loft Mounted Unit, PIV Air Source and PIV Inline are manufactured in Harrogate, UK.



These products are supplied with five year maintenance free warranties.



The packaging is made from recycled material.

## Heater and Hours Run Meter

The integral pre-heater is designed to temper the incoming air during periods of low external temperatures. A sensor monitors incoming air and slowly pulses the heater to ensure temperatures are held to pre-set minimums. Two independent safety cut-out devices shut down the heater in the event of fan failure. The heater facility is controlled independently from the fan by a conveniently positioned enable/disable switch. For monitoring of operational life and verification of usage, an integral Hours Run Meter is fitted.

## Intelligent Remote Control (optional)

A remote control incorporating five mode settings: trickle, medium, high, boost and auto is available. Auto-mode enables or disables the heater.



## Upgrade to PIV Air Source

Beyond traditional input ventilation, the PIV Air Source has the facility to source cooler air from outside the building when the temperature in the loft space rises above 25°C. Detecting the rise in temperature, the unit starts to draw air from atmosphere via a temperature controlled diverter mechanism.

This not only provides efficient perception cooling into the property during warmer weather, but also maintains the required level of ventilation continuously throughout the year. This facility is greatly beneficial for properties affected by high levels of Radon.



## Inline Models

The PIV Inline is designed specifically for properties with air restricted loft spaces to draw fresh air from outside. Also available with multiple inputs, the MIV® Inline delivers fresh and filtered air to areas of the home where there is a greater requirement for ventilation.



## Annual Running Costs

Annual running costs with heater DISABLED. All costs are based on an electricity cost of £0.15 per unit (kWh). The calculations must therefore be used as a guide only.

### Settings

#### PIV Loft Mounted Unit

| Trickle | Medium |
|---------|--------|
| £4.86   | £5.85  |

The PIV Air Source Unit has been calculated at 320 days supplying air through the filter and 45 days sourcing directly from outside taken from average annual temperatures.

#### PIV Air Source

| Trickle | Medium |
|---------|--------|
| £4.41   | £5.70  |

## Comparisons against other household appliances

#### PIV Loft Mounted Unit

| Household Appliance   | Time required to consume £5.85 of electricity |
|-----------------------|---|
| Fridge Freezer        | 20 Days                                       |
| 42" TV (Viewing Time) | 20 Days                                       |
| 100W Light Bulb       | 14.6 Days                                     |
| Home Computer         | 4.7 Days                                      |
| Games Console         | 4.7 Days                                      |
| Iron                  | 41 Hours                                      |
| Tumble Dryer          | 17 Hours                                      |
| Coldfill Dishwasher   | 17 Loads                                      |

#### PIV Air Source

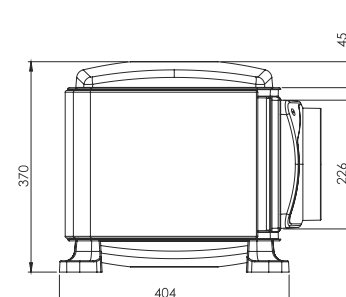
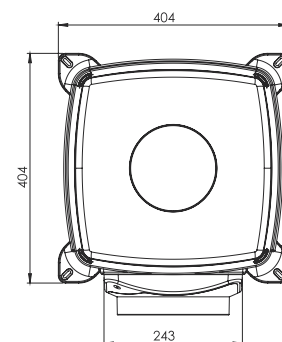
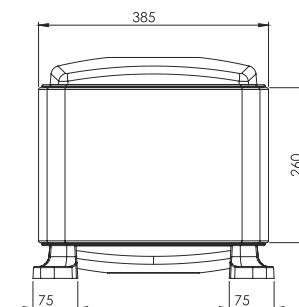
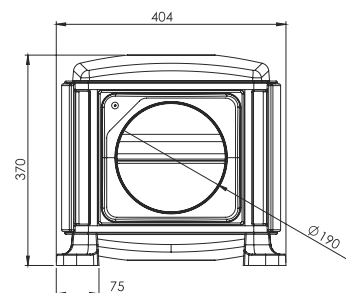
| Household Appliance   | Time required to consume £5.70 of electricity |
|-----------------------|---|
| Fridge Freezer        | 19.7 Days                                     |
| 42" TV (Viewing Time) | 19.6 Days                                     |
| 100W Light Bulb       | 14.3 Days                                     |
| Home Computer         | 4.6 Days                                      |
| Games Console         | 4.6 Days                                      |
| Iron                  | 41 Hours                                      |
| Tumble Dryer          | 17 Hours                                      |
| Coldfill Dishwasher   | 17 Loads                                      |

## Options & Ancillaries

|                              |  |
|------------------------------|--|
| EnviroVent Diffuser          | 1 DIF EVL DIF  |
| Flexible Hose Ducting - Ø200 | 1 RD FLEX 200 X 1M<br>1 RD FLEX 200 X 3M<br>1 RD FLEX 200 X 6M |

## Dimensions (mm)

#### PIV Loft Mounted Unit



Scan the QR code to find out more about the products or visit:  
[envirovent.com/pivloft](http://envirovent.com/pivloft)

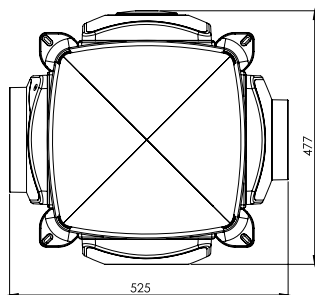
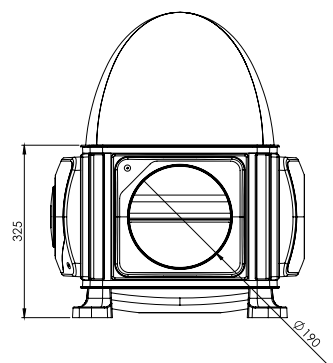
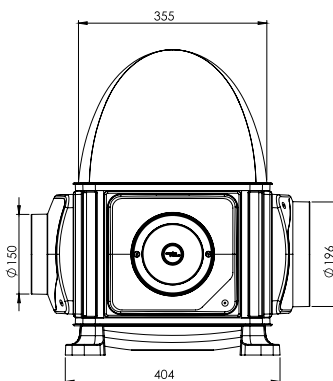
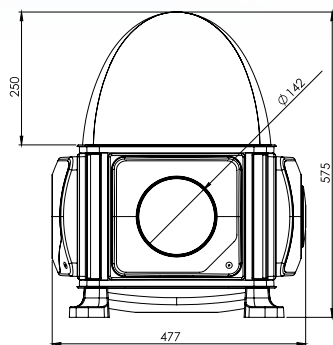


Don't have a loft space? Turn to pages 35-36 for the EnviroVent Wall Mounted Unit which is suitable for flats and apartments.



## Dimensions (mm) ✓

### PIV Air Source



## Technical Specifications ✓

### Product

Whole house positive input ventilation system for properties with a loft space.

### Applications

#### PIV Loft Mounted Unit

Sited in a loft space, the unit delivers air to the central hallway or landing via a four-way diffuser with purpose made blanking plates to maximise efficiency of airflow and aid in heat recovery from ceiling level. This provides displacement ventilation in order to improve air quality and resolve condensation related problems.

#### PIV Air Source

The PIV Air Source Unit has the additional facility to draw air from atmosphere during the warmer months of the year when the temperature in the loft space exceeds 25°C. This provides efficient perception cooling into the property and maintains the required level of ventilation continuously throughout the year.

### Performance & Sound Levels (as installed figures)

#### PIV Loft Mounted Unit

| Incoming Air Temp. (°C) | Fan Speed Setting | Specific Fan Power (SFP) | Airflow (l/s) | Power Usage (W) (i) | Outlet noise dB(A) @ 3m |
|-------------------------|-------------------|--------------------------|---------------|---------------------|-------------------------|
| <19<br>(1) (2)          | Trickle           | 0.17                     | 21            | 4                   | <15                     |
|                         | Medium            | 0.15                     | 29            | 4                   | <15                     |
|                         | Large             | 0.16                     | 38            | 6                   | <15                     |
|                         | Boost             | 0.19                     | 49            | 9                   | 15                      |

Remote control versions (EVL-W and EVL-H-W) achieve 58 l/s at boost

#### PIV Air Source

| Incoming Air Temp. (°C) | Fan Speed Setting | Specific Fan Power (SFP) | Airflow (l/s) | Power Usage (W) (i) | Outlet noise dB(A) @ 3m |
|-------------------------|-------------------|--------------------------|---------------|---------------------|-------------------------|
| <19<br>(1) (2)          | Trickle           | 0.14                     | 22            | 3                   | <15                     |
|                         | Medium            | 0.14                     | 29            | 4                   | <15                     |
|                         | Large             | 0.15                     | 35            | 5                   | <15                     |
|                         | Boost             | 0.18                     | 43            | 8                   | 15                      |
| >25<br>(3)              | Trickle           | 0.28                     | 28            | 7.9                 | -                       |
|                         | Medium            | 0.26                     | 35            | 9.2                 | -                       |
|                         | Large             | 0.25                     | 44            | 10.9                | -                       |
|                         | Boost             | 0.27                     | 52            | 14.0                | -                       |

- The unit performs in 'condensation control mode' at air temperatures below 19°C
- At above 19°C the unit increases airflow rates per setting by 10%
- The unit performs in 'summer by-pass mode' at air temperatures at or above 25°C
- Power usage with heater disabled

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required. For fitment in 3 floor properties above 4.5m, EVL-H-W or EVL-W shall be fitted with KIT-PIV-SMOKE.

### Construction

ABS plastic to contain at least 50% recycled material.

### Motor

Incorporates the Ultra Low Watt DC motor technology with sealed for life ball bearings designed to operate continuously at a pre-set 'background' rate.

### Fan

Is a 140 x 220mm centre mounted forward curved centrifugal fan.

### Filter

Is a synthetic fibre based filter mat to G4 standard in accordance with EN779 standard ratings, conforming to all European Union and US fire classification standards (e.g. DIN 53438-F1 and UL900-class 2) and be self-extinguishing.

### Servicing / Maintenance

Achieved by exchanging filters and consumable items. There should be no requirement for any maintenance within the five year period.

### Guarantee

Covered by an on-going, repeatable 5 year warranty, subject to the completion of specified maintenance.

### Integral 'Intelligent Low Temperature' Comfort Heater

Powered by a single supply and capable of holding incoming air temperatures accurately - around 10°C. The integral heater element is manufactured in a solid tubular sheath material and not in open wire format.

### Accreditations

This product is in conformity with the European Low Voltage Directive 2006/95/EEC and the EMC Directive 2004/108/EC including amendments. Full compliance with the relevant parts of the standards listed below supports the conformity of the designated product with the provisions of the above mentioned EC Directives.

### Low Voltage Directive

EN 60335-1:2002, +A1:2004, +A11:2004, +A2:2006, +A12:2006, +A13:2008, +A14:2010  
EN 60335-2-80:2003, +A1:2004, +A2:2009

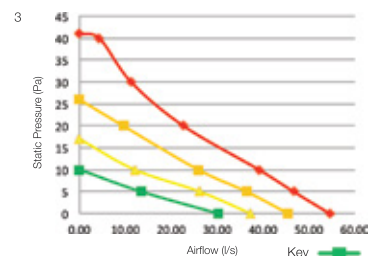
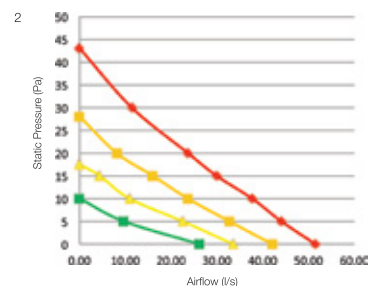
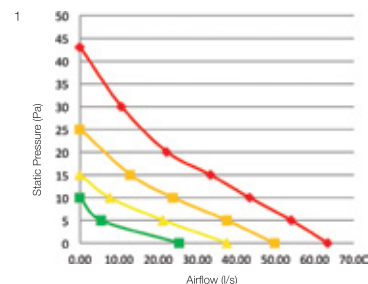
### EMC Directive

EN55014-1:2006 (EMISSIONS)  
EN55014-2:1997, +A1:2001 Cat IV (IMMUNITY)

### BBA

Certificate No: 03/4043

## Performance Curves ✓



- PIV Loft Mounted Unit
- PIV Air Source with summer by-pass NOT activated
- PIV Air Source with summer by-pass activated

Performance curve results are based on the unit running below 19°C and exclude ancillaries

## Order Codes

|         |  |
|---------|--|
| EVL-HW  | PIV Loft Mounted Unit with heater and wireless control |
| EVL     | PIV Loft Mounted Unit                                  |
| EVL-H   | PIV Loft Mounted Unit with heater                      |
| EVL-HAS | PIV Air Source with heater                             |

|               |   |
|---------------|---|
| EVL-HWAS      | PIV Air Source with heater and wireless control         |
| EVL-H-IN      | PIV Inline with heater                                  |
| 1ACSMOKEALARM | Smoke alarm for the above units                         |
| KIT-PIV-SMOKE | Kit for 3 floor installation, fire diffuser and ducting |

# MIV® Loft Mounted Unit

Whole House Multiple Input Ventilation Unit



Up to 10% saving  
on annual heating  
costs



Lifetime Range®



## About

Building on the principles of the hugely successful and established EnviroVent PIV systems, the MIV® Loft Mounted Unit has been designed and developed to launch a totally new and innovative technology -

## Multiple Input Ventilation (MIV®)

## Features & Benefits

- Ultra Low Watt DC motor technology
- Sealed for life ball bearings
- Loft or external air supply
- Integral Hours Run Meter (as standard)
- Integral intelligent comfort heater (as standard)
- Optional remote controlled boost facility
- 5 year on-going maintenance free warranties
- Provides all year round quality filtered air
- Reduces/eliminates surface condensation
- Quiet operation
- Removes musty odours
- Enhances heat distribution
- Takes advantage of the benefits of solar gain in the loft space
- Benefits asthma sufferers by reducing dust mites and mould spores
- Reduces Radon levels
- Easy to install
- Expert fitting staff

## Energy Saving Benefits

### Minimum Energy Consumption

Powered by an Ultra Low Watt Brushless DC Motor, the MIV® Loft Mounted Unit utilises the latest technology to ensure minimum energy consumption and long term trouble free life.

### Solar Gain

The unit takes maximum advantage of the benefits of solar gain from within the loft space - the natural accumulation of heat from the sun on bright days. Temperatures in the loft space are on average 3°C higher than outside, which results in a relative saving of around 150 Watts per day in an average modern family home. This equates to approximately 10% of annual heating costs.

### Heat Distribution

Warm air accumulates at ceiling level. This air can be up to 7°C higher than the internal air at ground level. By introducing an almost imperceptible air supply into the dwelling from the loft space, the MIV® Loft Mounted Unit helps to redistribute heat around the home and thus reduce space heating costs.

### No Need To Open Windows

To reduce humidity and condensation during the heating season, significant energy loss occurs by opening windows. By installing an MIV® Loft Mounted Unit and providing fresh filtered air to the home humid air is displaced without opening windows and thus making significant savings to the occupier.



### How is it Different?

Instead of providing just a single source of fresh air into a property, usually located in a hallway or landing, the MIV® Loft Mounted Unit has the ability to supply fresh, filtered air via multiple inputs into areas with greater requirements for ventilation. Highly efficient, inputs can be situated into or adjacent to rooms affected by increased levels of humidity, such as the kitchen, bathrooms and other wet rooms.

Fresh air inputs can also be located in bedrooms or living spaces that suffer from particularly bad condensation or in the bedroom of an asthma sufferer to reduce the level of humidity and therefore the house dust mite population - a known trigger for allergies and asthma.



### Unique EnviroVent Mini Diffuser



Available with the MIV® Loft Mounted Unit is the stylish EnviroVent energy saving diffuser, providing an innovative alternative to standard ceiling vents.



The EnviroVent MIV® Loft Mounted Unit, MIV® Air Source and MIV® Inline are manufactured in Harrogate, UK.

5  
YEAR  
GUARANTEE

These products are supplied with five year maintenance free warranties.

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MIV® Loft Mounted Unit

## Make it MIV® Multi-Zone Destratification

Warm air accumulates at ceiling level and is normally lost through windows and extract fans. This air can be up to 7°C higher than the internal air at ground level.

By introducing an almost imperceptible fresh air supply into multiple rooms, the MIV® Loft Mounted Unit redistributes heat around the home by pushing the heat back down and keeping the convection currents moving to reduce space heating costs. By saving only 1 degree of heat this multi-zone destratification can cut fuel bills by 10%.

## Intelligent Remote Control (optional)

A remote control incorporating five mode settings: trickle, medium, high, boost and auto is available. Auto-mode enables or disables the heater.



## Upgrade to MIV® Air Source ↑

### Solar Gain and Summer Cooling

The MIV® Air Source takes maximum advantage of the benefits of solar gain from the loft space throughout the year. Solar gain is the natural accumulation of heat from the sun on bright days.

Temperatures in the loft are on average 3°C higher than outside and as the unit draws fresh air from the loft and delivers it into the property, this results in a saving of around 500 Kilowatts of energy per year in an average family home – equating to significant savings in annual heating costs. Going beyond traditional input ventilation, the MIV® Air Source has the facility to source cooler air from outside the building when the temperature in the loft space rises above 25°C.

Detecting the rise in temperature, the unit starts to draw air from atmosphere via a temperature controlled diverter mechanism. This not only provides efficient perception cooling into the property during warmer weather, but also maintains the required level of ventilation continuously throughout the year. This facility is greatly beneficial for properties affected by high levels of Radon.



## Annual Running Costs ▼

Annual running costs with heater DISABLED. All costs are based on an electricity cost of £0.15 per unit (kWh). The calculations must therefore be used as a guide only.

### Settings

MIV® Loft Mounted Unit

| Trickle | Medium |
|---------|--------|
| £4.86   | £5.85  |

The MIV® Air Source Unit has been calculated at 320 days supplying air through the filter and 45 days sourcing directly from outside taken from average annual temperatures.

MIV® Air Source

| Trickle | Medium |
|---------|--------|
| £4.30   | £5.71  |

## Comparisons against other household appliances

MIV® Loft Mounted Unit

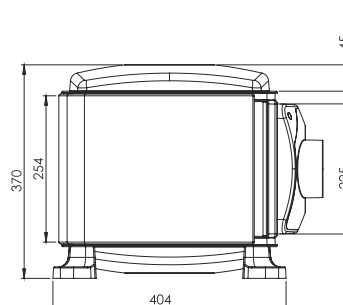
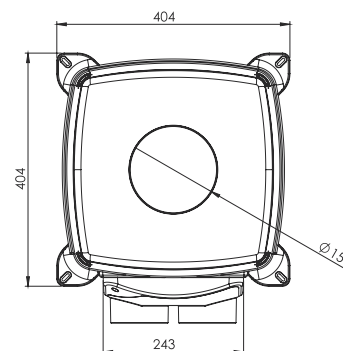
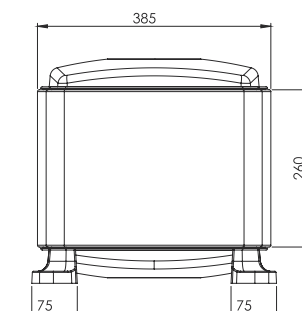
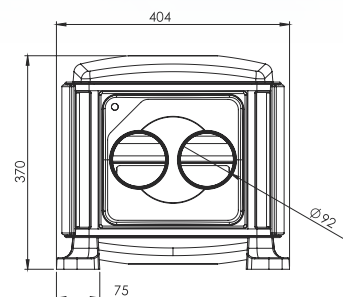
| Household Appliance   | Time required to consume £5.85 of electricity |
|-----------------------|---|
| Fridge Freezer        | 20 Days                                       |
| 42" TV (Viewing Time) | 20 Days                                       |
| 100W Light Bulb       | 14.6 Days                                     |
| Home Computer         | 4.7 Days                                      |
| Games Console         | 4.7 Days                                      |
| Iron                  | 41 Hours                                      |
| Tumble Dryer          | 17 Hours                                      |
| Coldfill Dishwasher   | 17 Loads                                      |

MIV® Air Source

| Household Appliance   | Time required to consume £5.71 of electricity |
|-----------------------|---|
| Fridge Freezer        | 19.7 Days                                     |
| 42" TV (Viewing Time) | 19.6 Days                                     |
| 100W Light Bulb       | 14.3 Days                                     |
| Home Computer         | 4.6 Days                                      |
| Games Console         | 4.6 Days                                      |
| Iron                  | 41 Hours                                      |
| Tumble Dryer          | 17 Hours                                      |
| Coldfill Dishwasher   | 17 Loads                                      |

## Dimensions (mm) ▼

MIV® Loft Mounted Unit



## Options & Ancillaries ▼

|                            |                 |
|----------------------------|-----------------|
| EnviroVent Mini Diffuser   | 1DIF EVL SML1   |
| Round Rigid Ducting - Ø100 | 1RD 100 X 2M    |
| 90° Bend - Ø100            | 1RD 90 BEND 100 |



This technology is also ideal for new build projects. Scan the QR code to check out the PIV for new build video.



Every product in EnviroVent's Lifetime Range® is manufactured in Harrogate, United Kingdom.

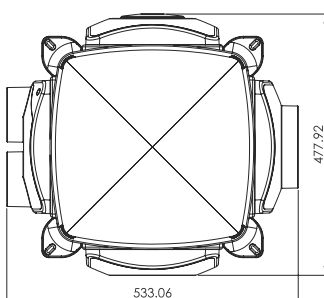
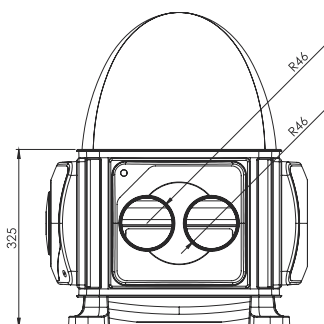
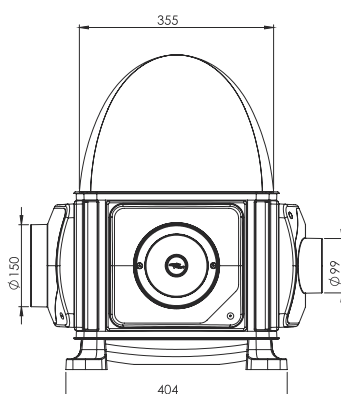
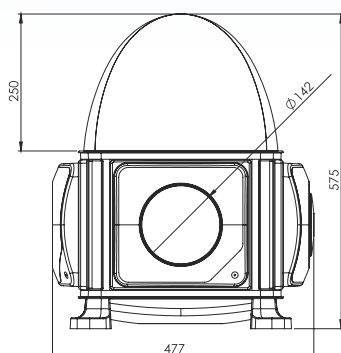


Scan the QR code to find out more about the products or visit: [envirovent.com/mivloft](http://envirovent.com/mivloft)



## Dimensions (mm) ✓

### MIV® Air Source



## Technical Specifications ✓

### Product

Whole house multiple input ventilation system for properties with a loft space.

### Applications

#### MIV® Loft Mounted Unit

Sited in a loft space, the unit delivers air to multiple rooms of a property to provide displacement ventilation in order to improve indoor air quality and resolve condensation related problems.

#### MIV® Air Source

During warmer months of the year when the temperature in the loft space exceeds 25°C, the MIV® Air Source has the additional facility to draw air from atmosphere via a temperature controlled diverter mechanism. This provides efficient perception cooling into the property and maintains the required level of ventilation continuously throughout the year.

### Performance & Sound Levels (as installed figures)

#### MIV® Loft Mounted Unit

| Incoming Air Temp. (°C) | Fan Speed Setting | Specific Fan Power (SFP) | Airflow (l/s) | Power Usage (W) (4) | Outlet noise dB(A) @ 3m |
|-------------------------|-------------------|--------------------------|---------------|---------------------|-------------------------|
| <19 (1) (2)             | Trickle           | 0.24                     | 15            | 4                   | <15                     |
|                         | Medium            | 0.22                     | 20            | 4                   | <15                     |
|                         | Large             | 0.21                     | 26            | 6                   | <15                     |
|                         | Boost             | 0.25                     | 34            | 9                   | <15                     |

#### MIV® Air Source

| Incoming Air Temp. (°C) | Fan Speed Setting | Specific Fan Power (SFP) | Airflow (l/s) | Power Usage (W) (4) | Outlet noise dB(A) @ 3m |
|-------------------------|-------------------|--------------------------|---------------|---------------------|-------------------------|
| <19 (1)                 | Trickle           | 0.16                     | 19            | 3                   | <15                     |
|                         | Medium            | 0.18                     | 24            | 4                   | <15                     |
|                         | Large             | 0.23                     | 30            | 7                   | <15                     |
|                         | Boost             | 0.31                     | 36            | 11                  | 15                      |
| >25 (3)                 | Trickle           | 0.28                     | 26            | 7.3                 | -                       |
|                         | Medium            | 0.31                     | 32            | 9.8                 | -                       |
|                         | Large             | 0.33                     | 38            | 12.6                | -                       |
|                         | Boost             | 0.36                     | 44            | 15.7                | -                       |

- (1) The unit performs in 'condensation control mode' at air temperatures below 19°C
- (2) At above 19°C the unit increases airflow rates per setting by 10%
- (3) The unit performs in 'summer by-pass mode' at air temperatures at or above 25°C
- (4) Power usage with heater disabled

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required

### Motor

Incorporates the Ultra Low Watt DC motor technology with sealed for life ball bearings designed to operate continuously at a pre-set 'background' rate.

### Fan

Is a 140 x 220mm centre mounted forward curved centrifugal fan.

### Filter

Is a synthetic fibre based filter mat to G4 standard in accordance with EN779 standard ratings. The filter should conform to all European Union and UL fire classification standards (e.g. DIN 53438-F1 and UL900-class 2) and be self-extinguishing.

### Servicing / Maintenance

Achieved by removal/exchange/replacement of filters and consumable items. There should be no requirement for any maintenance within the five year period.

### Guarantee

Covered by an on-going, repeatable 5 year warranty, subject to the completion of specified maintenance.

### Integral 'Intelligent Low Temperature' Comfort Heater

Powered by a single supply and capable of holding incoming air temperatures accurately – around 10°C. The integral heater element is manufactured in a solid tubular sheath material and not in open wire format.

### Accreditations

This product is in conformity with the European Low Voltage Directive 2006/95/EEC and the EMC Directive 2004/108/EC including amendments. Full compliance with the relevant parts of the standards listed below supports the conformity of the designated product with the provisions of the above mentioned EC Directives.

### Low Voltage Directive

EN 60335-1:2002, +A1:2004, +A11:2004, +A2:2006, +A12:2006, +A13:2008, +A14:2010  
EN 60335-2-80:2003, +A1:2004, +A2:2009

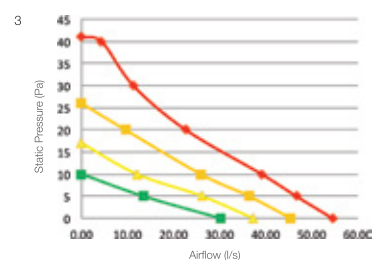
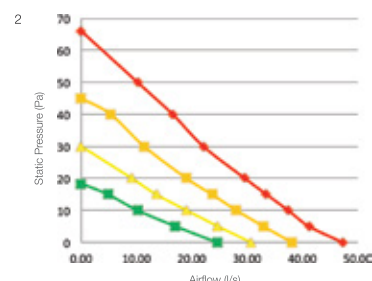
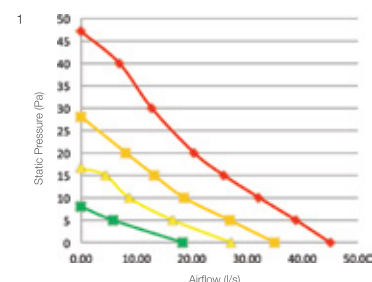
### EMC Directive

EN55014-1:2006 (EMISSIONS)  
EN55014-2:1997, +A1:2001 Cat IV (IMMUNITY)

### BBA

Certificate No: 03/4043

## Performance Curves ✓



- Key:   
 1. MIV® Loft Mounted Unit   
 2. MIV® Air Source with summer by-pass NOT activated   
 3. MIV® Air Source with summer by-pass activated   
 Performance curve results are based on the unit running below 19°C and exclude ancillaries

## Order Codes

EVL-TS

MIV® Loft Mounted Unit

MIVAS-HW

MIV® Air Source with heater and wireless control

EVL-HTS

MIV® Loft Mounted Unit with heater

EVL-H-IN-TS

MIV® Inline with heater

MIVAS-H

MIV® Air Source with heater

1ACSMOKEALARM

Smoke alarm for the above units

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# Wall Mounted Unit

Whole House Positive Input Ventilation Unit for Flats



## About

The EnviroVent Wall Mounted Unit is designed to provide whole house ventilation and eradicate condensation from homes without a loft space. Energy efficient, the unit introduces an almost imperceptible air supply throughout the living space to transform a stagnant and stale atmosphere into a fresh, healthy and condensation free environment.

## Features & Benefits

- Ultra Low Watt DC motor technology
- Integral Hours Run Meter (as standard)
- Integral Pre-Heater (as standard)
- 5 year guarantee
- Reduces/eliminates surface condensation
- Quiet operation
- Eliminates mould
- Stops streaming windows
- Removes musty odours
- Improves air quality
- Enhances heat distribution
- Benefits asthma sufferers
- BBA approved
- Expert fitting staff

## Energy Saving Benefits

### Minimum Energy Consumption

Powered by an Ultra Low Watt Brushless Motor, the EnviroVent Wall Mounted Unit utilises the latest technology to ensure minimum energy consumption and long term trouble free life.

### Heat Distribution

Warm air accumulates at ceiling level. This air can be up to 7°C higher than the internal air at ground level. By introducing an almost imperceptible air supply into the dwelling, the EnviroVent Wall Mounted Unit helps to redistribute heat around the home and thus reduce space heating costs.

### No Need To Open Windows

To reduce humidity and condensation during the heating season, significant energy loss occurs by opening windows. By installing an EnviroVent Wall Mounted Unit and providing fresh filtered air into the home, humid air is displaced without the need to open any windows, thus making significant savings to the occupier.



## Health Benefits



With improved building features in our homes, such as cavity wall insulation, double glazing and draught proofing, 'natural ventilation' is prohibited. Stale air is trapped causing streaming windows, which ultimately leads to musty smells, dampness and mould growth. These mould spores are known allergens and become airborne at the slightest disturbance. The microscopic spores are then inhaled and can trigger respiratory problems such as asthma, dust allergies and hayfever. The EnviroVent Wall Mounted Unit draws fresh air into the dwelling from outside and filters it before being delivered into the property. Moisture laden air is diluted, displaced and replaced with clean, tempered and filtered air. This eliminates or reduces surface condensation, which causes mould growth.

With lower humidity levels, dust mite populations are also substantially reduced, which can provide a significant improvement in reducing the one of the major triggers for asthma sufferers.



The EnviroVent Wall Mounted Unit is manufactured in Harrogate, UK.



This product is supplied with a five year guarantee.



The packaging is made from recycled material.

## Low Life-Cycle Costs

With 5 year on-going warranties and superior long life filters the unit achieves the lowest life-cycle costings. Once installed, there is no requirement for any maintenance within the first two years, after which the air quality filter should be cleaned or replaced.

All other component replacement is carried out simply and quickly by exchanging the consumable items. The worn out components are then taken back to the factory to be recycled thus reducing the impact on landfill and saving millions of pounds in replacement costs.

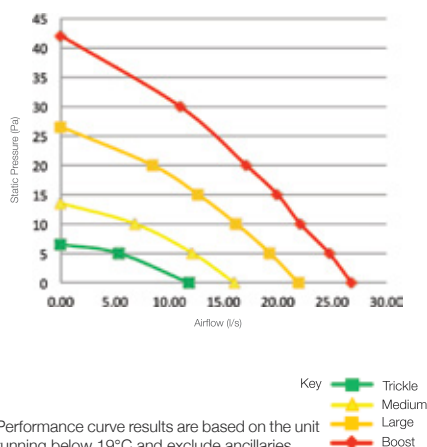
## Pre-Heater and Hours Run Meter

The integral pre-heater is designed to temper the incoming air during periods of low external temperatures. A sensor monitors incoming air and pulses the heater to ensure temperatures are held to pre-set minimums.

Two independent safety cut-out devices shut down the heater in the event of fan failure. The heater facility is controlled independently from the fan by a conveniently positioned enable/disable switch. For monitoring of operational life and verification of usage, an integral Hours Run Meter is fitted.



## Performance Curve



## Annual Running Costs

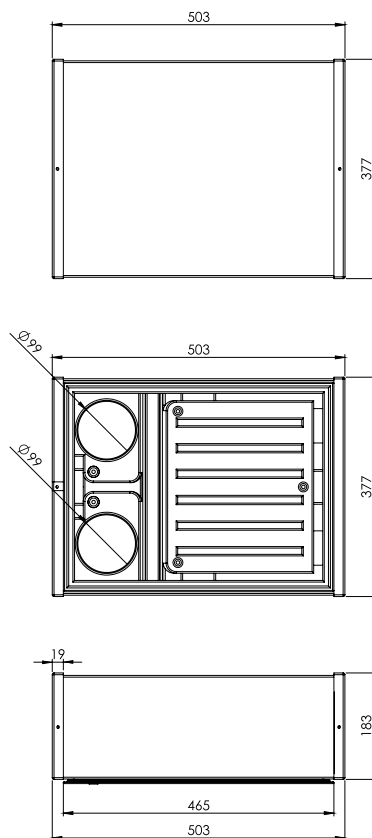
Annual running cost with heater DISABLED. All costs are based on an electricity cost of £0.15 per unit (kWh). These calculations must be used as a guide only. Below are comparisons against other household appliances

### Settings

| Trickle | Medium |
|---------|--------|
| £4.47   | £5.00  |

| Household Appliance   | Time required to consume £5.00 of electricity |
|-----------------------|---|
| Fridge Freezer        | 17 Days                                       |
| 42" TV (Viewing Time) | 17 Days                                       |
| 100W Light Bulb       | 12.5 Days                                     |
| Home Computer         | 4 Days  |
| Games Console         | 4 Days  |
| Iron                  | 41 Hours                                      |
| Tumble Dryer          | 17 Hours                                      |
| Coldfill Dishwasher   | 15 Loads                                      |

## Dimensions (mm)



## Technical Specifications

### Product

Whole house positive input ventilation system for apartments and flats.

### Applications

Sited on a suitable wall, the EnviroVent Wall Mounted Unit delivers air to the central hallway to provide displacement ventilation in order to improve air quality and resolve condensation related problems.

### Performance & Sound Levels (as installed figures)

| Incoming Air Temp. (°C) | Fan Speed Setting | Specific Fan Power SFP | Airflow (l/s) | Power Usage (W) | Outlet noise dB(A) @ 3m |
|-------------------------|-------------------|------------------------|---------------|-----------------|-------------------------|
| <19 <sup>(1)</sup>      | Trickle           | 0.39                   | 9             | 3.4             | <15                     |
|                         | Medium            | 0.33                   | 11            | 3.8             | <15                     |
|                         | Large             | 0.29                   | 17            | 4.8             | 17                      |
|                         | Boost             | 0.30                   | 20            | 6.1             | 20.3                    |
| >19 <sup>(2)</sup>      | Trickle           | 0.37                   | 10            | 3.6             | -                       |
|                         | Medium            | 0.33                   | 14            | 4.4             | -                       |
|                         | Large             | 0.29                   | 19            | 5.4             | -                       |
|                         | Boost             | 0.32                   | 23            | 7.4             | -                       |

(1) The unit performs in 'condensation control mode' at air temperatures below 19°C

(2) At above 19°C the unit increases airflow rates per setting by 10%

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

### Motor

Incorporates the Ultra Low Watt DC motor technology with sealed for life ball bearings designed to operate continuously at a pre-set 'background' rate.

### Fan

Is a 140 x 220mm centre mounted forward curved centrifugal fan.

### Filter

Is fitted with an integral insect filter.

### Servicing / Maintenance

Achieved by removal/exchange/replacement of filters and consumable items. There should be a filter exchange after 24-36 months.

### Guarantee

Covered by an on-going, repeatable 5 year warranty, subject to the completion of specified maintenance.

### Integral 'Intelligent Low Temperature' Comfort Heater

Powered by a single supply and capable of holding incoming air temperatures reasonably accurately – around 10°C. The heater element is manufactured in a solid tubular sheath material and not in open wire format.

### Accreditations

This product is in conformity with the European Low Voltage Directive 2006/95/EEC and the EMC Directive 2004/108/EC including amendments. Full compliance with the relevant parts of the standards listed below supports the conformity of the designated product with the provisions of the above mentioned EC Directives.

### Low Voltage Directive

EN 60335-1:2002, +A1:2004, +A11:2004, +A2:2006, +A12:2006, +A13:2008, +A14:2010  
EN 60335-2-80:2003, +A1:2004, +A2:2009

### EMC Directive

EN55014-1:2006 (EMISSIONS)  
EN55014-2:1997, +A1:2001 Cat IV (IMMUNITY)

### BBA

Certificate No: 03/4043

## Options & Ancillaries

|                            |              |
|----------------------------|--------------|
| Round Rigid Ducting - Ø100 | 1RD 100 X 2M |
| Louvre Grille - Ø100       | 1MF FIX LOUV |
| Box Profile                | 1AC BP       |

### Order Code

EVF-H

Wall Loft Mounted Unit with heater



Scan the QR code to find out more about the products or visit:  
[envirovent.com/wallmounted](http://envirovent.com/wallmounted)

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Wall Mounted Unit



# Dynamic PIV

Whole House Positive Input Ventilation Unit



Low SFP of 0.2 W/l/s and 25% improvement in energy efficiency compared to traditional products



Lifetime Range®



## About

Dynamic PIV brings together both Dynamic Insulation and Positive Input Ventilation (PIV) to enable builders and designers to meet today's ever-increasing demands for energy-efficiency and carbon reduction.

## Features & Benefits

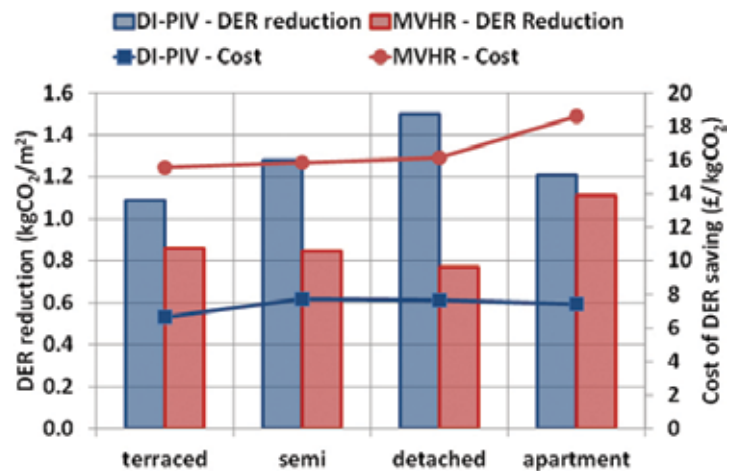
- Whole house, complete 2-in-1 solution used in conjunction with Jablite's Dynamic Insulation
- Excellent DER points in SAP
- Dynamic Insulation offers improved U-and Psi-values
- 'Fabric-first' approach rather than 'bolt-on' renewables
- Improves indoor air quality, reducing the risk of condensation and mould
- Achieves code 4 and above
- Reduced build cost
- Ease of installation
- Low running costs
- Trickle ventilators can be omitted if the air tightness is above 3ACH
- 5 year maintenance free warranty

# The future of thermal comfort

The complete 2-in-1 insulation and ventilation solution



A simple building-fabric solution, Dynamic PIV easily integrates the insulation and ventilation system to capture the heat energy escaping through the building fabric and pre-warm incoming air. Designed for conventional thin wall construction, Dynamic Insulation delivers the U-Values, SAP DER points and Carbon Reduction to help meet all 2010 through 2016 regulations in one simplified system that is free from maintenance and complex ventilation systems or add-on technologies.



The Dynamic PIV Unit is manufactured in Harrogate, UK.



This product is supplied with a five year guarantee.



The packaging is made from recycled material.

## Dynamic PIV

EnviroVent's Dynamic PIV is a whole house ventilation system, which has been tested by BRE to specifically comply with Dynamic Insulation, achieving a specific fan power as low as 0.2 W/l/s.

The Dynamic PIV connects to the cavity and draws the warmed air through the Dynamic Insulation at a continuous rate into the property at ceiling level. The air that is introduced can be between 4-8°C warmer than the external temperature.

The home is gently ventilated from a central position on a landing to dilute, displace and replace moisture laden air, controlling humidity levels and ensuring good all year round indoor air quality.

Dynamic PIV brings additional benefits to both the home and residents:

### Redistribution of heat

Warm air accumulates at ceiling level. This air can be up to 7°C higher than the internal air at ground level. By introducing an almost imperceptible air supply into the property from the loft space, the EnviroVent Dynamic PIV helps to redistribute heat around the home, reducing space heating costs.

### No requirement to open windows

During the heating season, significant energy is lost by opening windows to reduce humidity and condensation. By installing the Dynamic PIV and providing fresh air into the home, humid air is displaced without the need to open windows.

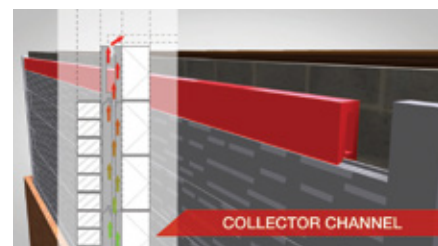
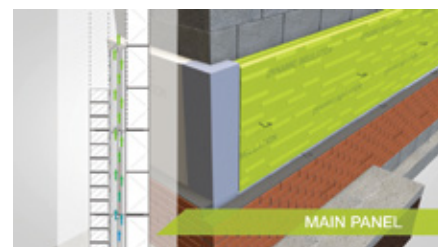
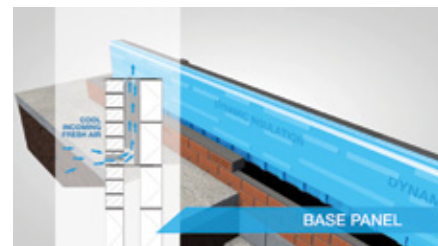
### Low running costs

Fitted with the latest low watt motor technology, the Dynamic PIV achieves a low energy consumption of around 4 Watts

## How it works...

Dynamic Insulation works by using the heat energy escaping from the building to pre-warm incoming air through the insulation layer, effectively turning the building envelope into a heat exchanger.

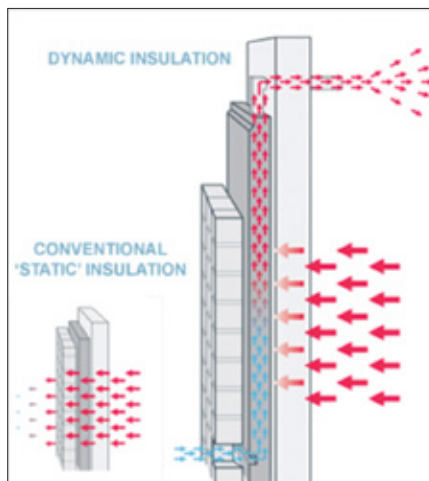
Proven to raise the temperature of incoming air by as much as 8°C, Dynamic Insulation delivers a 25% improvement in energy efficiency over traditional insulation products. Dynamic Insulation products are designed for use in traditional new build and refurbishment construction as a maintenance-free, building-fabric solution that requires no change to familiar building methods, expensive additional ventilation systems or thermal technologies.



## Dynamic Insulation

Jablite Dynamic Cavity uses Energyflo technology to turn a simple wall into a sophisticated heat exchanger.

Heat, which would otherwise be lost through the wall of the building, is harvested and utilised to warm cold air being drawn into the building. With Jablite Dynamic Cavity wall insulation it is possible to achieve outstanding U-values, even Passivhaus status without changing from a traditional building style.



Dynamic insulation uses the fabric of the building, with **no need for costly additional heating or ventilation kit**, to boost its insulation and energy performance



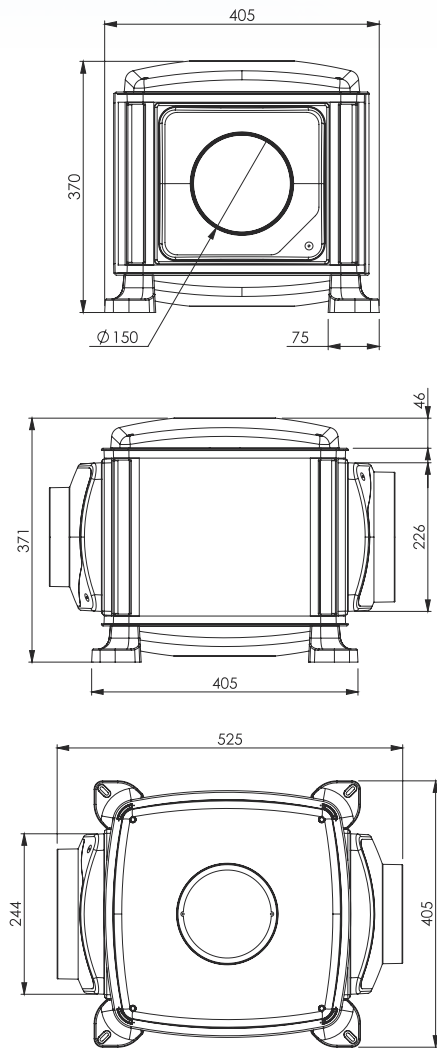
Scan the QR code to find out more about the products or visit:  
[envirovent.com/dynamicpiv](http://envirovent.com/dynamicpiv)



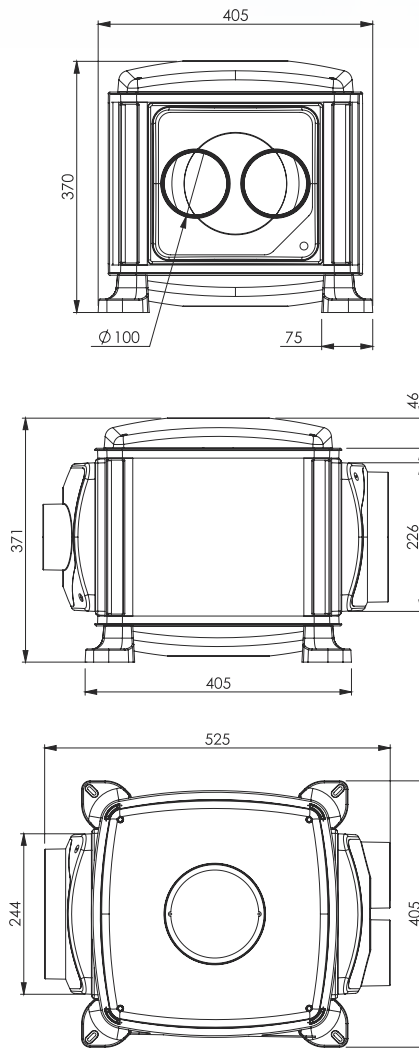
Our dedicated projects team takes the hassle and complication out of ventilation system design. Take a look at page 14 for more details.

## Dimensions (mm) ✓

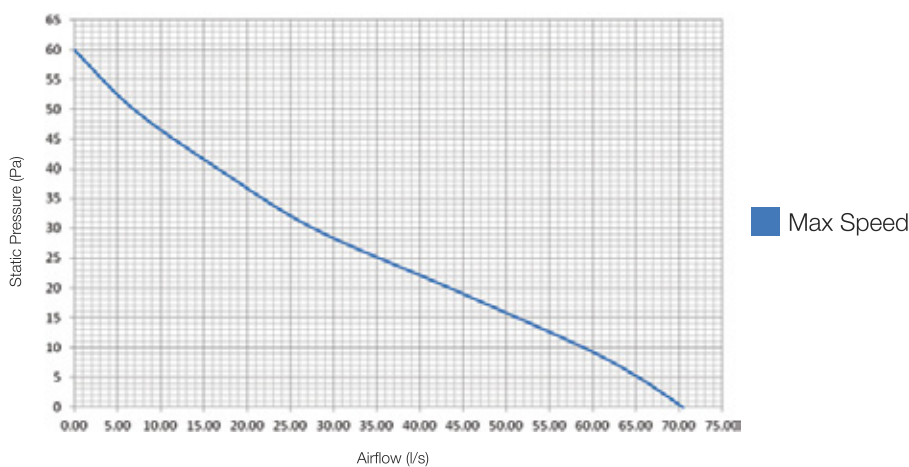
Dynamic PIV Unit



Dynamic MIV® Unit



## Performance Curve ✓



## Technical Specifications ✓

### Product

The Dynamic PIV is a whole house positive input ventilation system for properties with a loft space that specifically complies with and performs in-conjunction with Jablite's Dynamic Insulation.

### Application Suitability

Sited in the loft space, the unit connects to the Dynamic Insulation via a connector located at the top of the cavity. It draws the warmed air through the cavity and into the property via a four-way diffuser with purpose made blanking plates to maximise efficiency of airflow. The air that is introduced can be between 4-8°C warmer than the external temperature. The unit provides displacement ventilation in order to improve air quality and resolve condensation-related problems.

### Performance

| Results at maximum flow rate condition |                   |                       |  |                                |
|--|-------------------|-----------------------|--|--------------------------------|
| Exhaust terminal configuration         | Fan Speed Setting | Total Flow Rate (l/s) | Total Flow Rate - Wind Condition (l/s) | % reduction of total flow rate |
| Kitchen + 2 additional wet rooms       | 100% Variable     | 29.0                  | 26.7                                   | 8                              |
| Kitchen + 3 additional wet rooms       | 100% Variable     | 37.0                  | 35.7                                   | 4                              |

| Results at minimum flow rate condition |                   |                       |                            |
|--|-------------------|-----------------------|----------------------------|
| Exhaust terminal configuration         | Fan Speed Setting | Total Flow Rate (l/s) | Specific Fan Power (W/l/s) |
| Kitchen + 2 additional wet rooms       | 100% Variable     | 29.0                  | 0.20                       |
| Kitchen + 3 additional wet rooms       | 100% Variable     | 37.0                  | 0.26                       |

### Installation

The unit must be secured firmly to the joists using cross batons for lifetime installation. A full installation guide shall be enclosed with all products; or sent separately in advance.

### Construction

ABS plastic to contain at least 50% recycled material.

### Motor

The motor shall be a 230V Low Watt DC motor technology with sealed for life ball bearings designed to operate continuously at a pre-set 'background' rate.

### Fan

Is a 140 x 220mm centre mounted forward curved centrifugal fan.

### Commissioning

The Dynamic PIV shall be commissioned using a variable potentiometer. The speed shall be adjusted using the potentiometer to set the desired airflow in conjunction with an anemometer.

### Servicing / Maintenance

This shall be achieved by exchanging the consumable items. There shall be no requirement for maintenance with a 5 year period.

### Guarantee

The Dynamic PIV shall be covered by a 5 year renewable warranty.

### Controls

Once commissioned the unit shall run fully automatically. It shall feature a high temperature shut-down mode which turns the unit off when the loft temperature exceeds 25 °C. The unit shall feature an integral 'intelligent low temperature' comfort heater. This is powered by a single supply and capable of holding incoming air temperatures around 10°C. The integral heater element is manufactured in a solid tubular sheath material and not in open wire format.

### Accreditations

This product is in conformity with the European Low Voltage Directive 2006/95/EEC and the EMC Directive 2004/108/EC including amendments. Full compliance with the relevant parts of the standards listed below supports the conformity of the designated product with the provisions of the above mentioned EC Directives.

### Low Voltage Directive

EN 60335-1:2002, +A1:2004, +A11:2004, + A2:2006, +A12:2006, +A13:2008, +A14:2010  
EN 60335-2-80:2003, +A1:2004, +A2:2009

### EMC Directive

EN55014-1:2006 (EMISSIONS)  
EN55014-2:1997, +A1:2001 Cat IV (IMMUNITY)

## Order Codes

EVL-DY-H

Dynamic PIV Unit used in conjunction with Dynamic insulation

EVL-DY-H-TS

Dynamic MIV® Unit used in conjunction with Dynamic insulation



Did you know that we now offer bpec approved training programmes? Call us on 01423 810 810 for more information.



To see our extensive range of ancillaries and ducting, turn to pages 133-148.



## Fan Selector Checklist

Before specifying your extract fan it is important to take the following points into consideration...



### IS THE FAN FIT FOR THE PLANET?

- ✓ Think about who made this fan and where it came from. Is the fan made in the UK?
- ✓ Does the fan incorporate the latest Ultra Low Watt motor technology using a maximum of 7W bathroom & 26W kitchen to reduce household running costs and carbon emissions?
- ✓ When the fan reaches the end of its life does the manufacturer take it back, refurbish it and return it with a fully re-instated 5 year guarantee ensuring no parts end up on landfill?
- ✓ Does the fan incorporate a UK manufactured ultra-low watt DC motor which has been life tested for at least 10 years?



### IS THE FAN FIT FOR PEOPLE?

- ✓ Has the manufacturer considered fan hygiene by designing out the requirement for a filter which will quickly become contaminated with bacteria and require regular maintenance? Filterless technology can only be achieved if the fan incorporates Cyclone Separation Technology.
- ✓ Is the fan ultra quiet and efficient even during times of high indoor humidity when higher ventilation rates are required? i.e. to prevent nuisance running.
- ✓ Does the fan incorporate self-setting technology through intelligent vapour tracking controls?



### IS THE FAN FIT FOR PURPOSE?

- ✓ Can the manufacturer demonstrate that the fan will perform at the correct duty when connected to a window or wall kit?
- ✓ Are all electronics, motors and wiring sealed and protected from contamination in IPX4 compartments or are they left exposed?
- ✓ Does the fan manufacturer test every fan for performance and efficiency before it leaves the factory and is the fan BEAB approved?
- ✓ Can the fan be installed and commissioned without the requirement for complicated dip switches?
- ✓ Essential for fan replacement. Does the cable entry allow cable entry from all points of the compass?



### BACK UP SERVICE & WARRANTY?

- ✓ If the installer experiences any difficulties does the manufacturer employ a team of nationwide NICEIC approved service engineers to provide full on-site technical support for clients, tenants & contractors?
- ✓ Does the fan manufacturer offer an on-going 5 year maintenance free warranty?
- ✓ Can the manufacturer provide a full life-cycle cost analysis over 25 years, taking into account replacement, maintenance and environmental impact over this period?
- ✓ Does the manufacturer honour the warranty whether the fan is cleaned or not?



Check out the ECO dMEV on pages 83-84, it has been designed to offer the market a constant volume, continuously running decentralised extract fan.



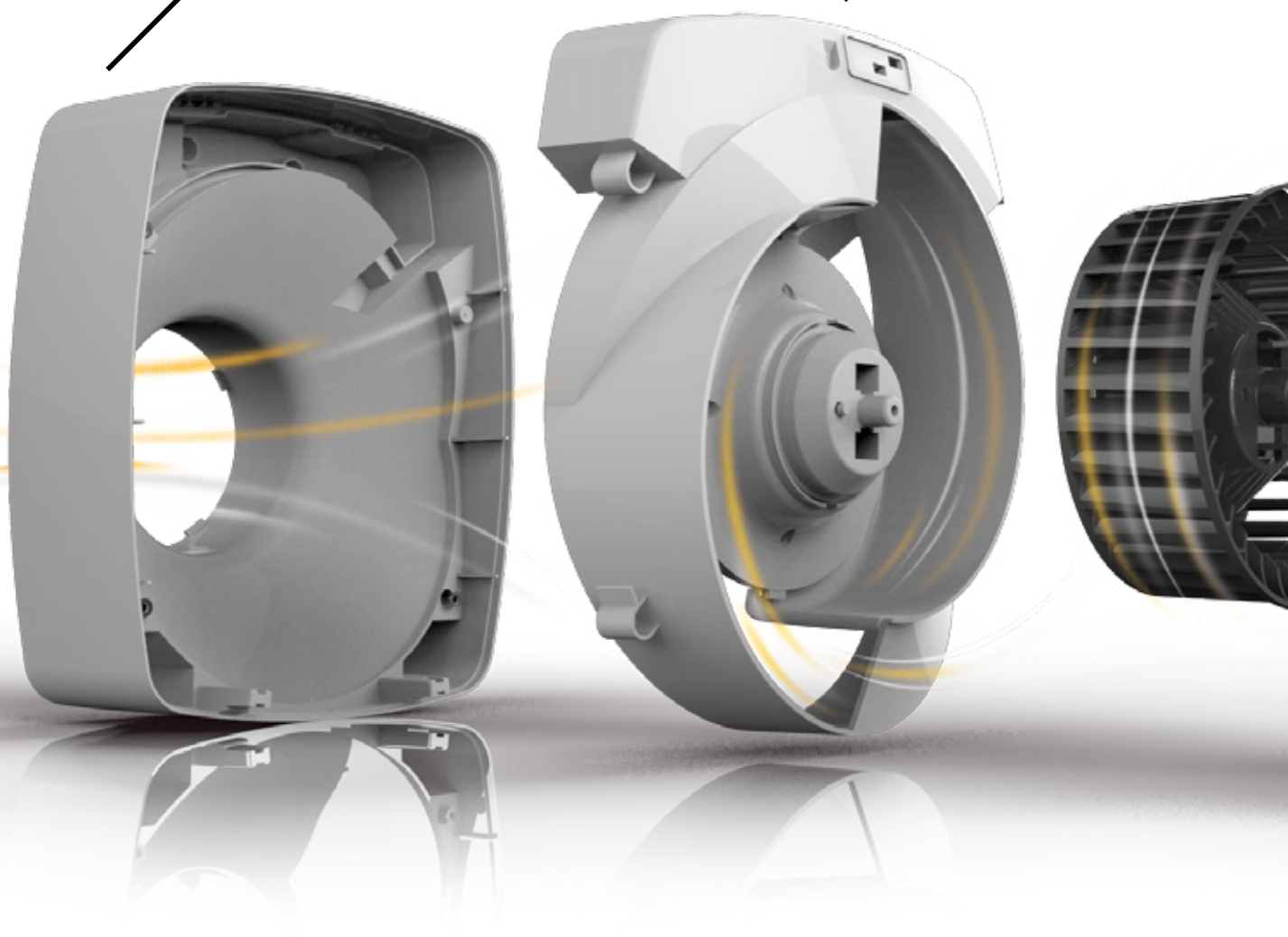
The Lifetime Range® products are proudly made in Harrogate, UK.

# Filterless Technology

The patented technology behind our Filterless Fans

Air is expelled through  
robust rear carcass

Air is thrown outwards through  
a dual powered expansion  
chamber and allowed to expand  
out to atmosphere



We offer a range of stylish heated towel rails and hand dryers. Check out pages 130-131.



Scan the QR code now to watch cyclone separation in action! The unique and patented technology behind our Filterless Extract Fans.



Did you know that 1 in 5 homes suffer from condensation and mould?

Air is drawn through  
the helical front grille

# accept no imitations

The patented technology  
behind our Filterless Fans

## Cyclone Separation Technology

EnviroVent's Filterless Extract Fans incorporate the latest patented Cyclone Separation Technology (No.0402041.8). As the contaminated air passes through the helical front grille it is centrifugally thrown outwards into two helical expansion chambers which allows the air to expand directly out to atmosphere. This unique process quietly takes most airborne contaminants with it out to atmosphere and negates the requirement for filters. Compare this with domestic fans where the air takes a tortuous route through the fan causing high resistance, noise and contaminants to stick to the fan and clog the filter, motor and controls. Traditional fans quickly become clogged up resulting in costly on-going maintenance issues and eventual disposal to landfill.

Cyclone separation has been used for decades in saw mills all over the world where the technology performs in the most rigorous of environments for the long term with no filters and no reduction in performance. EnviroVent's Filterless Extract Fans are designed and manufactured in the UK specifically for the rigours of Social Housing where there is a need to remove moisture and improve indoor air quality for all in the dwelling over the long term with minimal maintenance.

Simply put, if a fan hasn't got cyclone separation then it isn't truly filterless...

What's more, this unique technology has received a Queen's Award for Innovation, commended for its outstanding benefits and sustainable features.



Our Filterless Extract Fans have been tested vigorously on accelerated life tests. Scan the QR code to find out more.



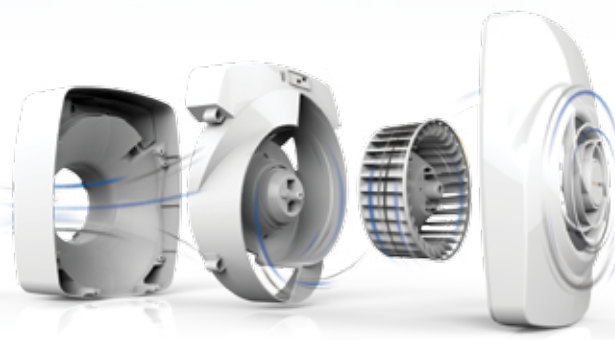
There are now 5.4 million asthma sufferers in the UK of which 1 in 11 are children. Turn to pages 27-28 to find out how PIV can help to reduce the triggers which in turn may help to alleviate symptoms.

**envirovent**



# Filterless Extract Fan

WC, Bathroom & Kitchen Fan



## About

The EnviroVent Filterless Extract Fan is a major advancement in extract fan technology and has been designed to deliver the lowest possible maintenance, the lowest long term life-cycle costings and lowest performance/energy costs.

## Features & Benefits

- Unique patented cartridge system
- Filterless technology
- Ultra Low Watt motor technology
- Patented helical power expansion chamber
- Automatic vapour tracking function
- SELV models available
- On-going 5 year guarantee
- Fan for life
- Versatile and flexible
- Ideal for all applications
- Environmentally friendly
- Low maintenance
- Low life-cycle costings
- Spectacular performance
- Designed for the life of the building
- Easy to clean
- Whisper quiet running

### Lowest Maintenance

By 'designing out' the requirement for filtration and by ensuring a smooth uninterrupted passage of contaminated air through the fan scroll, from the dwelling to atmosphere, we are able to issue a sustainable five year, no quibble warranty.

The unique protection afforded to the delicate internal components and electrical connections, together with use of the highest quality bearings are further quality measures which ensure that the EnviroVent Filterless Extract Fan will perform to specification well beyond its guarantee period.

### Low Long Term Life-cycle Costs

All repair, maintenance and component replacement is carried out simply and quickly by exchanging the plug out/plug in central cartridge.

By focusing on this rapid, internal unit exchange, all other considerations which normally have to be taken into account when a fan is exchanged become irrelevant. There are no redecoration issues or wiring alterations and replacement can be carried out – in seconds – by non-electrically qualified staff.

This 'when necessary' cartridge exchange – with re-worked components will ensure that the basic fan installation will remain intact throughout the repair cycle of the dwelling, eliminating the wasteful disposal of plastic and other non biodegradable material to landfill sites.

### Low Performance & Energy Costs

Using the advanced EnviroVent Ultra Low Watt Brushless EC Motor, the fan achieves exceptional levels of energy use and is up to 80% more efficient than a traditional AC fan.

### One Fan For All Situations

From simple through the wall installations to complex ducting/bend systems the EnviroVent Filterless Extract Fan will deliver the performance to meet building regulations and beyond.

This filterless fan concept has allowed EnviroVent to create a product, free from all of the inherent problems associated with traditional extract fans.

The in-line centrifugal impeller with its unique helical power expansion chamber enables the unit to achieve power with efficiency and quietness in the most compact unit ever.

### Easy Cleaning

The fan has been designed for ease of cleaning and servicing in mind. That is why it can be carried out safely and quickly by the resident.

There is a small magnet which deactivates the fan as soon as the front grille is removed. The impeller can then be cleaned in a sink or dishwasher and the fan scroll can be wiped clean with a cloth quickly and easily.

Once the impeller is inserted again and the front grille replaced, the fan will continue to run as normal. No more unsightly fans with clogged filters.



The EnviroVent Filterless Extract Fan is manufactured in Harrogate, UK.



This product is supplied with a five year guarantee.



Scan the QR code to find out more about the product or visit: [envirovent.com/filterless](http://envirovent.com/filterless)

## Energy Saving Intellitrac® Controls

Integral within the EnviroVent Filterless Extract Fan is the unique Intellitrac® Technology, which constantly monitors the humidity level.

As humidity rises and falls, the motor speed rises and falls in direct correlation. This controls condensation quietly and efficiently, eliminating the problem of 'nuisance running' and reducing the periods of time when the fan operates on maximum or boost duties to save energy.



## Air Management



The spiral moulding matches the internal helix to ensure a smooth low turbulence passage of air from room to atmosphere.

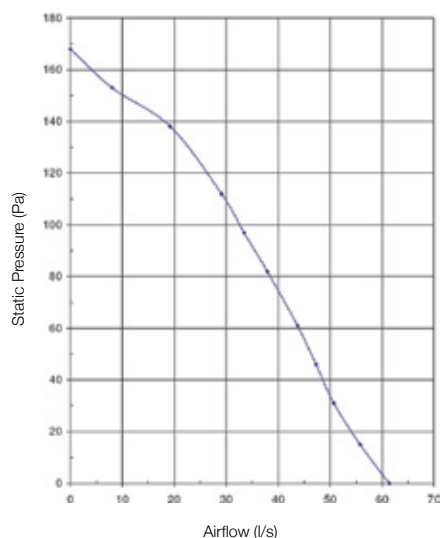
## Number One Choice



The Filterless Extract Fan is now the first choice by over 500 Registered providers including a multitude of major procurement groups.



## Performance Curve

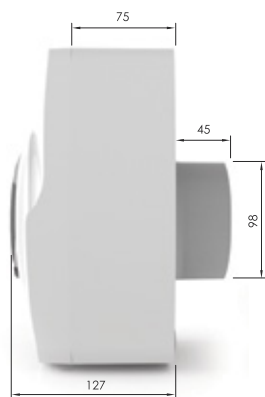


## Annual Running Costs

All costs are based on an electricity cost of £0.15 per unit (kWh). These calculations must be used as a guide only.

| Setting            | Watts | Hours Run Per Day | Energy Cost P/A (£) | Total Energy Cost P/A (£) |
|--------------------|-------|-------------------|---------------------|---------------------------|
| Background trickle | 1     | 22                | 1.20                | 1.97                      |
| Bathroom on boost  | 7     | 2                 | 0.77                |                           |
| Kitchen on boost   | 26    | 2                 | 2.85                | 4.05                      |

## Dimensions (mm)



## Technical Specifications

### Product

Innovative centrifugal extract fan unit which has been designed to deliver the lowest possible maintenance, the lowest long term life-cycle costs and the lowest energy costs.

### Application Suitability

Can be wall, ceiling, window or duct mounted to meet the Building Regulations – Part F. The one fan will ventilate any domestic kitchen, utility room or bathroom and is supplied in a 230V or SELV format.

### Performance & Sound Levels

| Duty (l/s) | Power (W) | Sound dB(A) @ 3m |
|------------|-----------|------------------|
| 15         | 1         | 30.8             |
| 35         | 7         | 36               |
| 60         | 26        | 46.2             |

### Motor

Incorporates the Ultra Low Watt EC motor technology with sealed for life ball bearings designed to operate continuously at a pre-set 'background' rate.

### Fan

The fan is of filterless technology for ease of maintenance/cleaning. Forward curved centrifugal fan to provide increased airflow. The fan will allow a smooth uninterrupted flow of contaminated air through the fan scroll to atmosphere, without the need for filtration.

### Servicing / Maintenance

Achieved by removal/exchange/replacement of central cartridge. Rear carcass remains in position ensuring minimal disruption to occupier and no electrical competence or redecoration required. The fan can be cleaned by removing the quick release impeller.

### Guarantee

Covered by an on-going, repeatable 5 year warranty, subject to the completion of specified maintenance.

### Controls

Continuous running 2-speed\* filterless fan with integral variable speed and Intellitrac® humidity tracking system. The fan should have either a pullcord override or optional wireless boost for odour control.

### Wiring

The fan is pre-wired with 1 metre of flexible cable to speed up installation. The SELV version is provided with a short length of low voltage cable. On the RC version the fan is pre-wired with 5 metres of volt free remote pullcord cable.

### Accreditations

BEAB  
CE

\*Low voltage version for the SELV

## Options & Ancillaries

| Description              | Code(s)    |
|--------------------------|------------|
| Remote Pullcord          | EFHTCM-RC  |
| Remote Wall Switch       | EFHTCM-WS  |
| Wall Mounted Kit         | 1RD EFWAK  |
| Ceiling Mounted Kit      | 1AC EFCMBR |
| Window Fixing Kit (230V) | EFWIK230V  |
| Window Fixing Kit (SELV) | EFWIK12V   |
| In-line Fixing Kit       | KITINLINE  |
| 6" Adaptor               | 1RDSPIG150 |

## Order Codes

|                |   |                 |  |
|----------------|---|-----------------|--|
| EFHT2S-230V    | 230V version                                  | EFHT2S-230V-TEM | 230V with time elapse meter                  |
| EFHT2S-SELV    | SELV version                                  | EFHT2S-SELV-TEM | SELV with time elapse meter                  |
| EFHT2S-230V-RC | 230V for ceiling mounted (remote switch wire) | EFHT2S-230V-WL  | 230V wireless version with wireless boost    |
| EFHT2S-SELV-RC | SELV for ceiling mounted (remote switch wire) | EFHT2S-SELV-WL  | SELV wireless version with wireless boost    |
| EFHT2S-IL      | 230V in-line version                          | EFHT2S-TEM-WL   | 230V with time elapse meter & wireless boost |

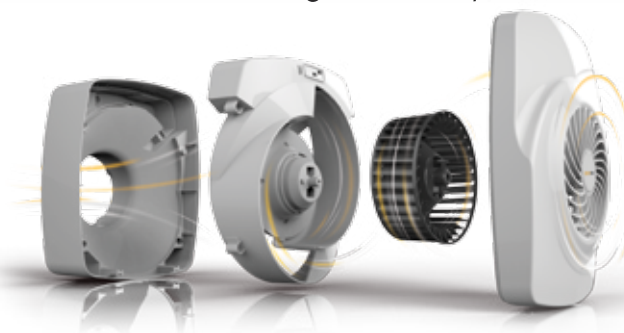
**envirovent**

# Filterless Infinity Fan

WC, Bathroom & Kitchen Fan



Guaranteed for longer than any other fan



## About

EnviroVent has been continually refining Filterless extract technology since it invented it 10 years ago, which has reduced social housing landlord's extractor fan maintenance costs by tens of millions of pounds. EnviroVent is now proud to launch its latest innovation – the Filterless Infinity.

## Features & Benefits

- Unique patented cartridge system
- Filterless technology
- Ultra Low Watt motor technology
- Patented helical power expansion chamber
- Automatic vapour tracking function
- SELV models available
- On-going 7 year guarantee
- Fan for life
- Versatile and flexible
- Ideal for all applications
- Environmentally friendly
- Low maintenance
- Low life-cycle costings
- Spectacular performance
- Designed for the life of the building
- Easy to clean
- Whisper quiet running

The Filterless Infinity Fan is designed and manufactured in the UK specifically for the rigours of Social Housing where there is a need to remove moisture and improve indoor air quality for all in the dwelling over the long term with minimal maintenance. Guaranteed for longer than any other fan with an incredible 7 year no, quibble, maintenance-free warranty, the Filterless Infinity Fan offers the lowest life-cycle costs ever!

## Precision engineered, allowing us to offer a 7 year guarantee

We are absolutely confident that we can offer a 7 year no quibble maintenance-free warranty because we have been running an accelerated life test programme for nearly 10 years on the Infinity's predecessor – the original EnviroVent Filterless Fan - without a single breakdown.

Our R&D teams are continually testing and improving this technology to make it perform even better for longer. Following extensive testing and research we have further engineered the airflow of the Filterless Infinity with exact precision to achieve the optimal efficiency out of the highest quality bearings. The stylish new front grille allows the air to pass through with the least possible resistance to achieve the quietest performance.

## Intellitrac® Controls

Running continuously on trickle, the Filterless Infinity ensures that condensation and high humidity levels are kept at bay.

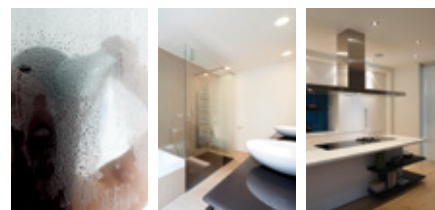
No user intervention is required as the Intellitrac® Technology constantly monitor the average humidity. As this rises and falls, the motor speed rises and falls in direct correlation. This controls condensation both quietly and efficiently, eliminating the problem of noisy extract fans and reducing the periods of time when the fan operates on maximum speed, saving energy.



Ensures the lowest energy usage and quietly controls condensation

## One Fan Fits All

Ideal for bathrooms, kitchens, WCs and from simple through the wall installations, to ceiling, window and inline installations, the Filterless Infinity fits all with the use of easy to install accessory kits.



## Usage Meter As Standard

This is built into the central cartridge as standard to enable landlords to monitor operational life.



The EnviroVent Filterless Infinity Fan is manufactured in Harrogate, UK.



This product is supplied with a seven year maintenance free warranty.



The Filterless Infinity Fan is packed full of innovative features. Scan the QR code to find out more about the product or visit: [envirovent.com/infinity](http://envirovent.com/infinity)



## Installation Friendly

The Filterless Infinity has also been designed for the easiest installation ever:

IP66 rated cable entry sockets accessible through all points of the compass

**IP66**

An IPX4 sealed chamber housing all electronics

**IPX4**

No complicated selection switches for commissioning



The SELV version is supplied with a power supply unit incorporating a fixed fuse spur



## Filter-free and fuss-free cleaning

4 step cleaning couldn't be simpler or safer:

There is a small magnet which deactivates the fan as soon as the front cover is removed. Once the cover is replaced the fan will continue to run as normal.

**01**  
Remove the front cover



**02**  
Clip out the impeller and wipe the fan clean



**03**  
Wash the impeller in a sink



**04**  
Replace impeller and front cover

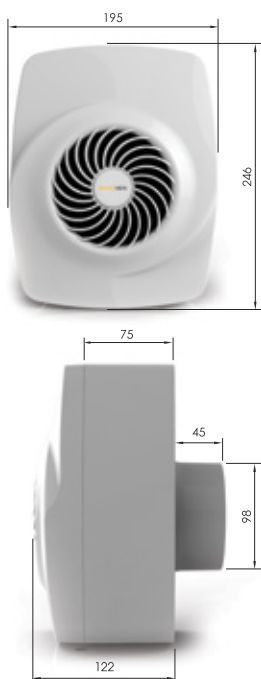


## Annual Running Costs

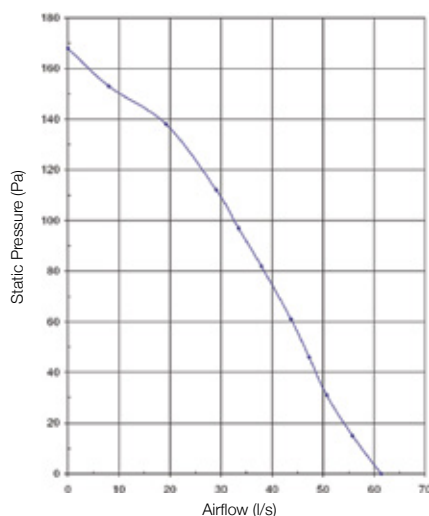
All costs are based on an electricity cost of £0.15 per unit (kWh). These calculations must be used as a guide only.

| Setting            | Watts | Hours Run Per Day | Energy Cost P/A (£) | Total Energy Cost P/A (£) |
|--------------------|-------|-------------------|---------------------|---------------------------|
| Background trickle | 1     | 22                | 1.20                | 1.97                      |
| Bathroom on boost  | 7     | 2                 | 0.77                |                           |
| Kitchen on boost   | 26    | 2                 | 2.85                | 4.05                      |

## Dimensions (mm)



## Performance Curve



## Technical Specifications

### Product

Innovative centrifugal extract fan unit which has been designed to deliver the lowest possible maintenance, the lowest long term life-cycle costs and the lowest energy costs.

### Application Suitability

Can be wall, ceiling, window or duct mounted to meet the Building Regulations – Part F. The one fan will ventilate any domestic kitchen, utility room or bathroom and is supplied in a 230V or SELV format.

### Performance & Sound Levels

| Duty (l/s) | Power (W) | Sound dB(A) @ 3m |
|------------|-----------|------------------|
| 15         | 1         | 30.8             |
| 35         | 7         | 36               |
| 60         | 26        | 46.2             |

### Motor

Incorporates the Ultra Low Watt EC motor technology with sealed for life ball bearings designed to operate continuously at a pre-set 'background' rate.

### Fan

The fan is of filterless technology for ease of maintenance/cleaning. Forward curved centrifugal fan to provide increased airflow. The fan will allow a smooth uninterrupted flow of contaminated air through the fan scroll to atmosphere, without the need for filtration.

### Servicing / Maintenance

Achieved by removal/exchange/replacement of central cartridge. Rear carcass remains in position ensuring minimal disruption to occupier and no electrical competence or redecoration required. The fan can be cleaned by removing the quick release impeller.

### Guarantee

Covered by an on-going, repeatable 7 year warranty, subject to the completion of specified maintenance.

### Controls

Continuous running 2-speed\* filterless fan with integral variable speed and Intellitrac® humidity tracking system. The fan should have either a pullcord override or optional wireless boost for odour control.

### Wiring

The fan is pre-wired with 1 metre of flexible cable to speed up installation. The SELV version is provided with a short length of low voltage cable. On the RC version the fan is pre-wired with 5 metres of volt free remote pullcord cable.

### Accreditations

BEAB  
CE

\*Low voltage version for the SELV

## Options & Ancillaries

| Description              | Code(s)    |
|--------------------------|------------|
| Remote Pullcord          | EFHTCM-RC  |
| Remote Wall Switch       | EFHTCM-WS  |
| Wall Mounted Kit         | 1RD EFWAK  |
| Ceiling Mounted Kit      | 1AC EFCMBR |
| Window Fixing Kit (230V) | EFWIK230V  |
| Window Fixing Kit (SELV) | EFWIK12V   |
| In-line Fixing Kit       | KITINLINE  |

## Your Requirements

The Filterless Infinity fan is available in 230V or SELV format and can be wall, window, ceiling, in-line or panel mounted with the use of the below kits. Please contact us to obtain your unique customer order code.

### Order Codes

|             |   |             |   |
|-------------|---|-------------|---|
| INF-230V    | 230V version                                  | INF-SELV-RC | SELV for ceiling mounted (remote switch wire) |
| INF-SELV    | SELV version                                  | INF-230V-WL | 230V wireless version                         |
| INF-230V-RC | 230V for ceiling mounted (remote switch wire) |             |   |

**envirovent**

# MEV Spider

Mechanical Extract Ventilation



## About

The MEV Spider from EnviroVent is a low energy, continuous mechanical extract ventilation system designed with multiple extract points to simultaneously draw moisture-laden air out of the wet rooms, whilst minimising the migration of humidity to other rooms.

## Features & Benefits

- Fitted with Ultra Low Watt DC motor technology
- Intelligent humidity tracking
- 9 spigot connection points
- 3 Ø100mm spigots supplied
- Rapid installation
- Vertical or horizontal install

- Ease of maintenance
- Unobtrusive
- Low noise
- Cost effective
- Lowest carbon footprint
- SAP Appendix Q eligible

Note: 'E' rating only applicable to MEVS (2 speed option)

## How does it work?

The extract unit is centrally located in a cupboard or loft, with ducts running from the unit to the kitchen, bathroom, en-suite and other wet zones. Ideal for use in houses, apartments and communal residences, the unit provides high centrifugal performance with low running noise. The MEV Spider is SAP Appendix Q eligible and comes with a full five year guarantee.

## Intellitrac® Controls

The system continuously operates at a low level to ensure that the home is correctly ventilated, providing all year round good indoor air quality. Incorporated within the MEV Spider is the unique Intellitrac® Technology as standard, which constantly monitor the humidity level, meaning no user intervention is required.

As humidity rises and falls, the motor speed rises and falls in direct correlation. This controls condensation quietly and efficiently, reducing the periods of time when the system operates on maximum speed, saving energy.

## Ease of Installation

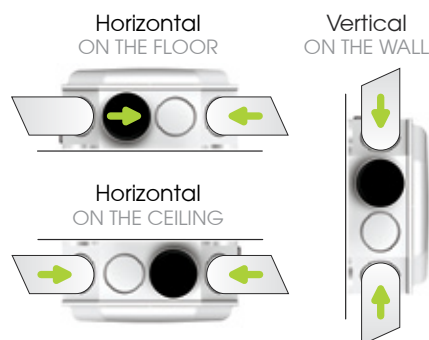
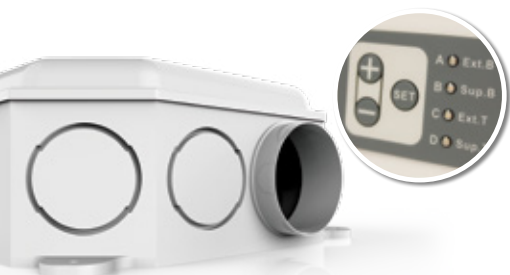
The compact size of the unit and its unique spigot configuration allows easy installation into any vertical or horizontal application and is ideal for restricted spaces.

With up to 9 spigot connection points the unit offers optimal versatility. Self sealing duct connections and a quick fit bayonet spigots provide convenience for the installer.

## Rapid Installation

The compact size of the unit and its unique spigot configuration allows easy installation into any vertical or horizontal application and is ideal for restricted spaces. With up to nine spigot connection points the unit offers optimal versatility.

The easy push button commissioning pad enables the installer to correctly set the required airflow rate quickly and effectively.



The EnviroVent MEV Spider is manufactured in Harrogate, UK.



This product is supplied with a five year guarantee.



The packaging is made from recycled material.

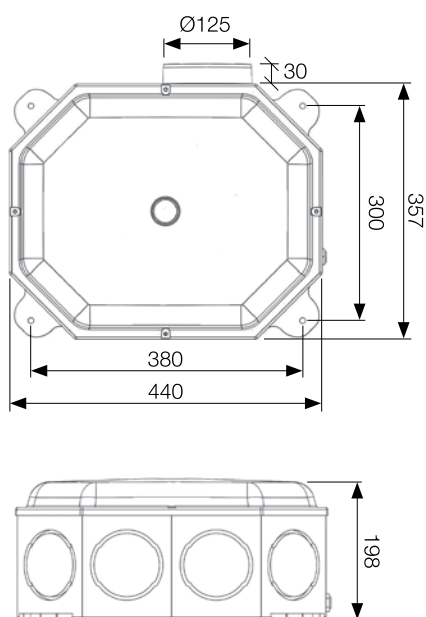


## Control Options

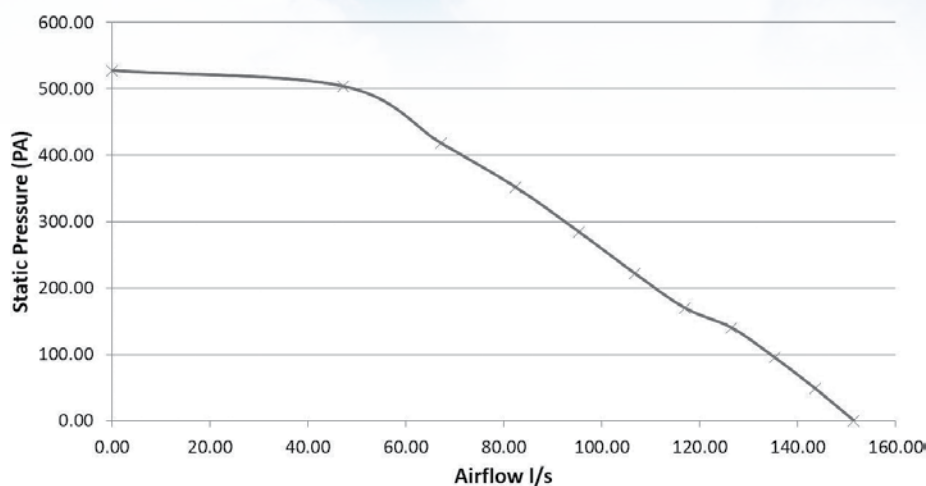
The MEV Spider is supplied with a remote controlled boost switch as standard offering ultimate control to the user. The unit is fully commissionable to high and low rates to ensure optimum performance and efficiency.



## Dimensions (mm)



## Performance Curve



## Technical Specifications

### Product

Innovative and low energy unit which has been designed to provide continuous mechanical extract ventilation in accordance with current building regulations.

### Application Suitability

Suitable for use in mid-sized houses up to 220m³ and apartments of up to 180m³ to be installed in any vertical or horizontal application either in a hallway cupboard or loft space. The unit shall be designed with up to 9 spigot connection points with quick fit bayonet connections.

### Performance

|                            | Exhaust Terminal Configuration - Kitchen + Additional Wet Rooms |      |      |      |      |      |
|----------------------------|---|------|------|------|------|------|
|                            | +1  | +2   | +3   | +4   | +5   | +6   |
| Total Flow Rate (l/s)      | 21.0  | 29.0 | 37.0 | 45.0 | 53.0 | 61.0 |
| Specific Fan Power (W/l/s) | 0.36  | 0.32 | 0.33 | 0.32 | 0.35 | 0.36 |

### Motor

The unit shall incorporate the Ultra Low Watt DC motor technology with sealed for life ball bearings designed to operate continuously at a pre-set 'background' rate.

### Fan

The unit shall incorporate a backward curved centrifugal fan.

### Construction

The unit shall be constructed from durable white plastic. The lid is a vacuum in ABS material.

### Servicing / Maintenance

There are no special requirements for any maintenance within a five year period. If fitted with cone filters (located at extract valves), maintenance is recommended every 12 months depending on environmental conditions. The unit shall be easy to clean by simply removing the lid and motor plate.

### Guarantee

The unit shall be covered by an on-going, repeatable 5 year warranty, subject to completion of the specified maintenance.

### Controls

The standard unit shall be fitted with Intellitrac® humidity tracking system, commissionable to trickle and boost to suit the application and satisfy Part F. The unit shall also be fitted with a choice of either wireless or manual override switching.

### Accreditation

SAP Appendix Q eligible

## SAP Appendix Q Performance

| Exhaust Terminal Configuration - Kitchen + Additional Wet Rooms | Fan Speed Setting | Specific Fan Power (W/l/s) | EST Best Practice Performance Compliant |
|---|-------------------|----------------------------|---|
| Kitchen + 1 additional wet room                                 | 100% Variable     | 0.36                       | Yes                                     |
| Kitchen + 2 additional wet rooms                                | 100% Variable     | 0.32                       | Yes                                     |
| Kitchen + 3 additional wet rooms                                | 100% Variable     | 0.33                       | Yes                                     |
| Kitchen + 4 additional wet rooms                                | 100% Variable     | 0.32                       | Yes                                     |
| Kitchen + 5 additional wet rooms                                | 100% Variable     | 0.35                       | Yes                                     |
| Kitchen + 6 additional wet rooms                                | 100% Variable     | 0.36                       | Yes                                     |

## Options & Ancillaries

| Description                                       | Code(s)          |
|---|------------------|
| System 125 Round Pipe to Fitting (Male to Female) | EV-SC125PF       |
| System 125 Round Pipe to Fitting (Male to Male)   | EV-SC125PP       |
| Ø100mm Rigid Ducting (3M Length)                  | 1RD 100 X 3M     |
| Flexible Insulated Hose Ducting                   | 1RD INSFLEX 125  |
| White Powder Coated Metal Ceiling Valve           | 1DIF EXTRACT 100 |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/mevspider](http://envirovent.com/mevspider)

## Order Code

MEVS-WH

MEVS

MEVS-H

Standard wireless unit with humidity tracker and remote control

Hard wired unit with 2 speed option

Hard wired unit with humidity tracker

**envirovent**

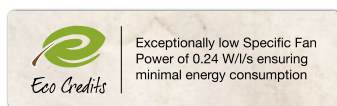
48

MEV Spider



# OZEO

Low Energy Whole House Mechanical Extract Ventilation Unit



## About

The OZEO is a low energy, continuously running whole house mechanical extract ventilation unit (MEV) fitted with multiple extract points to simultaneously draw moisture laden air out of the wet rooms of a property, whilst minimising the migration of humidity to other rooms.

## Features & Benefits

- Adjustable pivoting spigots for optimum flexibility
- Low watt motor technology
- Three speed motor with two adjustments
- 4 Ø125mm inlets with double injection self-sealing duct connections which pivot 90°
- 1 Ø125mm exhaust outlet to atmosphere capable of rotating 360°
- Rapid installation kit
- Backward curved impeller for self cleaning
- Optional remote controlled boost switch
- Ease and flexibility of installation, horizontal, vertical on floors, ceiling or walls
- Quiet operation only 30 dB(A)
- Compact design
- SAP Appendix Q eligible
- Two year guarantee

The OZEO is centrally located in either the loft space or a hallway cupboard with ducts running from the unit to the kitchen, bathroom, en-suite and other wet rooms.

Ideal for houses, apartments and communal residences with kitchen plus up to 6 additional wet rooms, the unit will ventilate the property in full compliance with current building regulations and is SAP Appendix Q eligible. Highly efficient, the OZEO delivers a specific fan power down to 0.24 W/l/s and is Energy Savings Trust Best Practice Performance Compliant.



### Speed and Flexibility of Installation

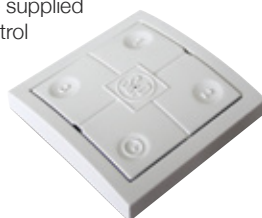
The OZEO has been designed for utmost ease and flexibility of installation. The four inlets pivot 90°, whilst the double injection self-sealing duct connections enable a fast and safe connection without the need for extra tools or clamps. The exhaust outlet can be rotated 360°.

The OZEO can be installed horizontally or vertically on floors, ceilings or walls. The compact design allows it to fit into narrow ceiling voids and the pivoting spigots significantly reduce the space normally required once ductwork is connected.

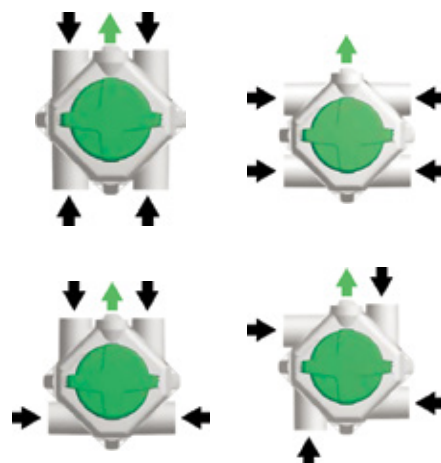
The rapid installation kit and mounting template facilitates convenience and speed of installation for the installer.

### Remote Control

The OZEO can be supplied with a remote control boost switch with timer function.



### Flexible and Compact



Turn to page 52 to find out more about the benefits of heat recovery ventilation.



Scan the QR code to see how our products can improve indoor air quality, solving condensation and mould problems or visit <http://bit.ly/1T3nYee>



Turn to pages 17-20 to find out more about Approved Document Part F: Ventilation.

## Rapid Maintenance

The OZEO has a self-cleaning backward curved impeller. The front cover simply unclips for quick access if required.

## Numerous Installation Options

### Horizontal

ON THE FLOOR



ON THE CEILING



### Vertical

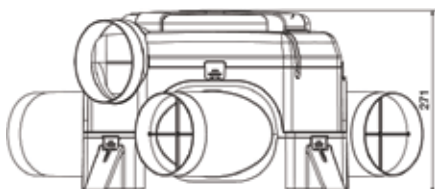
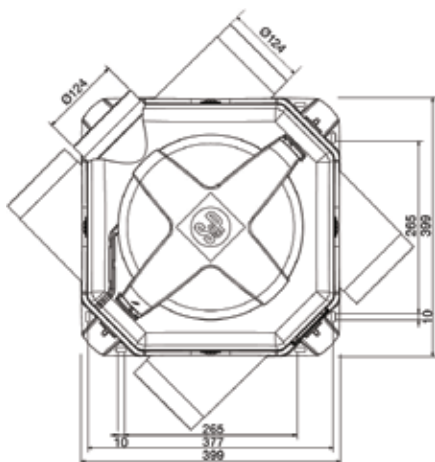
ON THE WALL



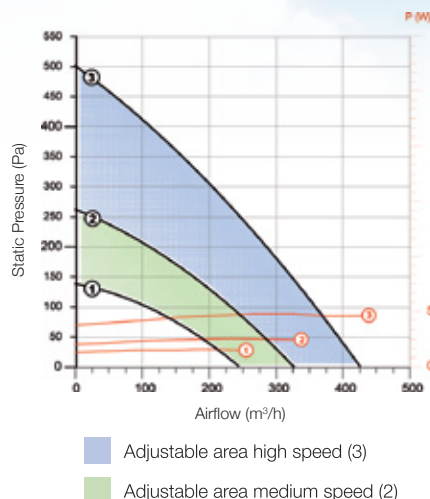
## Hard-Wired Option

The OZEO (HW & E versions) are also available with a hard-wired boost switch.

## Dimensions (mm)



## Performance Curve



## Technical Characteristics

| Motor | Voltage (V) | Maximum Absorbed Power (W) | Maximum Absorbed Current (A) | Sound Power dB(A) |
|-------|-------------|----------------------------|------------------------------|-------------------|
| DC    | 230         | 15.5-25-48                 | 0.15-0.23-0.4                | 30-35-38          |

## Options & Ancillaries

Remote Controlled Boost Switch

BOOST OZEO RF

## Technical Specifications

### Product

The OZEO is a low energy, continuously running whole house mechanical extract ventilation unit (MEV) fitted with multiple extract points to simultaneously draw moisture laden air out of the wet rooms of a property, whilst minimising the migration of humidity to other rooms.

### Application Suitability

The unit shall be suitable for houses, apartments and communal residences with kitchen plus up to 6 additional wet rooms, the unit will ventilate the property in full compliance with current building regulations and is SAP Appendix Q eligible.

### Installation

The unit shall be capable of being installed horizontally or vertically on floors, ceilings or walls. The four inlets shall pivot 90° and double injection self-sealing duct connections shall enable a fast and safe connection without the need for extra tools or clamps. The exhaust outlet shall be capable of rotating 360°. A rapid installation kit and mounting template shall be supplied as standard.

### Performance

|                            | Exhaust Terminal Configuration - Kitchen + Additional Wet Rooms |      |      |      |      |      |
|----------------------------|---|------|------|------|------|------|
|                            | +1  | +2   | +3   | +4   | +5   | +6   |
| Total Flow Rate (l/s)      | 21.0  | 29.0 | 37.0 | 45.0 | 53.0 | 61.0 |
| Specific Fan Power (W/l/s) | 0.30  | 0.28 | 0.25 | 0.24 | 0.25 | 0.27 |

### Motor

The unit shall incorporate a three speed Low Watt DC motor designed to operate continuously.

### Fan

The unit shall be a backward curved impeller.

### Construction

The housing of the unit is constructed out of polypropylene. The lid is constructed out of ABS.

### Servicing / Maintenance

The OZEO shall be fitted with a self-cleaning backward curved impeller. For the front, the cover simply unclips for quick access to clean the front impeller.

### Guarantee

The unit shall be covered by a two year guarantee.

### Controls

The OZEO shall either be supplied with a wireless control and timer function or the OZEO HW and E versions are provided with a 3 speed hard wired switch.

### Accreditation

The unit shall be SAP Appendix Q eligible.

## SAP Appendix Q Performance

| Exhaust Terminal Configuration   | Fan Speed Setting         | Specific Fan Power (W/l/s) | Energy Saving Trust Best Practice Performance Compliant |
|----------------------------------|---------------------------|----------------------------|---|
| Kitchen + 1 additional wet room  | Fan Speed 2 100% Variable | 0.30                       | Yes   |
| Kitchen + 2 additional wet rooms | Fan Speed 2 100% Variable | 0.28                       | Yes   |
| Kitchen + 3 additional wet rooms | Fan Speed 2 100% Variable | 0.25                       | Yes   |
| Kitchen + 4 additional wet rooms | Fan Speed 2 100% Variable | 0.24                       | Yes   |
| Kitchen + 5 additional wet rooms | Fan Speed 2 100% Variable | 0.25                       | Yes   |
| Kitchen + 6 additional wet rooms | Fan Speed 2 100% Variable | 0.27                       | Yes   |

## Order Codes

OZEO

OZEO HW

OZEO E

DC version (wireless)

DC version (hard wired)

AC version (hard wired)



Scan the QR code to find out more about the product or visit:  
[envirovent.com/ozeo](http://envirovent.com/ozeo)

**envirovent**

50  
OZEO



# Heat Recovery

What is Heat Recovery and how does it work?



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Follow us on Twitter



Watch our videos on YouTube



# SYSTEM 04

## MECHANICAL VENTILATION WITH HEAT RECOVERY (MVHR)

As building efficiency is improved with wall and loft insulation, draught proofing and double glazing, buildings are becoming more air tight and are consequently less well ventilated.

Good ventilation is vital to our health and the fabric of our homes. Opening windows is one option, however this is not ideal due to security risks, loss of heat and energy in colder months. To solve these problems, heat recovery ventilation can provide fresh filtered air, energy efficiency and a comfortable all year round climate for your home. Stale, moist air is extracted out of the wet rooms of a home. These include the kitchen, bathrooms, utility and en-suite rooms.

This moist air is then ducted to a central unit located normally in the loft space in a house or in a utility room or cupboard in an apartment. This extracted air passes over a heat exchanger before being ducted to outside. Simultaneously, fresh air is drawn into the unit from outside, and is warmed by the high efficiency heat exchange cell. This tempered, fresh air is then delivered through supply vents into the living, dining and bedroom areas.

This constant supply of clean, tempered air into the property creates a healthy and ideal environment, maintaining stable humidity levels, free from condensation and mould. Sufferers of asthma, house dust mite populations and other respiratory problems should find this method of ventilation significantly beneficial.



### Self-Sealing Couplings

Ideal for MEV and MVHR systems

| Description                                       | Code(s)    |
|---|------------|
| System 125 Round Pipe to Fitting (Male to Female) | EV-SC125PF |
| System 125 Round Pipe to Fitting (Male to Male)   | EV-SC125PP |
| System 125 Round Pipe to Pipe (Male to Male)      | EV-SC204DF |
| System 204 x 60 Ducting to Ducting (Male to Male) | EV-SC204DD |



| Our Heat Recovery Range |  IDEO |  energiSava 200 |  energiSava 210 |  energiSava 250 |  energiSava 300 & 400 |  energiSava 380 |  Slimline 150 & 300 |  Refresh |  heatSava |
|-------------------------|--|--|--|--|--|--|--|---|--|
| Type                    | Domestic   | Domestic   | Domestic   | Domestic   | Domestic   | Domestic   | Domestic   | Domestic  | Domestic   |
| Application             | Wall   | Wall / Floor / Ceiling   | Wall / Loft  | Wall / Floor / Ceiling   | Wall   | Loft / Floor   | Wall / Ceiling   | Wall  | Wall   |
| Suitability             | Whole House  | Whole House  | Whole House  | Whole House  | Whole House  | Whole House  | Whole House  | Whole House   | Single Room  |
| Summer Bypass           | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes   | Yes  |
| MAX. Efficiency (%)     | 87   | 86   | 89   | 91   | 89   | 93   | 92   | 86  | 75   |
| SAP Appendix Q Eligible | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | N/A   | N/A  |
| Years of Guarantee      | 3  | 5  | 3  | 5  | 2*   | 5  | 2*   | 2   | 5  |
| Page Reference          | 53-55  | 56   | 57-58  | 59-60  | 61-62  | 63-64  | 65-66  | 67-68   | 69-71  |

\*2 year warranty on parts and 5 years on the heat exchanger



Did you know that we have a full range of industrial ventilation solutions? For more information, turn to pages 117-128.



Check out our low energy OZEO MEV system on pages 49-50.

**envirovent**

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Heat Recovery

B



## About

The IDEO is an intelligent whole house heat recovery unit designed with the latest technological innovations to specifically provide optimum user functionality and comfort.

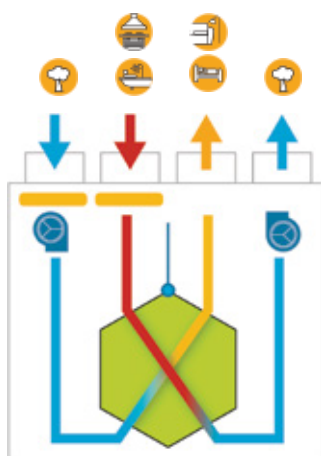
It works by extracting stale, moisture-laden air from the wet rooms such as bathrooms, WCs, kitchen and shower rooms, which is released into the atmosphere. At the same time it supplies fresh, filtered air into the living areas. The energy from the extracted air is transferred to the new fresh air through the high efficiency heat exchanger before being re-supplied into the property.

## Features & Benefits

- High efficiency heat exchange cell achieving up to 87% efficiency
- Intelligent control module to set multiple functions and indicators (as standard)
- Wireless kitchen boost switch as standard
- High efficiency F5 and G4 filters
- EC motor technology
- Monthly energy savings per kWh indicator
- Filter change indicator
- Noise levels down to 22 dB(A)
- Automatic or manual 100% summer bypass as standard
- Optimum user functionality
- Low energy consumption
- Ease of access to user manual and filters
- Ease of servicing of internal components
- Night time cooling
- SAP Appendix Q eligible
- Energy Savings Trust Best Practice Performance Compliant
- 3 year guarantee

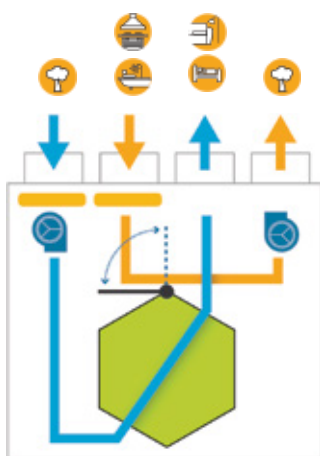
## Exceptional Heat Recovery Performance

With a simple flow system, the new air would enter at 2°C through the air inlets which would lower the interior temperature of the home. Through the heat recovery process, the new air enters at 20°C.



## Summer By-Pass (Free Cooling)

Benefitting from a temperature controlled integral summer by-pass as standard, the heat exchanger will shut off to ensure that cooler outdoor air replaces the indoor air that has been heated during the day. This air is routed through the by-pass facility and not through the heat exchanger. The summer by-pass ensures that the full benefit of perception cooling is achieved. This eliminates the requirement for open windows, providing a safer and less noisy environment.

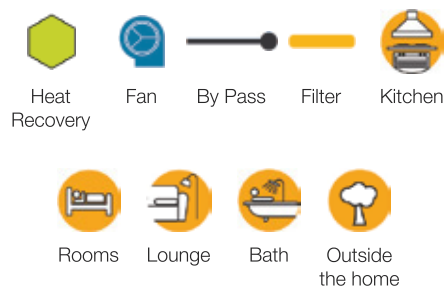


## Operation without by-pass

| Air inside home | Outside air | New air heated and supplied into the home |
|-----------------|-------------|---|
| 21°C            | 2°C         | 20°C                                      |

## Operation with by-pass

| Air inside home | Outside air | New air heated and supplied into the home |
|-----------------|-------------|---|
| 28°C            | 21°C        | 21°C                                      |



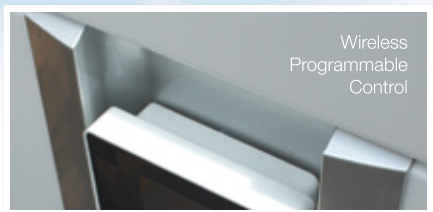
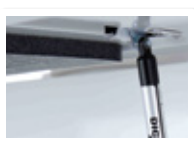
Check out pages 27-28 to discover how 'input' ventilation can benefit your home, health and lifestyle.



Did you know that we now offer bpec approved training programmes? Call us on 01423 810 810 for more information.



The effect of not having good quality air in the home is dramatic. Condensation is a serious problem. Turn to pages 09-10 to find out why.

Wireless  
Programmable  
ControlExternal  
AntennaWireless  
Kitchen BoostEasy access  
to filtersHydraulic strut  
for openingVertical installation  
on the wall or the floorEasy access  
to internal elements

# Fresh, clean indoor air quality all year round

## Innovative control module for optimum user functionality

Supplied as standard with the IDEO is the intelligent control module, enabling the setting of multiple functions and indicators. It is in permanent communication with the unit and allows the setting of the ventilation speed, the summer by-pass, frost protection and absence mode.

The absence mode is particularly beneficial when the residents are on holiday or away for a longer time period. The control module also provides an indication of energy saving in kW/hr/month, battery level, indoor temperature and filter change. The intelligent filter change indicator is programmed to monitor the level of particulate in the filters and will notify the user when these need replacing, as opposed to simply being set to a specific time period. This ensures optimum efficiency of the unit and that filters are only replaced when necessary.

### Integrated



### Wall



### Surface



## > Innovative Control Module

The programmable control module is a radio frequency remote control with multiple user functions.

### → 3 programming modes

2 PREDEFINED

1 USER CONFIGURABLE

- Automatic or manual 100% by-pass
- Automatic defrosting function
- Absence mode

The programmable control module also incorporates the following indicators.

- Time
- Filter change
- Monthly energy savings in kWh
- Interior/exterior temperature
- Ventilation speed
- Battery charge level
- Radio frequency signal strength

## > Kitchen Boost

The kitchen boost control is a radio frequency remote control providing maximum airflow for half an hour.



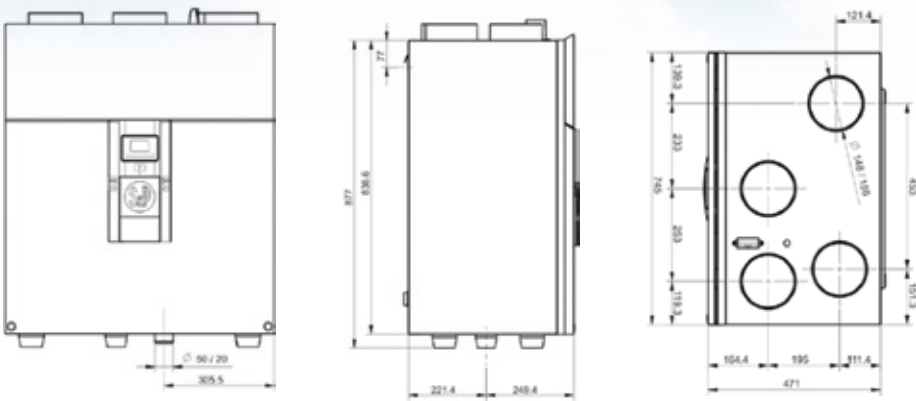
The Lifetime Range® has been designed to achieve the lowest maintenance, energy costs and life-cycle costs. Turn to pages 24-26 to find out more.



Our dedicated projects team takes the hassle and complication out of ventilation system design. Take a look at page 14 for more details.



Dimensions (mm) ✓



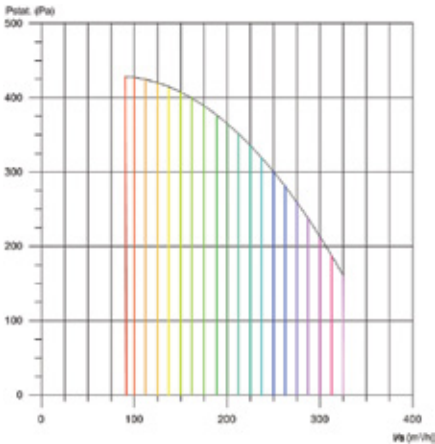
SAP Appendix Q Performance ✓

| Exhaust Terminal Configuration   | Fan Speed Setting | Total Flow Supply Rate (l/s) | Total Exhaust Flow Rate (l/s) | Specific Fan Power (W/l/s) | Heat Recovery Efficiency (%) |
|----------------------------------|-------------------|------------------------------|-------------------------------|----------------------------|------------------------------|
| Kitchen + 1 additional wet room  | -                 | -                            | -                             | -                          | -                            |
| Kitchen + 2 additional wet rooms | 90 m³/h           | 30.8                         | 31.2                          | 1.29                       | 87                           |
| Kitchen + 3 additional wet rooms | 90 m³/h           | 31.2                         | 31.8                          | 0.99                       | 87                           |
| Kitchen + 4 additional wet rooms | 95 m³/h           | 33.1                         | 34.1                          | 0.88                       | 87                           |
| Kitchen + 5 additional wet rooms | 120 m³/h          | 39.6                         | 41.0                          | 0.98                       | 87                           |
| Kitchen + 6 additional wet rooms | 145 m³/h          | 45.0                         | 46.3                          | 1.08                       | 87                           |
| Kitchen + 7 additional wet rooms | 170 m³/h          | 51.9                         | 53.1                          | 1.25                       | 86                           |

Technical Characteristics ✓

| Model    | Voltage | Airflow l/s (m³/h) |       | Power (W) |     | Current (A) |     | Sound Power @ 3m dB(A) |      | Weight (Kg) |
|----------|---------|--------------------|-------|-----------|-----|-------------|-----|------------------------|------|-------------|
|          |         | Min                | Max   | Min       | Max | Min         | Max | Min                    | Max  |             |
| IDEO 325 | 230     | (45/90)            | (325) | 21        | 198 | 0.1         | 0.7 | 22.9                   | 35.5 | 45          |

Performance Curve ✓



Accessories ✓

|                                  |                |
|----------------------------------|----------------|
| Filter Kit F5/G4                 | KIT F5/G4 IDEO |
| Filter Kit F7/G4                 | KIT F7/G4 IDEO |
| Filter G4                        | KIT G4 IDEO    |
| Additional Wireless Boost Switch | BOOST IDEO     |
| Air Quality Sensor               | SQA            |
| Humidity Sensor                  | HIG-2          |

Technical Specifications ✓

**Product**  
High performance whole house heat recovery unit.

**Application Suitability**  
Shall be suitable for houses with a kitchen plus up to 7 additional wet rooms. The IDEO will ventilate the property in full compliance with current building regulations and is SAP Appendix Q eligible. The unit is Energy Savings Trust Best Practice Performance Compliant.

**Installation**  
The motor shall be Low Watt EC.

| Description                      | Kitchen + Additional Wet Rooms |      |      |      |      |      |      |
|----------------------------------|--------------------------------|------|------|------|------|------|------|
|                                  | +1                             | +2   | +3   | +4   | +5   | +6   | +7   |
| Heat Recovery Efficiency (%)     | -                              | 87   | 87   | 87   | 87   | 87   | 87   |
| Specific Fan Power (SFP) (W/l/s) | -                              | 1.29 | 0.99 | 0.88 | 0.98 | 1.08 | 1.25 |
| Fan Speed Setting (m³/h)         | -                              | 90   | 90   | 95   | 120  | 145  | 170  |

**Motor**  
Incorporates the Ultra Low Watt EC motor technology with sealed for life ball bearings designed to operate continuously at a pre-set 'background' rate.

**Fans**  
The unit shall incorporate two high performance forward curved continuous running fans.

**Heat Exchange Cell**  
The heat exchange cell within the unit shall be a counter-flow, multi plate heat exchanger manufactured from Polyethylene (PE) and shall be designed to deliver up to 87% efficiency.

**Construction**  
The housing of the unit shall be constructed out of powder coated sheet metal with the internal casing constructed out of EPP moulding.

**Filtration**  
There shall be filters incorporated into the unit to protect both the extract and supply air. An F5 filter (optional F7 filter available) shall protect the supply airflow with a G4 pre-filter. A G4 filter shall protect the extract airflow.

**Controls**  
The unit shall be controlled through various options: Using a wireless boost switch (1 switch supplied as standard; additional switches available to order on request); programmable remote control module (as standard); or remote sensors such as humidity sensor or air quality sensor as optional extras.

**Maintenance/Serviceing**  
The unit shall require cleaning/replacement of the filters located within the unit every 6 to 12 months depending on conditions of use, location etc. The remote control module will indicate when the filters should be replaced. These are located in the front of the unit within easy access for the user. The motor, fan and heat exchange cell shall require a service check once every 5 years. This is enabled by removing the front cover and cleaning any dust away with a dry brush.

**Accreditation**  
SAP Appendix Q eligible

Order Code

IDEO Standard IDEO unit



Turn to pages 17-20 to find out more about Approved Document Part F: Ventilation.



Scan the QR code to find out more about the product or visit: [envirovent.com/ideo](http://envirovent.com/ideo)

# energiSava 200

High Efficiency Whole House Heat Recovery System



COMING  
SOON  
SPRING  
2016



\* A



Lifetimerange®



## About

Joining the high efficiency energiSava range, the innovative energiSava 200 unit brings together style, performance and usability in a neat and compact MVHR system.

## Features & Benefits

- Delivering up to 90% thermal efficiency
- Mechanical summer bypass as standard
- Wireless remote control as standard
- Intellitrac® technology as standard – humidity tracking controls
- Frost protection as standard

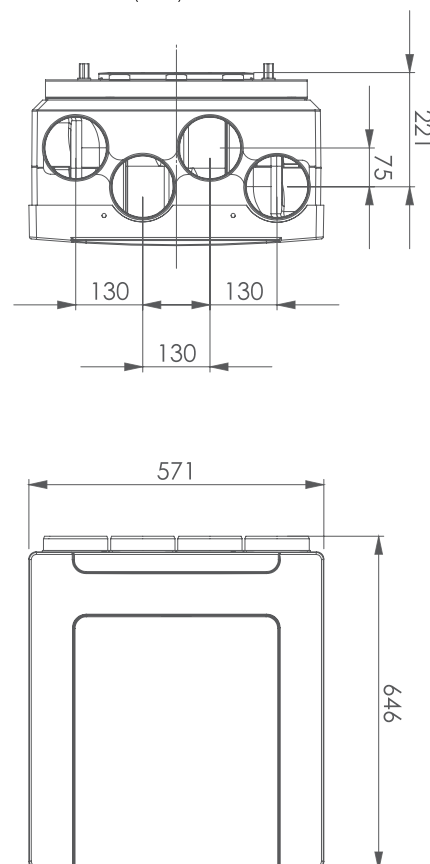
- Can be wall, floor or ceiling mounted
- Easy access to removable filters
- Stylish design
- High performance
- SAP Appendix Q eligible

\*Note: 'A' rating only estimate, to be confirmed in Spring. Please visit our website for finalised rating.

## SAP Appendix Q Performance ▼

| Exhaust Terminal Configuration   | Fan Speed Setting | Air Flow Rate (l/s) | Specific Fan Power (W/l/s) | Heat Recovery Efficiency (%) |
|----------------------------------|-------------------|---------------------|----------------------------|------------------------------|
| Kitchen + 1 additional wet room  | 100% variable     | 15.0                | 0.79                       | 90                           |
| Kitchen + 2 additional wet rooms | 100% variable     | 21.0                | 0.74                       | 89                           |
| Kitchen + 3 additional wet rooms | 100% variable     | 27.0                | 0.78                       | 87                           |
| Kitchen + 4 additional wet rooms | 100% variable     | 33.0                | 0.88                       | 86                           |
| Kitchen + 5 additional wet rooms | 100% variable     | 39.0                | 0.98                       | 85                           |
| Kitchen + 6 additional wet rooms | 100% variable     | 45.0                | 1.15                       | 84                           |
| Kitchen + 7 additional wet rooms | 100% variable     | 51.0                | 1.36                       | 83                           |

## Dimensions (mm) ▼



Scan the QR code to find out more about the product or visit:  
[envirovent.com/esava200](http://envirovent.com/esava200)



To see our extensive range of ancillaries and ducting, turn to pages 133-148.

envirovent

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energiSava 200

For more information visit [www.envirovent.com](http://www.envirovent.com) or call 0345 27 27 810

# energiSava 210

Low Energy Whole House Heat Recovery Unit



## About

The energiSava 210 is a low energy whole house heat recovery unit with a high-efficiency heat exchanger to provide a constant supply of fresh tempered air into the living spaces of a home.

## Features & Benefits

- Counter-flow heat exchanger with up to 89% thermal efficiency
- High efficiency F5, F7 and G4 filters
- EC motor technology
- Innovative boost controls
- Intelligent humidity tracking controls
- Compact and lightweight
- Filter change indicator
- Holiday mode
- By-pass 100% automatic or manual
- SAP Appendix Q eligible
- Energy Savings Trust Best Practice Performance Compliant
- 3 year guarantee

## How does it work?

The energiSava 210 works by extracting stale, moisture-laden air from the wet rooms such as bathrooms, WCs, kitchen and shower rooms, which is released into the atmosphere. At the same time it supplies fresh, filtered air into the living areas.



## Optimum User Functionality

Incorporated within the energiSava 210 is the intelligent humidity tracking control as standard, which constantly monitor the humidity level, meaning no user intervention is required.

As humidity rises and falls, the motor speed rises and falls in direct correlation. This controls condensation quietly and efficiently, reducing the periods of time when the system operates on maximum speed, saving energy. The intelligent filter change indicator notifies the user when these need replacing.



## Innovative Control Switch

The innovative control switch allows the user to select:

- The airflow rate
- Holiday mode
- Summer by-pass

It also indicates when the filters need replacing.



Easy access to filters



Very compact



Scan the QR code to check out our latest case studies for EnviroVent's range of ventilation solutions.



Turn to pages 45-46 for the Filterless Infinity Fan, guaranteed for longer than any fan with a 7 year warranty.



All EnviroVent's product ranges are ErP Compliant. Turn to page 21 to find out more.





# energiSava 250

Lightweight & Compact Whole House Heat Recovery System



A+

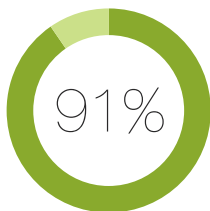


Lifetime Range®



## About

Ideal for smaller houses and apartments the energiSava 250 is one of the most compact and lightweight on the market, achieving a high thermal efficiency of 91%.



The energiSava 250's high efficiency heat exchanger achieves up to 91% thermal efficiency.

## Features & Benefits

- High thermal efficiency up to 91%
- Exceptionally compact
- Can fit into the space of a standard kitchen cupboard
- Versatile installation - wall, floor or ceiling mounting
- Switch Live
- Incorporates Intellitrac® Technology, the unique humidity tracking controls
- Remote control
- Automatic integral summer by-pass
- Frost protection
- Easy mounting brackets
- Lightweight, one-man installation
- Low energy consumption
- Easy exchangeable filters
- SAP Appendix Q eligible
- Energy savings trust best practice performance compliant
- Part of the Lifetime Range® complete with 5 year warranty

## How does it work?

The energiSava 250 provides optimum ventilation for a property with a minimum loss of energy. It extracts moisture-laden air from the wet rooms such as bathrooms, WCs, kitchen and shower rooms. At the same time it supplies fresh air into the living areas (living rooms, bedrooms, dining room).



The energy from the extracted air is transferred to the new fresh air and re-supplied into the property, creating an all year round, ideal indoor environment. Suitable for Kitchen + 5 additional wet rooms and achieving a maximum airflow of 270 m³/h (75 l/s), the energiSava 250 delivers not only the utmost practicality in installation flexibility, it also performs with exceptional efficiency, achieving a low Specific Fan Power of 0.59 W/l/s.

## Functionality and Design

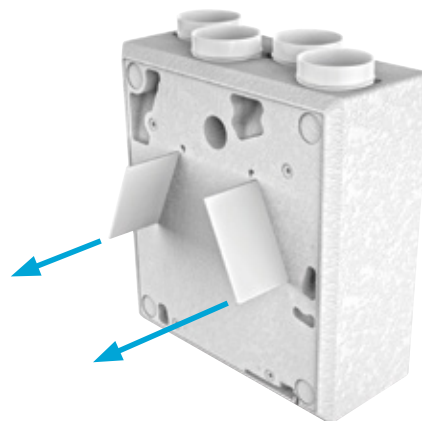
The system continuously operates at a low level to ensure that the home is correctly ventilated, providing all year round good indoor air quality.

Highly practical, the energiSava 250 can be boosted via the switch live function or remote control to provide increased airflow. The wireless controller also indicates when the summer by-pass, frost protection and humidity tracking functions are activated. The automatic and integral summer by-pass controls the temperature of the air entering the home on warmer days. The easy push button commissioning pad enables the installer to correctly set the required airflow rate quickly and effectively.



## Peace of mind

Manufactured in the UK and part of the award-winning Lifetime Range®. To ensure the optimum performance of the system, it is important to maintain the unit. This can be done by simply removing the front cover and accessing the exchangeable filters (order code: FILTER-ES250).



The EnviroVent energiSava 250 is manufactured in Harrogate, UK.

5  
YEAR  
GUARANTEE

This product is supplied with a five year guarantee.



The packaging is made from recycled material.

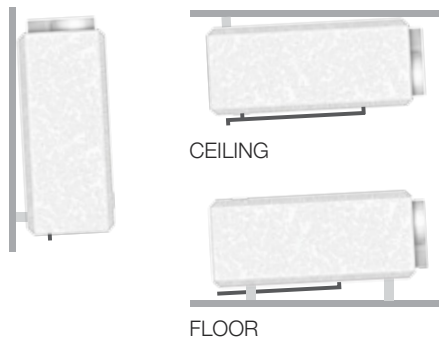
## Incredibly versatile

The energiSava 250 has been designed for ease of installation in mind. With vertical or horizontal mounting options, this powerful little heat recovery unit can be installed on the ceiling, wall or floor. It can even fit within a 600mm kitchen cupboard (depth 290mm).

For wall mounting applications it comes complete with easy-fit brackets for rapid installation without the requirement to access the unit.

Floor mount brackets available separately (order code: KIT-CONDENSATE-ES250-2).

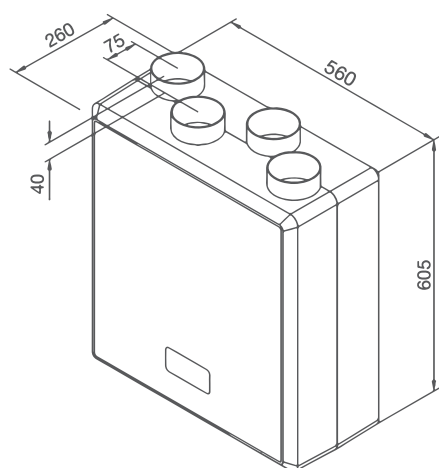
### WALL



## Intellitrac® Technology

The energiSava 250 incorporates Intellitrac® Technology, the unique humidity tracking controls. The unit runs continuously on trickle, providing all year round healthy indoor air quality. No user intervention is required as the Intellitrac® Technology constantly monitors the average humidity level over a two minute period. This allows the system to sense any rise in humidity and increases the extract rate in direct correlation to quietly and efficiently control condensation. Once the humidity level falls, the extract rate tracks back down again, saving energy.

### Dimensions (mm) ✓



### Technical Data ✓

|                       |                        |
|-----------------------|------------------------|
| Maximum Flow Rate     | 75 l/s (270 m³/h)      |
| Heat Exchanger        | Counter Flow (Plastic) |
| Efficiency            | 91%                    |
| Fans                  | EC                     |
| Specific Fan Power    | 0.59 W/l/s             |
| Electrical Supply     | 230V / 1PH / 50Hz      |
| Max Power Consumption | 140W                   |
| Protection Class      | IPX2                   |
| Supply Filter         | G3                     |
| Extract Filter        | G3                     |
| Spigot (mm)           | 125                    |
| Dimensions (mm)       | 560 x 635 x 260        |
| Weight                | 14Kg                   |

### SAP Appendix Q Performance ✓

| Exhaust Terminal Configuration   | Specific Fan Power (W/l/s) | Heat Recovery Efficiency (%) |
|----------------------------------|----------------------------|------------------------------|
| Kitchen + 1 additional wet room  | 0.59                       | 91                           |
| Kitchen + 2 additional wet rooms | 0.63                       | 90                           |
| Kitchen + 3 additional wet rooms | 0.74                       | 89                           |
| Kitchen + 4 additional wet rooms | 0.91                       | 88                           |
| Kitchen + 5 additional wet rooms | 1.08                       | 87                           |

### Technical Specifications ✓

#### Product

The energiSava 250 shall be a compact and lightweight whole house heat recovery ventilation system.

#### Application Suitability

The system shall be suitable for use in small to mid-sized houses with kitchen plus up to five wet rooms and designed primarily for new build and major renovations.

The unit shall be capable of being either floor mounted with left or right hand reversibility or ceiling mounted with use of the ceiling mounted kit.

It shall be suitable for installation in an accessible loft or internal cupboard space. It shall be a single person installation with easy commissioning features.

The unit shall incorporate Ø125 extract and supply spigots.

#### Performance

See SAP Appendix Q Calculations.

#### Installation

Full installation guide shall be enclosed with all products; or sent separately in advance if required.

#### Motor

The unit shall incorporate Ultra Low Watt EC motor technology to provide the lowest possible SFP and unit running costs with sealed for life ball bearings and designed to operate continuously at a pre-set 'background' rate.

#### Fan Impeller

EC motors shall power the centrifugal forward curved fan impellers.

#### Heat Exchange Cell

The heat exchange cell shall be a high efficiency counter flow cell capable of up to 91% efficiency.

#### Servicing / Maintenance

The supply and extract filters shall be located within the heat cell unit and exchanged. The unit shall incorporate a heat exchange cell for life and shall not require any maintenance within five years. The front cover shall enable easy access to the filters to be cleaned every 6-12 months.

#### Warranty

The unit shall be covered by a five year warranty subject to the specified maintenance and servicing.

#### Controls

The unit shall be fitted with Intellitrac® humidity tracking system and a single switch live input with wireless boost. The wireless controller shall also indicate when the summer by-pass, frost and humidity tracking functions are activated.

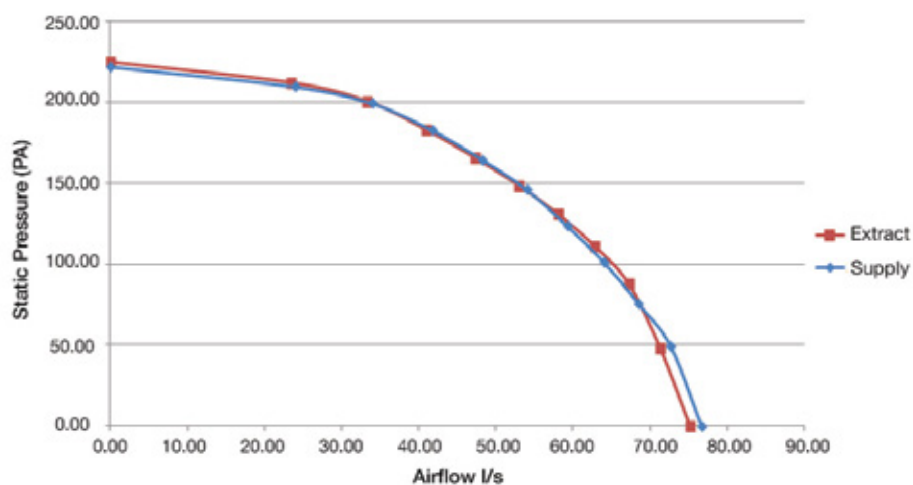
#### Manufacturer

Unit shall be the energiSava 250 as manufactured by EnviroVent Ltd.

#### Accreditation

SAP Appendix Q eligible.

### Performance Curve ✓



Scan the QR code to find out more about the product or visit:  
[envirovent.com/esava250](http://envirovent.com/esava250)

#### Order Code

ESAVA250

Wall & floor mounted version

ESAVA250C

Ceiling mounted version

**envirovent**

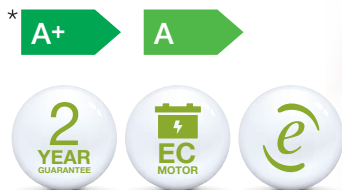
60

energiSava 250



# energiSava 300 & 400

High Efficiency Whole House Heat Recovery Systems



## About

The energiSava 300 and 400 series are ideal for residential properties to provide a constant supply of clean, tempered air and maintain stable humidity levels. With maximum airflow capacities of 400 and 300 m<sup>3</sup>/h respectively, they are available in left-handed and right-handed versions with a range of options for connecting the ducts. In addition to the comprehensive standard version, a 'Plus version' is also available which offers additional connection options, such as a CO<sub>2</sub> sensor.

## Features & Benefits

- Constant flow technology to deliver the required airflow at all times
- Exceptionally low noise levels
- Summer bypass as standard
- Intelligent frost protection
- Ideal for properties requiring airflow rates up to 300 m<sup>3</sup>/h & 400 m<sup>3</sup>/h
- High thermal efficiency
- Available in left or right hand configuration
- Numerous control options, including complete demand control
- Easy exchangeable filters
- Optional F7 high performance dust filter
- Exceptionally quiet running
- 'Plus' version available for additional connection options e.g. CO<sub>2</sub> sensor
- All year round good indoor air quality

\*Note: 'A+' rating only applicable with 2 or more sensors

Providing all year round good indoor air quality is vital for a healthy and comfortable living environment. Regulations relating to energy efficiency and low noise levels are becoming increasingly stringent. EnviroVent have responded with the introduction of the energiSava 300 & 400 Series. These high efficient whole house heat recovery products have been designed not only with the optimum performance for today's requirements but with forward-thinking innovation for future demands in ventilation.

### Summer Bypass & Frost Protection

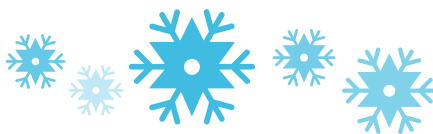
The energiSava 300 and 400 units come as standard with bypass and preheater. The bypass contributes to an improved comfort level in summer and is controlled automatically by measuring indoor and outdoor temperatures. The intelligent frost protection with preheater guarantees the high efficiency, even at extremely low temperatures. This energy-efficient frost protection helps to achieve significant energy savings per year.

### Silent

Engineered with aerodynamically-designed fans to run at lower rates enables noise to be reduced and minimized, whilst lower internal resistance delivers exceptionally quiet running

### Control Options

The energiSava 300 and 400 units can be controlled with a 4-way switch with filter indication or a wireless remote control. Alternatively, using the intelligent control module with timer, or the relative humidity sensor.



### Constant Flow Control

The 'constant flow' technology ensures maximum efficiency and that the commissioned airflow rate is always delivered despite any resistance encountered in the ductwork or filters. The 'constant flow control' system also enables commissioning to be carried out much quicker and more easily, saving on installation costs.



Our dedicated projects team takes the hassle and complication out of ventilation system design. Take a look at page 14 for more details.



There are now 5.4 million asthma sufferers in the UK of which 1 in 11 are children. Turn to pages 27-28 to find out how PIV can help to reduce the triggers which in turn may help to alleviate symptoms.



To see our extensive range of ancillaries and ducting, turn to pages 133-148.



# energiSava 380

High Performance, Modular Whole House Heat Recovery System



A+



Lifetime Range®



## About

Following extensive research and testing, EnviroVent have recognised and overcome the complexities of heat recovery installation to design a unique, modular, 2-in-1 system called the energiSava 380.

## Features & Benefits

- Thermal efficiency up to 93%
- Specific Fan Power as low as 0.40 W/l/s
- Energy Saving Trust Best Practice Performance Compliant
- Suitable for up to kitchen + 7 additional wet rooms
- Compact modular format, easy to fit through standard loft hatches
- Lightweight, one-man installation
- Fan unit can be rotated for utmost practicality
- Frost protection as standard
- Switch live input as standard
- Automatic integral thermal bypass as standard or optional mechanical bypass
- Part of the Lifetime Range® complete with 5 year warranty
- Easy to remove plug in/plug out filters
- Easy removable fan section and electronics

Delivering not only the utmost practicality in installation flexibility, the system also performs to the highest efficiency on SAP Appendix Q and achieves a low Specific Fan Power of 0.40 W/l/s. Recovering up to 93% of heat, the energiSava 380 reduces carbon emissions whilst providing continuous, all year round good indoor air quality.

### Most flexible installation around

The energiSava 380 has been designed specifically for ease of installation in a unique modular format to fit through a standard loft hatch and provide optimum flexibility.

The system incorporates two modules: The dual functioning twin fan extraction and input module; and the ultra efficient heat exchange module. The lightweight and compact format allows for a one-man installation and the system is designed for easy push-button commissioning.

It can also be rotated to enable both right and left configurations depending on the type of installation required.

### Highest performance

Suitable for properties with kitchen plus 7 wet rooms, the energiSava 380 is not only exceptionally powerful, delivering a maximum airflow of 120 l/s but is also highly efficient achieving a thermal efficiency of 93% and Specific Fan Power as low as 0.40 W/l/s.

### Easy maintenance

As part of the Lifetime Range®, the energiSava 380 comes complete with a 5 year warranty. It incorporates plug in/plug out G4 pollen filters for ease of maintenance. Other internal components can be serviced easily such as the fan section and electronics.

## Unique Modular System



### Intelligent controls as standard

The energiSava 380 runs continuously on trickle, providing all year round healthy indoor air quality. No user intervention is required as the intelligent humidity tracking controls constantly monitors the average humidity level over a two minute period.

This allows the system to sense any rise in humidity and increase the extract rate in direct correlation to quietly and efficiently control condensation. Even at night time it has been cleverly engineered to prevent noisy running.

The energiSava 380 can be boosted using the switch live function or remote control to provide increased airflow.



The system also incorporates a frost protection facility which monitors the temperature of the heat exchange cell, preventing the formation of frost and ensuring optimum efficiency of the system. The automatic integral thermal bypass is fitted as standard or an optional mechanical bypass can be order on request.



The EnviroVent energiSava 380 is manufactured in Harrogate, UK.

5  
YEAR  
GUARANTEE

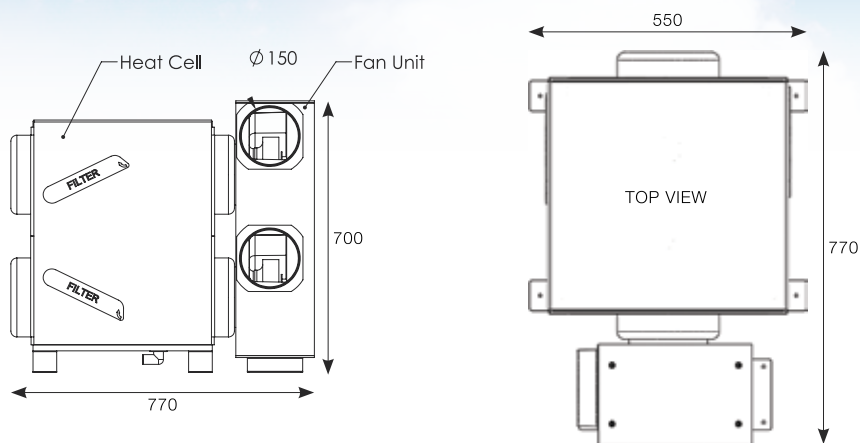
This product is supplied with a five year guarantee.



The packaging is made from recycled material.



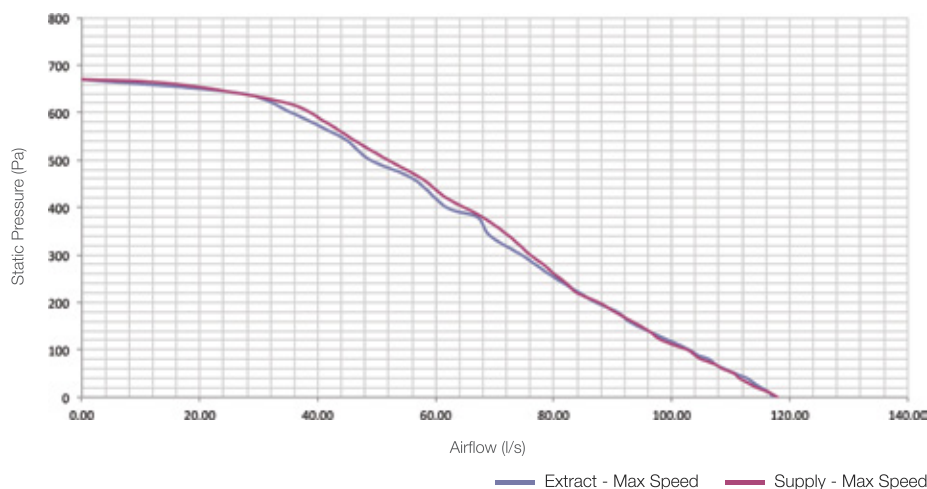
## Dimensions (mm) ✓



## SAP Appendix Q Performance ✓

| Systems with rigid ductwork only |                   |                              |                               |                            |                              |   |
|----------------------------------|-------------------|------------------------------|-------------------------------|----------------------------|------------------------------|---|
| Exhaust Terminal Configuration   | Fan Speed Setting | Total Supply Flow Rate (l/s) | Total Exhaust Flow Rate (l/s) | Specific Fan Power (W/l/s) | Heat Exchange Efficiency (%) | Energy Saving Trust Best Practice Performance Compliant |
| Kitchen + 1 additional wet room  | 100% Variable     | 15.0                         | 15.0                          | 0.42                       | 93                           | Yes   |
| Kitchen + 2 additional wet rooms | 100% Variable     | 21.0                         | 21.0                          | 0.40                       | 93                           | Yes   |
| Kitchen + 3 additional wet rooms | 100% Variable     | 27.0                         | 27.0                          | 0.44                       | 92                           | Yes   |
| Kitchen + 4 additional wet rooms | 100% Variable     | 33.0                         | 33.0                          | 0.51                       | 92                           | Yes   |
| Kitchen + 5 additional wet rooms | 100% Variable     | 39.0                         | 39.0                          | 0.59                       | 91                           | Yes   |
| Kitchen + 6 additional wet rooms | 100% Variable     | 45.0                         | 45.0                          | 0.70                       | 89                           | Yes   |
| Kitchen + 7 additional wet rooms | 100% Variable     | 51.0                         | 51.0                          | 0.82                       | 89                           | Yes   |

## Performance Curve ✓



## Technical Specifications ✓

## Product

The energiSava 380 shall be a modular whole house heat recovery ventilation system with lowest maintenance requirement and unit running costs.

## Application Suitability

The system shall be suitable for use in mid to large sized houses with kitchen plus up to seven wet rooms and designed primarily for new build and major renovations. The unit shall be floor mounted and installed in an accessible loft or void space. It shall be a single person installation with easy commissioning features and right or left side reversibility. The unit shall incorporate Ø150 extract and supply spigots.

## Performance

| Configuration Kitchen + Additional Wet Rooms | Total Supply Flow Rate (l/s) | Total Exhaust Flow Rate (l/s) | Heat Recovery Efficiency (%) | Specific Fan Power (W/l/s) |
|--|------------------------------|-------------------------------|------------------------------|----------------------------|
| +1   | 15.0                         | 15.0                          | 93                           | 0.42                       |
| +2   | 21.0                         | 21.0                          | 93                           | 0.40                       |
| +3   | 27.0                         | 27.0                          | 92                           | 0.44                       |
| +4   | 33.0                         | 33.0                          | 92                           | 0.51                       |
| +5   | 39.0                         | 39.0                          | 91                           | 0.59                       |
| +6   | 45.0                         | 45.0                          | 89                           | 0.70                       |
| +7   | 51.0                         | 51.0                          | 89                           | 0.82                       |

## Installation

A full installation guide shall be enclosed with all products; or sent separately in advance – if required.

## Motor

The unit shall incorporate Ultra Low Watt EC motor technology to provide the lowest possible SFP and unit running costs with sealed for life ball bearings designed to operate continuously at a pre-set 'background' rate. The two motors shall be removable for servicing.

## Fan Impeller

EC motors shall power the centrifugal backward curved fan impellers for best performance.

## Heat Exchange Cell

The heat exchange cell shall be a high efficiency counter flow cell capable of up to 93% efficiency.

## Summer By-Pass

Automatic integral thermal bypass fitted as standard or an optional mechanical bypass shall be available on request.

## Servicing / Maintenance

Supply and extract filters shall be located within the heat cell unit and exchanged annually. The unit shall incorporate a heat exchange cell for life and shall not require any maintenance within five years.

## Warranty

The unit shall be covered by a five year warranty subject to the specified maintenance and servicing.

## Controls

The unit shall be fitted with a hardwired boost switch, or remote control if specified, automatic humidity sensing and switch live terminals for remote light switch boosting, commissionable to suit the application and satisfy Part F1. The unit shall have frost protection as standard. An optional control option with PIR sensing automatic boost switching shall be available.

## Manufacturer

Unit shall be the energiSava 380 as manufactured by EnviroVent Ltd.

## Accreditation

SAP Appendix Q eligible.

## Sound Data ✓

31.5 dB(A) @ 3M (unit breakout) at 21 l/s\*

For full sound data figures, please contact EnviroVent on 01423 810 810

## Order Codes

ESAVA380

Standard unit with humidity tracker

ESAVA380W

Remote control boost unit with humidity tracker



Scan the QR code to find out more about the product or visit:  
[envirovent.com/esava380](http://envirovent.com/esava380)

# Slimline 150 & 300

High Efficiency, Low Profile Heat Recovery Units



\* A+

A



## About

The Slimline 150 and 300 series are high-efficiency, low profile MVHR units to deliver exceptionally low energy consumption, low noise levels and innovative features.

## Features & Benefits

- Constant flow technology to deliver the required airflow at all times
- Exceptionally low noise levels
- Compact and low profile design for ease of installation in restricted spaces
- 100% summer bypass as standard

- Intelligent frost protection
- Ideal for a wide range of domestic and commercial applications
- High thermal efficiency
- Intelligent control module as standard

\*Note: 'A+' rating only applicable to Slimline 300 with 2 or more sensors

## The Slimline Range

The high-efficiency EnviroVent Slimline Range is ideal for ceiling mounted applications such as care homes and student accommodation to provide optimum ventilation. It can also be wall mounted using the supplied brackets. With a height of just 310mm on the Slimline 300 and 200mm for the Slimline 150, the low profile and compact design is perfect for installations where space is restricted. For renovation projects, the Slimline 150 offers an excellent choice for smaller dwellings and can be installed in areas such as above suspended ceilings in the central hallway of an apartment.



The Slimline 300 unit has a maximum airflow rate of 300 m<sup>3</sup>/h and a high thermal efficiency heat exchanger up to 92% to improve indoor air quality and deliver optimum comfort. The Slimline 150 similarly achieves a maximum airflow rate of 150 m<sup>3</sup>/h. A 'Plus' version is also available featuring additional connection options such as a CO<sub>2</sub> sensor.

## Constant Flow Control

The 'constant flow' technology ensures maximum efficiency and that the commissioned airflow rate is always delivered despite any resistance encountered in the ductwork or filters. The 'constant flow control' system also enables commissioning to be carried out much quicker and more easily, saving on installation costs.

## Silent and Low Energy

There are a number of factors why the Slimline Range is so quiet. Engineered with aerodynamically-designed fans to run at lower rates enables noise to be reduced and minimized. In addition, the unit has been designed with a larger heat exchanger, which minimises resistance to deliver exceptionally quiet running.



Slimline 150 unit shown with air distribution module. For further information on this accessory and to discuss your project call **01423 859 393**

## Control Options

The Slimline Range comes as standard with a control module that can be used to adjust the basic settings and air flow rates. The built-in timer function can be used to set the ventilation rate per day/week/weekend. Additionally, one or more 4-way switches, wireless RF controls or a humidity sensor may be installed.



## Frost Protection

An intelligent frost protection system based on temperature and pressure prevents the heat exchanger from freezing when it is very cold outside. The Slimline 150 unit combines this with an integral pre-heater. An external pre-heater is also available for the Slimline 300.

## Standard Bypass

The appliances come as standard with a 100% bypass for use when it is warm outside and heat recovery is not desired. The bypass is controlled fully automatically on the basis of the measured indoor and outdoor temperatures.



Turn to page 22 to check out the new AugVent App, which allows you to see how a product will look in-situ.

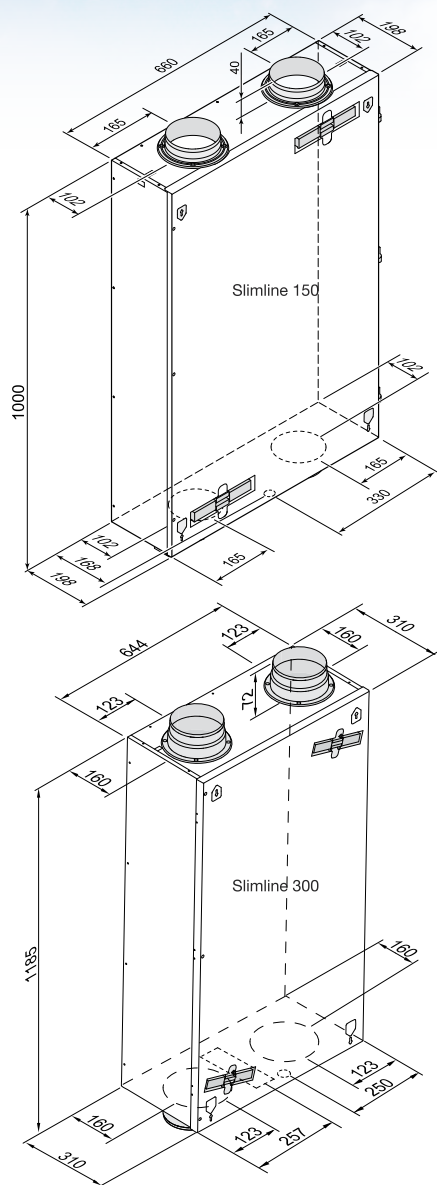


The Lifetime Range® has been designed to achieve the lowest maintenance, energy costs and life-cycle costs. Turn to pages 24-26 to find out more.



Did you know that there are up to 900 chemicals in indoor air?  
Scientific Committee on Health and Environmental Risks (SCHER).

## Dimensions (mm) ✓



## SAP Appendix Q Performance ✓

(Slimline 300 only)

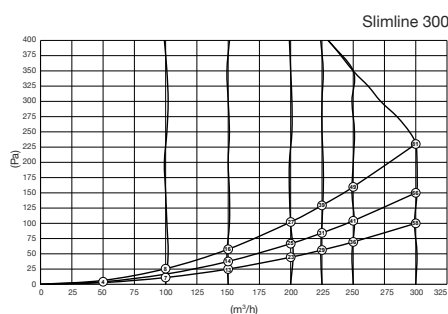
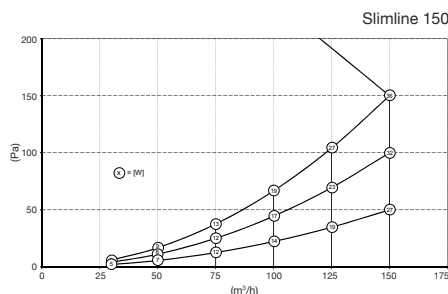
| Exhaust Terminal Configuration   | Specific Fan Power (W/l/s) | Heat Recovery Efficiency (%) |
|----------------------------------|----------------------------|------------------------------|
| Kitchen + 1 additional wet room  | 0.65                       | 92                           |
| Kitchen + 2 additional wet rooms | 0.59                       | 90                           |
| Kitchen + 3 additional wet rooms | 0.61                       | 89                           |
| Kitchen + 4 additional wet rooms | 0.64                       | 88                           |
| Kitchen + 5 additional wet rooms | 0.69                       | 87                           |
| Kitchen + 6 additional wet rooms | 0.77                       | 86                           |
| Kitchen + 7 additional wet rooms | 0.91                       | 85                           |

## Technical Data ✓

|  |   |
|--|---|
| Ventilation capacity at 150 Pa (m³/h)                | <b>SLIMLINE150</b> - Max 150<br><b>SLIMLINE300</b> - Max 300                                    |
| System sound emission dB(A)                          | <b>SLIMLINE150</b><br><40 at 75 m³/h & 100 Pa<br><b>SLIMLINE300</b><br><46 at 225 m³/h & 100 Pa |
| Rated power at 70% of the max appliance capacity (W) | <b>SLIMLINE150</b><br>36 at 105 m³/h & 50 Pa<br><b>SLIMLINE300</b><br>51 at 210 m³/h & 50 Pa    |
| Dimensions Duct Connection (mm)                      | <b>SLIMLINE150</b> - 4 x Ø125<br><b>SLIMLINE300</b> - 4 x Ø150/160                              |
| Air filtering  | 2 x G4 filter<br>(option: supply filter F7)   |
| Constant flow control                                | ✓   |
| Standard bypass                                      | ✓   |
| Built in pre-heater                                  | Slimline 150 only   |
| Connections provisions for external pre-heater       | Slimline 300 only   |
| Connections provisions for humidity sensor           | ✓   |
| Available as Plus version*                           | ✓   |

\*The Plus versions have additional connections for CO<sub>2</sub> sensor, geo-heat exchanger, bedroom diffuser and postheater

## Performance Curves ✓



## Technical Specifications ✓

## Product

The Slimline Range shall be constant flow, low profile and lightweight whole house heat recovery ventilation systems. The range includes the Slimline 150 and Slimline 300 units.

## Application Suitability

The high-efficiency and constant flow EnviroVent Slimline Range is ideal for ceiling mounted or wall mounted applications such as care homes and student accommodation to provide optimum ventilation. The Slimline 300 unit has a maximum airflow rate of 300 m³/h and a high thermal efficiency heat exchanger up to 92% to improve indoor air quality and deliver optimum comfort. The Slimline 150 similarly achieves a maximum airflow rate of 150 m³/h with thermal efficiency of 84%. A 'Plus' version shall also be available featuring additional connection options such as a CO<sub>2</sub> sensor.

## Performance

See SAP Appendix Q Calculations.

## Installation

Full installation guide shall be enclosed with all products; or sent separately in advance if required. The units shall be capable of being wall or ceiling mounted with the brackets supplied. They shall be suitable for installation in an accessible ceiling void or internal cupboard space with easy commissioning features. The Slimline 150 shall incorporate Ø125 mm extract and supply spigots with Ø150/160 mm spigots on the Slimline 300.

## Motor

The unit shall incorporate Ultra Low Watt EC motor technology to provide the lowest possible SFP and unit running costs with sealed for life ball bearings and designed to operate continuously at a pre-set 'background' rate.

## Fan Impeller

EC motors shall power the centrifugal forward curved fan impellers.

## Filtration

The units shall incorporate 2 x G4 filters with the option of an F7 supply filter.

## Heat Exchange Cell

The heat exchange cell shall be a high efficiency counter flow cell.

## Servicing / Maintenance

Supply and extract filters shall be located within the heat cell unit and exchanged annually. The units shall incorporate a heat exchange cell for life and shall not require any maintenance within five years.

## Warranty

The units shall be covered by a two year warranty on parts and 5 years on the heat exchanger subject to the specified maintenance and servicing.

## Controls

The units shall come as standard with the intelligent control module, that can be used to adjust the settings and airflow rates. The built-in timer function can be used to set the ventilation rate per day/week/weekend. Additionally, one or more 4-way switches, wireless RF controls or a humidity sensor may be installed.

## Accreditation

SAP Appendix Q eligible (currently Slimline 300 only).

## Options &amp; Ancillaries ✓

| Description                                 | Code(s)         |
|---|-----------------|
| 4 way remote control switch and receiver    | SWHBKRFSET-4    |
| 2 way remote control switch and receiver    | SWHBKRFSET-2    |
| 4 way remote control switch                 | SWHBKRF-4       |
| 2 way remote control switch                 | SWHBKRF-2       |
| 4 way wired switch with filter indication   | SWHBK-4W        |
| Humidity sensor, duct mounted               | SENSORBK-H      |
| CO <sub>2</sub> sensor (PLUS versions only) | SENSORBK-CO2    |
| 2 x G4 filters                              | FILTER-SL-G4    |
| G4/F7 filters                               | FILTER-SL-G4/F7 |

## Order Codes

|        |  |
|--------|--|
| SL150  | Standard unit with intelligent control |
| SL300  | Standard unit with intelligent control |
| SL150P | PLUS version with intelligent control  |
| SL300P | PLUS version with intelligent control  |



Scan the QR code to find out more about the products or visit:  
[envirovent.com/slimline150](http://envirovent.com/slimline150)  
[envirovent.com/slimline300](http://envirovent.com/slimline300)

envirovent



# Refresh

Innovative Heat Recovery System for Refurbishments



A



## About

The Pluggit refresh is a heat recovery solution suitable for the refurbishment of existing buildings. The Pluggit refresh system is virtually invisible due to the slimline design and can be installed quickly and efficiently without the residents having to leave the property. Installed along the ceilings, and covered with a faceplate it is unobtrusive.

With a Pluggit Refresh heat recovery system the humidity levels within the property are kept at a constant level between 40% and 50%, which is ideal for indoor air quality, health purposes and the building's fabrication.

## Features & Benefits

- Prevention of mould
- Saving heating energy
- Improves indoor air quality
- Protects the fabric of the building
- Installed while occupants in residence
- Complete flexible system
- Can be installed anywhere without difficulty
- Virtually invisible due to the elegant design
- Low noise levels



### Refresh Air Handling Unit

The slim space-saving ventilation unit is, for example, placed above kitchen cabinets and can be integrated visually by fitting a covering panel on site. Mounting can be horizontal or vertical. In accordance with the principle of heat recovery, the fresh air is pre-heated in an energy-efficient manner via a heat exchanger using the exhaust air, and ensures a ideal indoor climate.

### Flexible Channel Ducting

Sound-absorbing supply and exhaust air ducts are installed in a space-optimized ring along the ceiling in the central corridor.



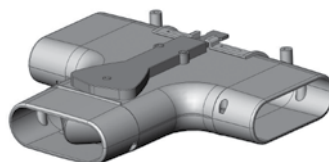
### Extract Air Outlet

Exhausted, damp-laden air is continuously extracted into the heat recovery ventilation unit and then out to atmosphere.



### Distributor Module

The supply and exhaust air is led into and from the corresponding rooms through the T-shaped distribution module. The air volume can be commissioned individually. Cleaning can be carried out effortlessly due to access panels in the T-piece.



### Fresh Air Outlet

The supply air enters the living room areas through supply air outlets, which are positioned close to the ceiling (Qoanda effect), and distributed evenly and without draughts. Sophisticated technology allows the even distribution of the airflow.



### Y Piece

For optimum air distribution, the air from the device is led directly into the air channels.



Stats: In a recent survey 97% of customers noticed an improvement in their indoor air quality and 91% in asthma or breathing issues after an EnviroVent product was installed in their home.



Did you know that 1 in 5 homes suffer from condensation and mould?



The effect of not having good quality air in the home is dramatic. Condensation is a serious problem. Turn to pages 09-10 to find out why.

## Outside Wall Mounted Hood

There is only one exterior wall outlet required.



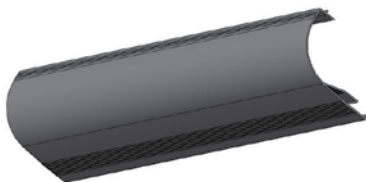
## Lateral Elbow

The arches are used for the corner joint Flexible Ducting Channels.



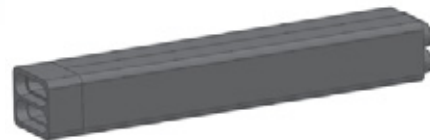
## Cover Strip

Almost invisible integration of PluggFlex channels in the ceiling construction. Simple lowering of the designer click cover strip allows cleaning.

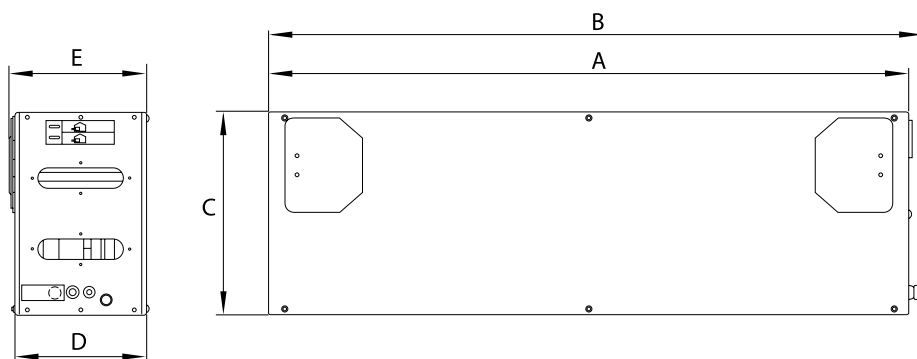


## Insulation Pipe

No additional insulation of external and external air pipes required thanks to IsoPlugg Compact. The insulation pipe is directly connected to the outer wall hood and prevents unwanted heat loss and condensation.

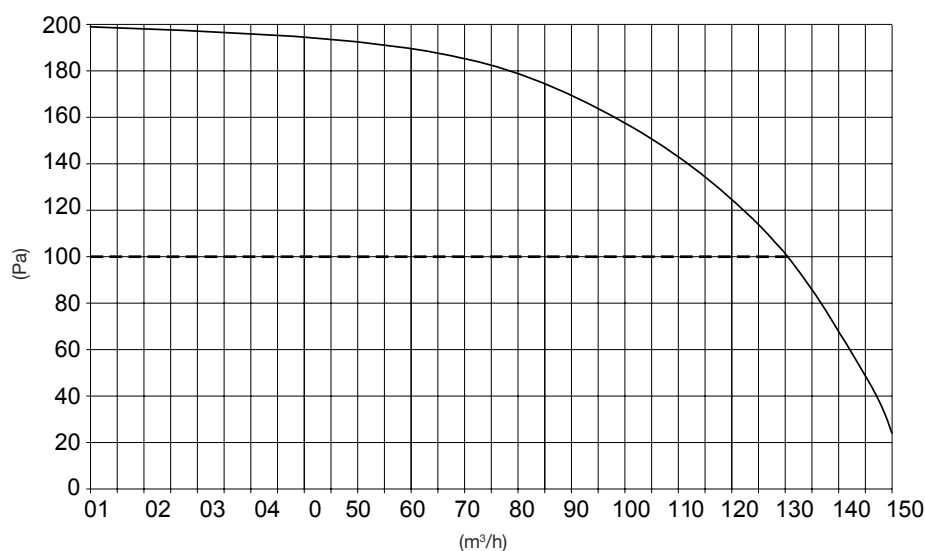


### Dimensions (mm) ✓



|   |                                    |        |
|---|------------------------------------|--------|
| A | Length                             | 1140mm |
| B | Length including Cable Connections | 1190mm |
| C | Height                             | 360mm  |
| D | Depth                              | 234mm  |
| E | Depth including Filter Panels      | 248mm  |

### Performance Curve ✓



### Technical Specifications ✓

|                               |                           |
|-------------------------------|---------------------------|
| Maximum Airflow l/s (m³/h)    | 36 (130) @ 100 Pa         |
| Maximum Power Consumption (W) | 30 (24 l/s @ 100 Pa)      |
| Electrical Supply             | 230V AV / 50Hz            |
| Weight                        | 30 kg                     |
| Material                      | Powder Coated Sheet Metal |
| Heat Exchanger                | Aluminium                 |
| Protection Class              | IP42                      |
| Filter                        | G4                        |
| Thermal Efficiency            | Up to 85%                 |
| Condensate Connection         | 13 mm                     |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/pluggitrefresh](http://envirovent.com/pluggitrefresh)

#### Order Code

REFRESH

Standard unit

envirovent

68

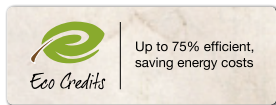
Refresh

# heatSava

Intelligent Single Room Heat Recovery Unit



B



Lifetime Range\*



## About

The heatSava is an intelligent through the wall single room heat recovery unit ideal for bathrooms, kitchens, WC's and utility rooms achieving up to 75% efficiency.



## Features & Benefits

- Long life, low watt ball bearing DC motors
- Intellitrac® humidity controls
- Tubular heat recovery cell
- High thermal efficiency
- Ingenious cleaning and maintenance features
- Cell available in four different lengths
- Lowest life-cycle costs
- Automatic summer mode (as standard)
- Frost protection function (as standard)
- Time elapse meter
- Pullcord (as standard)
- Optional wireless controller
- Ideal for replacement of existing extract fans
- Designed to fit into any existing 100mm or 150mm wall sleeve
- Delivering up to 75% efficiency
- 5 year renewable warranty
- Saves on-going maintenance and replacement costs
- Rapid conversion to SELV on-site

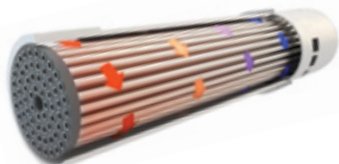
What if there was a way to help our homes breathe whilst at the same time being able to recover energy?

Now there is...

The heatSava is an energy efficient, through-the-wall mini ventilation unit called a Single Room Heat Recovery unit (SRHR). It has been designed for people who are looking for new and innovative ways to save energy. Recovering up to 75% of heat from the air that would normally be lost through extraction, the heatSava reduces carbon emissions, whilst providing continuous all year round ventilation. It is available in 100mm and 150mm for mounting through external walls in WCs, kitchens, bathrooms and utility rooms, to either replace existing extract fans or for new installations.



“ It's like having the windows open **without** losing all the heat ”



## How does the heatSava work?

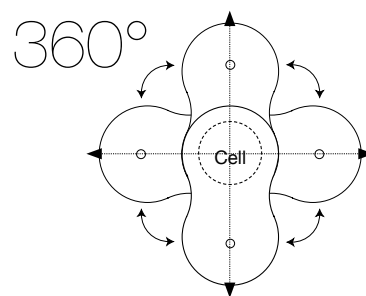
The heatSava extracts air from the kitchen or bathroom, which passes over a high efficiency tubular heat exchange cell. The unique design of the cell enables the air to cyclone around the barrel, just like a corkscrew.

As it does so, the heat from the extracted air is retained in the cell before it reaches atmosphere. At the same time, fresh air from outside is supplied through the tubes, collecting up to 75% of the heat from the extracted air before returning it into the room, providing savings on energy costs.

The heatSava runs continuously 24 hours a day on a low background trickle rate to provide constant all year round good indoor air quality, controlling humidity levels and reducing condensation.

## Exceptionally Versatile

The direct replacement of an existing traditional extract fan can be simply and quickly achieved, whilst the innovative design also allows the unit to be installed flush to uneven walls. It is also high-rise friendly, easily installed from inside the building, without the need for scaffolding. It can be installed in four different positions through 360°, horizontally or vertically to fit into tight spaces or where an existing hole is located just below the ceiling. With its stylish symmetrical design it looks attractive in any position.



## Rapid conversion to SELV

The heatSava is IPX4 rated and can be installed in Zone 1 with RCD protection. It can be quickly and safely converted to an SELV version on-site when necessary with the use of the separate power supply unit included.



The EnviroVent heatSava is manufactured in Harrogate, UK.

5  
YEAR  
GUARANTEE

This product is supplied with a five year guarantee.



Scan the QR code to find out more about the product or visit:  
[envirovent.com/heatsava](http://envirovent.com/heatsava)



# Controls

## Intellitrac® Technology

The heatSava incorporates Intellitrac® Technology, the unique humidity tracking controls. It has been engineered with intelligent controls to think for itself, meaning that you don't need to press any buttons or light switches to turn it on.



When the heatSava senses a rise in humidity, caused by increased moisture generation such as through cooking or showering, the extract and supply airflows will slowly begin to increase in direct proportion to the increase in humidity. It will then automatically track back down again when humidity falls. This controls condensation quietly and efficiently.

## Pullcord



The heatSava comes complete with a pullcord to activate the boost for odour control if required. Pull once to activate the boost and once to deactivate.

## Summer Mode



During warmer days, the heatSava prevents warm air from entering the room and switches to provide extract ventilation only. As the temperature falls it automatically returns to heat.

## Frost Protection

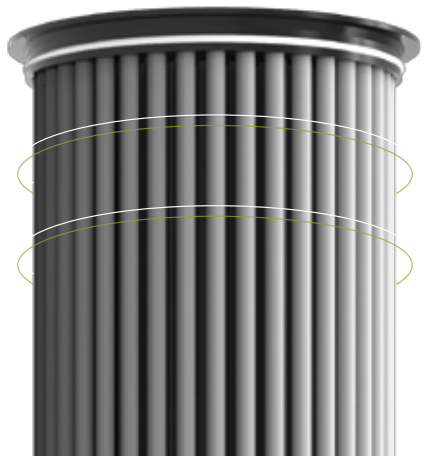


The heatSava has an automatic built-in frost protection mechanism to prevent any damage to the heat exchange cell in cold conditions.

## Wireless Controller (Optional)

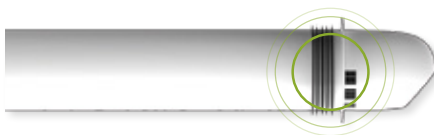


The heatSava can be supplied with an optional wireless controller to change the airflow speed - trickle or boost. It also indicates when the unit is in a specific mode (i.e. bypass, frost or humidity).



## Innovative Condensate Facility

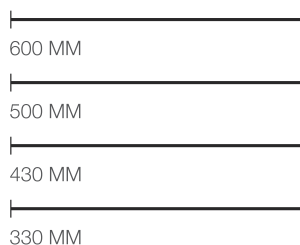
The bi-product of any high efficiency heat exchange cell is condensation. This presents a challenge to design engineers to ensure that any condensate which forms inside the cell is directed outside the property and not inside the product, where it could mix with electronic components or damage decorations inside the room.



The unique design of the heatSava allows the heat exchange cell to be completely sealed within the cell casing, providing a totally air tight compartment. Should any condensate form, it would be held within the barrel and drain out directly to atmosphere through the holes located in the cowl at the rear of the unit. The unique configuration of the air movement through the cell means that no condensate can form within the tubes resulting in all year round quiet, high efficient performance.

## Ideal for every wall depth...

No matter how many different house types and how many different wall depths, the heatSava has it covered!



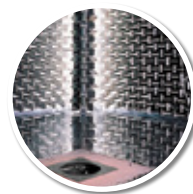
The heatSava is available in two cell diameters: 100mm for bathrooms and WC's and the 150mm for kitchens, ideal for both refurbishment and new build installations. Fitting neatly into almost any wall depth, the length of the cell is available to suit external wall depths of 310mm, 430mm, 500mm and 600mm.

## Balancing act

The heatSava is the only unit on the market to be 100% balanced across both extract and supply airflows, operating in perfect symmetry to achieve optimum performance and efficiency in accordance with current EU Single Room Heat Recovery test methodology. The tubes have been intelligently engineered with a twist through 15°. This increases the dwell time that the air cyclones around the barrel, improving thermal efficiency. The heatSava has undergone rigorous and extensive testing in world class laboratory facilities.



Thermal efficiency testing in climatic chamber



Sound testing in anechoic chamber

## Renewable 5 Year Warranty

As part of the Lifetime Range®, the heatSava comes complete with a five year renewable warranty. All repair and maintenance can be carried out by simply exchanging the worn out components. These would then be brought back to the Harrogate factory to be recycled. The heatSava is designed to match a home's life-cycle and like all other EnviroVent products have been designed in a way that means they should never end up on a landfill site.

## Hassle-free cleaning and maintenance

The heatSava can be easily cleaned and serviced completely hassle-free by the resident by vacuuming the side of the grilles to maintain efficiency and performance.

For ease of servicing by maintenance personnel when the front cover is removed the unit will stop operating to allow the unique plug out/plug in heat exchange cartridge to be removed using the service key provided. The cell can then be simply vacuumed or wiped clean with a cloth.

## Time Elapse Meter

The heatSava incorporates a time elapse meter as standard to monitor operational life.



The Lifetime Range® has been designed to achieve the lowest maintenance, energy costs and life-cycle costs. Turn to pages 24-26 to find out more.

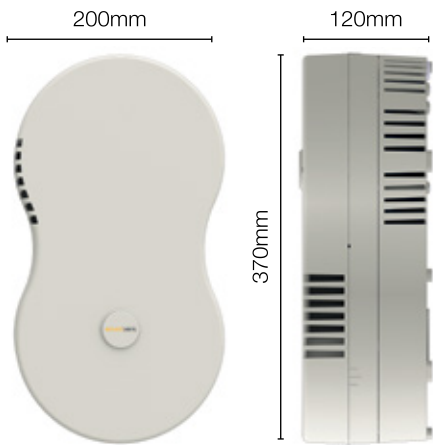


All EnviroVent's product ranges are ErP Compliant. Turn to page 21 to find out more.

Performance Data

| MODEL     | Airflow (l/s) |       | Watts   |       | Sound Pressure Level dB(A) @ 3M |       |
|-----------|---------------|-------|---------|-------|---------------------------------|-------|
|           | Trickle       | Boost | Trickle | Boost | Trickle                         | Boost |
| HS100/330 | 6.5           | 13    | 4.9     | 20.4  | 22                              | 39    |
| HS100/430 | 6.5           | 13    | 5.2     | 21.9  | 22                              | 39    |
| HS100/500 | 6.5           | 13    | 5.2     | 22.1  | 22                              | 39    |
| HS100/600 | 6.5           | 13    | 5.8     | 23.7  | 23                              | 41    |
| HS150/330 | 6.5           | 13    | 4.6     | 14.9  | 23                              | 36    |
| HS150/430 | 6.5           | 13    | 4.9     | 15.5  | 24                              | 36    |
| HS150/500 | 6.5           | 13    | 4.74    | 14.7  | 22                              | 36    |
| HS150/600 | 6.5           | 13    | 5.1     | 16    | 23                              | 37    |

Dimensions (mm)



| CELL OPTIONS |       |       |       |
|--------------|-------|-------|-------|
| 330MM        | 430MM | 500MM | 600MM |

The heat cell is available to suit external wall depths of 330mm, 430mm, 500mm and 600mm. If the intended wall depth exceeds one of these measurements please ensure that the next size is specified.

Sound Data

| MODEL     | SOUND PRESSURE LEVEL dB(A) @ 3M |       |
|-----------|---------------------------------|-------|
|           | TRICKLE                         | BOOST |
| HS100/330 | 22                              | 39    |
| HS100/430 | 22                              | 39    |
| HS100/500 | 22                              | 39    |
| HS100/600 | 23                              | 41    |
| HS150/330 | 23                              | 36    |
| HS150/430 | 24                              | 36    |
| HS150/500 | 22                              | 36    |
| HS150/600 | 23                              | 37    |

Maximum Efficiency

|              |     |
|--------------|-----|
| heatSava 100 | 68% |
| heatSava 150 | 75% |

Technical Specifications

**Product**  
The heatSava Single Room Heat Recovery Unit shall run continuously on background trickle, designed to comply with System 1 of the Building Regulations Approved Document Part F: Ventilation. The energy-efficient unit shall be supplied in a 230V version with the facility to convert to SELV on site using the power supply unit included.

**Application Suitability**  
The heatSava 100 shall be suitable for through-the-wall new installations in bathrooms or WC's and shall also be designed to directly replace 100mm existing traditional centrifugal and axial extract fan installations.

The heatSava 150 shall be suitable for through-the-wall new installations in kitchens, utility rooms, bathrooms WC's and shall also be designed to directly replace 150mm existing centrifugal and axial extract fan installations.

**Installation**  
The heatSava 100 shall be installed into an existing 100mm wall sleeve or a 107mm hole can be drilled if installing into a new wall. The heatSava 150 shall be installed into an existing 150mm wall sleeve or a 152mm hole can be drilled if installing into a new wall.

The heatSava shall have the capability to be installed in four orientations around 360° horizontally or vertically to suit the installation. The pullcord shall also be capable of being positioned in 4 different locations on the unit depending on the orientation in which the heatSava is installed.

**Motor**  
The motors shall be long life, low watt ball bearing DC motors. (Over 90,000 hours - depending on usage.)

**Fans**  
Extract - the unit shall incorporate a centrifugal fan.  
Supply - the unit shall incorporate a centrifugal fan.

**Heat Exchange Cell**  
Shall be a tubular heat exchange cell designed to deliver up to 75% efficiency incorporating tubes that have been twisted through 15° to improve the dwell time and efficiency.

The design of the tubes shall minimise resistance and increase surface area to result in a higher heat transfer. There shall be four lengths of cell available to suit wall depths up to 600mm: 330mm, 430mm, 500mm or 600mm.

The extract and supply airflows shall be 100% balanced to achieve optimum performance and efficiency in accordance with current EU Single Room Heat Recovery test methodology.

**Construction**  
The external body shall be constructed out of ABS gloss plastic. The outside casing of the heat exchange cell shall be constructed out of PVC.

**Summer By-Pass**  
The unit shall have an automatic summer by-pass as standard to switch the unit to extract-only mode when the temperature reaches 25°C.

**Time Elapse Meter**  
The heatSava shall come as standard with a time elapse meter to monitor operational life.

**Warranty**  
The unit shall be covered by an on-going five year warranty subject to the specified maintenance and servicing.

**Controls**  
The heatSava shall run continuously on trickle providing all year round healthy indoor air quality. The Intellitrac® humidity controls constantly monitors the average humidity level over a two minute period. As the humidity rises and falls, the motor speed rises and falls in direct correlation.

This controls condensation quietly and efficiently, eliminating the problem of noisy extract fans and reducing the periods of time when the unit operates on maximum speed, saving energy. An integral pullcord for both models shall be for trickle to boost extract ventilation as standard.

A wireless controller shall be available as an option to change the airflow setting

**Manufacturer**  
The unit shall be the heatSava as manufactured by EnviroVent Ltd.

Order Codes

|        |            |                     |                   |             |                                  |        |            |                     |                   |             |                                  |
|--------|------------|---------------------|-------------------|-------------|----------------------------------|--------|------------|---------------------|-------------------|-------------|----------------------------------|
| HS 100 | HSA100/330 | heatSava 330mm cell | HS 100 (wireless) | HSA100/330W | heatSava 330mm, wireless version | HS 150 | HSA150/330 | heatSava 330mm cell | HS 150 (wireless) | HSA150/330W | heatSava 330mm, wireless version |
|        | HSA100/430 | heatSava 430mm cell |                   | HSA100/430W | heatSava 430mm, wireless version |        | HSA150/430 | heatSava 430mm cell |                   | HSA150/430W | heatSava 430mm, wireless version |
|        | HSA100/500 | heatSava 500mm cell |                   | HSA100/500W | heatSava 500mm, wireless version |        | HSA150/500 | heatSava 500mm cell |                   | HSA150/500W | heatSava 500mm, wireless version |
|        | HSA100/600 | heatSava 600mm cell |                   | HSA100/600W | heatSava 600mm, wireless version |        | HSA150/600 | heatSava 600mm cell |                   | HSA150/600W | heatSava 600mm, wireless version |

# Residential Ventilation

We offer ventilation solution for residential applications





# Bathroom Zoning

The easy guide to bathroom zoning



## The Easy Guide to Bathroom Zoning in Accordance with IEE Wiring Regulations 17<sup>th</sup> Edition

There are two main important considerations to take into account when siting ventilation equipment or any other appliance in a location containing a bath or shower:

- The utmost safety for the people bathing or showering
- Whether the equipment will function correctly according to where it is sited

### ZONE 0

Inside the bath or shower tray itself. Any appliance installed in this zone must have a minimum rating of IPX7, which is totally immersion proof. It is not recommended to install any ventilation equipment into this zone.

**IPX7**

### ZONE 1

The area above the bath or shower tray area to a height of 2.25m from the floor. In this zone a minimum rating requirement is IPX4.

**IPX4**

### ZONE 2

The area stretching 0.6m outside the perimeter of the bath to a height of 2.25m. As with Zone 1, the minimum rating for this zone is IPX4.

**IPX4**

### ZONE 1 ZONE 2

Applicable to both Zone 1 or 2, if the area is at risk of splashing or water jets to be used, it is recommended to install an SELV fan (12V) with a rating of IPX5 or above. For utmost safety, the transformer or power supply pack should be installed outside the bathroom area.

**IPX5**

All circuits must be protected by a 30mA residual current device (RCD).



## Example Diagrams

### KEY



ZONE 0



ZONE 1



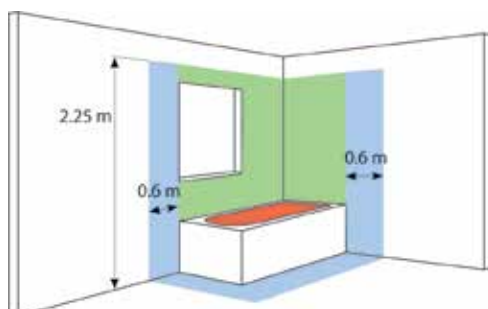
ZONE 2



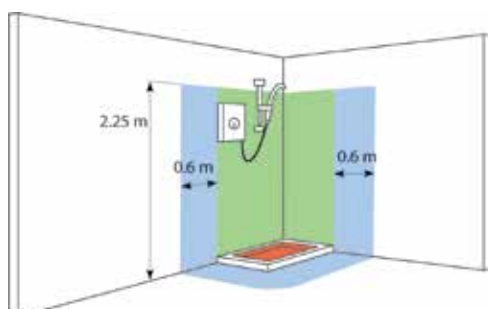
OUTSIDE  
ZONE

1. Bath only
2. Shower with tray
3. Shower without tray with permanently fixed partition for total enclosure
4. Wet room

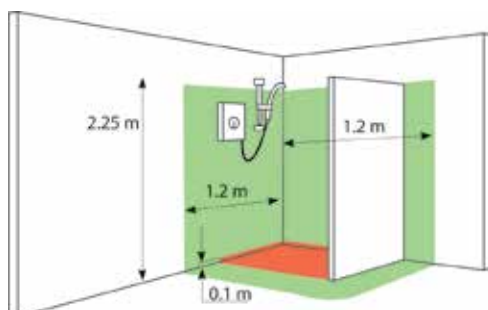
1



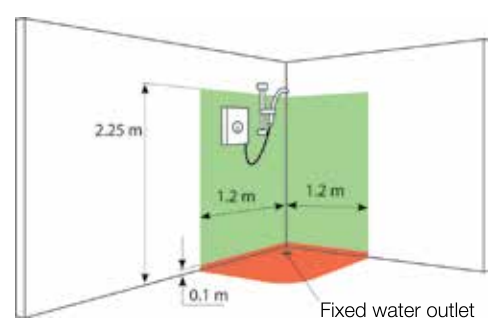
2



3



4



## Products

### IPX4

EnviroVent extract fan ranges rated to a minimum of IPX4 which can be installed in Zones 1 and 2



SILENT 100



SILENT 100 *Design*



PROFILE 100



Filterless Extract Fan



Filterless Infinity



CLASSIC 100



POWER 170



ENV 100



heatSava



ECO dMEV



ECO dMEV LC



KUDOS 100

### IPX5

EnviroVent low voltage extract fan ranges rated to a minimum of IPX5



SILENT 100 SELV



CLASSIC 100 SELV



ECO dMEV SELV



ECO dMEV LC SELV



Filterless Extract Fan  
SELV



Filterless Infinity  
SELV



Offering the widest range  
of ultra quiet **SILENT** fans



Designed for wall,  
ceiling and in-line  
applications, the  
models are suitable  
for WC, bathroom,  
utility room and  
kitchen installations.

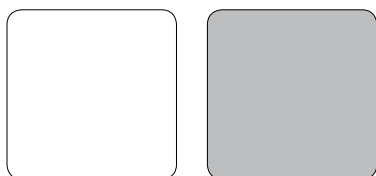




# Pure elegance with silent technology

## Innovative Silence

The extract fans from the SILENT range are the result of a long and meticulous development process by the Research, Development & Innovation Department at EnviroVent, who have patented a new concept; bringing about a revolutionary change in extract fan design to extract the maximum airflow with the minimum noise possible.



The SILENT 100 Design and SILENT 100 are available in both white and silver.

## Quality Features

The fans are available with a variety of functions including intelligent timers, PIR detectors, adjustable timers and adjustable humidity sensors.



## How is this achieved?

The motors are mounted on silent elastic blocks, which absorb the vibrations.

In this way not only is the noise from the extract fan significantly reduced but so too is the noise from the surface which supports it.

Additionally, the motors are equipped with 30,000 hour sealed for life bearings.



## High Performance

Due to the advanced design of the components, the range delivers incredibly silent running in addition to offering stylish and innovative features.



**5**  
YEAR GUARANTEE

All products are covered by a five year guarantee



**SELV**  
VERSIONS

5 SELV models available for the SILENT 100

## IP Ratings

IP44, IP45 or IP57 rated depending on the model.



# SILENT 100 *Design*

Ultra Quiet WC & Bathroom Fans



AVAILABLE IN ☐ ☐



## About

Range of 100mm domestic axial extract fans for wall or ceiling installations, designed to solve ventilation problems in WC's and bathrooms. Fitted with motors mounted on silent elastic blocks, the fans deliver incredibly silent running and exceptional performance with stylish features.

## Features & Benefits

- Sealed for life ball bearings
- Silent elastic blocks
- IP45 rated\*
- Backdraught shutter and airflow guide vanes as standard
- Standard Thermal Overload Protection (S.T.O.P)
- Available in silver
- Five year guarantee
- Elegant design
- Incredibly silent running
- High performance
- Significant energy savings
- Complies with building regulations

\*Pullcord version IP44

## Optional Features



**Adjustable Timer**  
After disconnection, the shut off time can be delayed between 1 and 30 minutes.



**Adjustable Humidity Sensor**  
The level of humidity for the bathroom can be chosen from between 60% and 90% RH.



**Pullcord**  
Supplied with pullcord override.



**Silver Finish**  
Models which are available with a silver finish.

| ORDER CODE                    | SILDES 100S | SILDES 100P | SILDES 100T | SILDES 100HT | SILDES 100SS | SILDES 100PS | SILDES 100TS | SILDES 100HTS | SILDES 100SK |
|-------------------------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|---------------|--------------|
| Neon Light                    | •           | •           | •           | •            | •            | •            | •            | •             | •            |
| Sealed For Life Ball Bearings | •           | •           | •           | •            | •            | •            | •            | •             | •            |
| Silent Elastic Blocks         | •           | •           | •           | •            | •            | •            | •            | •             | •            |
| Backdraught Shutter           | •           | •           | •           | •            | •            | •            | •            | •             | •            |
| Adjustable Timer              |             |             | •           | •            |              |              | •            | •             |              |
| Pullcord                      |             | •           |             |              |              | •            |              |               |              |
| Adjustable Humidity Sensor    |             |             |             | •            |              |              |              | •             |              |
| White                         | •           | •           | •           | •            |              |              |              |               |              |
| Swarovski                     |             |             |             |              |              |              |              |               | •            |
| Silver                        |             |             |             |              | •            | •            | •            | •             | •            |

\*SILDES100P is IP44 rated

## SILENT technology just got even more appealing

Incorporating patented silent technology, the SILENT 100 Design fan brings style and elegance to any modern bathroom. With whisper-quiet noise levels of only 26.5 dB(A) and an incredibly low power consumption of only 8 Watts, the SILENT 100 Design is the perfect solution for today's energy-efficient demands. Highly versatile, the fan is suitable for wall and ceiling installations and is available with timer and humidity sensor options. The fans are supplied with four coloured interchangeable front panel trims.

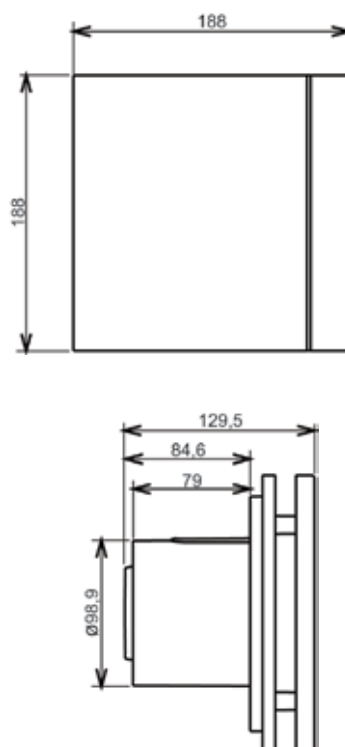


## SWAROVSKI SILENT 100 Design

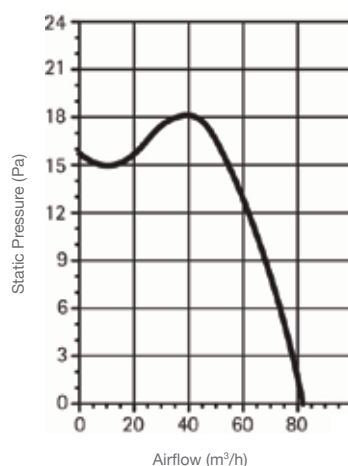
Made with beautiful Swarovski crystals, the new SILENT 100 Design Swarovski is the must-have for any style-conscious designer or specifier.



### Dimensions (mm) ▾



### Performance Curve ▾



### Technical Specification ▾

#### Product

The SILENT 100 Design is an innovative domestic axial extract fan designed to offer a low level of noise supplied in a 230V format suitable for small rooms and bathrooms. The fan is fitted with a neon light, backdraught shutter and airflow guide vanes as standard. The fans are supplied with four coloured interchangeable front panel trims.

#### Applications

The SILENT 100 Design can be wall or ceiling mounted to meet the Building Regulations - Part F (England), Scottish Building Regulations Section 3 and Part K (Northern Ireland). The fan will ventilate domestic small rooms and bathrooms.

#### Performance

| MODEL              | SILENT 100 Design |
|--------------------|-------------------|
| Speed (r.p.m.)     | 2400              |
| Watts (W)          | 8                 |
| Voltage (V) 50Hz   | 230               |
| Airflow l/s (m³/h) | 22 (85)           |
| dB(A) @ 3m         | 26.5              |
| Weight (Kg)        | 0.65              |
| IP Rating          | IP45              |
| Ø Duct (mm)        | 100               |

#### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

#### Motor

Is a 230V 50Hz or A/C motor, which is assembled on silent elastic blocks and fitted with ball bearings for enhanced working life.

#### Fan

The impeller is axial flow type.

#### Servicing / Maintenance

The extract fan only requires periodical cleaning using a cloth impregnated with a soft detergent.

#### Guarantee

The SILENT 100 Design is covered by a 5 year warranty.

#### Compliance

CE

### Options & Ancillaries ▾

| Description         | Code(s)     |
|---------------------|-------------|
| Standard Wall Kit   | 1RDEFWAK100 |
| Fixed Louvre Grille | 1RDGRILL100 |

### Related Information ▾

| Description               | Page Number(s) |
|---------------------------|----------------|
| SILENT Range Introduction | 75-76          |
| Domestic Ancillaries      | 134-139        |
| Wiring Diagrams           | 155            |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/silentdesign](http://envirovent.com/silentdesign)

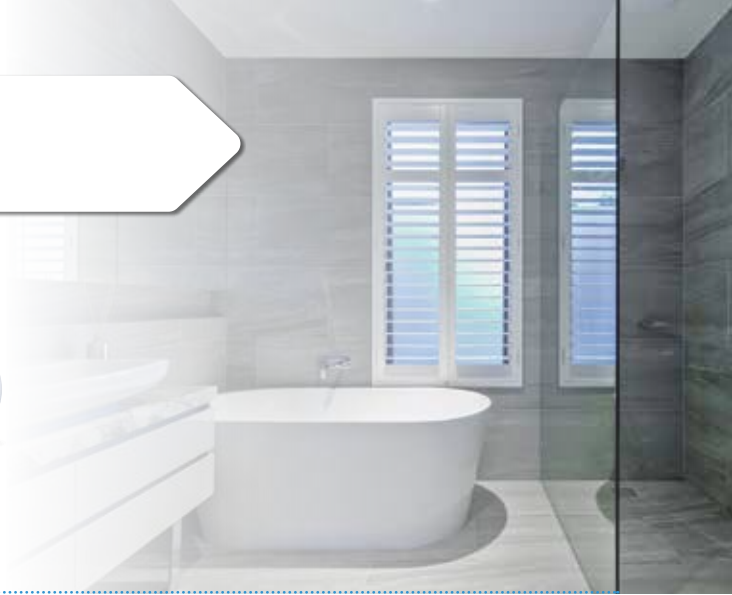


# SILENT 100

Whisper Quiet WC & Bathroom Fans



AVAILABLE IN ☐ ☐



## About

Range of 100mm domestic axial extract fans for wall or ceiling installations, designed to solve ventilation problems in WC's and bathrooms. Fitted with motors mounted on silent elastic blocks, the fans deliver incredibly silent running and exceptional performance with stylish features.

## Features & Benefits

- Sealed for life ball bearings
- Silent elastic blocks
- IP45 rated
- SELV version - IP57 rated
- Backdraught shutter and airflow guide vanes as standard
- Available in silver
- Five year guarantee
- Incredibly silent running
- High performance
- Significant energy savings
- Complies with building regulations

## Optional Features



### Intelligent Timer

In automatic mode, the over-run timer calculates the amount of time to operate, depending on how long the fan has been running for. (Alternatively it can be manually set to 5, 20 or 30 minutes run-on time).



### Adjustable Timer

After disconnection, the shut off time can be delayed between 1 and 30 minutes.



### Adjustable Humidity Sensor

The level of humidity for the bathroom can be chosen from between 60% and 90% RH. The extract fan will continue to work long enough to reach the selected level.



### Pullcord

Supplied with pullcord override.



### PIR

Automatically starts up when the fan detects movement at a maximum of 4 metres.



### SELV

Specifically designed to work within the safety area, connected to remote sited transformers supplied as standard (CT-12/14) or with an adjustable timer (CT-12/14H or R).

| ORDER CODE                    | SIL100 S | SIL100 T | SIL100 IT | SIL100 HT | SIL100 PIR | SIL100 SS | SIL100 ST | SIL100 S12V | SIL100 T12V | SIL100 P12V | SIL100 TP12V | SIL100 HTP12V |
|-------------------------------|----------|----------|-----------|-----------|------------|-----------|-----------|-------------|-------------|-------------|--------------|---------------|
| Pilot Light                   | •        | •        | •         | •         | •          |           |           | •           | •           | •           | •            | •             |
| Airflow Guide Vanes           | •        | •        | •         | •         | •          | •         | •         | •           | •           | •           | •            | •             |
| Sealed For Life Ball Bearings | •        | •        | •         | •         | •          | •         | •         | •           | •           | •           | •            | •             |
| Silent Elastic Blocks         | •        | •        | •         | •         | •          | •         | •         | •           | •           | •           | •            | •             |
| Backdraught Shutter           | •        | •        | •         | •         | •          | •         | •         | •           | •           | •           | •            | •             |
| Adjustable Timer              |          | •        |           | •         |            |           | •         |             | •           |             | •            | •             |
| Intelligent Timer             |          |          | •         |           |            |           |           |             |             |             |              |               |
| Adjustable Humidity Sensor    |          |          |           | •         |            |           |           |             |             |             |              | •             |
| PIR                           |          |          |           |           | •          |           |           |             |             |             |              |               |
| Pullcord                      |          |          |           |           |            |           |           |             |             | •           | •            | •             |
| Silver Finish                 |          |          |           |           |            | •         | •         |             |             |             |              |               |

## Numerous Quality Features

Fitted with pilot light, backdraught shutter and airflow guide vanes as standard to improve pressure development and performance, the SILENT range is also available with numerous quality features to include optional timer, humidity sensor, SELV and PIR models.



## PIR Detectors

Fan starts up automatically when it detects movement at a maximum of 4 metres.



## SELV

IP57 rated, connected to a CT-12/14 or H transformer.

## Adjustable Timers and Humidity Sensors

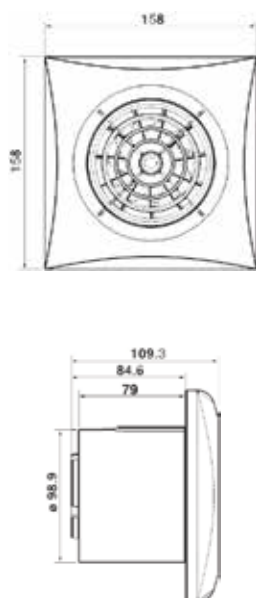
Shut off time can be delayed between 1 and 30 minutes. Humidity levels can be chosen from between 60-90% RH.

## Intelligent Timer

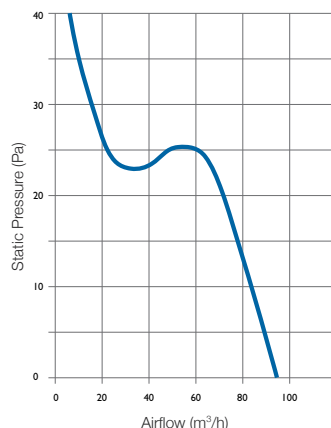
The intelligent timer function tracks the fan over a period of time and then sets the over-run timer according to how long the fan has been operating for. This model can also be installed to an exact over-run set time of 5 minutes, 20 minutes or 30 minutes if required.



## Dimensions (mm)



## Performance Curve



## Performance Data

| MODEL              | SILENT 100<br>230V | SILENT 100<br>12V |
|--------------------|--------------------|-------------------|
| Speed (r.p.m.)     | 2400               | 2320              |
| Watts (W)          | 8                  | 13                |
| Voltage (V) 50Hz   | 230                | 12                |
| Airflow l/s (m³/h) | 26 (95)            | 26 (95)           |
| dB(A) @ 3m         | 26.5               | 26.5              |
| Weight (Kg)        | 0.57               | 0.57              |
| IP Rating          | IP45               | IP57              |
| Ø Duct (mm)        | 100                | 100               |

## Technical Specification

### Product

The SILENT 100 is an innovative domestic axial extract fan designed to offer a low level of noise supplied in a 230V or SELV (12V) format suitable for small rooms and bathrooms. The fan is fitted with a pilot light, backdraught shutter and airflow guide vanes as standard.

### Applications

The SILENT 100 can be wall or ceiling mounted to meet the Building Regulations - Part F (England), Scottish Building Regulations Section 3 and Part K (Northern Ireland). The fan will ventilate domestic small rooms and bathrooms.

### Performance

| MODEL              | SILENT 100<br>230V | SILENT 100<br>12V |
|--------------------|--------------------|-------------------|
| Speed (r.p.m.)     | 2400               | 2320              |
| Watts (W)          | 8                  | 13                |
| Voltage (V) 50Hz   | 230                | 12                |
| Airflow l/s (m³/h) | 26 (95)            | 26 (95)           |
| dB(A) @ 3m         | 26.5               | 26.5              |
| Weight (Kg)        | 0.57               | 0.57              |
| IP Rating          | IP45               | IP57              |
| Ø Duct (mm)        | 100                | 100               |

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

### Motor

Is a 230V 50Hz or a 12V 50Hz A/C motor, which is assembled on silent elastic blocks and fitted with ball bearings for enhanced working life.

### Fan

The impeller is axial flow type.

### Servicing / Maintenance

The extract fan only requires periodical cleaning using a cloth impregnated with a soft detergent.

### Guarantee

The SILENT 100 is covered by a 5 year warranty.

### Compliance

CE

## Options & Ancillaries

| Description                     | Code(s)     |
|---------------------------------|-------------|
| Standard Wall Kit               | 1RDEFWAK100 |
| Fixed Louvre Grille             | 1RDGRILL100 |
| Window Kit                      | SILWIK100   |
| Window Kit (For double glazing) | WKDG100     |

## Related Information

| Description               | Page Number(s) |
|---------------------------|----------------|
| SILENT Range Introduction | 75-76          |
| Domestic Ancillaries      | 134-139        |
| Wiring Diagrams           | 155            |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/silent100](http://envirovent.com/silent100)

# SILENT 125 & 150

Whisper Quiet Kitchen & Utility Room Fans



## About

Range of 125mm and 150mm domestic axial extract fans for wall or ceiling installations, designed to solve ventilation problems in utility rooms and kitchens. Fitted with motors mounted on silent elastic blocks, the fans deliver incredibly silent running and exceptional performance with stylish features.

## Features & Benefits

- Sealed for life ball bearings
- Silent elastic blocks
- IP45 rated
- Backdraught shutter and airflow guide vanes as standard
- Five year guarantee
- Incredibly silent running
- High performance
- Significant energy savings
- Complies with building regulations

## Optional Features



### Adjustable Timer

After disconnection, the shut off time can be delayed between 1 and 30 minutes.



### Adjustable Humidity Sensor

The level of humidity for the bathroom can be chosen from between 60% and 90% RH.



### Pullcord

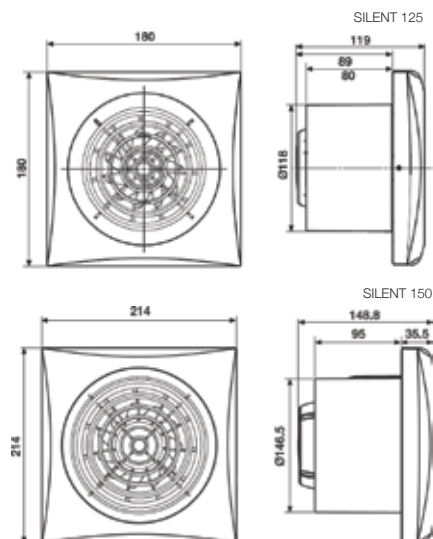
Supplied with pullcord override.

| ORDER CODE                    | SIL125S | SIL125T | SIL125HT | SIL150S | SIL150T | SIL150HT | SIL150P | SIL150HTP |
|-------------------------------|---------|---------|----------|---------|---------|----------|---------|-----------|
| Pilot Light                   | •       | •       | •        | •       | •       | •        | •       | •         |
| Sealed For Life Ball Bearings | •       | •       | •        | •       | •       | •        | •       | •         |
| Silent Elastic Blocks         | •       | •       | •        | •       | •       | •        | •       | •         |
| Backdraught Shutter           | •       | •       | •        | •       | •       | •        | •       | •         |
| Adjustable Timer              |         | •       | •        |         | •       | •        |         | •         |
| Adjustable Humidity Sensor    |         |         | •        |         |         | •        |         | •         |
| Pullcord                      |         |         |          |         |         |          | •       | •         |



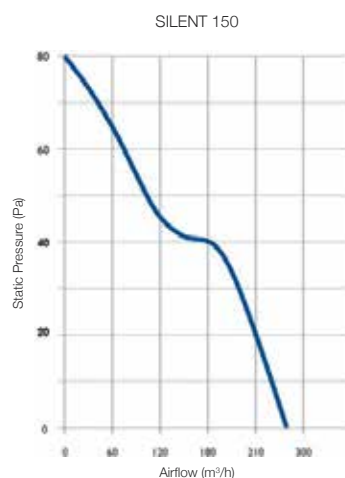
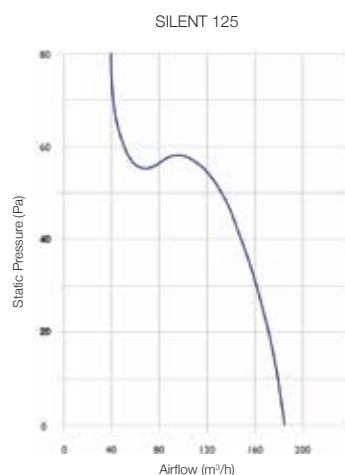


## Dimensions (mm) ▼



| MODEL      | A   | B   | C   | D  | ØE  |
|------------|-----|-----|-----|----|-----|
| SILENT 125 | 180 | 180 | 119 | 80 | 118 |
| SILENT 150 | 214 | 214 | 149 | 95 | 147 |

## Performance Curves ▼



## Performance Data ▼

| MODEL              | SILENT 125 | SILENT 150 |
|--------------------|------------|------------|
| Speed (r.p.m.)     | 2350       | 1700       |
| Watts (W)          | 16         | 29         |
| Voltage (V) 50Hz   | 230        | 230        |
| Airflow l/s (m³/h) | 50 (180)   | 78 (280)   |
| dB(A) @ 3m         | 33         | 32         |
| Weight (Kg)        | 0.77       | 1.25       |
| IP Rating          | II/IP45    | II/IP45    |
| Ø Duct (mm)        | 125        | 150        |

## Technical Specification ▼

### Product

The SILENT 125 & 150 are innovative domestic axial extract fans designed to offer a low level of noise. The SILENT 125 is designed to solve ventilation problems in small rooms and the SILENT 150 is designed for kitchens. The fans are fitted with a pilot light, backdraught shutter and airflow guide vanes as standard.

### Applications

The SILENT 125 & 150 can be wall or ceiling mounted to meet the Building Regulations - Part F (England), Scottish Building Regulations Section 3 and Part K (Northern Ireland). The fans will ventilate domestic small rooms and kitchens.

### Performance

| MODEL              | SILENT 125 | SILENT 150 |
|--------------------|------------|------------|
| Speed (r.p.m.)     | 2350       | 1700       |
| Watts (W)          | 16         | 29         |
| Voltage (V) 50Hz   | 230        | 230        |
| Airflow l/s (m³/h) | 50 (180)   | 78 (280)   |
| dB(A) @ 3m         | 33         | 32         |
| Weight (Kg)        | 0.77       | 1.25       |
| IP Rating          | IP45       | IP45       |
| Ø Duct (mm)        | 125        | 150        |

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

### Motor

Is a 230V 50Hz A/C motor, which is assembled on silent elastic blocks and fitted with ball bearings for enhanced working life.

### Fan

The impellers are axial flow type.

### Servicing / Maintenance

The extract fan only requires periodical cleaning using a cloth impregnated with a soft detergent.

### Guarantee

The SILENT 125 and 150 are covered by a 5 year warranty.

### Compliance

CE

## Options & Ancillaries ▼

| Description         | Code(s)                    |
|---------------------|----------------------------|
| Standard Wall Kit   | 1RDEFWAK125<br>1RDEFWAK150 |
| Rigid Ducting       | 1RD125X2M<br>1RD150X2M     |
| Fixed Louvre Grille | 1RDGRILL125<br>1RDGRILL150 |

## Related Information ▼

| Description               | Page Number(s) |
|---------------------------|----------------|
| SILENT Range Introduction | 75-76          |
| Domestic Ancillaries      | 134-139        |



Scan the QR code to find out more about the products or visit:  
[envirovent.com/silent125](http://envirovent.com/silent125)  
[envirovent.com/silent150](http://envirovent.com/silent150)

# ECO dMEV

Decentralised Mechanical Extract Ventilation Unit



## About

The ECO dMEV has been designed and developed to offer the market a constant volume, continuously running decentralised extract fan to achieve the lowest power consumption, the lowest noise and the lowest life-cycle costs.

## Features & Benefits

- Constant volume, continuously running extract ventilation with up to 5 adjustable trickle speed settings
- Fitted with low watt DC motors for minimum energy consumption down to 1.5 Watts
- Incredibly quiet running below 20 dB(A)
- SAP Appendix Q eligible achieving a low Specific Fan Power of 0.28 W/l/s
- Low voltage version available
- 4 interchangeable front panel trims
- Timer, humidity sensor and pullcord models
- Complies with Building Regulations, Part F, for System 3 - Continuous Mechanical Extract
- One fan for all situations
- Ease of installation and commissioning of speed settings
- Stylish features
- Highly versatile, can be installed into walls and ceilings
- Ease of maintenance

## One Fan For All Situations

Building on the principles of the hugely successful and award-winning EnviroVent Filterless Extract Fan the ECO dMEV is ideal for all domestic applications, WCs, bathrooms, utility rooms and kitchens. It is a 100mm constant volume, continuously running extract fan, which can be fitted in wall, ceiling or panel installations.

## ECO friendly and Ultra Quiet

Fitted with a DC motor mounted on silent elastic blocks, the fan delivers incredibly silent running below 20 dB(A) with exceptional performance and stylish features. Fully complying with System 3 of the Building Regulations, Part F and SAP Appendix Q eligible, the ECO dMEV ensures a significant contribution to maximising the reward in SAP for ventilation.

## Stylish Design



Designed with style in mind, the ECO dMEV adds a touch of elegance to the modern bathroom or kitchen without compromising on performance or quality. The fan is supplied with smart interchangeable front panel trims in four colours.

## Lowest Life-cycle Costs

The ECO dMEV has been designed for ease of maintenance, achieving the lowest life-cycle costs. The motor compartment can be easily removed to be cleaned or replaced.

## Easy Commissioning

The fan is easily commissioned at installation to be set at one of 5 trickle speed settings ranging from 4-13 l/s to exactly meet the airflow requirements for specific applications and ensure the lowest energy consumption down to 1.5 Watts.

## Low Voltage Bathroom Fan

For extra safety, the ECO dMEV is also available in a low voltage 17V version. In addition to the standard ECO dMEV 17V, which can be boosted by an external switch, the same three models are available as the 230V version: the ECO dMEV 17V timer option, humidity sensor option with timer or pullcord with timer and humidity sensor.

## 'Sensorless' technology

The EnviroVent ECO dMEV incorporates a unique "sensorless" constant volume technology. Using intelligent microprocessor controls and software, the in-duct centrifugal fan works in direct correlation with any resistance in the ductwork. When it senses any resistance it automatically adjusts itself to ensure that the commissioned airflow is always delivered and maintained. This means the fan is also self-commissioning - all the installer needs to do is set the unit for kitchen or bathroom, screw it to the wall and connect it up! It will commission itself automatically and perform over and above building regulations.

No complicated commissioning, no requirement for expensive test equipment, no more failing building control and most importantly, reducing the risk of condensation to maintain stable humidity levels.

## Bi-material injection moulding

The result of bi-material injection moulding is a high quality moulded plastic with a permanently attached rubber seal to safely house away all electrical components from any contaminants or humidity.

## Powerful centrifugal performance

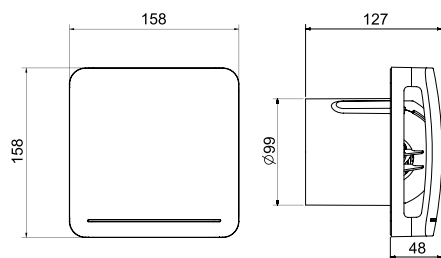
Meticulous research and development has gone into the design of the ECO dMEV to be able to incorporate a high powered, forward curved, "sensorless" constant volume centrifugal fan into the smallest of spaces. Most small dMEV's this size use an axial impeller. Axial fans can perform well if they encounter no resistance, however by adding any amount of pressure, they can struggle to perform and become noisy.

As the inlet of the ECO dMEV is oval and not round like other fans, this creates space for the dual inlet centrifugal motor assembly, meaning we can fit a centrifugal fan inside a tiny footprint. This has never been achieved before in a dMEV making it the first fan of its size in the world to incorporate centrifugal technology. Following significant investment in the latest injection moulding machinery and tooling, EnviroVent are one of the only ventilation companies to be able to mould plastic and rubber in the same process.

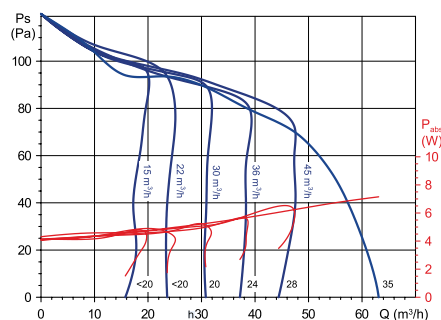
| ORDER CODE    | DESCRIPTION  |
|---------------|--|
| ECO DMEV S*   | Standard model                                       |
| ECO DMEV T*   | Adjustable run-on timer model                        |
| ECO DMEV HT*  | Adjustable timer and humidity sensor model           |
| ECO DMEV HTP* | Adjustable timer, humidity sensor and pullcord model |

\*For SELV models, simply add '17V' to the end of the codes above.

### Dimensions (mm) ▼



### Performance Curve ▼



## SAP Appendix Q Performance ▼

| Systems with rigid ductwork (Installation only) |          |                   |                 |                                  |                            |                                |
|---|----------|-------------------|-----------------|----------------------------------|----------------------------|--------------------------------|
| Unit Configuration                              | Location | Fan Speed Setting | Flow Rate (l/s) | Flow Rate - Wind Condition (l/s) | Specific Fan Power (W/l/s) | % Reduction of Total Flow Rate |
| In room (ducted)                                | Kitchen  | 45 m³/h           | 14.3            | 14.2                             | 0.38                       | 1                              |
| In room (ducted)                                | Wet Room | 20 m³/h           | 8.5             | 8.2                              | 0.29                       | 4                              |
| Through wall                                    | Kitchen  | 45 m³/h           | 14.9            | 14.3                             | 0.36                       | 4                              |
| Through wall                                    | Wet Room | 20 m³/h           | 8.7             | 8.2                              | 0.28                       | 6                              |

| Systems with flexible or mixed ductwork (Installation only) |          |                   |                 |                                  |                            |                                |
|---|----------|-------------------|-----------------|----------------------------------|----------------------------|--------------------------------|
| Unit Configuration  | Location | Fan Speed Setting | Flow Rate (l/s) | Flow Rate - Wind Condition (l/s) | Specific Fan Power (W/l/s) | % Reduction of Total Flow Rate |
| In room (ducted)  | Kitchen  | 45 m³/h           | 14.6            | 14.4                             | 0.38                       | 1                              |
| In room (ducted)  | Wet Room | 20 m³/h           | 8.5             | 8.2                              | 0.29                       | 4                              |
| Through wall  | Kitchen  | 45 m³/h           | 14.9            | 14.3                             | 0.36                       | 4                              |
| Through wall  | Wet Room | 20 m³/h           | 8.7             | 8.2                              | 0.28                       | 6                              |

## Technical Data ▼

| Constant Air Volume                     |     | Absorbed Power (W) |      | SFP*<br>(W/l/s) | Sound Pressure Level dB(A)** |      | Weight<br>(Kg) |
|---|-----|--------------------|------|-----------------|------------------------------|------|----------------|
| (m³/h)                                  | l/s | Min.               | Max. |                 | Min.                         | Max. |                |
| 15                                      | 4   | 1.5                | 4.5  | 0.36            | <20                          | 23   | 0.57           |
| 22                                      | 6   | 1.8                | 4.7  | 0.29            | <20                          | 25   |                |
| 30                                      | 9   | 2.2                | 5.1  | 0.26            | 20                           | 28   |                |
| 36                                      | 10  | 2.7                | 5.5  | 0.27            | 24                           | 30   |                |
| 45                                      | 13  | 3.5                | 6.0  | 0.31            | 28                           | 33   |                |
| Maximum Air Volume - By means of switch |     |                    |      |                 |                              |      |                |
| 65                                      | 18  | 4.3                | 7.2  | 0.24            | 35                           | 35   |                |

\* Following SAP Q Standard (2.5 length of 100mm circular duct diameter, two 90° bends and GR-100 grille at the discharge - max. 20 Pa)

\*\* Measured at 3m, in free field condition. The maximum sound pressure level is given at 40Pa

## Technical Specification ▼

### Product

The ECO dMEV shall be a constant volume, continuous running, decentralised Mechanical Extract Ventilation unit, designed to comply with System 3 of the Building Regulations. The low energy fan shall be supplied in a 230V format with 5 adjustable trickle speed settings ranging between 4-13 l/s. The fan shall also come supplied with four interchangeable front panel trims.

### Applications

The ECO dMEV shall be suitable for wall, ceiling or panel mounting in WC's, bathrooms and kitchens.

### Performance

|                            | Systems with rigid ductwork (Installation only) |                           |                      |                       |
|----------------------------|---|---------------------------|----------------------|-----------------------|
|                            | In Room (Ducted) Kitchen                        | In Room (Ducted) Wet Room | Through Wall Kitchen | Through Wall Wet Room |
| Total Flow Rate (l/s)      | 14.3  | 8.5                       | 14.9                 | 8.7                   |
| Specific Fan Power (W/l/s) | 0.38  | 0.29                      | 0.36                 | 0.28                  |

### Installation

A full installation guide shall be enclosed with all products; or sent separately in advance - if required.

### Motor

The motor shall be a 230V Low Watt DC motor, which is assembled on silent elastic blocks, fitted with sealed for life ball bearings for enhanced working life and exceptionally quiet running down as low as 20 dB(A).

### Fan

The ECO dMEV shall incorporate a centrifugal fan designed to run continuously on trickle and constant volume, with the facility to boost to maximum air volume via a switch, pullcord or humidity sensor.

### Servicing / Maintenance

The motor compartment shall be easily removed to be cleaned or serviced by a competent person. The fan shall only require periodical cleaning using a cloth lightly impregnated with a soft detergent.

### Guarantee

The ECO dMEV shall be covered by a 2 year warranty.

### Compliance

The fan shall be SAP Appendix Q eligible.

## Options & Ancillaries ▼

| Description         | Code(s)     |
|---------------------|-------------|
| Standard Wall Kit   | 1RDEFWAK100 |
| Fixed Louvre Grille | 1RDGRILL100 |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/ecodmev](http://envirovent.com/ecodmev)



# ECO dMEV LC

Extract Ventilation Unit for WCs, Bathrooms and Kitchens



## About

The ECO dMEV LC has been designed and developed to offer the market a centrifugal extract fan with optimum versatility to operate continuously or intermittently.

Ideal for all domestic applications, WCs, bathrooms, utility rooms and kitchens. It is a 100mm continuously running or intermittent extract fan, which can be fitted in wall, ceiling or panel installations.

## Features & Benefits

- Continuous running or intermittent operation
- Ideal for WCs, bathrooms, kitchens and utility rooms
- Timer, humidity sensor, pullcord and PIR models
- Fitted with low watt DC motors for minimum power consumption
- Stylish features with 4 interchangeable front panel trims
- Exceptional performance – SAP Appendix Q eligible



Low Energy



Compact



Stylish



Ultra Quiet

## 5 Innovative Models

In addition to the standard ECO dMEV LC fan, which can be boosted or operated by an external switch, the following 4 versions are available:

### ECO dMEV T LC:

In continuous operation the fan operates the same as the standard model with the addition of an adjustable run-on timer, which allows the fan to run on boost mode between 1 to 30 minutes.

In intermittent operation the timer allows the fan to continue to operate for the selected period after the switch has been turned off.

### ECO dMEV HT LC:

In continuous operation the boost mode is activated either by the adjustable integral humidity sensor or by an external switch both with timer.

In intermittent operation the humidity sensor starts the fan automatically when the humidity level in the room is higher than the set level, with the facility to override the humidity sensor using an external switch.

### ECO dMEV HTP LC:

Same operation as the HT model but using the pullcord instead of an external switch.

### ECO dMEV DT LC:

In continuous operation the boost mode is activated by the PIR detector and continues to operate after the selected period set by the timer. In intermittent operation the fan starts automatically when a movement is detected by the PIR detector and continues to operate after the selected period set on the timer.



## Stylish Design

Designed with style in mind, the fan adds a touch of elegance to the modern bathroom or kitchen without compromising on performance or quality. The fan is supplied with smart interchangeable front panel trims in four colours.



## Powerful, Yet Quiet

Meticulous research and development has gone into the design of the ECO dMEV LC to be able to incorporate a high powered centrifugal fan into the smallest of spaces, delivering incredible quiet noise levels of below 20 dB(A).

## Low Voltage Bathroom Fan

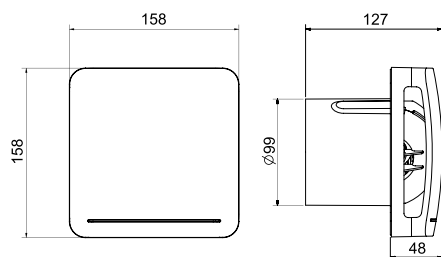
For extra safety, the ECO dMEV LC is also available in a low voltage 17V version. In addition to the standard ECO dMEV 17V, which can be boosted by an external switch, the same four models are available as the 230V version: the timer option, humidity sensor with timer, pullcord with timer and humidity sensor or PIR with timer.



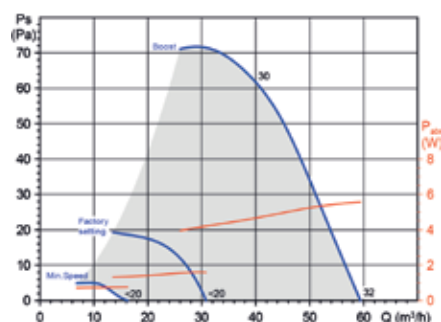
| ORDER CODE       | DESCRIPTION  |
|------------------|--|
| ECO dMEV S LC*   | Standard model                                       |
| ECO dMEV T LC*   | Adjustable run-on timer model                        |
| ECO dMEV HT LC*  | Adjustable timer and humidity sensor model           |
| ECO dMEV HTP LC* | Adjustable timer, humidity sensor and pullcord model |
| ECO dMEV DT LC*  | PIR sensor and adjustable timer                      |

\*For SELV models, simply add '17V' to the end of the codes above.

#### Dimensions (mm) ▼



#### Performance Curve ▼



#### SAP Appendix Q Performance ▼

| Specific Fan Power (W/l/s) | In room (ducted) kitchen | In room (ducted) wet room | Through wall kitchen | Through wall wet room |
|----------------------------|--------------------------|---------------------------|----------------------|-----------------------|
|                            | 0.38                     | 0.26                      | 0.30                 | 0.25                  |

#### Technical Data ▼

| Maximum Airflow |           | Voltage (V)  | Maximum absorbed power (W) |      | Sound Pressure Level dB(A)* |      | IP/ Insulation | Weight (Kg) |
|-----------------|-----------|--------------|----------------------------|------|-----------------------------|------|----------------|-------------|
| Min.            | Max.      |              | Min.                       | Max. | Min.                        | Max. |                |             |
| 15 (m³/h)       | 60 (m³/h) | 230-50/60 Hz | 0.8                        | 5.6  | <20                         | 32   | IPX4 class II  | 0.57        |
| 4 l/s           | 17 l/s    |              |                            |      |                             |      |                |             |

\*Measured at 3m, at the maximum air volume, in free field condition.

#### Technical Specification ▼

##### Product

The ECO dMEV LC shall be a continuous running or intermittent, decentralised Mechanical Extract Ventilation unit, designed to comply with System 3 of the Building Regulations. The low energy fan shall be supplied in a 230V format with adjustable trickle speed settings ranging between 4-13 l/s. The fan shall also come supplied with four interchangeable front panel trims.

##### Applications

The ECO dMEV LC shall be suitable for wall, ceiling or panel mounting in WC's, bathrooms and kitchens.

##### Performance

|                            | Systems with rigid ductwork (Installation only) |                           |                      |                       |
|----------------------------|---|---------------------------|----------------------|-----------------------|
|                            | In Room (Ducted) Kitchen                        | In Room (Ducted) Wet Room | Through Wall Kitchen | Through Wall Wet Room |
| Total Flow Rate (l/s)      | 14.3  | 8.5                       | 14.9                 | 8.7                   |
| Specific Fan Power (W/l/s) | 0.38  | 0.26                      | 0.30                 | 0.25                  |

##### Installation

A full installation guide shall be enclosed with all products; or sent separately in advance – if required.

##### Motor

The motor shall be a 230V Low Watt DC motor, which is assembled on silent elastic blocks, fitted with sealed for life ball bearings for enhanced working life and exceptionally quiet running down as low as 20 dB(A).

##### Fan

The ECO dMEV LC shall incorporate a centrifugal fan designed to run continuously on trickle, with the facility to boost to maximum air volume via a switch, pullcord, humidity or PIR sensor.

##### Servicing / Maintenance

The motor compartment shall be easily removed to be cleaned or serviced by a competent person. The fan shall only require periodical cleaning using a cloth lightly impregnated with a soft detergent.

##### Guarantee

The ECO dMEV LC shall be covered by a 2 year warranty.

##### Compliance

The fan shall be SAP Appendix Q eligible.

#### Options & Ancillaries ▼

| Description         | Code(s)     |
|---------------------|-------------|
| Standard Wall Kit   | 1RDEFWAK100 |
| Fixed Louvre Grille | 1RDGRILL100 |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/ecodmevlc](http://envirovent.com/ecodmevlc)

# PROFILE

Bathroom, Kitchen & Utility Room Fans



## About

Range of 100mm and 150mm ultra slim-line bathroom, kitchen and utility room axial fans for wall or ceiling installations. Easy to install, aesthetically pleasing and unobtrusive, the range compliments any contemporary building design. With sealed for life ball bearing motors and a low power consumption of only 13 Watts, the range offers a variety of features to include optional timer, pullcord, humidity sensor and PIR models.

## Features & Benefits

- Neon light
- Ultra thin profile
- Standard Thermal Overload Protection (S.T.O.P.) fitted as standard
- IP44/IP45 rated
- Sealed for life ball bearing motors
- Backdraught shutter and airflow guide vanes as standard
- Double insulated
- Two year guarantee
- Unobtrusive
- Stylish
- Complies with building regulations
- Low power consumption

## Optional Features



### Adjustable Over Run Timer

After disconnection, the shut off time can be delayed between 1 and 30 minutes.



### Adjustable Humidity Sensor

The level of humidity for the bathroom can be chosen from between 60% and 90% RH. The extract fan will continue to work long enough to reach the selected level.



### PIR

Automatically starts up when the fan detects movement at a maximum of 4 metres.

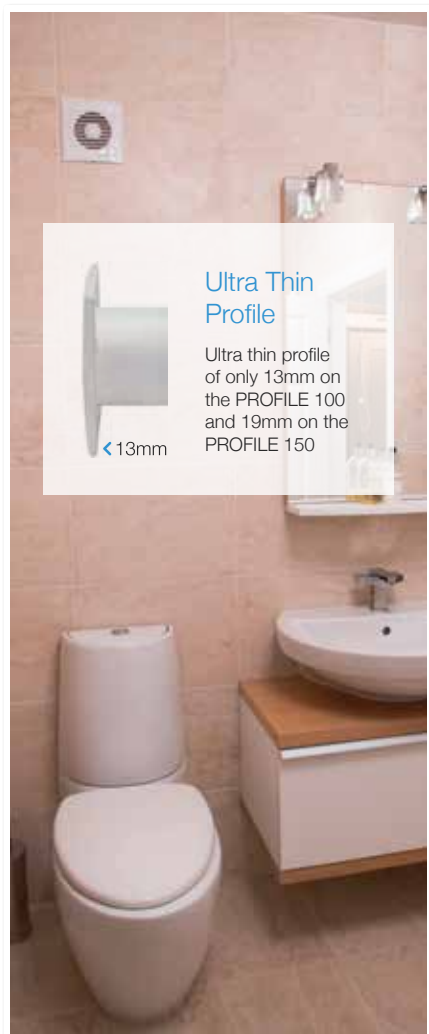


### Pullcord

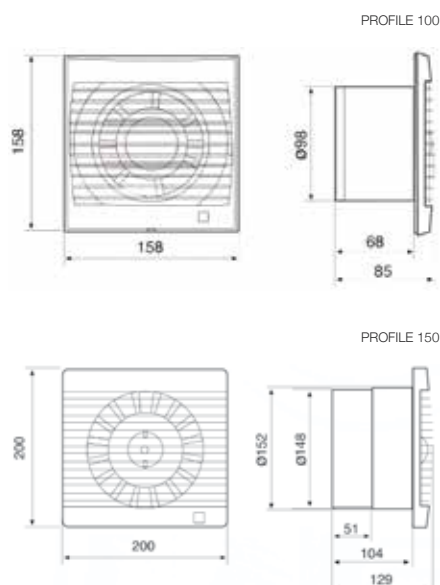
Supplied with pullcord override.

| ORDER CODE                 | PRO100S | PRO100P | PRO100T | PRO100HT | PRO100PIR | PRO150S | PRO150T | PRO150HT |
|----------------------------|---------|---------|---------|----------|-----------|---------|---------|----------|
| Neon Light                 | •       | •       | •       | •        | •         | •       | •       | •        |
| Backdraught Shutter        | •       | •       | •       | •        | •         | •       | •       | •        |
| Airflow Guide Vanes        | •       | •       | •       | •        | •         | •       | •       | •        |
| Adjustable Over Run Timer  |         |         | •       | •        | •         |         | •       | •        |
| Adjustable Humidity Sensor |         |         |         | •        |           |         |         | •        |
| PIR                        |         |         |         |          | •         |         |         |          |
| Pullcord                   |         | •       |         |          |           |         |         |          |

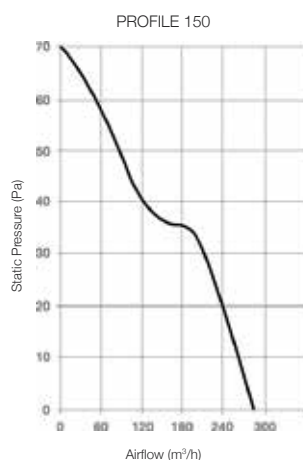
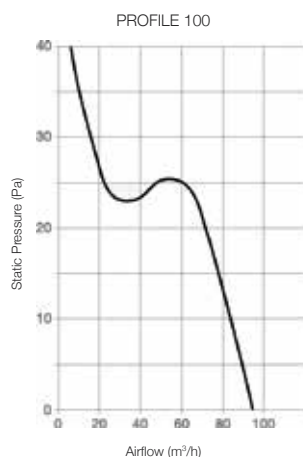




## Dimensions (mm) ▼



## Performance Curves ▼



## Performance Data ▼

| MODEL              | PROFILE 100 | PROFILE 150 |
|--------------------|-------------|-------------|
| Speed (r.p.m.)     | 2500        | 2200        |
| Watts (W)          | 13          | 35          |
| Voltage (V) 50Hz   | 230         | 230         |
| Airflow l/s (m³/h) | 26 (95)     | 78 (280)    |
| dB(A) @ 3m         | 40          | 47          |
| Weight (Kg)        | 0.44        | 1.44        |
| IP Rating          | IP44        | IP45        |
| Ø Duct (mm)        | 100         | 150-160     |

## Technical Specification ▼

### Product

The PROFILE 100 & 150 are innovative slim-line domestic axial extract fans designed to solve ventilation problems in small rooms, bathrooms and kitchens. The fans are double insulated with Standard Thermal Overload Protection (S.T.O.P.) and are fitted with neon lights and backdraught shutters as standard.

### Applications

The PROFILE 100 & 150 can be wall or ceiling mounted to meet the Building Regulations - Part F (England), Scottish Building Regulations Section 3 and Part K (Northern Ireland). The fans will ventilate domestic small rooms and bathrooms.

### Performance

| MODEL              | PROFILE 100 | PROFILE 150 |
|--------------------|-------------|-------------|
| Speed (r.p.m.)     | 2500        | 2200        |
| Watts (W)          | 13          | 35          |
| Voltage (V) 50Hz   | 230         | 230         |
| Airflow l/s (m³/h) | 26 (95)     | 78 (280)    |
| dB(A) @ 3m         | 40          | 47          |
| Weight (Kg)        | 0.44        | 1.44        |
| IP Rating          | IP44        | IP45        |
| Ø Duct (mm)        | 100         | 150-160     |

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

### Motor

Is a 230V 50Hz A/C motor, which is assembled with sealed for life ball bearings and a low power consumption of 13 Watts.

### Fan

The impellers are axial flow type.

### Servicing / Maintenance

The extract fans should be cleaned regularly by a competent person.

### Guarantee

The PROFILE 100 & 150 are covered by a 2 year warranty.

### Compliance

CE

## Options & Ancillaries ▼

| Description         | Code(s)                    |
|---------------------|----------------------------|
| Standard Wall Kit   | 1RDEFWAK100<br>1RDEFWAK125 |
| Fixed Louvre Grille | 1RDGRILL100<br>1RDGRILL150 |

## Related Information ▼

| Description          | Page Number(s) |
|----------------------|----------------|
| Domestic Ancillaries | 134-139        |
| Wiring Diagrams      | 156-157        |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/profile](http://envirovent.com/profile)

# CLASSIC 100

WC & Bathroom Fans



## About

Range of 100mm WC & bathroom fans providing the versatility of wall, panel or ceiling mounted models. Offering a variety of optional features to include adjustable timers, humidity sensors, pullcord and thermo-electric shutters. With airflow rates of approximately 25 l/s, the CLASSIC 100 meets and exceeds the requirements of the Building Regulations.

## Features & Benefits

- Neon light
- Suitable for wall, panel or ceiling mounted applications
- Standard Thermal Overload Protection
- (S.T.O.P.) fitted as standard
- IP44 rated
- Double insulated
- Ball bearing motors
- Two year guarantee
- Complies with building regulations
- Versatile, to fit wall, panel or ceiling mounted applications

## Optional Features



### Adjustable Timer

After disconnection, the shut off time can be delayed between 1 and 30 minutes.



### Thermo-Electric Shutter

Integral thermo-electrically operated shutter.



### Adjustable Humidity Sensor

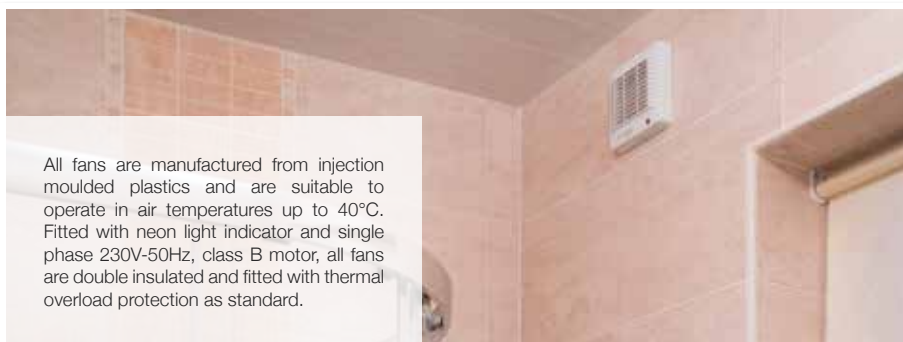
The level of humidity for the bathroom can be chosen from between 60% and 90% RH. The extract fan will continue to work long enough to reach the selected level.



### Pullcord

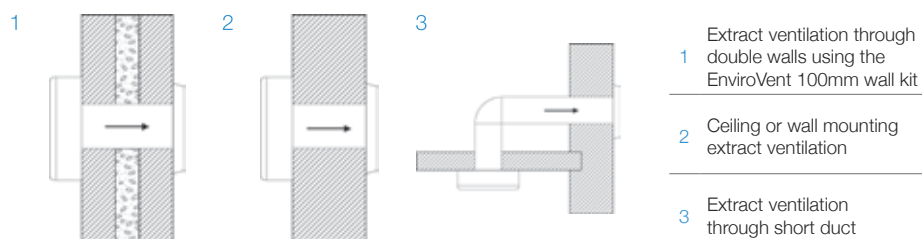
Supplied with pullcord override.

| ORDER CODE                 | CLAS100S | CLAS100T | CLAS100HP | CLAS100XP | CLAS100XHP | CLAS100XT | CLAS100XHT |
|----------------------------|----------|----------|-----------|-----------|------------|-----------|------------|
| Neon Light                 | •        | •        | •         | •         | •          | •         | •          |
| Ball Bearing Motors        | •        | •        | •         | •         | •          | •         | •          |
| Thermo-Electric Shutter    |          |          |           | •         | •          | •         | •          |
| Adjustable Over Run Timer  |          | •        |           |           |            | •         | •          |
| Adjustable Humidity Sensor |          |          | •         |           | •          |           | •          |
| Pullcord                   |          |          | •         | •         | •          |           |            |



All fans are manufactured from injection moulded plastics and are suitable to operate in air temperatures up to 40°C. Fitted with neon light indicator and single phase 230V-50Hz, class B motor, all fans are double insulated and fitted with thermal overload protection as standard.

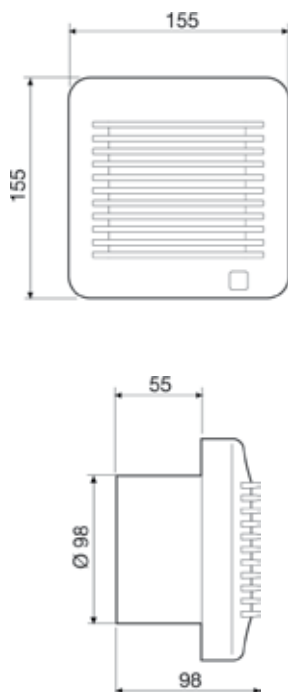
## Installation Options ▾



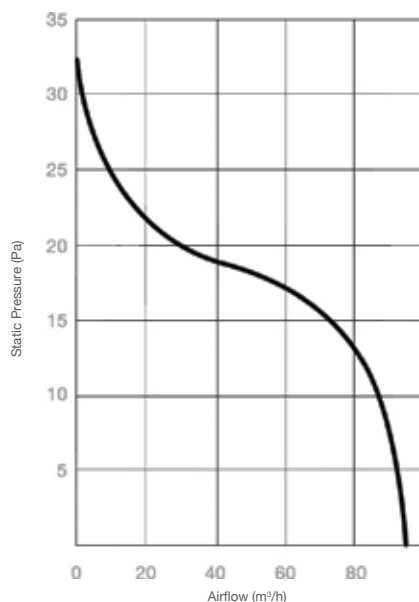
## Performance Data ▾

| MODEL           | Speed (r.p.m.) | Watts (W) | Voltage (V) | Airflow l/s (m³/h) | dB(A) @ 3m | Weight (Kg) | IP Rating | Ø Duct (mm) |
|-----------------|----------------|-----------|-------------|--------------------|------------|-------------|-----------|-------------|
| CLASSIC 100 S   | 2450           | 15        | 230         | 26 (95)            | 32         | 0.48        | IP44      | 100         |
| CLASSIC 100 T   | 2450           | 15        | 230         | 26 (95)            | 32         | 0.48        | IP44      | 100         |
| CLASSIC 100 HP  | 2450           | 16        | 230         | 26 (95)            | 32         | 0.48        | IP44      | 100         |
| CLASSIC 100 XP  | 2450           | 20        | 230         | 26 (95)            | 32         | 0.48        | IP44      | 100         |
| CLASSIC 100 XHP | 2450           | 21        | 230         | 26 (95)            | 32         | 0.48        | IP44      | 100         |
| CLASSIC 100 XT  | 2450           | 21        | 230         | 26 (95)            | 32         | 0.48        | IP44      | 100         |
| CLASSIC 100 XHT | 2450           | 21        | 230         | 26 (95)            | 32         | 0.48        | IP44      | 100         |

## Dimensions (mm) ▾



## Performance Curve ▾



## Technical Specification ▾

**Product**

The CLASSIC 100 is a versatile domestic axial extract fan designed to solve ventilation problems in small rooms and bathrooms. The fan is double insulated with Standard Thermal Overload Protection (S.T.O.P.).

**Applications**

The CLASSIC 100 can be wall, panel or ceiling mounted to meet The Building Regulations - Part F (England), Scottish Building Regulations Section 3 and Part K (Northern Ireland). The fan will ventilate domestic small rooms and bathrooms.

**Performance**

| MODEL              | CLASSIC 100 |
|--------------------|-------------|
| Speed (r.p.m.)     | 2450        |
| Watts (W)          | 15-21       |
| Voltage (V) 50Hz   | 230         |
| Airflow l/s (m³/h) | 26 (95)     |
| dB(A) @ 3m         | 32          |
| Weight (Kg)        | 0.48        |
| IP Rating          | IP44        |
| Ø Duct (mm)        | 100         |

**Installation**

Full installation guide is enclosed with all products; or sent separately in advance - if required.

**Motor**

Is a 230V 50Hz A/C motor, which is assembled with ball bearings.

**Fan**

The impeller is axial flow type.

**Servicing / Maintenance**

The extract fan should be cleaned periodically by a competent person.

**Guarantee**

The CLASSIC 100 is covered by a 2 year warranty.

**Compliance**

CE

## Options &amp; Ancillaries ▾

| Description         | Code(s)                             |
|---------------------|-------------------------------------|
| Standard Wall Kit   | 1RDEFWAK100                         |
| Rigid Ducting       | 1RD100X1M<br>1RD100X2M<br>1RD100X3M |
| Fixed Louvre Grille | 1RDGRILL100                         |

## Related Information ▾

| Description          | Page Number(s) |
|----------------------|----------------|
| Domestic Ancillaries | 134-139        |
| Wiring Diagrams      | 158            |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/classic100](http://envirovent.com/classic100)



# CLASSIC 100 SELV

Low Voltage Shower & Bathroom Fans



## About

Range of 100mm shower & bathroom fans providing total safety within the spray area of a shower or bath to be installed over or within Zone 1. The range offers the versatility of wall, panel or ceiling mounted models with a variety of optional features to include adjustable timers, humidity sensors, pullcord and thermo-electric shutters. All fans are IP57 rated and are fitted with standard thermal overload protection as standard.

## Features & Benefits

- Safety Extra Low Voltage
- Suitable for wall, panel or ceiling mounted applications
- Standard Thermal Overload Protection (S.T.O.P.) fitted as standard
- IPX7 rated
- Ball bearing motors
- Two year guarantee
- Total safety within the spray area of a shower or bath vicinity
- Complies with building regulations
- Versatile

## Optional Features



### Adjustable Over Run Timer

Operates after a 50 second delay. Thereafter the fan operates automatically. The 'run-on' time is adjustable and can be set to 5, 20 or 30 minutes.



### Thermo-Electric Shutter

Integral thermo-electrically operated shutter.



### Adjustable Humidity Sensor

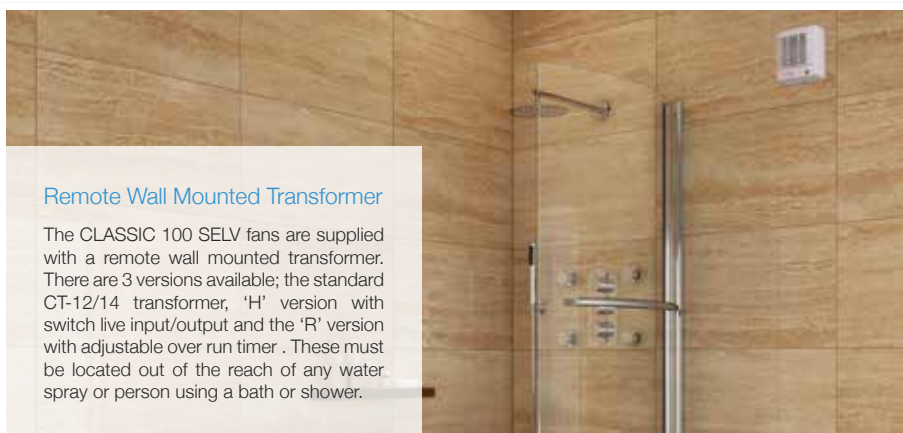
The level of humidity for the bathroom can be chosen from between 60% and 90% RH. The extract fan will continue to work long enough to reach the selected level.



### Pullcord

Supplied with pullcord override.

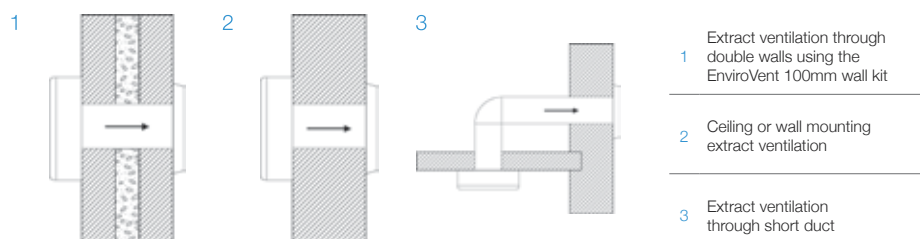
| ORDER CODE                 | CLAS100 S12V | CLAS100 X12V | CLAS100 XHT12V | CLAS100 HP12V | CLAS100 XHP12V | CLAS100 XT12V |
|----------------------------|--------------|--------------|----------------|---------------|----------------|---------------|
| Neon Light                 | •            | •            | •              | •             | •              | •             |
| Ball Bearing Motors        | •            | •            | •              | •             | •              | •             |
| Remote Transformer         | •            | •            | •              | •             | •              | •             |
| Thermo-Electric Shutter    |              | •            | •              |               | •              | •             |
| Adjustable Timer           |              |              | •              |               |                | •             |
| Adjustable Humidity Sensor |              |              | •              | •             | •              |               |
| Pullcord                   |              |              |                | •             | •              |               |



### Remote Wall Mounted Transformer

The CLASSIC 100 SELV fans are supplied with a remote wall mounted transformer. There are 3 versions available; the standard CT-12/14 transformer, 'H' version with switch live input/output and the 'R' version with adjustable over run timer. These must be located out of the reach of any water spray or person using a bath or shower.

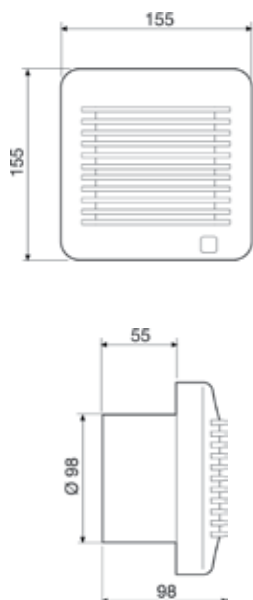
## Installation Options ▾



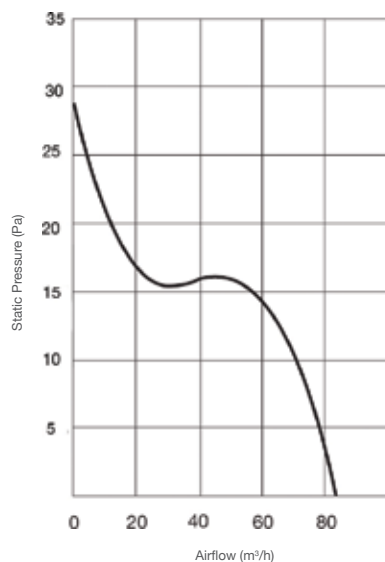
## Performance Data ▾

| MODEL               | Speed (r.p.m.) | Watts (W) | Voltage (V) | Airflow l/s (m³/h) | dB(A) @ 3m | Weight (Kg) | IP Rating | Ø Duct (mm) |
|---------------------|----------------|-----------|-------------|--------------------|------------|-------------|-----------|-------------|
| CLASSIC 100 S 12V   | 2100           | 16        | 12          | 23 (85)            | 31         | 0.48        | IP57      | 100         |
| CLASSIC 100 X 12V   | 2100           | 18        | 12          | 23 (85)            | 31         | 0.48        | IP57      | 100         |
| CLASSIC 100 XHT 12V | 2100           | 20        | 12          | 23 (85)            | 31         | 0.48        | IP57      | 100         |
| CLASSIC 100 HP 12V  | 2100           | 18        | 12          | 23 (85)            | 31         | 0.48        | IP57      | 100         |
| CLASSIC 100 XHP 12V | 2100           | 20        | 12          | 23 (85)            | 31         | 0.48        | IP57      | 100         |

## Dimensions (mm) ▾



## Performance Curve ▾



## Technical Specification ▾

## Product

The CLASSIC 100 SELV is a versatile low voltage domestic axial extract fan designed to solve ventilation problems in shower areas and bathrooms. Supplied with a remote wall mounted transformer, the fan is fitted with a neon light and is double insulated with Thermal Overload Protection (S.T.O.P.) as standard.

## Applications

The CLASSIC 100 SELV can be wall, panel or ceiling mounted to meet The Building Regulations - Part F (England), Scottish Building Regulations Section 3 and Part K (Northern Ireland). The fan will ventilate domestic shower areas and bathrooms.

## Performance

| MODEL              | CLASSIC 100 SELV |
|--------------------|------------------|
| Speed (r.p.m.)     | 2100             |
| Watts (W)          | 16-20            |
| Voltage (V) 50Hz   | 12               |
| Airflow l/s (m³/h) | 23 (85)          |
| dB(A) @ 3m         | 31               |
| Weight (Kg)        | 0.48             |
| IP Rating          | IP57             |
| Ø Duct (mm)        | 100              |

## Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

## CT-12/14 Remote Wall Mounted Transformer

The CLASSIC 100 SELV fans are supplied with a remote wall mounted transformer. There are 3 versions available; the standard CT-12/14 transformer, 'H' version with switch live input/output and the 'R' version with adjustable over run timer. These must be located out of the reach of any water spray or person using a bath or shower.

## Motor

Is a 230V 50Hz A/C motor, which is assembled with ball bearings.

## Fan

The impeller is axial flow type.

## Servicing / Maintenance

The extract fan should be cleaned periodically by a competent person.

## Guarantee

The CLASSIC 100 SELV is covered by a 2 year warranty.

## Compliance

CE

## Options &amp; Ancillaries ▾

| Description         | Code(s)                             |
|---------------------|-------------------------------------|
| Standard Wall Kit   | 1RDEFWAK100                         |
| Rigid Ducting       | 1RD100X1M<br>1RD100X2M<br>1RD100X3M |
| Fixed Louvre Grille | 1RDGRILL100                         |

## Related Information ▾

| Description          | Page Number(s) |
|----------------------|----------------|
| Domestic Ancillaries | 134-139        |
| Wiring Diagrams      | 158            |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/classic100SELV](http://envirovent.com/classic100SELV)

# ENV

Centrifugal Bathroom Fan



## About

The ENV is a centrifugal fan suitable for many general domestic applications where higher system resistances are encountered. The fan is available with a variety of fan function options and suitable for wall, ceiling and ducted applications. With an automatic backdraught shutter fitted as standard, this prevents air entry and limits heat leakage when the extract fan is not operating. Supplied with double electrical insulation, standard and timer models are IPX4 rated and humidity sensor models are IPX2.

## Features & Benefits

- Neon light
- Powerful forward curved centrifugal impellers
- Automatic backdraught shutter as standard
- Variety of fan function options
- SELV model available
- Two year guarantee
- Compact
- Quiet operation
- Front cover clips off to access impeller for easy cleaning
- Meets building regulations



## Optional Features



### Adjustable Run-On Timer

Adjustable electronic run-on timer set between 5 to 25 minutes.



### Internal Humidity Sensor

Internal humidity sensor which automatically switches on the unit when the relative humidity rises above the selected set level (adjustable between 65% and 90% RH).

| ORDER CODE                  | ENV100S | ENV100T | ENV100HT | ENV100S12V | ENV100T12V | ENV100HT12V |
|-----------------------------|---------|---------|----------|------------|------------|-------------|
| Neon Light                  | •       | •       | •        | •          | •          | •           |
| Backdraught Shutter         | •       | •       | •        | •          | •          | •           |
| Adjustable Run-On Timer     |         | •       | •        |            | •          | •           |
| Internal Humidity Sensor    |         |         | •        |            |            | •           |
| CT-45/12 Remote Transformer |         |         |          | •          | •          | •           |



## High Performance

The ENV is designed with powerful forward curved centrifugal fans, which develop substantial pressure development. Incorporating two and four pole motors with thermal overload protection fitted as standard, these extract fans deliver high performance with minimum noise generation.

The ENV is suitable for bathroom installations, delivering a maximum airflow of 110 m<sup>3</sup>/h. The fan is available in three versions to include standard, timer and humidity sensor options.

## Backdraught Shutter

The ENV is fitted with an automatic backdraught shutter to prevent air entry and limit heat leakage when the extract fan is not operating.



## Forward Curved Centrifugal Impeller

To deliver high airflow performance against high static pressure resistance with minimum noise generation.



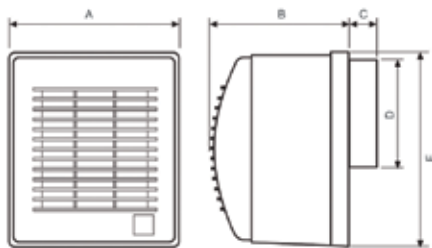
## SELV Models

The ENV 12V model is available in a variety of fan functions to include standard, timer and humidity sensor options. Using the CT-45/12 transformer the fan provides total safety within the spray area of a shower or bath to be installed over or within Zone 1.

The transformer must be located out of the reach of any water spray or person using a bath or shower.

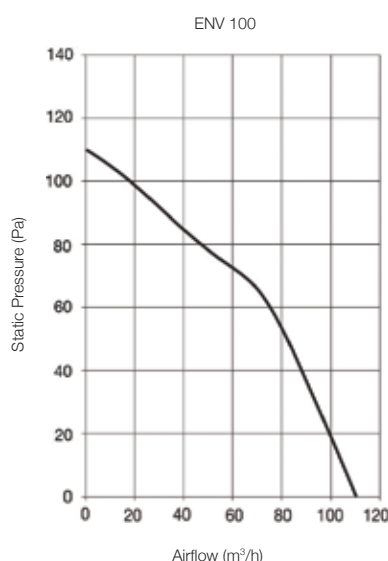


## Dimensions (mm) ▼



|         | A   | B     | C  | ØD | E   |
|---------|-----|-------|----|----|-----|
| ENV 100 | 156 | 126.5 | 25 | 98 | 179 |

## Performance Curve ▼



## Performance Data ▼

| MODEL              | ENV      |
|--------------------|----------|
| Speed (r.p.m.)     | 2250     |
| Watts (W)          | 30       |
| Voltage (V) 50Hz   | 220-240  |
| Airflow l/s (m³/h) | 31 (110) |
| dB(A) @ 1.5 m      | 45.5     |
| Weight (Kg)        | 1.1      |
| IP Rating          | IPX4     |
| Ø Duct (mm)        | 100      |

## Technical Specification ▼

### Product

The ENV is a centrifugal extract fan ideally suited for general domestic ventilation where higher system resistances are encountered. The fan is fitted with automatic backdraught shutters and supplied with double electrical insulation as standard.

### Applications

The ENV can be wall or ceiling mounted.

### Performance

| MODEL              | ENV      |
|--------------------|----------|
| Speed (r.p.m.)     | 2250     |
| Watts (W)          | 30       |
| Voltage (V) 50Hz   | 220-240  |
| Airflow l/s (m³/h) | 31 (110) |
| dB(A) @ 1.5 m      | 45.5     |
| Weight (Kg)        | 1.1      |
| IP Rating          | IPX4*    |
| Ø Duct (mm)        | 100      |

\*Humidity sensor models are IPX2 rated.

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

### Motor

Is a 230V 50Hz A/C shaded pole motor with self-resetting Thermal Overload Protection as standard.

### Fan

The impeller is a powerful forward curved centrifugal fan to deliver high performance against high static pressure resistance with minimum noise generation. All models are fitted as standard with a backdraught shutter located in the fan exhaust spigot.

### Servicing / Maintenance

The extract fans only require periodical cleaning using a cloth impregnated with a soft detergent.

### Guarantee

Is covered by a 2 year warranty subject to the specified maintenance.

### Compliance

CE

## Options & Ancillaries ▼

| Description                       | Code(s)        |
|-----------------------------------|----------------|
| Standard Wall Kit                 | 1RDEFWAK100    |
| High Rise Installation Kit        | 1RDEFPTK       |
| Ø100 Flexible Hose Ducting        | 1RDFLEX100X3M  |
| Flat Channel Ducting              | 1FD110X541M    |
| Fixed Louvre Grille               | 1RDGRILL100    |
| Fixed Louvre Grille - Multi Fit   | 1MFFIXLOUV     |
| Airbrick Adaptor to Round Ducting | 1ADAIRBRICK100 |
| Slimline Airbrick                 | 1FDHORLOUV     |
| Condensation Trap                 | 1RDCONTRAP100  |
| Worm Drive Clips                  | IN-WDC100      |
| Duct Insulation Sleeve            | 1RDSLINS100    |

## Related Information ▼

| Description          | Page Number(s) |
|----------------------|----------------|
| Domestic Ancillaries | 134-139        |
| Wiring Diagrams      | 157            |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/env](http://envirovent.com/env)



## About

The EBB Design extractor fans are suitable for many domestic ventilation applications where higher system resistance pressures are encountered.

The Power Design models incorporate a forward curved centrifugal impeller with single phase motor 230V-50Hz and Class II insulation. Maximum operating temperature 40°C.

## Features & Benefits

- Powerful forward curved centrifugal impellers
- Automatic backdraught shutter as standard
- IP44 rated
- Metal filters
- Two year guarantee
- High performance
- Significant energy savings
- Complies with building regulations
- Can be surface or recessed mounted

## Optional Features



### Adjustable Run-On Timer

After disconnection, the shut off time can be delayed between 1 and 30 minutes.



### Internal Humidity Sensor

Internal humidity sensor which automatically switches on the unit when the relative humidity rises above the selected set level; pullcord or remote switch.



### Pullcord

Supplied with pullcord override.

| ORDER CODES                                    | EBB-175 Design S | EBB-175 Design M | EBB-175 Design T | EBB-175 Design HM | EBB-175 Design DV |
|--|------------------|------------------|------------------|-------------------|-------------------|
| Ball Bearings                                  | •                | •                | •                | •                 | •                 |
| ON / OFF Pullcord                              | •                | •                | •                | •                 | •                 |
| Automatic Backdraught Shutter                  |                  | •                |                  | •                 | •                 |
| One Speed Motor                                | •                | •                | •                |                   |                   |
| Two Speed Motor                                |                  |                  |                  | •                 | •                 |
| Adjustable Run-On-Timer (From 1 to 30 minutes) |                  |                  | •                |                   |                   |
| Adjustable Humidistat 60-90% RH%               |                  |                  |                  | •                 |                   |

## Backdraught Shutter

The EBB Design fans are fitted with an automatic back draft shutter to prevent air entry and limit heat leakage when the extractor is not operating.

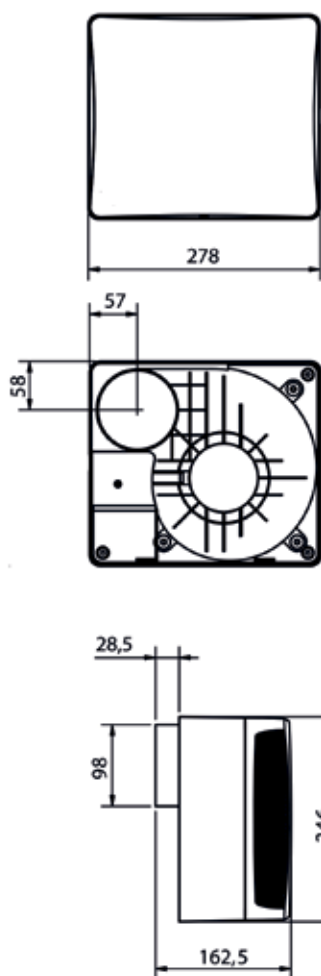


## Forward Curved Centrifugal Impeller

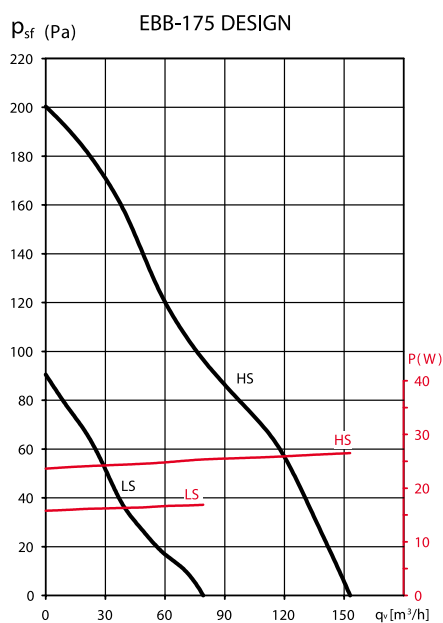
To deliver high performance with a minimum noise level against high static pressure system resistance.



## Dimensions (mm) ▾



## Performance Curve ▾



## Technical Specification ▾

### Product

The EBB Design are centrifugal extract fans ideally suited for general domestic ventilation where higher system resistances are encountered. The fans are fitted with an automatic backdraught shutter as standard.

### Applications

The EBB Design can be wall or ceiling mounted. The fan is suitable for bathroom applications.

### Performance

| MODEL               | EBB-175 Design |
|---------------------|----------------|
| Speed (r.p.m.)      | 1250           |
| Watts (W)           | 26             |
| Voltage (V) 50Hz    | 230            |
| Airflow ( $m^3/h$ ) | 155            |
| dB(A) @ 3m          | 41             |
| Weight (Kg)         | 2.2            |
| IP Rating           | IP44           |
| Ø Duct (mm)         | 100            |

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

### Motor

Is a 230V 50Hz A/C 4-pole motor.

### Fan

The impeller is a powerful forward curved centrifugal fan to deliver high performance against high static pressure resistance.

### Servicing / Maintenance

For cleaning purposes, the outer grille should be removed. The filter and the grille may be cleaned by hand in hot soapy water and the extractor housing wiped with a damp cloth.

### Guarantee

The EBB Design is covered by a 2 year warranty subject to the specified maintenance.

### Compliance

CE

## Options & Ancillaries ▾

| Description                       | Code(s)        |
|-----------------------------------|----------------|
| Standard Wall Kit                 | 1RDEFWAK100    |
| High Rise Installation Kit        | 1RDEFPTK       |
| Ø100 Flexible Hose Ducting        | 1RDFLEX100X3M  |
| Flat Channel Ducting              | 1FD110X541M    |
| Fixed Louvre Grille               | 1RDGRILL100    |
| Fixed Louvre Grille - Multi Fit   | 1MFFIXLOUV     |
| Airbrick Adaptor to Round Ducting | 1ADAIRBRICK100 |
| Slimline Airbrick                 | 1FDHORLOUV     |
| Condensation Trap                 | 1RDCONTRAP100  |
| Worm Drive Clips                  | IN-WDC100      |
| Duct Insulation Sleeve            | 1RDSLINS100    |

## Related Information ▾

| Description          | Page Number(s) |
|----------------------|----------------|
| Domestic Ancillaries | 134-139        |
| Wiring Diagrams      | 159            |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/power](http://envirovent.com/power)



# KUDOS

Centrifugal WC & Bathroom Fan



## About

The KUDOS 100mm centrifugal extract fan is suitable for many domestic ventilation applications. Ideal for WC's and bathroom ventilation, the fan is available in standard, timer or humidity sensor options. The KUDOS incorporates powerful forward curved centrifugal impellers delivering high airflow performances.

## Features & Benefits

- Sealed for life ball bearings
- Two speed
- IP44 rated
- Metal filters
- Backdraught shutters
- Two year guarantee
- High performance
- Significant energy savings
- Complies with building regulations
- Can be surface or recessed mounted

### Optional Features



#### Adjustable Run-On Timer

After disconnection, the shut off time can be delayed between 1 and 30 minutes.



#### Internal Humidity Sensor

Internal humidity sensor which automatically switches on the unit when the relative humidity rises above the selected set level; pullcord or remote switch.

### Standard Features



#### Backdraught Shutter

The KUDOS is fitted with an automatic backdraught shutter to prevent air entry and limit heat leakage when the extractor is not operating.



#### Forward Curved Centrifugal Impeller

To deliver high airflow performances with a minimum of noise generation against high static pressure system resistance.

| ORDER CODE                | KUDOS 100S | KUDOS 100T | KUDOS 100HT |
|---------------------------|------------|------------|-------------|
| Backdraught Shutter       | •          | •          | •           |
| Metal Filters             | •          | •          | •           |
| Two Speed                 | •          | •          | •           |
| Adjustable Over Run Timer |            | •          | •           |
| Internal Humidity Sensor  |            |            | •           |

### Application Suitability ▼

| Application | Trickle Speed | High Speed | Building Regulation Requirements |
|-------------|---------------|------------|----------------------------------|
| Bathroom    | 20 l/s        | 36 l/s     | 15 l/s                           |

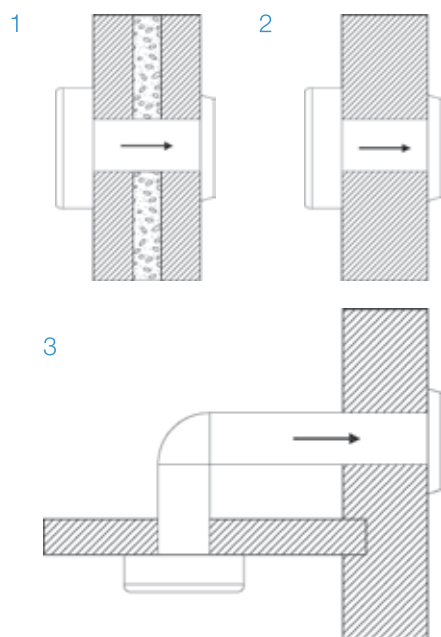
### Controllers ▼



#### REB

The KUDOS (S version only) can be controlled with the REB single phase electronic speed controller.

## Installation Options ▾

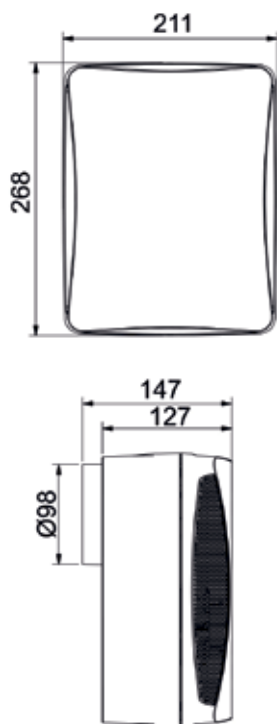


1 Extract ventilation through double walls using the EnviroVent 100mm wall kit

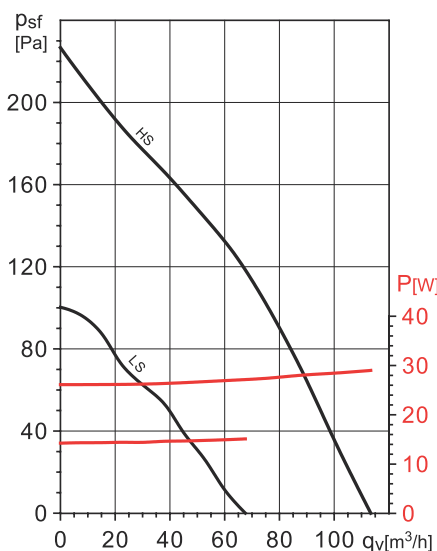
2 Ceiling or wall mounting extract ventilation

3 Extract ventilation through short duct

## Dimensions (mm) ▾



## Performance Curve ▾



## Options &amp; Ancillaries ▾

| Description                       | Code(s)        |
|-----------------------------------|----------------|
| Standard Wall Kit                 | 1RDEFWAK100    |
| High Rise Installation Kit        | 1RDEFPTK       |
| Ø100 Flexible Hose Ducting        | 1RDFLEX100X3M  |
| Flat Channel Ducting              | 1FD110X541M    |
| Fixed Louvre Grille               | 1RDGRILL100    |
| Fixed Louvre Grille - Multi Fit   | 1MFFIXLOUV     |
| Airbrick Adaptor to Round Ducting | 1ADAIRBRICK100 |
| Slimline Airbrick                 | 1FDHORLOUV     |
| Condensation Trap                 | 1RDCONTRAP100  |
| Worm Drive Clips                  | IN-WDC100      |
| Duct Insulation Sleeve            | 1RDSLINS100    |

## Technical Specification ▾

**Product**

The KUDOS is a centrifugal extract fan ideally suited for general domestic ventilation. The fan is fitted with an automatic backdraught shutter as standard.

**Applications**

The KUDOS can be either surface or recessed mounted in a wall or ceiling and is ideally suited for WC and bathroom ventilation.

**Performance**

| MODEL              |    | KUDOS 100 |
|--------------------|----|-----------|
| Speed (r.p.m.)     | LS | 1050      |
|                    | HS | 1600      |
| Watts (W)          | LS | 30 MAX    |
|                    | HS |           |
| Voltage (V) 50Hz   |    | 230-240   |
| Airflow l/s (m³/h) | LS | 21 (75)   |
|                    | HS | 36 (130)  |
| dB(A) @ 1.5m       | LS | 34        |
|                    | HS | 46        |
| Weight (Kg)        |    | 1.8       |
| IP Rating          |    | IP44      |
| Ø Duct (mm)        |    | 100       |

**Installation**

Full installation guide is enclosed with all products; or sent separately in advance - if required.

**Motor**

Is a 230V 50Hz A/C 2-pole motor.

**Fan**

Incorporates a powerful forward curved centrifugal impeller to deliver high performance against high static pressure resistance.

**Servicing / Maintenance**

For cleaning purposes, the outer grille should be removed. The filter and the grille may be cleaned by hand in hot soapy water and the extractor housing wiped with a damp cloth.

**Guarantee**

Is covered by a 2 year warranty subject to the specified maintenance.

**Compliance**

CE

## Related Information ▾

| Description          | Page Number(s) |
|----------------------|----------------|
| Domestic Ancillaries | 134-139        |
| Wiring Diagrams      | 159-160        |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/kudos](http://envirovent.com/kudos)

# STYLVENT 150

Axial Flow Fan



## About

The STYLVENT 150 is a 150mm axial flow extract fan ideally suited for a wide range of general residential applications to meet current building regulations. The STYLVENT 150 can be wall or window mounted.

## Features & Benefits

- Numerous quality features
- IPX4 rated
- Powerful single phase 230V-50Hz motor
- Tough ABS plastic grille and shutter
- Five year guarantee
- High performance
- Complies with building regulations
- Versatile
- Easy installation
- Quiet running

## Optional Features



### Pullcord

Single speed operation with two functions indicate fan operating on or off: First pull fan on; second pull, fan off.

| ORDER CODE   | HV-150AE | HV-150M |
|--------------|----------|---------|
| Single Speed | •        | •       |
| Pullcord     |          | •       |



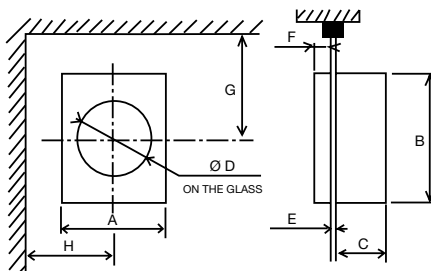
### Controller CR-150

Control unit for the HV-150AE. The control unit is fitted with:

- On/off switch for fan operation
- On/off switch for shutter operation

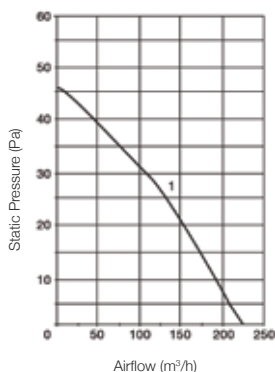


## Dimensions (mm)



| STYLVENT HV 150 |     |     |      |      |      |      |    |      |      |
|-----------------|-----|-----|------|------|------|------|----|------|------|
| A               | B   | C   | ØD   |      | E    |      | F  | G    | H    |
|                 |     |     | Min. | Max. | Min. | Max. |    | Min. | Max. |
| 230             | 251 | 109 | 187  | 190  | 3    | 25   | 22 | 160  | 150  |

## Performance Curve



## Technical Specification

### Product

The STYLVENT 150 is an axial flow extract fan ideally suited for a wide range of general residential extract or supply ventilation applications.

### Applications

The fan can be wall or window mounted.

### Performance

| MODEL              | STYLVENT 150 |
|--------------------|--------------|
| Speed (r.p.m.)     | 1800         |
| Watts (W)          | 32           |
| Amps (A)           | 0.19         |
| Airflow l/s (m³/h) | 63 (225)     |
| dB(A) @ 3m         | 39           |
| Weight (Kg)        | 2.0          |
| IP Rating          | II/IPX4      |

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

### Motor

Is a 230V 50Hz A/C motor.

### Fan

The impeller is axial flow type.

### Servicing / Maintenance

The extract fan only requires periodical cleaning using a cloth impregnated with a soft detergent.

### Guarantee

Shall be covered by a 5-year warranty subject to specified maintenance.

### Compliance

CE

## Related Information

| Description    | Page Number |
|----------------|-------------|
| Wiring Diagram | 160         |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/stylvent150](http://envirovent.com/stylvent150)



# Domestic & Commercial Inline/Roof Fans

Range of fans designed for domestic or commercial applications



# TD-MIXVENT

In-line Fans



## About

Two-speed axial in-line fans designed to solve ventilation problems for ducted systems. The range is available in six sizes ranging from 100mm-315mm ducting and with airflow performances up to 1860 m³/h. Flexible location enables the TD-MIXVENT fans to be connected to any point on the ventilation duct; at the beginning, in-between or at the end, without the loss of any performance.

## Features & Benefits

- Neon light
- Guide vanes as standard
- Standard Thermal Overload Protection (S.T.O.P.)
- Low profile to allow for ease of installation in narrow spaces
- Models with run-on timers available
- Sealed for life ball bearings
- IP44 rated
- Two year guarantee
- Removable central cartridge for ease of cleaning and maintenance
- Ease of installation
- Versatile
- Can be mounted at any place on the air duct
- Speed controllable

## Optional Features



### Variable Speed

The fans can be controlled by the REB-1N external variable speed controller (except for the MV 2000/315 which is controlled by the REB-2N).

| ORDER CODE   | TD-250/100 | TD-250/100T* | TD-350/125 | TD-500/150 | TD-500/150T* | TD-800/200 | TD-1000/250 | TD-2000/315 |
|--------------|------------|--------------|------------|------------|--------------|------------|-------------|-------------|
| Single Speed |            | •            |            |            | •            |            |             |             |
| Two Speed    | •          |              | •          | •          |              | •          | •           | •           |

\*Timer models are commissioned at installation to operate at one speed. Auxiliary two speed switches or variable speed controllers can be used with standard models.

## Performance Data

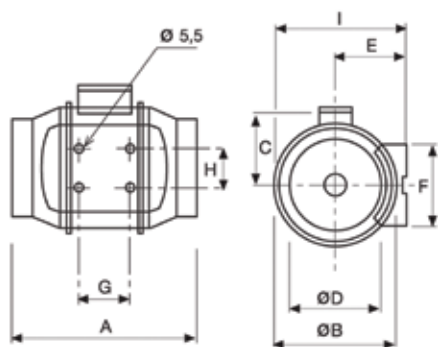
| MODEL       |      | Speed (r.p.m.) | Watts (W) | Amps (A) | Airflow l/s (m³/h) | Maximum Working Temp (°C) | dB(A) @ 3m | Weight (Kg) | Ø Duct (mm) |
|-------------|------|----------------|-----------|----------|--------------------|---------------------------|------------|-------------|-------------|
| TD-250/100  | LOW  | 1850           | 18        | 0.10     | 50 (180)           | 40                        | 26         | 2.0         | 100         |
|             | HIGH | 2200           | 24        | 0.11     | 67 (240)           | 40                        | 31         | 2.0         | 100         |
| TD-350/125  | LOW  | 1900           | 22        | 0.10     | 78 (280)           | 40                        | 28         | 2.0         | 125         |
|             | HIGH | 2250           | 30        | 0.13     | 100 (360)          | 40                        | 33         | 2.0         | 125         |
| TD-500/150  | LOW  | 1950           | 44        | 0.19     | 119 (430)          | 60                        | 29         | 2.7         | 150         |
|             | HIGH | 2500           | 50        | 0.22     | 161 (580)          | 60                        | 33         | 2.7         | 150         |
| TD-800/200  | LOW  | 2000           | 100       | 0.45     | 222 (800)          | 60                        | 33         | 4.9         | 200         |
|             | HIGH | 2500           | 120       | 0.50     | 306 (1100)         | 60                        | 39         | 4.9         | 200         |
| TD-1000/250 | LOW  | 2610           | 85        | 0.35     | 250 (900)          | 60                        | 38         | 9.4         | 250         |
|             | HIGH | 2800           | 125       | 0.50     | 281 (1010)         | 60                        | 40         | 9.4         | 250         |
| TD-2000/315 | LOW  | 2000           | 160       | 0.80     | 431 (1550)         | 60                        | 42         | 14.0        | 315         |
|             | HIGH | 2700           | 255       | 1.20     | 556 (2000)         | 60                        | 47         | 14.0        | 315         |

## Easy Installation & Maintenance

The low profile design of the range makes them the most effective solution for installations where space is restricted, such as false ceilings. The unique design of the support bracket allows the central cartridge, holding the motor and impeller assembly, to be fitted or removed without dismantling the ductwork.



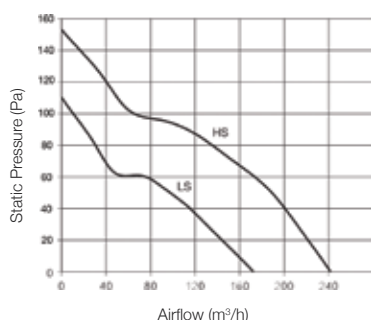
## Dimensions (mm) ✓



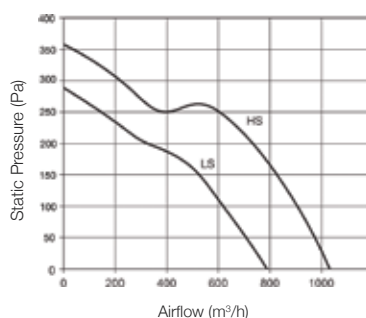
| MODEL        | A   | B   | C   | D   | E   | F   | G   | H   | I     |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| TD-250 /100  | 303 | 176 | 115 | 97  | 100 | 90  | 80  | 60  | 188   |
| TD-350 /125  | 258 | 176 | 115 | 123 | 100 | 90  | 80  | 60  | 188   |
| TD-500 /150  | 295 | 200 | 127 | 147 | 112 | 130 | 80  | 60  | 212   |
| TD-800 /200  | 302 | 217 | 141 | 198 | 124 | 140 | 100 | 94  | 232.5 |
| TD-1000 /250 | 386 | 272 | 192 | 248 | 155 | 168 | 145 | 140 | 291   |
| TD-2000 /315 | 450 | 336 | 224 | 312 | 188 | 210 | 182 | 178 | 356   |

## Performance Curves ✓

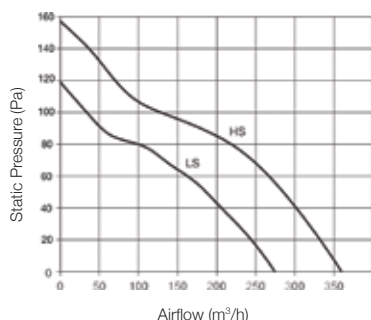
TD-250/100



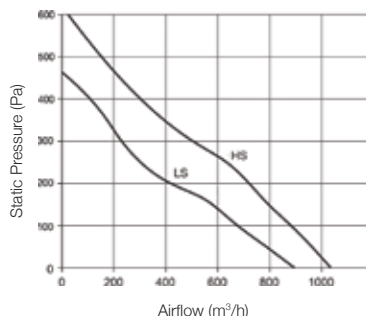
TD-800/200



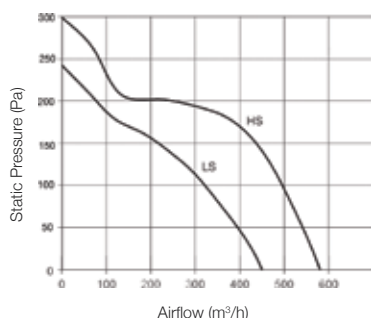
TD-350/125



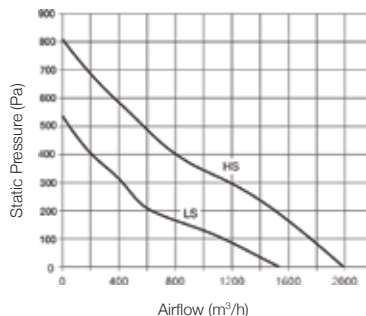
TD-1000/250



TD-500/150



TD-2000/315



## Controllers ✓



The standard (non-timer) fans are fitted with a single-phase 2-speed motor. These can be controlled using a 2-speed selection switch or are 100% speed controllable via the REB.

## Technical Specification ✓

### Product

The TD-MIXVENT models are two-speed axial in-line fans designed to solve ventilation problems for ducted systems.

### Applications

Shall be connected to any point on the ventilation duct to meet The Building Regulations - Part F (England), Scottish Building Regulations Section 3 and Part K (Northern Ireland).

### Performance

| MODEL              | TD-MIXVENT            |                       |
|--------------------|-----------------------|-----------------------|
| Speed (r.p.m.)     | 2200 - 2800           | 1850 - 2610           |
| Watts (W)          | 24 - 255              | 18 - 160              |
| Amps (A)           | 0.11 - 1.20           | 0.10 - 0.80           |
| Airflow l/s (m³/h) | 67 (240) - 556 (2000) | 50 (180) - 431 (1550) |
| dB(A) @ 3 m        | 31 - 47               | 26 - 42               |
| Weight (Kg)        | 2.0 - 14.0            | 2.0 - 14.0            |
| IP Rating          | IP44                  | IP44                  |
| Ø Duct (mm)        | 100 - 315             | 100 - 315             |

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

### Construction

Is manufactured in tough reinforced plastic (TD-250/100 - TD-800/200 models) or with metal casing steel finished in a tough epoxy-polyester paint coating (TD-1000/250 - MV2000/315 models).

### Motor

Is a single phase 230V 50/60Hz A/C motor, fitted with sealed for life ball bearings for enhanced working life and Standard Thermal Overload Protection (S.T.O.P.).

### Fan

The impeller is axial flow type.

### Controllers

The fans may be controlled by an REB variable speed controller.

### Servicing / Maintenance

The motor body of the in-line fan shall be easily dismantable for repairs or cleaning. The impeller should be cleaned at least once a year using a damp cloth.

### Guarantee

Is covered by a 2 year warranty subject to the specified maintenance.

### Compliance

CE

## Options & Ancillaries ✓

| Description                                     | Code(s)                       |
|---|-------------------------------|
| Adjustable Ceiling Vent (Varying Sizes)         | Refer to Domestic Ancillaries |
| Flexible Hose Ducting (Varying Sizes)           | Refer to Domestic Ancillaries |
| Insulated Flexible Hose Ducting (Varying Sizes) | Refer to Domestic Ancillaries |
| Five In One Roof Vent Kit                       | 1RVENT5IN1                    |
| Slimline Airbrick                               | 1FDHORLOUV<br>1FDVERLOUV      |

## Related Information ✓

| Description                         | Page Number(s) |
|-------------------------------------|----------------|
| Commercial & Industrial Ancillaries | 140-147        |
| Wiring Diagrams                     | 161            |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/tdmixvent](http://envirovent.com/tdmixvent)



# TD-ECOWATT

Low Energy In-line Fans



## About

Variable speed axial in-line fans designed to solve ventilation problems for ducted systems. The energy saving DC motors are assembled with ball bearings for enhanced working life, delivering high efficiency and low consumption. Flexible location enables the TD-ECOWATT fans to be connected to any point of the ventilation duct; at the beginning, in-between or at the end, without the loss of any performance. Suitable for any kind of ventilation application where the fan must operate continuously, achieving significant energy savings.

## Features & Benefits

- DC motor technology
- Fitted with a variable speed motor
- Flexible location
- IP44 rated
- Five year guarantee
- Incredibly silent running
- High performance
- Significant energy savings
- Complies with building regulations
- Easy installation
- Easy maintenance

## Easy Installation & Maintenance

The unique design of the support bracket allows the central cartridge, holding the motor and impeller assembly, to be fitted or removed without dismantling the ductwork.

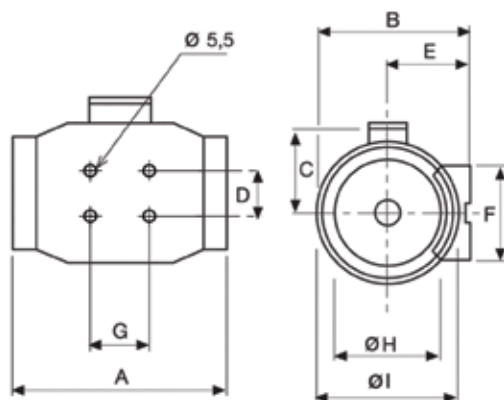


| ORDER CODE        | TD-160/100 ECOWATT | TD-250/100 ECOWATT | TD-350/125 ECOWATT | TD-500/150 ECOWATT | TD-800/200 ECOWATT |
|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| DC Motor          | •                  | •                  | •                  | •                  | •                  |
| Variable Speed    | •                  | •                  | •                  | •                  | •                  |
| Flexible Location | •                  | •                  | •                  | •                  | •                  |

## Performance Data ▼

| MODEL              | Speed (r.p.m.) | Watts (W) | Amps (A) | Airflow l/s (m³/h) | Max. Working Temp (°C) | dB(A) @ 3m | Weight (Kg) | Ø Duct (mm) |
|--------------------|----------------|-----------|----------|--------------------|------------------------|------------|-------------|-------------|
| TD-160/100 ECOWATT | 2650           | 10        | 0.07     | 53 (190)           | 60                     | 34         | 1.4         | 100         |
| TD-250/100 ECOWATT | 2400           | 22        | 0.17     | 76 (275)           | 60                     | 35         | 2.0         | 100         |
| TD-350/125 ECOWATT | 2450           | 22        | 0.17     | 100 (360)          | 60                     | 34         | 2.0         | 125         |
| TD-500/150 ECOWATT | 2600           | 48        | 0.35     | 161 (580)          | 60                     | 36         | 2.7         | 150         |
| TD-800/200 ECOWATT | 2360           | 105       | 0.75     | 286 (1030)         | 60                     | 38         | 4.9         | 200         |

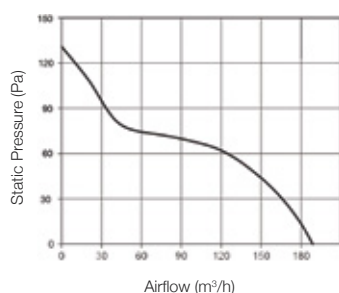
## Dimensions (mm) ✓



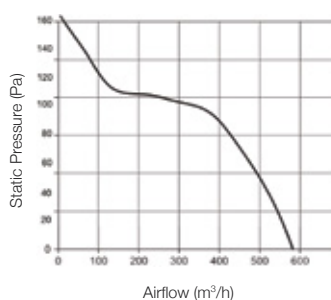
| MODEL              | A   | B   | C   | D  | E   | F   | G   | ØH  | ØI  |
|--------------------|-----|-----|-----|----|-----|-----|-----|-----|-----|
| TD-160/100 ECOWATT | 232 | 151 | 95  | 52 | 82  | 96  | 48  | 97  | 138 |
| TD-250/100 ECOWATT | 303 | 188 | 156 | 60 | 100 | 90  | 80  | 97  | 176 |
| TD-350/125 ECOWATT | 258 | 188 | 156 | 60 | 100 | 90  | 80  | 123 | 176 |
| TD-500/150 ECOWATT | 295 | 211 | 174 | 60 | 112 | 130 | 80  | 147 | 200 |
| TD-800/200 ECOWATT | 302 | 233 | 184 | 94 | 124 | 140 | 100 | 198 | 217 |

## Performance Curves ✓

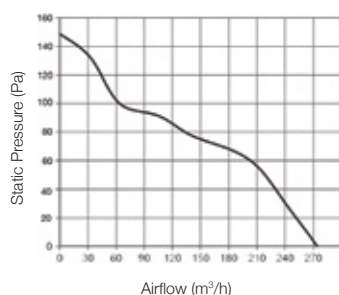
TD-160/100 ECOWATT



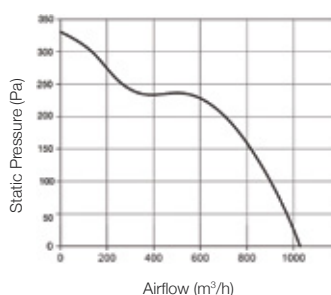
TD-500/150 ECOWATT



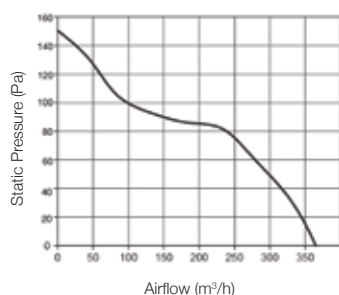
TD-250/100 ECOWATT



TD-800/200 ECOWATT



TD-350/125 ECOWATT



## Controllers ✓



The TD-ECOWATT fans can be controlled with the REB ECOWATT variable speed controller or an intelligent external sensor.

## Technical Specification ✓

### Product

The TD-ECOWATT models are low energy variable speed axial in-line extract fans fitted with DC motors to offer a low level of noise and solve a large number of ventilation problems for ducted systems.

### Applications

Shall be connected to any point of the ventilation duct to meet The Building Regulations - Part F (England), Scottish Building Regulations Section 3 and Part K (Northern Ireland).

### Performance

| MODEL              | TD-ECOWATT            |
|--------------------|-----------------------|
| Speed (r.p.m.)     | 2360 - 2650           |
| Watts (W)          | 10 - 105              |
| Amps (A)           | 0.07 - 0.75           |
| Airflow l/s (m³/h) | 53 (190) - 286 (1030) |
| dB(A) @ 3m         | 34 - 38               |
| Weight (Kg)        | 1.4 - 4.9             |
| IP Rating          | IP44                  |
| Ø Duct (mm)        | 100 - 200             |

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

### Motor

Is a variable speed Low Watt Brushless 90/260V-50/60Hz DC motor fitted with ball bearings for enhanced working life.

### Fan

The impeller is axial flow type.

### Controllers

The fans may be controlled by an REB-ECOWATT variable speed controller. An array of control options are available.

### Servicing / Maintenance

The motor body of the in-line fan shall be easily dismantable for repairs or cleaning. The impeller should be cleaned at least once a year using a damp cloth.

### Guarantee

Is covered by a 5 year warranty subject to specified maintenance.

### Compliance

CE

## Options & Ancillaries ✓

| Description                                     | Code(s)                       |
|---|-------------------------------|
| Adjustable Ceiling Vent (Varying Sizes)         | Refer to Domestic Ancillaries |
| Flexible Hose Ducting (Varying Sizes)           | Refer to Domestic Ancillaries |
| Insulated Flexible Hose Ducting (Varying Sizes) | Refer to Domestic Ancillaries |
| Five In One Roof Vent Kit                       | 1RWENT5IN1                    |
| Slimline Airbrick                               | 1FDHORLOUV<br>1FDVERLOUV      |

## Related Information ✓

| Description                         | Page Number(s) |
|-------------------------------------|----------------|
| Commercial & Industrial Ancillaries | 140-147        |
| Wiring Diagrams                     | 161-162        |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/tdecowatt](http://envirovent.com/tdecowatt)

# SILENTUB100

Ultra Quiet In-line Duct Fan



## About

Domestic axial in-line fan designed to solve ventilation problems for ducted systems. The motors are assembled on silent elastic blocks and fitted with ball bearings for enhanced working life.

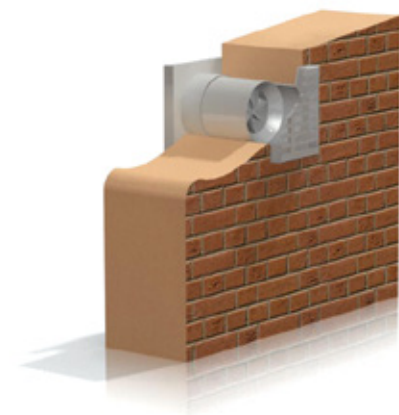
## Features & Benefits

- Sealed for life ball bearings
- Silent elastic blocks
- IP44 rated
- Five year guarantee
- Incredibly silent running
- High performance
- Significant energy savings
- Complies with building regulations

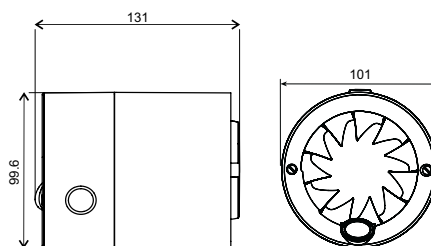
| ORDER CODE                    | SILENTUB100 |
|-------------------------------|-------------|
| Sealed For Life Ball Bearings | •           |
| Silent Elastic Blocks         | •           |

### Performance Data

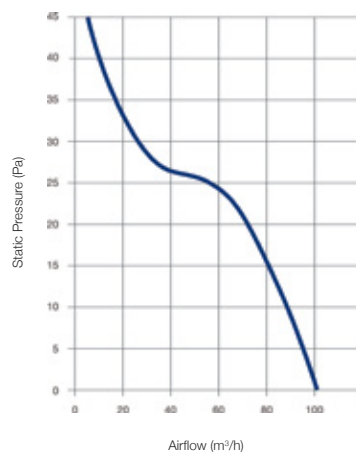
| MODEL              | SILENTUB 100 |
|--------------------|--------------|
| Speed (r.p.m.)     | 2450         |
| Watts (W)          | 12           |
| Voltage (V) 50Hz   | 230          |
| Airflow l/s (m³/h) | 28 (100)     |
| dB(A) @ 3m         | 37.5         |
| Weight (Kg)        | 0.5          |
| IP Rating          | IP44         |
| Ø Duct (mm)        | 100          |



### Dimensions (mm)



### Performance Curve



### Technical Specification

#### Product

The SILENTUB 100 is an innovative axial in-line extract fan designed to offer a low level of noise and solve a large number of ventilation problems for ducted systems.

#### Applications

The SILENTUB 100 can operate through a duct or be flush mounted into the wall to meet the Building Regulations - Part F (England), Scottish Building Regulations Section 3 and Part K (Northern Ireland).

#### Performance

| MODEL              | SILENTUB 100 |
|--------------------|--------------|
| Speed (r.p.m.)     | 2450         |
| Watts (W)          | 12           |
| Voltage (V) 50Hz   | 230          |
| Airflow l/s (m³/h) | 28 (100)     |
| dB(A) @ 3m         | 37.5         |
| Weight (Kg)        | 0.5          |
| IP Rating          | IP44         |
| Ø Duct (mm)        | 100          |

#### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

#### Motor

Is a 230V 50Hz A/C motor, which is assembled on silent blocks and fitted with ball bearings for enhanced working life.

#### Fan

The impeller is axial flow type.

#### Servicing / Maintenance

The extract fan only requires periodical cleaning using a cloth impregnated with a soft detergent.

#### Guarantee

The SILENTUB 100 is covered by a 5 year warranty.

Compliance  
CE

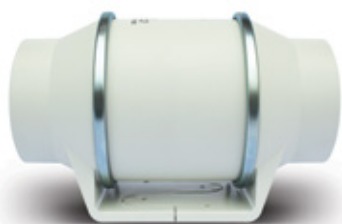


Scan the QR code to find out more about the product or visit:  
[envirovent.com/silentub100](http://envirovent.com/silentub100)



# SILENT MV 160/100

Ultra Quiet In-line Duct Fans



## About

Domestic axial in-line fans designed to solve ventilation problems for ducted systems. The motors are assembled on silent elastic blocks and fitted with ball bearings for enhanced working life. Flexible location enables the SILENT MV 160/100 fan to be connected to any point on the ventilation duct; at the beginning, in-between or at the end, without the loss of any performance. The standard version is fitted with a two-speed motor.

## Features & Benefits

- Sealed for life ball bearings
- Silent elastic blocks
- Fitted with a two-speed motor\*
- Flexible location
- Five year guarantee
- IP44 rated
- Incredibly silent running
- High performance
- Significant energy savings
- Complies with building regulations
- Easy installation
- Easy maintenance

## Optional Features



### Adjustable Timer

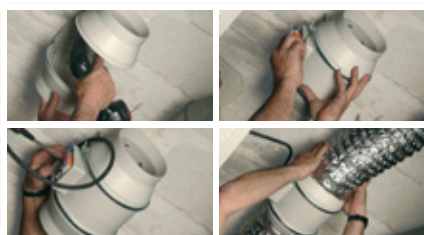
After disconnection, the shut off time can be delayed between 1 and 30 minutes.

| ORDER CODE                    | SILMV160/100S | SILMV160/100T* |
|-------------------------------|---------------|----------------|
| Sealed For Life Ball Bearings | •             | •              |
| Two Speed                     | •             | •              |
| Adjustable Timer              |               | •              |

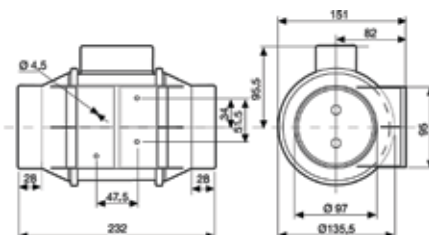
\*Timer models are commissioned at installation to operate at one speed, set to high on application. Auxiliary two speed switches or variable speed controllers can be used with standard models.

## Easy Installation & Maintenance

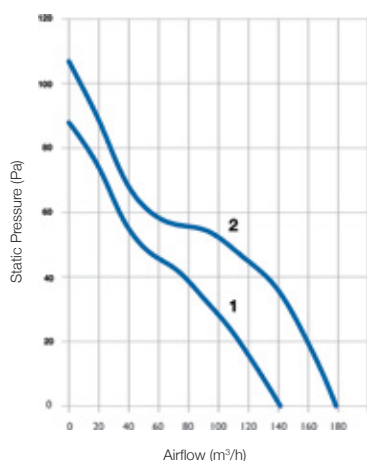
The unique design of the support bracket allows the central cartridge, holding the motor and impeller assembly, to be fitted or removed without dismantling the ductwork.



## Dimensions (mm) ✓



## Performance Curve ✓



## Controllers ✓

For a comprehensive list of controllers and switches please refer to page 148.

## Technical Specification ✓

**Product**  
The SILENT MV 160/100 is an innovative axial in-line extract fan fitted with a two-speed motor to offer a low level of noise and solve a large number of ventilation problems for ducted systems.

**Applications**  
Shall be connected to any point of the ventilation duct to meet the Building Regulations - Part F (England), Scottish Building Regulations Section 3 and Part K (Northern Ireland).

### Performance

| MODEL              | SILENT MV 160/100 |          |
|--------------------|-------------------|----------|
|                    | LOW               | HIGH     |
| Speed (r.p.m.)     | 2200              | 2500     |
| Watts (W)          | 12                | 20       |
| Voltage (V) 50Hz   | 230               | 230      |
| Airflow l/s (m³/h) | 39 (140)          | 50 (180) |
| dB(A) @ 3m         | 21                | 24       |
| Weight (Kg)        | 1.4               | 1.4      |
| IP Rating          | IP44              | IP44     |
| Ø Duct (mm)        | 100               | 100      |

**Installation**  
Full installation guide should be enclosed with all products; or sent separately in advance - if required.

**Motor**  
Should be a two-speed 230V 50Hz A/C motor, which can be set to either 2200rpm or 2500rpm and assembled on silent blocks and fitted with ball bearings for enhanced working life.

**Fan**  
The impeller should be axial flow type.

**Controllers**  
May be controlled via a two-speed selection switch or an electronic single-phase variable speed controller.

**Servicing / Maintenance**  
The motor body of the in-line fan shall be easily dismantlable for repairs or cleaning. The impeller should be cleaned at least once a year using a damp cloth.

**Guarantee**  
Shall be covered by a 5-year warranty subject to specified maintenance.

**Compliance**  
CE



Scan the QR code to find out more about the product or visit:  
[envirovent.com/silentmv160100](http://envirovent.com/silentmv160100)

# SILENT MV

Ultra Quiet In-line Fans



## About

Ultra quiet and low profile helicocentrifugal in-line fans suitable for a wide range of domestic and commercial applications. Fitted with sound absorbent insulation and manufactured with an adjustable two speed 230V 50Hz motor\*.

Easy to install and maintain, the SILENT MV fans guarantee exceptional performance with significant noise reduction.

\*Except for the SILENT MV 160/100, which is fitted with a patented silent axial motor.

## Features & Benefits

- Sound absorbent insulation
- 360° rotating connection box
- Sealed for life ball bearings
- Fitted with a two speed motor
- IP44 rated
- Five year guarantee
- Incredibly silent running
- High performance
- Complies with building regulations
- Easy installation
- Easy maintenance
- Flexible location

## Versatility

The SILENT MV fan range offers one of the most versatile fan systems on the market today. Due to its flexibility it can be used in a multitude of small and medium fan installations.

Especially advantageous in applications where the system may be running for long periods throughout the day, the acoustic benefits of the SILENT MV fans ensure that optimum comfort is achieved without the disturbance of noisy ventilation systems.

# Presenting the world's quietest in-line fans

Presenting the world's quietest in-line fan range in their class, the SILENT MV range creates a quantum leap forward in technology to improve the acoustic performance of up to 12 dB(A) compared with similar products on the market.

The SILENT MV range is the result of an intense R&D, technological and economic investment to ensure that you can be guaranteed of a product range that provides exceptional performance with significant noise reduction. Following extensive aerodynamic testing, we have been able to not only reduce the amount of noise produced, but also ensure that the noise level that is actually emitted is at a far lower frequency, providing a quiet and ambient environment.

By installing the SILENT MV, you will never experience the disturbance of noisy ventilation again.



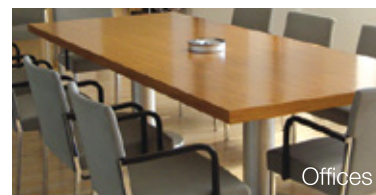
Hairdressers



Public Spaces



Libraries



Offices

# Once installed, you'll never know it exists

## Innovative Engineering

The SILENT MV has been designed with state of the art technology to achieve results to satisfy the most demanding specifier. The low profile and compact design of the helicocentrifugal fans enable them to be installed where space is restricted, such as false ceilings.

The unique perforated design of the casing directs sound waves into the high density sound absorbent material to prevent air leakage and minimise noise.



The connection box can be rotated 360° to enable the power cable to be easily connected.



Duct connections are constructed out of flexible rubber gaskets, which minimise sound and vibrations to the ducts.



Support bracket can be used to install the SILENT MV fans on either a wall or a ceiling.

## How does it work?

Sound waves produced inside the SILENT MV are directed through the perforated inner cover and absorbed by the layer of sound absorbent material.

## Ease of Maintenance

The central body of the SILENT MV can be easily dismantled from the connections to enable rapid maintenance, without the need to interfere with the ducting.

## Ease of Installation



Loosen the fixing clamps



Open clamps on both sides



Remove the fan body



Remove the terminal box lid



Carry out the wiring of the unit



Replace the fan body and tighten the clamps

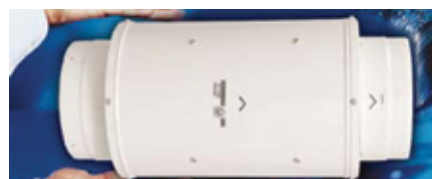


The SILMV1300/250 and SILMV2000/315 are in-line mixed flow fans with a low profile to meet ventilation needs in commercial and industrial applications, especially where sound may be a problem. Constructed from sheet steel with epoxy polyester paint, acoustic insulation (MO) glass fibre, within an outer shell. External terminal box IP55. Removeable fan body with 2 speed motor, single phase 230V-50/60Hz speed controllable, IP44, Class F, external rota aluminium motor with capacitor and thermal protection.

These fans retain the same philosophy as the rest of the SILENT MV range; to improve comfort whilst achieving a substantial reduction in radiated noise level, without sacrificing airflow performance and ease of installation.

## Low Profile

Ideal for installations where space is restricted, as in false ceilings.



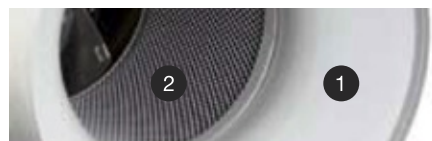
## Support Bracket

Suitable for wall or ceiling mounting, fixing brackets to the motor body are included.



## Low Noise Level

1. Aerodynamic inlet to improve airflow and reduce sound
2. Attenuating perforated skin





Performance Data

| MODEL/ORDER CODES                | Speed (r.p.m.) |      | Watts (W) | Amps (A) | Airflow l/s (m³/h) | Max. Working Temp (°C) | dB(A) @ 3m | Ø Duct (mm) |
|----------------------------------|----------------|------|-----------|----------|--------------------|------------------------|------------|-------------|
| SILMV250/100<br>SILMV250/100T*   | Low            | 1850 | 18        | 0.10     | 50 (180)           | 40                     | 19         | 100         |
|                                  | High           | 2200 | 24        | 0.11     | 67 (240)           | 40                     | 24         | 100         |
| SILMV350/125<br>SILMV350/125T*   | Low            | 1900 | 22        | 0.10     | 78 (280)           | 40                     | 19         | 125         |
|                                  | High           | 2250 | 30        | 0.13     | 106 (380)          | 40                     | 19         | 125         |
| SILMV500/150<br>SILMV500/150T*   | Low            | 1950 | 44        | 0.19     | 119 (430)          | 60                     | 17         | 150         |
|                                  | High           | 2500 | 50        | 0.22     | 161 (580)          | 60                     | 22         | 150         |
| SILMV800/200<br>SILMV800/200T*   | Low            | 2480 | 60        | 0.26     | 194 (700)          | 60                     | 18         | 200         |
|                                  | High           | 2780 | 95        | 0.30     | 244 (880)          | 60                     | 19         | 200         |
| SILMV1000/200<br>SILMV1000/200T* | Low            | 2000 | 100       | 0.45     | 222 (800)          | 60                     | 20         | 200         |
|                                  | High           | 2500 | 120       | 0.50     | 306 (1100)         | 60                     | 21         | 200         |

| MODEL/<br>ORDER CODES | Speed (r.p.m.) |      | Watts (W) | Amps (A) | Airflow l/s (m³/h) | Sound Pressure Level** dB(A) |          |           | Weight (Kg) |
|-----------------------|----------------|------|-----------|----------|--------------------|------------------------------|----------|-----------|-------------|
|                       |                |      |           |          |                    | Inlet                        | Radiated | Discharge |             |
| SILMV1300/250         | Low            | 2190 | 145       | 0.61     | 297 (1070)         | 42                           | 31       | 49        | 20          |
|                       | High           | 2570 | 197       | 0.83     | 353 (1270)         | 47                           | 35       | 53        |             |
| SILMV2000/315         | Low            | 2300 | 191       | 0.79     | 417 (1500)         | 44                           | 33       | 48        | 25          |
|                       | High           | 2680 | 297       | 1.28     | 492 (1770)         | 50                           | 39       | 55        |             |

Electrical Accessories

Various speed controllers available. Please contact EnviroVent for further details.

Related Information

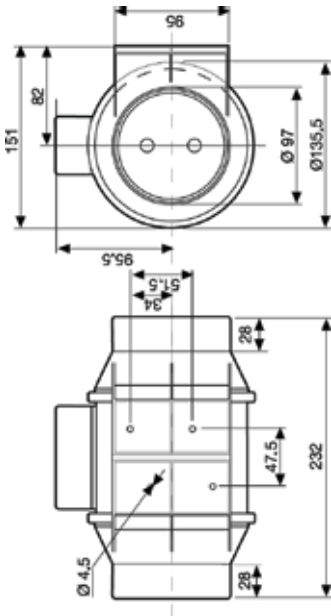
| Description                         | Page Number(s) |
|-------------------------------------|----------------|
| Commercial & Industrial Ancillaries | 140-147        |
| Wiring Diagrams                     | 162            |

\* Timer models are commissioned at installation to operate at high speed. Auxiliary two speed switches or variable speed controllers can be used with standard models.

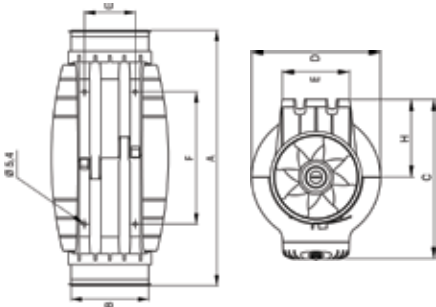
\*\* Sound pressure level at 3 metres in free field conditions at points B and E on curves.

Dimensions (mm)

160/100S | 160/100T

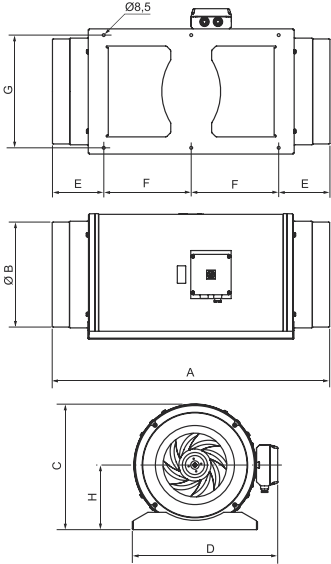


250/100 | 350/125 | 500/150 | 800/200 | 1000/200



| MODEL         | A   | B   | C   | D   | E   | F   | G   | H   |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|
| SILMV250/100  | 575 | 97  | 252 | 204 | 100 | 250 | 83  | 121 |
| SILMV350/125  | 462 | 123 | 252 | 204 | 100 | 250 | 83  | 121 |
| SILMV500/150  | 484 | 147 | 274 | 221 | 116 | 250 | 96  | 134 |
| SILMV800/200  | 568 | 198 | 327 | 264 | 145 | 340 | 129 | 164 |
| SILMV1000/200 | 568 | 198 | 327 | 264 | 145 | 340 | 129 | 164 |

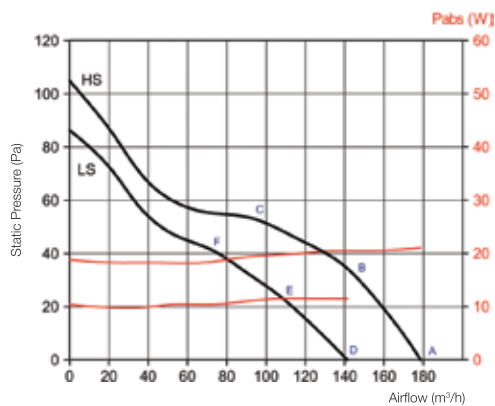
1300/250 | 2000/315



| MODEL         | A   | B   | C   | D   | E   | F   | G   | H   |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|
| SILMV1300/250 | 680 | 248 | 331 | 387 | 140 | 200 | 280 | 171 |
| SILMV2000/315 | 825 | 312 | 373 | 432 | 152 | 260 | 335 | 192 |

## Performance Curves

SILENT MV 160/100



### Low Speed

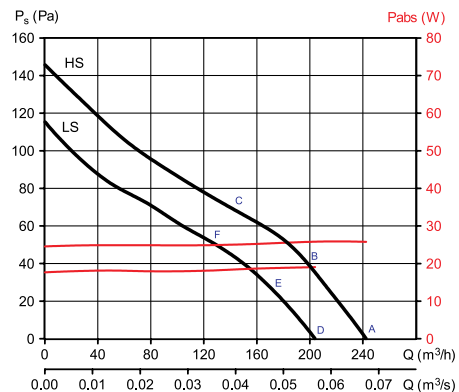
| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| D        | 23 | 26  | 37  | 43  | 49    | 45    | 36    | 27    | 51  | 31   |
| E        | 22 | 27  | 39  | 43  | 47    | 43    | 35    | 26    | 50  | 30   |
| F        | 22 | 29  | 41  | 44  | 48    | 44    | 35    | 27    | 51  | 31   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 23 | 17  | 35  | 32  | 33    | 37    | 28    | 17    | 41  | 20   |
| E        | 22 | 18  | 37  | 32  | 31    | 36    | 27    | 17    | 41  | 20   |
| F        | 22 | 21  | 39  | 33  | 32    | 36    | 27    | 17    | 42  | 22   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 29 | 32  | 34  | 45  | 48    | 44    | 37    | 27    | 51  | 30   |
| E        | 28 | 32  | 35  | 45  | 46    | 42    | 35    | 27    | 50  | 29   |
| F        | 28 | 33  | 36  | 46  | 47    | 42    | 36    | 27    | 51  | 30   |

### High Speed

| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| A        | 24 | 32  | 39  | 46  | 52    | 49    | 40    | 31    | 54  | 34   |
| B        | 23 | 32  | 40  | 46  | 51    | 47    | 39    | 30    | 54  | 33   |
| C        | 23 | 34  | 43  | 47  | 51    | 47    | 39    | 30    | 54  | 33   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 24 | 24  | 37  | 34  | 36    | 41    | 32    | 21    | 44  | 24   |
| B        | 23 | 24  | 38  | 35  | 35    | 39    | 31    | 20    | 44  | 23   |
| C        | 23 | 26  | 41  | 36  | 35    | 39    | 31    | 20    | 44  | 24   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 30 | 34  | 37  | 48  | 51    | 47    | 41    | 31    | 54  | 33   |
| B        | 29 | 35  | 37  | 48  | 49    | 46    | 39    | 30    | 53  | 33   |
| C        | 28 | 36  | 39  | 49  | 50    | 45    | 39    | 30    | 54  | 33   |

\*Sound pressure level radiated at 3m, in free field condition, with rigid ducts at the inlet and outlet.

SILENT MV 250/100



### Low Speed

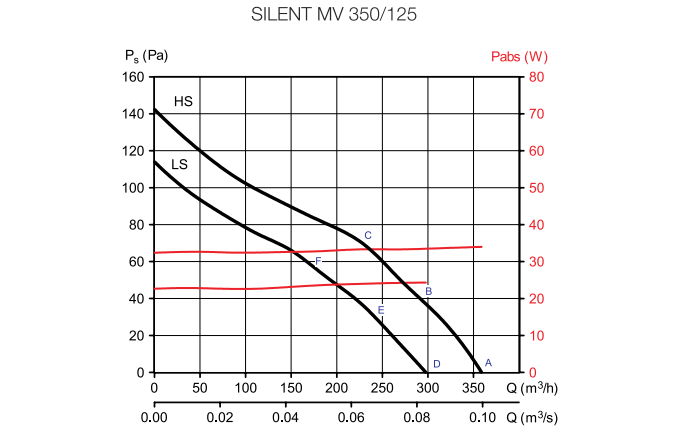
| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| D        | 22 | 38  | 42  | 47  | 48    | 38    | 32    | 26    | 52  | 31   |
| E        | 23 | 34  | 43  | 46  | 48    | 39    | 32    | 27    | 51  | 31   |
| F        | 24 | 33  | 39  | 49  | 54    | 43    | 35    | 29    | 56  | 35   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 22 | 33  | 35  | 34  | 28    | 24    | 19    | 17    | 39  | 19   |
| E        | 23 | 29  | 36  | 33  | 28    | 25    | 19    | 18    | 39  | 19   |
| F        | 24 | 28  | 32  | 36  | 34    | 29    | 22    | 20    | 40  | 20   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 26 | 36  | 40  | 47  | 41    | 34    | 29    | 24    | 49  | 29   |
| E        | 25 | 34  | 41  | 46  | 42    | 35    | 31    | 25    | 49  | 28   |
| F        | 25 | 33  | 38  | 49  | 46    | 37    | 33    | 26    | 51  | 31   |

### High Speed

| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| A        | 26 | 32  | 46  | 53  | 53    | 44    | 38    | 30    | 57  | 36   |
| B        | 24 | 36  | 46  | 53  | 52    | 44    | 38    | 30    | 56  | 36   |
| C        | 25 | 35  | 42  | 51  | 55    | 47    | 40    | 34    | 57  | 37   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 26 | 28  | 40  | 40  | 36    | 31    | 25    | 18    | 44  | 24   |
| B        | 24 | 32  | 40  | 40  | 35    | 31    | 25    | 18    | 44  | 24   |
| C        | 25 | 31  | 36  | 38  | 38    | 34    | 27    | 22    | 43  | 23   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 30 | 33  | 45  | 53  | 46    | 40    | 36    | 28    | 55  | 34   |
| B        | 26 | 35  | 43  | 52  | 45    | 40    | 36    | 28    | 54  | 33   |
| C        | 26 | 35  | 39  | 51  | 49    | 42    | 38    | 31    | 54  | 33   |

\*Sound pressure level radiated at 3m, in free field condition, with rigid ducts at the inlet and outlet.

Performance Curves



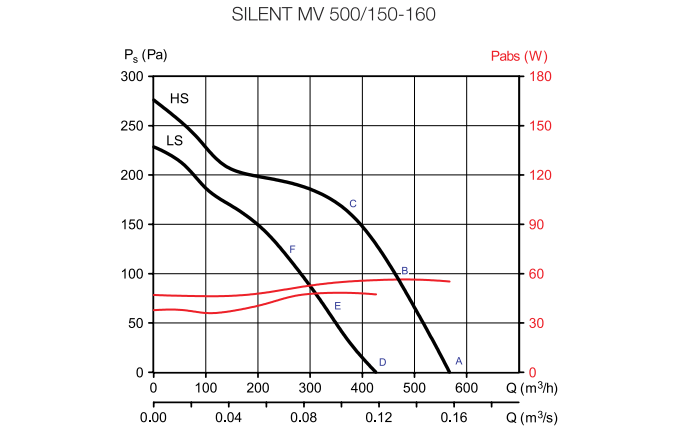
Low Speed

| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| D        | 21 | 27  | 42  | 46  | 51    | 38    | 31    | 25    | 53  | 32   |
| E        | 22 | 29  | 40  | 46  | 53    | 39    | 34    | 26    | 54  | 34   |
| F        | 30 | 33  | 41  | 51  | 52    | 46    | 40    | 33    | 55  | 35   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 18 | 22  | 34  | 33  | 34    | 20    | 13    | 13    | 39  | 18   |
| E        | 19 | 24  | 32  | 33  | 36    | 21    | 16    | 14    | 39  | 19   |
| F        | 27 | 28  | 33  | 38  | 35    | 28    | 22    | 21    | 41  | 21   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 24 | 27  | 43  | 45  | 46    | 38    | 30    | 25    | 50  | 29   |
| E        | 23 | 29  | 40  | 45  | 47    | 35    | 32    | 26    | 50  | 29   |
| F        | 29 | 34  | 41  | 49  | 46    | 41    | 38    | 31    | 52  | 31   |

High Speed

| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| A        | 22 | 28  | 41  | 53  | 49    | 44    | 37    | 30    | 55  | 35   |
| B        | 22 | 27  | 39  | 51  | 49    | 42    | 37    | 30    | 54  | 33   |
| C        | 23 | 31  | 48  | 53  | 51    | 46    | 41    | 32    | 56  | 36   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 22 | 23  | 32  | 39  | 32    | 25    | 18    | 14    | 41  | 20   |
| B        | 22 | 22  | 30  | 37  | 32    | 23    | 18    | 14    | 39  | 19   |
| C        | 23 | 26  | 39  | 39  | 34    | 27    | 22    | 16    | 43  | 22   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 29 | 30  | 43  | 53  | 50    | 45    | 38    | 30    | 56  | 35   |
| B        | 25 | 27  | 40  | 50  | 47    | 40    | 36    | 29    | 52  | 32   |
| C        | 24 | 31  | 46  | 52  | 47    | 42    | 40    | 32    | 54  | 34   |

\*Sound pressure level radiated at 3m, in free field condition, with rigid ducts at the inlet and outlet.



Low Speed

| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| D        | 28 | 33  | 46  | 54  | 53    | 51    | 45    | 38    | 58  | 38   |
| E        | 25 | 31  | 41  | 50  | 48    | 44    | 37    | 30    | 53  | 33   |
| F        | 25 | 37  | 48  | 56  | 52    | 49    | 42    | 35    | 59  | 38   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 23 | 25  | 34  | 37  | 38    | 35    | 26    | 23    | 43  | 22   |
| E        | 20 | 23  | 29  | 33  | 33    | 28    | 18    | 15    | 38  | 17   |
| F        | 20 | 29  | 36  | 39  | 37    | 33    | 23    | 20    | 43  | 23   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 26 | 33  | 47  | 53  | 51    | 47    | 41    | 33    | 56  | 36   |
| E        | 25 | 31  | 44  | 50  | 48    | 41    | 33    | 27    | 53  | 33   |
| F        | 26 | 37  | 50  | 55  | 50    | 43    | 37    | 31    | 57  | 37   |

High Speed

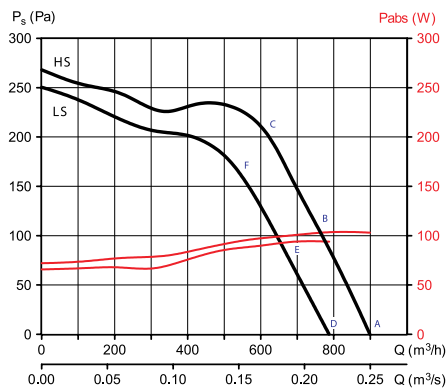
| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| A        | 24 | 35  | 51  | 58  | 57    | 56    | 51    | 47    | 63  | 42   |
| B        | 25 | 33  | 48  | 56  | 55    | 54    | 46    | 42    | 60  | 40   |
| C        | 24 | 33  | 49  | 57  | 53    | 52    | 46    | 40    | 60  | 39   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 12 | 21  | 42  | 39  | 37    | 35    | 23    | 18    | 45  | 25   |
| B        | 13 | 19  | 39  | 37  | 35    | 33    | 18    | 13    | 43  | 22   |
| C        | 12 | 19  | 40  | 38  | 33    | 31    | 18    | 11    | 43  | 22   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 38 | 38  | 52  | 60  | 58    | 53    | 49    | 43    | 63  | 43   |
| B        | 35 | 35  | 53  | 58  | 57    | 50    | 44    | 38    | 62  | 41   |
| C        | 30 | 33  | 50  | 57  | 56    | 48    | 42    | 36    | 60  | 40   |

\*Sound pressure level radiated at 3m, in free field condition, with rigid ducts at the inlet and outlet.



## Performance Curves

SILENT MV 800/200



### Low Speed

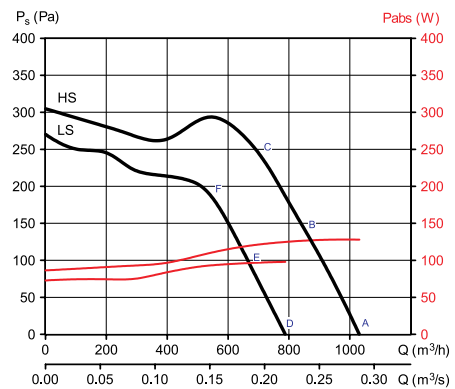
| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| D        | 25 | 37  | 48  | 55  | 61    | 57    | 53    | 46    | 64  | 43   |
| E        | 24 | 35  | 48  | 52  | 58    | 54    | 49    | 42    | 61  | 40   |
| F        | 29 | 38  | 51  | 58  | 58    | 55    | 50    | 45    | 63  | 42   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 12 | 26  | 30  | 34  | 38    | 33    | 21    | 15    | 41  | 20   |
| E        | 11 | 24  | 20  | 31  | 35    | 30    | 17    | 11    | 38  | 18   |
| F        | 16 | 27  | 33  | 37  | 35    | 31    | 18    | 14    | 41  | 20   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 45 | 47  | 52  | 56  | 59    | 58    | 54    | 46    | 64  | 43   |
| E        | 37 | 45  | 54  | 53  | 55    | 54    | 50    | 42    | 61  | 40   |
| F        | 31 | 44  | 54  | 57  | 56    | 53    | 50    | 43    | 62  | 41   |

### High Speed

| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| A        | 27 | 40  | 48  | 57  | 61    | 61    | 57    | 50    | 66  | 45   |
| B        | 25 | 38  | 46  | 55  | 58    | 58    | 54    | 46    | 63  | 42   |
| C        | 23 | 38  | 47  | 57  | 59    | 58    | 53    | 48    | 64  | 43   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 12 | 31  | 29  | 35  | 37    | 36    | 24    | 18    | 42  | 21   |
| B        | 10 | 29  | 27  | 33  | 34    | 33    | 21    | 14    | 39  | 19   |
| C        | 8  | 29  | 28  | 35  | 35    | 33    | 20    | 16    | 40  | 19   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 49 | 50  | 51  | 59  | 62    | 62    | 59    | 51    | 67  | 47   |
| B        | 42 | 45  | 49  | 58  | 59    | 58    | 55    | 47    | 64  | 44   |
| C        | 36 | 42  | 50  | 58  | 59    | 57    | 54    | 47    | 64  | 43   |

\*Sound pressure level radiated at 3m, in free field condition, with rigid ducts at the inlet and outlet.

SILENT MV 1000/200



### Low Speed

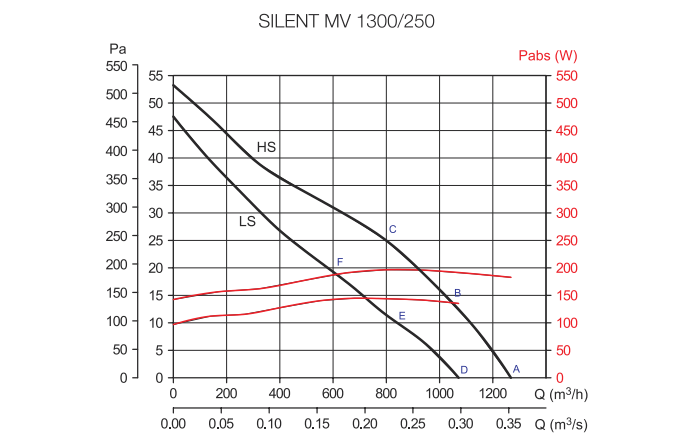
| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| D        | 27 | 38  | 48  | 54  | 61    | 57    | 53    | 46    | 64  | 43   |
| E        | 23 | 37  | 49  | 52  | 59    | 54    | 49    | 42    | 61  | 41   |
| F        | 26 | 39  | 52  | 57  | 59    | 56    | 51    | 45    | 63  | 43   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 14 | 29  | 32  | 33  | 40    | 33    | 21    | 14    | 42  | 22   |
| E        | 10 | 28  | 33  | 31  | 38    | 30    | 17    | 10    | 41  | 20   |
| F        | 13 | 30  | 36  | 36  | 38    | 32    | 19    | 13    | 42  | 22   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| D        | 44 | 45  | 53  | 55  | 59    | 58    | 54    | 46    | 64  | 43   |
| E        | 35 | 41  | 53  | 52  | 55    | 54    | 50    | 41    | 60  | 40   |
| F        | 28 | 40  | 54  | 58  | 57    | 54    | 50    | 44    | 62  | 42   |

### High Speed

| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|------|
| A        | 28 | 43  | 49  | 58  | 62    | 65    | 61    | 53    | 68  | 48   |
| B        | 27 | 42  | 46  | 56  | 60    | 61    | 56    | 49    | 65  | 45   |
| C        | 25 | 42  | 47  | 58  | 61    | 61    | 56    | 50    | 66  | 45   |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 14 | 35  | 32  | 36  | 39    | 39    | 27    | 19    | 44  | 24   |
| B        | 13 | 34  | 29  | 34  | 37    | 35    | 22    | 15    | 42  | 21   |
| C        | 11 | 34  | 30  | 36  | 38    | 35    | 22    | 16    | 42  | 22   |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA | LpA* |
| A        | 50 | 50  | 52  | 59  | 65    | 65    | 61    | 54    | 70  | 49   |
| B        | 43 | 46  | 49  | 58  | 61    | 60    | 57    | 50    | 66  | 45   |
| C        | 35 | 44  | 51  | 59  | 60    | 59    | 56    | 50    | 65  | 45   |

\*Sound pressure level radiated at 3m, in free field condition, with rigid ducts at the inlet and outlet.

Performance Curves



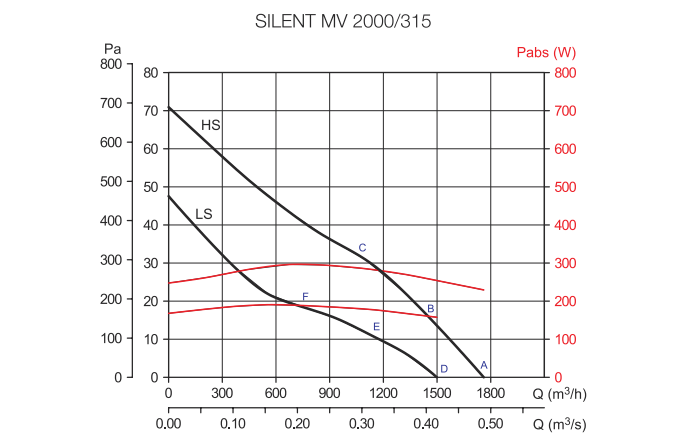
Low Speed

|          |    |     |     |     |       |       |       |       |     |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|
| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| D        | 30 | 40  | 59  | 55  | 59    | 57    | 53    | 47    | 64  |
| E        | 35 | 40  | 57  | 56  | 56    | 55    | 51    | 46    | 63  |
| F        | 38 | 45  | 59  | 57  | 53    | 53    | 49    | 42    | 63  |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| D        | 30 | 43  | 58  | 63  | 72    | 59    | 50    | 43    | 73  |
| E        | 29 | 44  | 57  | 65  | 66    | 57    | 47    | 41    | 69  |
| F        | 32 | 48  | 59  | 65  | 62    | 55    | 45    | 38    | 68  |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| D        | 24 | 32  | 44  | 39  | 53    | 44    | 34    | 33    | 54  |
| E        | 29 | 32  | 42  | 40  | 50    | 42    | 32    | 32    | 52  |
| F        | 32 | 37  | 44  | 41  | 47    | 40    | 30    | 28    | 50  |

High Speed

|          |    |     |     |     |       |       |       |       |     |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|
| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| A        | 30 | 42  | 60  | 59  | 62    | 61    | 58    | 52    | 67  |
| B        | 32 | 43  | 62  | 60  | 61    | 60    | 56    | 51    | 67  |
| C        | 36 | 47  | 63  | 60  | 58    | 58    | 55    | 48    | 67  |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| A        | 33 | 45  | 60  | 68  | 72    | 65    | 54    | 48    | 74  |
| B        | 30 | 46  | 61  | 69  | 71    | 63    | 52    | 47    | 74  |
| C        | 32 | 51  | 62  | 69  | 67    | 60    | 51    | 44    | 72  |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| A        | 26 | 31  | 46  | 42  | 55    | 48    | 39    | 38    | 57  |
| B        | 28 | 32  | 48  | 43  | 54    | 47    | 37    | 37    | 56  |
| C        | 32 | 36  | 49  | 43  | 51    | 45    | 36    | 34    | 54  |

Sound power levels dBA at octave bands for inlet, discharge and radiated. For low (A or D), medium (B or E) and high (C or F) pressure, for each model. Test in accordance with ISO 13347-3 2004



Low Speed

|          |    |     |     |     |       |       |       |       |     |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|
| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| D        | 37 | 47  | 59  | 57  | 60    | 58    | 54    | 48    | 65  |
| E        | 34 | 47  | 59  | 56  | 58    | 56    | 53    | 47    | 64  |
| F        | 32 | 48  | 59  | 55  | 56    | 54    | 51    | 43    | 63  |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| D        | 34 | 52  | 62  | 63  | 67    | 60    | 47    | 43    | 70  |
| E        | 34 | 53  | 60  | 62  | 66    | 58    | 44    | 41    | 69  |
| F        | 31 | 55  | 64  | 61  | 61    | 55    | 41    | 37    | 68  |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| D        | 27 | 40  | 43  | 45  | 52    | 49    | 45    | 37    | 55  |
| E        | 24 | 40  | 43  | 44  | 50    | 47    | 44    | 36    | 54  |
| F        | 22 | 41  | 43  | 43  | 48    | 45    | 42    | 32    | 52  |

High Speed

|          |    |     |     |     |       |       |       |       |     |
|----------|----|-----|-----|-----|-------|-------|-------|-------|-----|
| Inlet    | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| A        | 34 | 48  | 60  | 63  | 66    | 64    | 59    | 55    | 70  |
| B        | 34 | 49  | 63  | 62  | 65    | 64    | 60    | 55    | 70  |
| C        | 37 | 56  | 64  | 63  | 63    | 62    | 58    | 52    | 70  |
| Radiated | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| A        | 42 | 54  | 67  | 69  | 73    | 66    | 52    | 49    | 76  |
| B        | 38 | 55  | 66  | 67  | 73    | 65    | 51    | 49    | 75  |
| C        | 36 | 61  | 68  | 71  | 68    | 62    | 49    | 46    | 74  |
| Outlet   | 63 | 125 | 250 | 500 | 1.000 | 2.000 | 4.000 | 8.000 | LwA |
| A        | 23 | 36  | 44  | 50  | 57    | 54    | 49    | 43    | 60  |
| B        | 23 | 37  | 47  | 49  | 56    | 54    | 50    | 43    | 60  |
| C        | 26 | 44  | 48  | 50  | 54    | 52    | 48    | 40    | 58  |

Sound power levels dBA at octave bands for inlet, discharge and radiated. For low (A or D), medium (B or E) and high (C or F) pressure, for each model. Test in accordance with ISO 13347-3 2004



Scan the QR code to find out more about the product or visit:  
[envirovent.com/silentmv](https://envirovent.com/silentmv)



\*Note: 'E' rating only applicable to TH-500 ECOWATT as per RVU ERP Directive

## About

Range of roof mounted mixed flow fans, with low energy consumption. All models incorporate a bird guard and base cable gland entry point as standard.

The motor and impeller casing can be easily removed by 2 fixing clips.

### Model 500:

Body injection moulded in thermoplastic material. Base and cowl made of sheet steel, protected against corrosion by black polyester coating.

### Models 1300 and 2000:

Body and base made of sheet steel with an aluminium cowl, all protected against corrosion by black polyester coating.

## Features & Benefits

- Bird guard and base cable gland entry point as standard
- Supply or extract ventilation
- Four sizes available
- Metallic parts protected with black epoxy-polyester
- Motor and impeller easily removed by two fixing clips
- Motors IP44 rated
- Standard Thermal Overload Protection (S.T.O.P.)
- Wiring terminal box IP55 rated
- Two speed motors with sealed for life ball bearings
- Two year guarantee
- Ease of cleaning and maintenance
- Flexible installation design
- Speed controllable

## Features

The models TH-500 and TH-800 are manufactured from high strength injection moulded plastic, whilst the TH-1300 and TH-2000 models are produced with high grade pressed sheet steel. All models incorporate a bird guard and base cable gland entry point as standard with an accessible flame retardant terminal box.

All metallic parts are protected with a black epoxy-polyester weatherproof paint coating. Circular spigot coupling facilitates the connection to circular, rigid or flexible ducting.



Bird Proof Guard



Circular Spigot Coupling



Flame Retardant Box

## Motors

### Models 500 and 800:

Brushless DC motor, high performance and low energy consumption, power supply: 90/260V-50/60Hz, IP44, ball bearings, thermal protection.

### Models 1300 and 2000:

Brushless EC motor, high performance and low energy consumption, power supply 230V±15% 50/60Hz, IP44, ball bearings, thermal protection. With a built in potentiometer to adjust the speed from 10 to 100%, analogue input to control the fan with a 0-10V signal. Working temperature from -20°C to +60°C.

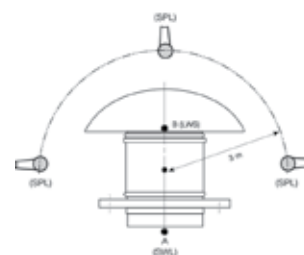
## Additional Information

Supplied, in the standard version, as extractors. The motor and impeller casing can be removed and turned through 180° to provide supply air ventilation.

| ORDER CODE                              | TH-500 ECOWATT | TH-800 ECOWATT | TH-1300 ECOWATT | TH-2000 ECOWATT |
|---|----------------|----------------|-----------------|-----------------|
| Two Speed                               | •              | •              | •               | •               |
| S.T.O.P                                 | •              | •              | •               | •               |
| Speed Controllable                      | •              | •              | •               | •               |
| High Strength Injection Moulded Plastic | •              | •              |                 |                 |
| High Grade Pressed Sheet Steel          |                |                | •               | •               |

## Acoustic Characteristics

The values of the sound levels given in the technical characteristics chart are sound pressure levels measured in dB(A) at a distance of 3m with the maximum airflow. To obtain the sound power level at A or B, for extract operation, add to the sound pressure level (SPL Extract) given in the technical characteristics chart, the correction value shown in the following table.



| MODEL           | Frequency Bands Hz |     |       |      |      |      |      |
|-----------------|--------------------|-----|-------|------|------|------|------|
|                 | 125                | 250 | 500   | 1000 | 2000 | 4000 | 8000 |
| TH-500 ECOWATT  | A   -7.5           | -3  | 9     | 6    | 11   | 4    | -2   |
|                 | B   -7.5           | 6   | -13.5 | 17.5 | 14.5 | 4.5  | -3   |
| TH-800 ECOWATT  | A   -7.5           | 3.5 | 8     | 9.5  | 14   | 9    | 0    |
|                 | B   -4             | 7.5 | 15    | 16   | 14.5 | 9    | 1.5  |
| TH-1300 ECOWATT | A   -13.5          | 0   | 1     | 12   | 9    | 4    | 0    |
|                 | B   -11            | 5.5 | 11.5  | 17.5 | 15   | 7    | -0.5 |
| TH-2000 ECOWATT | A   -21.5          | -7  | -3    | 7    | 5.5  | -2   | -8.5 |
|                 | B   -16.5          | 2.5 | 7     | 20   | 7.5  | 1    | -8   |



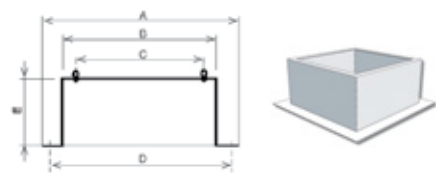
## Performance Data

| MODEL           | Input Signal Voltage (V) | Speed (r.p.m.) | Maximum Absorbed Power (W) | Maximum Absorbed Current (A) | Maximum Airflow (m³/h) | Sound Pressure Level at 4M* db(A) |        | Weight (kg) |
|-----------------|--------------------------|----------------|----------------------------|------------------------------|------------------------|-----------------------------------|--------|-------------|
|                 |                          |                |                            |                              |                        | Inlet                             | Outlet |             |
| TH-500 ECOWATT  | 10                       | 2670           | 45                         | 0.4                          | 470                    | 46                                | 52     | 3.8         |
|                 | 8                        | 2275           | 31                         | 0.2                          | 410                    | 44                                | 48     |             |
|                 | 6                        | 1655           | 15                         | 0.1                          | 300                    | 34                                | 40     |             |
|                 | 4                        | 1135           | 7                          | 0.1                          | 200                    | 29                                | 30     |             |
| TH-800 ECOWATT  | 10                       | 2490           | 98                         | 0.6                          | 750                    | 47                                | 51     | 5.6         |
|                 | 8                        | 2190           | 68                         | 0.4                          | 650                    | 43                                | 47     |             |
|                 | 6                        | 1860           | 46                         | 0.3                          | 570                    | 36                                | 39     |             |
|                 | 4                        | 1520           | 28                         | 0.2                          | 470                    | 27                                | 30     |             |
| TH-1300 ECOWATT | 10                       | 2440           | 137                        | 0.6                          | 1030                   | 58                                | 63     | 11.2        |
|                 | 8                        | 2030           | 85                         | 0.4                          | 830                    | 54                                | 58     |             |
|                 | 6                        | 1620           | 51                         | 0.3                          | 670                    | 50                                | 51     |             |
|                 | 4                        | 1210           | 29                         | 0.2                          | 490                    | 39                                | 43     |             |
| TH-2000 ECOWATT | 10                       | 2460           | 230                        | 1.0                          | 1530                   | 60                                | 65     | 17.2        |
|                 | 8                        | 2000           | 131                        | 0.6                          | 1230                   | 54                                | 58     |             |
|                 | 6                        | 1620           | 76                         | 0.4                          | 1020                   | 52                                | 52     |             |
|                 | 4                        | 1215           | 39                         | 0.2                          | 740                    | 43                                | 45     |             |

## Mounting Accessories

### Flat Roof Upstand JBS

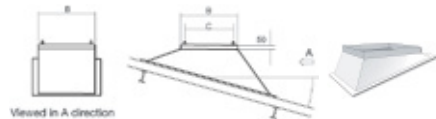
For mounting fans on flat roofs with no upstands



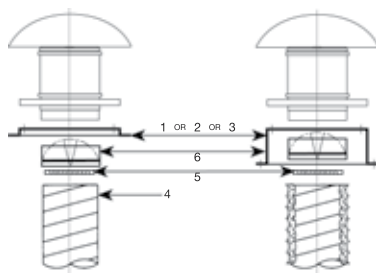
| MODEL   | A   | B   | C   | D   | E   |
|---------|-----|-----|-----|-----|-----|
| JBS 300 | 470 | 289 | 245 | 380 | 300 |
| JBS 435 | 600 | 419 | 330 | 510 | 300 |
| JBS 560 | 725 | 544 | 450 | 635 | 300 |

### BI Support Base

For inclined curb mounted installations



| MODEL | B   | C   | - | - | - |
|-------|-----|-----|---|---|---|
| BI 3  | 289 | 245 | - | - | - |
| BI 4  | 419 | 330 | - | - | - |
| BI 5  | 544 | 450 | - | - | - |

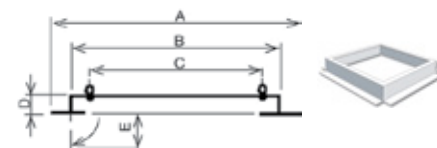


| MODEL   | 1 Sealing Frame | 2 Flat Roof Upstand | 3 Support Base |
|---------|-----------------|---------------------|----------------|
| TH-500  | JMS 300         | JBS 300             | BI 3           |
| TH-800  | JMS 300         | JBS 300             | BI 3           |
| TH-1300 | JMS 435         | JBS 435             | BI 4           |
| TH-2000 | JMS 560         | JBS 560             | BI 5           |

| MODEL   | 4 Flexible Ducting | 5 Worm Drive Clips | 6 Backdraught Shutter |
|---------|--------------------|--------------------|-----------------------|
| TH-500  | 1RDFLEX150X3M      | IN-WDC250          | CAR 150               |
| TH-800  | 1RDFLEX200X3M      | IN-WDC250          | CAR 200               |
| TH-1300 | 1RDFLEXGR250X10M   | IN-WDC300          | CAR 250               |
| TH-2000 | 1RDFLEXGR350X10M   | IN-WDC400          | CAR 315               |

### Sealing Frame JMS

For mounting on an upstand or base



| MODEL   | A   | B   | C   | D  | E  |
|---------|-----|-----|-----|----|----|
| JMS 300 | 470 | 290 | 245 | 50 | 70 |
| JMS 435 | 600 | 420 | 330 | 50 | 70 |
| JMS 560 | 725 | 545 | 450 | 50 | 70 |

## Related Information

| Description                         | Page Number(s) |
|-------------------------------------|----------------|
| Commercial & Industrial Ancillaries | 140-147        |
| Wiring Diagrams                     | 162            |

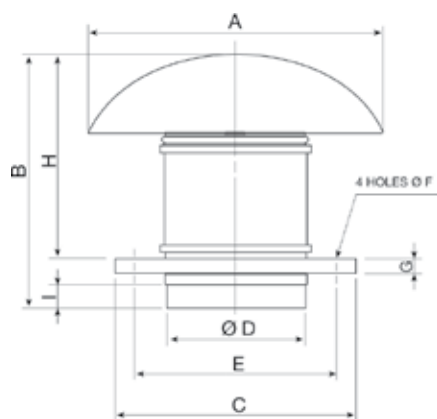
## Controllers

The TH-ECOWATT models can be controlled by a variable speed controller.



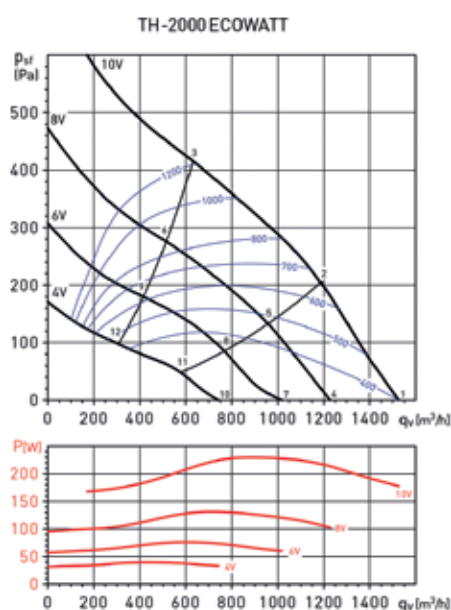
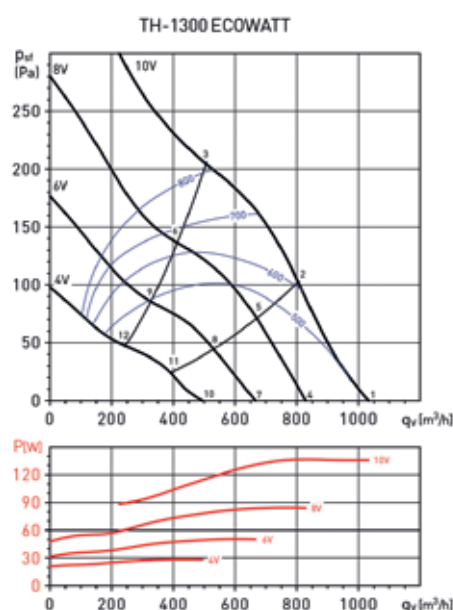
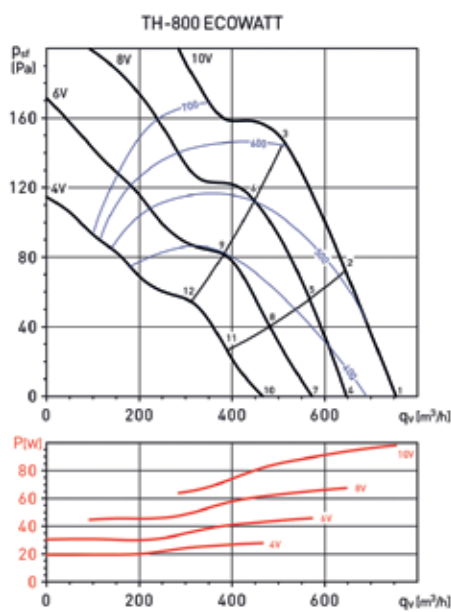
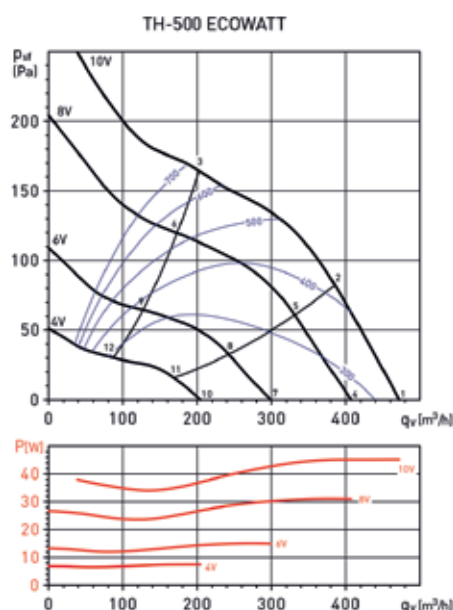
**REB ECOWATT**  
Variable speed controller

## Dimensions (mm) ✓



|    | TH-500 | TH-800 | TH-1300 | TH-2000 |
|----|--------|--------|---------|---------|
| A  | 400    | 400    | 546     | 735     |
| B  | 349    | 371    | 457     | 544     |
| C  | 300    | 300    | 435     | 560     |
| D  | 150    | 198    | 248     | 312     |
| E  | 245    | 245    | 330     | 450     |
| F  | 10     | 10     | 12      | 12      |
| G  | 20     | 20     | 20      | 20      |
| H  | 274    | 306    | 372     | 450     |
| I  | 33     | 36     | 42      | 50      |
| KG | 4.0    | 6.0    | 12.0    | 18.0    |

## Performance Curves ✓



## Technical Specification ✓

### Product

The TH-ECOWATT models are extract or supply two-speed mixed flow roof fans designed to solve ventilation problems for a variety of applications such as offices, restaurants and industrial kitchens.

### Applications

Designed for flat roof installations, the fans can also be installed on shallow pitched roofs. Circular spigot coupling facilitates the connection to circular, rigid or flexible ducting.

### Performance

| MODEL              |      | TH-ECOWATT             |                        |
|--------------------|------|------------------------|------------------------|
|                    |      | EXTRACT                | SUPPLY                 |
| Speed (r.p.m)      | High | 2400 - 2500            | 2400 - 2500            |
|                    | Low  | 1750 - 2100            | 1800 - 2100            |
| Watts (W)          | High | 68 - 225               | 67 - 300               |
|                    | Low  | 40 - 160               | 40 - 190               |
| Amps (A)           | High | 0.26 - 1.27            | 0.25 - 1.27            |
|                    | Low  | 0.19 - 0.79            | 0.19 - 0.79            |
| Airflow l/s (m³/h) | High | 131 (470) - 479 (1725) | 140 (505) - 458 (1650) |
|                    | Low  | 99 (355) - 333 (1200)  | 106 (380) - 346 (1245) |
| Max. Temperature   |      | 60                     |                        |
| Weight (Kg)        |      | 3.8 - 17.2             |                        |
| IP Rating          |      | IP44                   |                        |

### Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

### Construction

The TH-500 and TH-800 models are manufactured from high strength injection moulded plastic and the TH-1300 and TH-2000 models from high grade pressed sheet steel. Bases are constructed from sheet steel and the cowls are made from pressed sheet steel. All models incorporate a bird guard and base cable gland entry point with an accessible flame retardant terminal box. Metallic parts are protected with a black epoxy-polyester weatherproof paint coating.

### Motor

Is a single phase 230V 50Hz E/C motor, fitted with greased for life ball bearings for enhanced working life and thermal protection.

### Fan

The impeller is axial flow type.

### Controllers

The fans can be controlled using variable speed controller (REB ECOWATT).

### Servicing / Maintenance

The motor and impeller casing can be removed by 2 fixing clamps to facilitate ease of cleaning. It is recommended that the fan should be inspected 3 months after installation to remove any dust and other deposits that have built up on the impeller or motor. Thereafter it should be checked regularly, at least twice a year to ensure trouble free operation.

### Guarantee

Is covered by a 2 year warranty subject to specified maintenance.

### Compliance

CE

## Options & Ancillaries ✓

| Description | Page Number(s) |
|-------------|----------------|
| Controllers | 148            |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/thecowatt](http://envirovent.com/thecowatt)



# Industrial Ventilation

An extensive range of ventilation solutions to cater for industrial applications





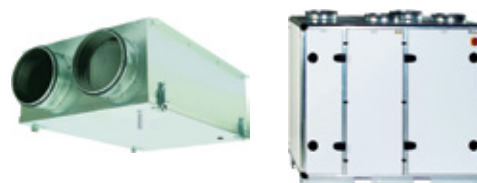
Call our office based  
ventilation specialists on  
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## We also offer...

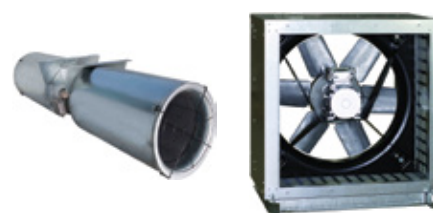
- Air Handlers



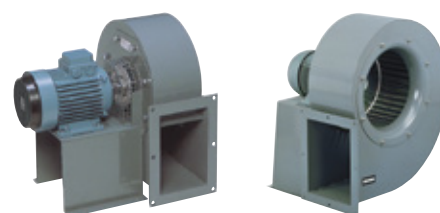
- Industrial Heat Recovery



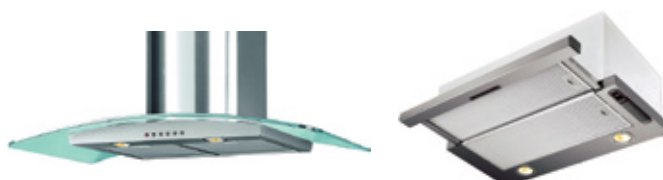
- Smoke Extract Fans



- Direct Drive Centrifugal Fans



- Cooker Hoods



# Plate Mounted Axial Fans

High Efficiency Plate Mounted Axial Fans



## About

Range of highly efficient plate mounted axial fans manufactured from high grade galvanised steel and provided with a sickle blade impeller.

The motor and fan impeller are supported within this mounting plate by a strong electro-welded steel support frame.

All models include a steel finger guard as standard mounted to the inlet side of the fan. The whole fan assembly is protected against corrosion by a cataforesis primer and polyester black paint finish. Available with single phase motors in 4 poles.

## Features & Benefits

### Motors

All motors are IP54, Class F insulation and equipped with thermal protection. All motors are speed controllable except 630 models.

### Electrical Supplies

Single phase 230V-50Hz. (Capacitor located inside the wiring terminal box).

### Additional Information

Standard air direction: form (A) configuration (motor over impeller). All models are supplied with a pre-wired wiring junction box located on the back of the motor hub for easy access wiring.

### On Request

Air direction: form (B) configuration (impeller over motor).

## Compact Design

The low profile and compact design optimises airflow performances whilst minimising noise generation.

## High Efficiency

High efficiency 'sickle blade' impeller specifically designed to ensure the highest and most efficient airflow performance with the lowest noise level. Dynamically balanced to ISO 1940 standard and manufactured from aluminium plate, except for 250 to 355 models which are manufactured from pressed sheet steel.

## Corrosion Resistant

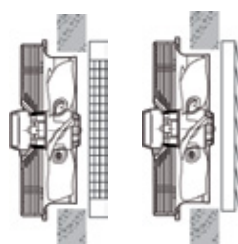
The mounting plate, motor support and finger proof guard are protected by a cataphoresis primer and black polyester paint finish complete with stainless steel screws. Wiring terminal box with cable gland PG-11.



### Installation Accessories

EV-PMWPG

EV-PLS



| Model | Outlet - Wire Protection Guards | Plastic Exhaust Side Louvre Shutters |
|-------|---------------------------------|--------------------------------------|
| 250   | EV-PMWPG-250                    | EV-PLS-250                           |
| 315   | EV-PMWPG-325                    | EV-PLS-355                           |
| 355   | EV-PMWPG-375                    | EV-PLS-355                           |
| 400   | EV-PMWPG-450                    | EV-PLS-400                           |
| 450   | EV-PMWPG-450                    | EV-PLS-450                           |
| 500   | EV-PMWPG-525                    | EV-PLS-500                           |
| 560   | EV-PMWPG-630                    | EV-PLS-560                           |
| 630   | EV-PMWPG-630                    | EV-PLS-630                           |

### Acoustic Characteristics

The sound levels shown in the technical characteristic chart, correspond to the value of sound pressure dB(A), measured in free field conditions at a distance equivalent to three times the diameter of the impeller with a minimum of 1.5 metres.

Sound power level spectrum in dB(A) at the corresponding frequency band in Hz.

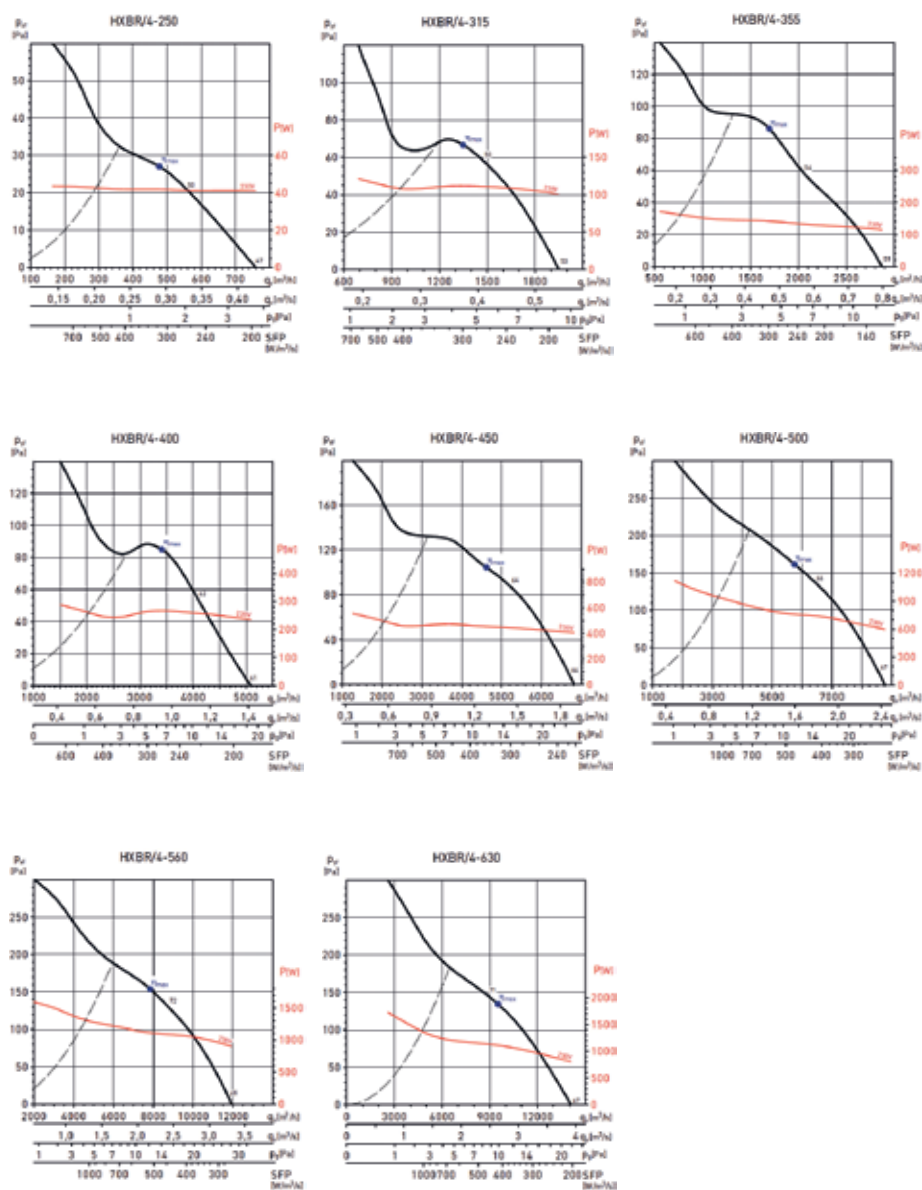
| LwA<br>ASP<br>QMax | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|--------------------|----|-----|-----|-----|------|------|------|------|
| 4-250              | 34 | 31  | 42  | 48  | 53   | 55   | 53   | 46   |
| 4-315              | 38 | 50  | 53  | 62  | 62   | 62   | 57   | 47   |
| 4-355              | 37 | 54  | 58  | 67  | 70   | 68   | 62   | 52   |
| 4-400              | 39 | 56  | 62  | 66  | 70   | 70   | 65   | 58   |
| 4-500              | 42 | 64  | 71  | 76  | 81   | 76   | 70   | 60   |
| 4-560              | 51 | 64  | 71  | 80  | 80   | 78   | 74   | 65   |
| 4-630              | 54 | 68  | 74  | 81  | 83   | 80   | 74   | 66   |

## Technical Characteristics

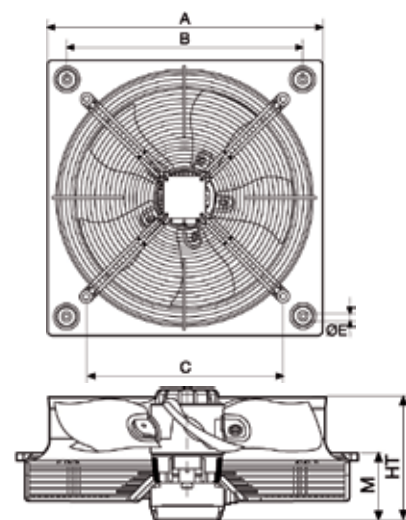
Before installation check that the product's electrical characteristics listed on the data plate label (voltage, power, frequency etc) match those of the intended electrical supply.

| Model<br>Single Phase<br>4 Poles | Speed<br>(r.p.m.) | Maximum<br>Absorbed<br>Power<br>(W) | Maximum<br>Current<br>@ 230V<br>(A) | Sound<br>Pressure Level<br>dB(A) | Maximum<br>Air Volume<br>l/s (m³/h) | Operating<br>Temperature Range |       | Weight<br>(Kg) | Speed<br>Controller |
|----------------------------------|-------------------|-------------------------------------|-------------------------------------|----------------------------------|-------------------------------------|--------------------------------|-------|----------------|---------------------|
|                                  |                   |                                     |                                     |                                  |                                     | Min.                           | Max.  |                |                     |
| HXBR/4-250                       | 1440              | 42                                  | 0.20                                | 47                               | 211 (760)                           | -40°C                          | +60°C | 6.5            | REB-1               |
| HXBR/4-315                       | 1445              | 112                                 | 0.60                                | 53                               | 541 (1950)                          | -40°C                          | +40°C | 7.0            | REB-1               |
| HXBR/4-355                       | 1400              | 145                                 | 0.70                                | 59                               | 797 (2870)                          | -40°C                          | +60°C | 7.5            | REB-1               |
| HXBR/4-400                       | 1395              | 268                                 | 1.20                                | 61                               | 1411 (5080)                         | -40°C                          | +70°C | 9.0            | REB-2.5             |
| HXBR/4-450                       | 1390              | 473                                 | 2.00                                | 64                               | 1894 (6820)                         | -40°C                          | +70°C | 11.5           | REB-2.5             |
| HXBR/4-500                       | 1420              | 847                                 | 3.50                                | 67                               | 2436 (8770)                         | -40°C                          | +70°C | 16.0           | REB-5               |
| HXBR/4-560                       | 1390              | 1225                                | 5.10                                | 69                               | 3311 (11920)                        | -40°C                          | +40°C | 21.5           | N/A                 |
| HXBR/4-630                       | 1430              | 1212                                | 5.30                                | 67                               | 3917 (14100)                        | -40°C                          | +40°C | 24.0           | N/A                 |

## Performance Curves



## Dimensions (mm)



| MODEL      | A   | B   | C   |
|------------|-----|-----|-----|
| HXBR/4-250 | 315 | 260 | 220 |
| HXBR/4-315 | 400 | 330 | 280 |
| HXBR/4-355 | 450 | 380 | 315 |
| HXBR/4-400 | 500 | 420 | 355 |
| HXBR/4-450 | 560 | 480 | 400 |
| HXBR/4-500 | 630 | 560 | 450 |
| HXBR/4-560 | 710 | 630 | 510 |
| HXBR/4-630 | 800 | 710 | 580 |

| MODEL      | ØE | HT  | M   |
|------------|----|-----|-----|
| HXBR/4-250 | 10 | 126 | 73  |
| HXBR/4-315 | 10 | 149 | 82  |
| HXBR/4-355 | 10 | 156 | 82  |
| HXBR/4-400 | 10 | 200 | 122 |
| HXBR/4-450 | 10 | 204 | 114 |
| HXBR/4-500 | 10 | 201 | 104 |
| HXBR/4-560 | 10 | 213 | 114 |
| HXBR/4-630 | 12 | 207 | 104 |

## Electrical Accessories

| PRODUCT                                   | CODE(S)   |
|---|---|
| Electronic Single Phase Speed Controllers | REB-1<br>Surface / Flush mounted<br>(sizes 250-355) |
|   | REB-2.5<br>(sizes 400-450)                          |
|   | REB-5<br>(size 500 only)                            |
| Auto Transformer Speed Controllers        | RMB 1.5<br>(sizes 250-400)                          |
|   | RMB 3.5<br>(sizes 450-500)                          |
|   | Models 560-630 cannot be speed controlled           |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/axial](http://envirovent.com/axial)



# COMPACT TCBB

Cylindrical Cased Axial Flow Fans



## About

Range of cylindrical cased axial flow fans fitted with aluminium impellers and manufactured from high grade rolled galvanised steel and protected against corrosion by cataforesis primer and black polyester paint finish. All models are supplied with pre-wired wiring junction box located on the outside of the fan casing for easy wiring access. The TCBB has a single phase 4 pole motor.

## Features & Benefits

### Motors

Models 250, 315, 355 and 400 are IP54, Class F, with thermal overload protection. Models 450, 500, 560 & 630 are IP65, Class F, with thermal overload protection.

### Electrical Supplies

Single phase 230V-50Hz. (Capacitor located inside the wiring terminal box).

### Additional Information

Standard air direction: form (B) configuration (impeller over motor).

### On Request

Air direction: form (A) configuration (motor over impeller).

## Corrosion Resistance

Roller steel casings and motor support protected by cataforesis primer and black polyester paint finish. Stainless steel screws.

## Terminal Box

Wiring terminal box with cable gland PG-11 (except ATEX models).

## Impeller dynamically balanced

Impellers are dynamically balanced, according to ISO1940 standard, giving vibration free operation.

## Terminal Box

Wiring terminal box with cable gland PG-11 (except ATEX models).

## Acoustic Characteristics

The sound levels shown in the technical characteristic chart, correspond to the value of sound pressure dB(A), measured in free field conditions at a distance equivalent to three times the diameter of the impeller with a minimum of 1.5 metres.

Sound power level spectrum in dB(A) at the corresponding frequency band in Hz.

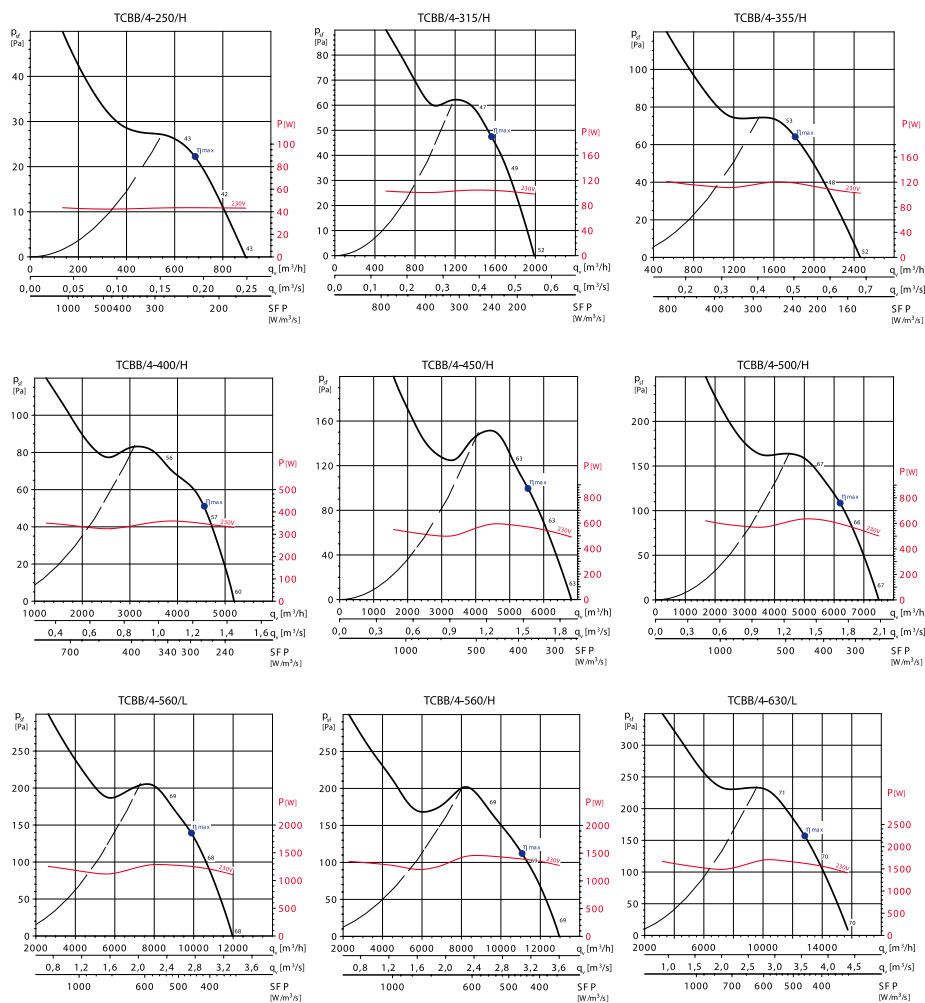
| Model   | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | LwA |
|---------|----|-----|-----|-----|------|------|------|------|-----|
| 4-250/H | 24 | 37  | 41  | 47  | 52   | 52   | 47   | 41   | 57  |
| 4-315/H | 40 | 51  | 45  | 53  | 59   | 59   | 51   | 43   | 63  |
| 4-355/H | 24 | 40  | 45  | 55  | 58   | 58   | 49   | 42   | 62  |
| 4-400/H | 46 | 53  | 59  | 66  | 69   | 69   | 66   | 58   | 74  |
| 4-450/H | 46 | 58  | 65  | 71  | 73   | 71   | 67   | 59   | 77  |
| 4-500/H | 50 | 62  | 69  | 75  | 76   | 75   | 70   | 62   | 81  |
| 4-560/L | 52 | 64  | 71  | 77  | 78   | 77   | 72   | 64   | 83  |
| 4-560/H | 53 | 65  | 72  | 78  | 79   | 78   | 73   | 65   | 84  |
| 4-630/L | 56 | 67  | 75  | 80  | 82   | 81   | 76   | 68   | 87  |

## Technical Characteristics

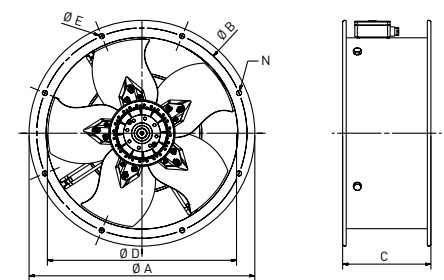
Before installation check that the product's electrical characteristics listed on the data plate label (voltage, power, frequency etc) match those of the intended electrical supply.

| Model        | Speed (r.p.m.) | Ø Valve (mm) | Maximum Absorbed Power (W) | Maximum Current @ 230V | Maximum Airflow l/s (m³/h) | Sound Pressure Level @ 3m dB(A) | Weight (Kg) | Speed Controller  |
|--------------|----------------|--------------|----------------------------|------------------------|----------------------------|---------------------------------|-------------|-------------------|
| TCBB/4-250/H | 1430           | 250          | 44                         | 0.2                    | 900                        | 42                              | 8           | REB-1 / RMB-1.5   |
| TCBB/4-315/H | 1435           | 315          | 105                        | 0.6                    | 1.990                      | 52                              | 11          | REB-1 / RMB-1.5   |
| TCBB/4-355/H | 1420           | 355          | 120                        | 0.6                    | 2.460                      | 52                              | 13.2        | REB-2.5 / RMB-1.5 |
| TCBB/4-400/H | 1410           | 400          | 277                        | 1.1                    | 5.190                      | 60                              | 15.5        | REB-2.5 / RMB-3.5 |
| TCBB/4-450/H | 1410           | 450          | 591                        | 2.5                    | 6.810                      | 63                              | 21          | -                 |
| TCBB/4-500/H | 1410           | 500          | 636                        | 2.8                    | 7.500                      | 66                              | 25          | REB-5 / RMB-3.5   |
| TCBB/4-560/L | 1405           | 560          | 1289                       | 6                      | 11.970                     | 68                              | 33          | REB-10 / RMB-8    |
| TCBB/4-560/H | 1400           | 560          | 1308                       | 6                      | 12.960                     | 69                              | 34.7        | -                 |
| TCBB/4-630/L | 1365           | 630          | 1707                       | 7.5                    | 15.730                     | 70                              | 40          | -                 |

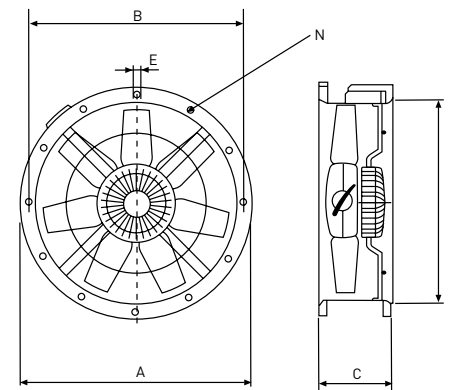
## Performance Curves



## Dimensions (mm)

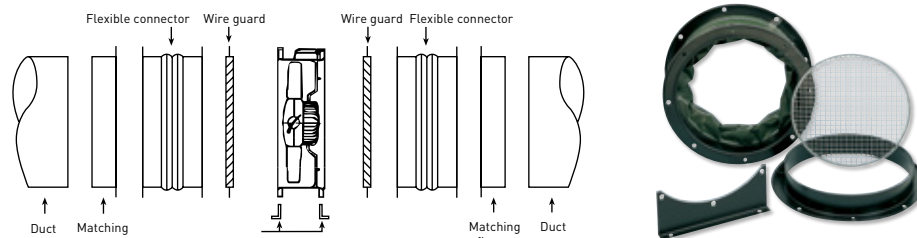


Dimensions Models 250, 315, 355 &amp; 400



Dimensions Models 450, 500, 560 &amp; 630

## Mounting Accessories



| Model    | Matching Flange       | Mounting Feet | Bellmouth Protection Guard | Flexible Connector | Wire Guard    | Flexible Connector Explosion Proof |
|----------|-----------------------|---------------|----------------------------|--------------------|---------------|------------------------------------|
| TCBB 250 | ARO BRIDA COMPACT-250 | PIE-250       | -                          | ACOP.BRIDA-250     | -40°C   +60°C | ACOPEL EX 250/160 N                |
| TCBB 315 | ARO BRIDA COMPACT-315 | PIE-315       | EMB-315T                   | ACOP.BRIDA-315     | -40°C   +40°C | ACOPEL EX 315/160 N                |
| TCBB 355 | ARO BRIDA COMPACT-355 | PIE-355       | EMB-355T                   | ACOP.BRIDA-355     | -40°C   +60°C | ACOPEL EX 355/160 N                |
| TCBB 400 | ARO BRIDA COMPACT-400 | PIE-400       | EMB-400T                   | ACOP.BRIDA-400     | -40°C   +70°C | ACOPEL EX 400/160 N                |
| TCBB 450 | ARO BRIDA COMPACT-450 | PIE-450       | EMB-450T                   | ACOP.BRIDA-450     | -40°C   +70°C | ACOPEL EX 450/160 N                |
| TCBB 500 | ARO BRIDA COMPACT-500 | PIE-500       | EMB-500T                   | ACOP.BRIDA-500     | -40°C   +70°C | ACOPEL EX 500/160 N                |
| TCBB 560 | ARO BRIDA COMPACT-560 | PIE-560       | EMB-560T                   | ACOP.BRIDA-560     | -40°C   +40°C | ACOPEL EX 560/160 N                |
| TCBB 630 | ARO BRIDA COMPACT-630 | PIE-630       | EMB-630T                   | ACOP.BRIDA-630     | -40°C   +40°C | ACOPEL EX 630/160 N                |

## Electrical Accessories

| PRODUCT                                   | CODE(S)   |
|---|---|
| Electronic Single Phase Speed Controllers | REB-1<br>Surface / Flush mounted<br>(sizes 250-315) |
|   | REB-2.5<br>(sizes 355-400)                          |
|   | REB-5<br>(sizes 450-500)                            |
| Auto Transformer Speed Controllers        | RMB 1.5<br>(sizes 250-355)                          |
|   | RMB 3.5<br>(sizes 400-500)                          |
|   | RMB 8<br>(size 560 only)                            |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/tcbb](http://envirovent.com/tcbb)

# VENT ECOWATT

High Duty Centrifugal In-Line Duct Fans



## About

Range of centrifugal in-line duct fans suitable for a wide range of applications. Circular in-line duct fans from 100 to 400mm.

All are suitable for mounting in any orientation and operation within ambient air temperatures between -20°C up to +40°C. Models 355 and 400 are manufactured in sheet steel protected against corrosion by a cataforesis primer and black paint finish.

## Features & Benefits

### Construction

Fan casing manufactured from high-grade corrosion-resistant pressed galvanized steel. Fully airtight sealed assembly. Direct drive centrifugal impeller. Brushless EC motor, IP44 with thermal overload protection, suitable for single phase supply 230V +/- 15%/50-60Hz. Fan speed adjustable with the potentiometer placed in the connection box or with an external control type REB-ECOWATT. Analogue input with terminals in the terminal box to control the fan with 0-10V input signal.

### Easy Mounting

Mounting foot is supplied as standard to ensure an easy installation.



## Acoustic Characteristics ▼

| Model            | LwA    | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | TOT |
|------------------|--------|----|-----|-----|-----|------|------|------|------|-----|
| VENT-100 ECOWATT | INLET  | 42 | 53  | 62  | 65  | 68   | 63   | 53   | 44   | 71  |
|                  | OUTLET | 41 | 52  | 67  | 64  | 61   | 63   | 54   | 46   | 71  |
| VENT-125 ECOWATT | INLET  | 39 | 48  | 60  | 66  | 69   | 65   | 56   | 44   | 72  |
|                  | OUTLET | 43 | 49  | 66  | 65  | 63   | 64   | 56   | 46   | 71  |
| VENT-150 ECOWATT | INLET  | 44 | 52  | 65  | 74  | 73   | 69   | 64   | 54   | 78  |
|                  | OUTLET | 44 | 51  | 68  | 70  | 71   | 69   | 64   | 53   | 76  |
| VENT-160 ECOWATT | INLET  | 41 | 50  | 64  | 74  | 73   | 69   | 66   | 54   | 78  |
|                  | OUTLET | 41 | 49  | 67  | 71  | 71   | 69   | 65   | 54   | 76  |
| VENT-200 ECOWATT | INLET  | 42 | 52  | 62  | 70  | 68   | 65   | 65   | 61   | 74  |
|                  | OUTLET | 41 | 51  | 66  | 67  | 68   | 69   | 66   | 60   | 75  |
| VENT-250 ECOWATT | INLET  | 39 | 52  | 63  | 73  | 73   | 70   | 68   | 62   | 78  |
|                  | OUTLET | 40 | 52  | 65  | 73  | 73   | 74   | 70   | 63   | 79  |
| VENT-315 ECOWATT | INLET  | 42 | 59  | 71  | 76  | 79   | 77   | 72   | 71   | 83  |
|                  | OUTLET | 43 | 55  | 76  | 77  | 79   | 79   | 74   | 70   | 84  |
| VENT-355 ECOWATT | INLET  | 40 | 58  | 68  | 72  | 68   | 66   | 61   | 52   | 75  |
|                  | OUTLET | 42 | 61  | 70  | 72  | 74   | 69   | 61   | 53   | 78  |
| VENT-400 ECOWATT | INLET  | 45 | 65  | 69  | 73  | 67   | 69   | 65   | 52   | 77  |
|                  | OUTLET | 46 | 73  | 68  | 74  | 72   | 70   | 65   | 54   | 79  |

Sound power level spectrums (LwA) at the maximum airflow (0Pa).

## Mounting Accessories ▼

| Product          | Code(s)      | Length (mm) | Height (mm) | Width (mm) | Filter Type | Load @ 6 m/s (Pa) |
|------------------|--------------|-------------|-------------|------------|-------------|-------------------|
| Filtration Boxes | EV-FILTB-100 | 196         | 200         | 200        | EU3         | 90                |
|                  | EV-FILTB-125 | 196         | 200         | 200        | EU3         | 90                |
|                  | EV-FILTB-160 | 196         | 220         | 200        | EU3         | 90                |
|                  | EV-FILTB-200 | 202         | 243         | 244        | EU3         | 90                |
|                  | EV-FILTB-250 | 206         | 293         | 294        | EU3         | 90                |
|                  | EV-FILTB-315 | 106         | 342         | 343        | EU3         | 90                |
|                  | EV-FILTB-355 | 254         | 447         | 448        | EU3         | 90                |
|                  | EV-FILTB-400 | 254         | 447         | 448        | EU3         | 90                |
|                  |              |             |             |            |             |                   |
|                  |              |             |             |            |             |                   |

| Product           | Code(s)      | Length (mm) | Diameter (mm) |
|-------------------|--------------|-------------|---------------|
| Sound Attenuators | IN-SA100X900 | 900         | 100           |
|                   | IN-SA125X900 | 900         | 125           |
|                   | IN-SA150X900 | 900         | 150           |
|                   | IN-SA200X900 | 900         | 200           |
|                   | IN-SA250X900 | 900         | 250           |
|                   | IN-SA300X900 | 900         | 300           |
|                   | IN-SA400X900 | 900         | 400           |



## Technical Characteristics

Before installation check that the product's electrical characteristics listed on the data plate label (voltage, power, frequency etc) match those of the intended electrical supply.

| Model    | Speed (r.p.m.) | Maximum Absorbed Power (W) | Maximum Absorbed Current | Maximum Airflow (m³/h) | Sound Pressure Level @ 3m dBA (inlet) | Weight (Kg) | Speed Controller |
|----------|----------------|----------------------------|--------------------------|------------------------|---------------------------------------|-------------|------------------|
| VENT-100 | 2810           | 61                         | 0.40                     | 300                    | 50                                    | 4           | REB-ECOWATT      |
| VENT-125 | 2800           | 65                         | 0.50                     | 380                    | 50                                    | 4           |                  |
| VENT-150 | 2910           | 115                        | 0.80                     | 660                    | 57                                    | 5           |                  |
| VENT-160 | 2860           | 109                        | 0.80                     | 710                    | 56                                    | 5           |                  |
| VENT-200 | 2580           | 136                        | 0.90                     | 920                    | 54                                    | 5           |                  |
| VENT-250 | 2580           | 137                        | 0.90                     | 1030                   | 56                                    | 6           |                  |
| VENT-315 | 2570           | 285                        | 1.80                     | 1650                   | 61                                    | 8           |                  |
| VENT-355 | 1410           | 248                        | 1.00                     | 2620                   | 53                                    | 17          |                  |
| VENT-400 | 1400           | 376                        | 1.60                     | 3390                   | 55                                    | 22          |                  |

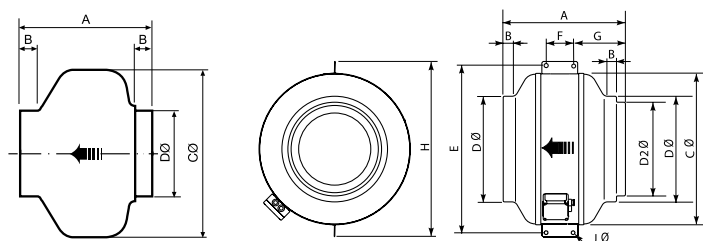
## Electrical Accessories

| PRODUCT                                   | CODE(S)                 |
|---|-------------------------|
| Electronic Single Phase Speed Controllers | REB-ECOWATT (all sizes) |

## Dimensions (mm)

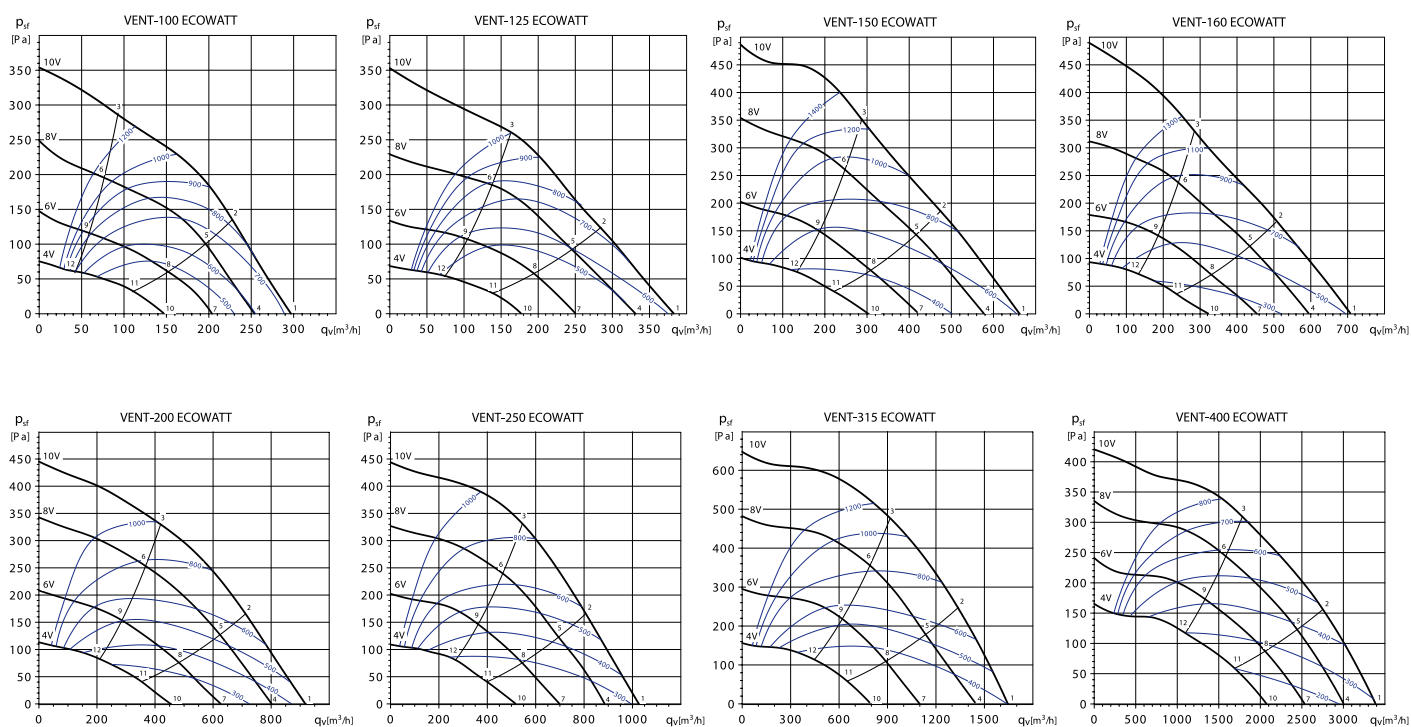
VENT-100 to VENT-315

VENT-355 / VENT-400



| MODEL    | A   | B   | ØC  | ØD  | ØD2 | E   | F   | G   | H   | ØJ |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| VENT-100 | 251 | 23  | 243 | 98  | -   | -   | -   | -   | -   | -  |
| VENT-125 | 253 | 27  | 243 | 123 | -   | -   | -   | -   | -   | -  |
| VENT-150 | 214 | 24  | 333 | 147 | -   | -   | -   | -   | -   | -  |
| VENT-160 | 222 | 28  | 333 | 157 | -   | -   | -   | -   | -   | -  |
| VENT-200 | 223 | 25  | 333 | 198 | -   | -   | -   | -   | -   | -  |
| VENT-250 | 206 | 27  | 333 | 248 | -   | -   | -   | -   | -   | -  |
| VENT-315 | 230 | 25  | 401 | 312 | -   | -   | -   | -   | -   | -  |
| VENT-355 | 410 | 314 | 508 | 354 | 314 | 410 | 100 | 170 | 587 | 11 |
| VENT-400 | 441 | 354 | 568 | 399 | 354 | 441 | 100 | 185 | 647 | 11 |

## Performance Curves



Scan the QR code to find out more about the product or visit:  
[envirovent.com/ventecowatt](http://envirovent.com/ventecowatt)

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VENT ECOWATT

# CAB ECOWATT

Acoustic Cabinet Fans



## About

Low profile acoustic cabinet fans, manufactured from galvanised sheet steel and internally lined with 50mm thickness of fireproof acoustic insulation (M0), with sound-absorbent insulation at the inlet.

All models incorporate inlet and discharge circular duct connection flanges with integrated rubber air seal. Direct drive backward curved centrifugal fan.

## Low Noise Level

Acoustic insulation of 50 mm thickness fireproof fibreglass(M0) with a high resistance coating reducing the noise level significantly.

## ON-OFF Electrical Isolation Switch

Includes a potentiometer to adjust the fan speed from 10 to 100%.

## Direct Drive Backward Centrifugal Impeller

The impeller is factory matched to the EC external rotor motor.

## Sound-absorbent Insulation at the inlet



## Features & Benefits

### Motors

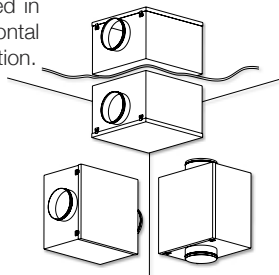
Brushless EC motor, IP44, with thermal overload protection, suitable for single phase supply 230V +/- 15%- 50/60Hz.

### Electrical Supply

Fan supply with external ON-OFF electrical isolation switch, and potentiometer to adjust the fan speed. Also possible to control the fan speed with external potentiometer type REB-ECOWATT or analogue input signal 0-10V.

### Installation

Can be mounted in a vertical, horizontal or inverted position.



### Dimensions (mm)

| Dimensions Filtration Boxes |     |     |     |     |     |
|-----------------------------|-----|-----|-----|-----|-----|
|                             | A   | B   | D   | E   |     |
| EV-FILTB-100                | 200 | 200 | 100 | 160 | 196 |
| EV-FILTB-125                | 200 | 200 | 125 | 160 | 196 |
| EV-FILTB-160                | 200 | 200 | 160 | 154 | 196 |
| EV-FILTB-200                | 243 | 244 | 200 | 154 | 202 |
| EV-FILTB-250                | 293 | 294 | 250 | 154 | 206 |
| EV-FILTB-315                | 342 | 343 | 315 | 154 | 206 |
| EV-FILTB-355                | 447 | 448 | 355 | 154 | 254 |
| EV-FILTB-400                | 447 | 448 | 400 | 154 | 254 |

## Mounting Accessories

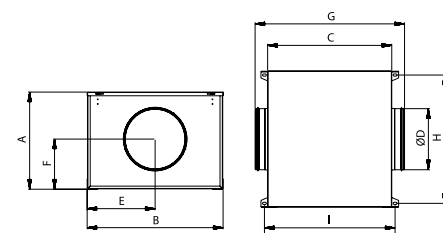
| Product | Code(s)                      |
|---------|------------------------------|
|         | Sound Attenuators            |
|         | IN-SA125X900                 |
|         | IN-SA150X900                 |
|         | IN-SA200X900                 |
|         | IN-SA250X900                 |
|         | IN-SA300X900                 |
|         | IN-SA400X900                 |
|         | Circular Flexible Connectors |
|         | EV-CIRCTR-140                |
|         | EV-CIRCTR-160                |
|         | EV-CIRCTR-200                |
|         | EV-CIRCTR-250                |
|         | EV-CIRCTR-315                |
|         | EV-CIRCTR-355                |
|         | EV-CIRCTR-400                |
|         | Anti-Vibration Mounts        |
|         | EV-AVMT (4 supplied in bag)  |
|         | Discharge Protection Guards  |
|         | EV-DPG-125                   |
|         | EV-DPG-160                   |
|         | EV-DPG-250                   |
|         | Filtration Boxes             |
|         | EV-FILTB-125                 |
|         | EV-FILTB-160                 |
|         | EV-FILTB-200                 |
|         | EV-FILTB-250                 |
|         | EV-FILTB-315                 |
|         | EV-FILTB-355                 |
|         | EV-FILTB-400                 |

## Technical Characteristics

Before installation check that the product's electrical characteristics listed on the data plate label (voltage, power, frequency etc) match those of the intended electrical supply.

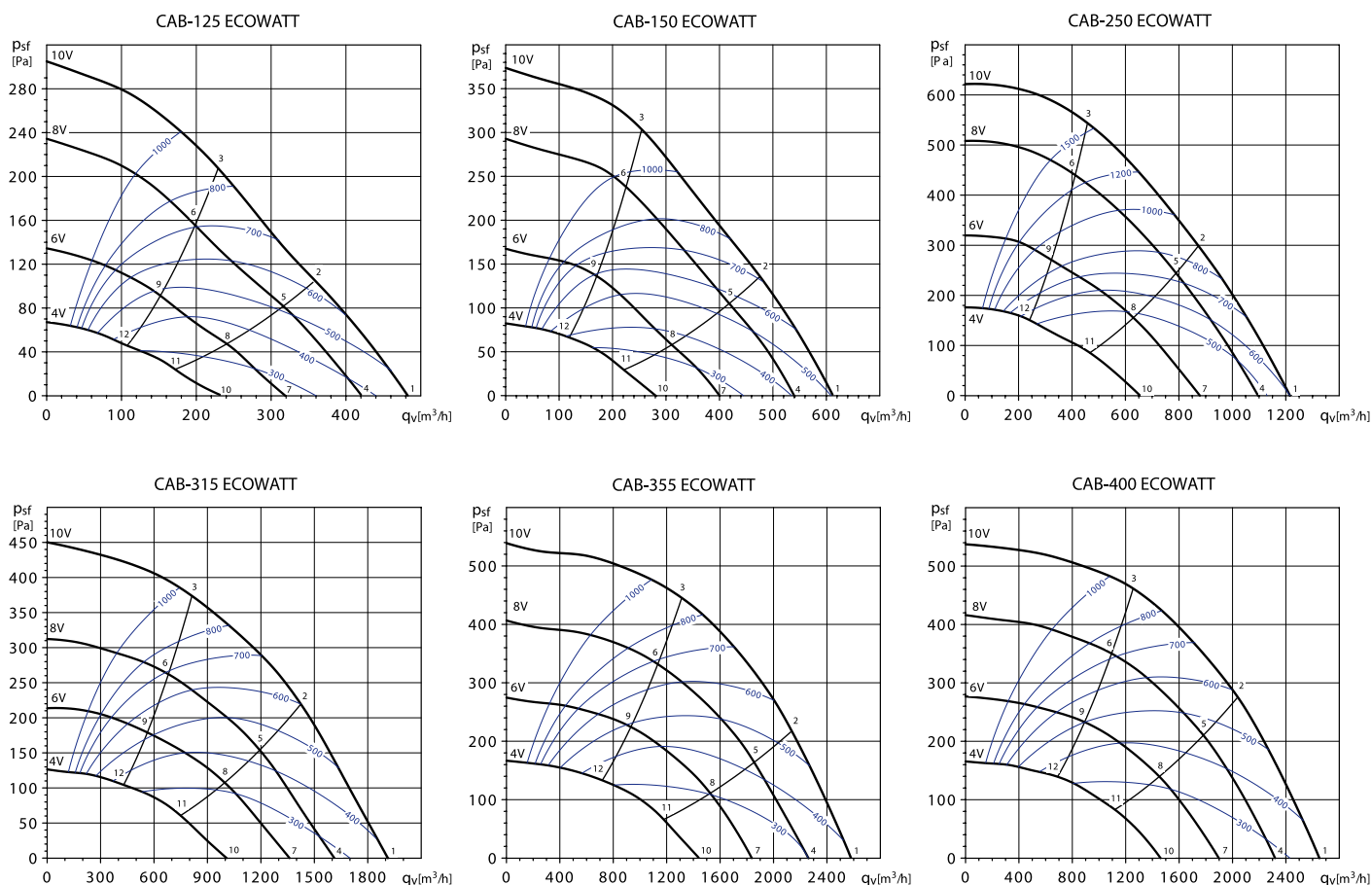
| Model           | Speed<br>(r.p.m.) | Maximum<br>Absorbed<br>Power<br>(W) | Maximum<br>Absorbed<br>Current<br>@ 230V<br>(A) | Maximum<br>Air Volume<br>(m³/h) | Sound Level Pressure dB(A) @<br>1.5m |       |          | Weight<br>(Kg) | Speed<br>Controller |
|-----------------|-------------------|-------------------------------------|---|---------------------------------|--------------------------------------|-------|----------|----------------|---------------------|
|                 |                   |                                     |   |                                 | Outlet                               | Inlet | Radiated |                |                     |
| CAB-125 ECOWATT | 2970              | 66                                  | 0.5   | 485                             | 42                                   | 49    | 37       | 13             | REB-<br>ECOWATT     |
| CAB-150 ECOWATT | 2975              | 94                                  | 0.7   | 610                             | 47                                   | 50    | 40       | 15             |                     |
| CAB-250 ECOWATT | 2650              | 219                                 | 1.4   | 1220                            | 52                                   | 58    | 42       | 24.5           |                     |
| CAB-315 ECOWATT | 1990              | 238                                 | 1.0   | 1910                            | 54                                   | 57    | 52       | 28.5           |                     |
| CAB-355 ECOWATT | 1940              | 335                                 | 1.4   | 2580                            | 54                                   | 58    | 49       | 32.5           |                     |
| CAB-400 ECOWATT | 1940              | 335                                 | 1.4   | 2650                            | 54                                   | 55    | 48       | 32.5           |                     |

## Dimensions (mm)



| MODEL   | A   | B   | C   | ØD  | E   | F   | G   | H   | I   |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CAB-125 | 316 | 420 | 386 | 125 | 210 | 163 | 433 | 389 | 412 |
| CAB-150 | 334 | 447 | 415 | 150 | 224 | 174 | 517 | 416 | 441 |
| CAB-250 | 395 | 553 | 505 | 250 | 277 | 204 | 608 | 522 | 535 |
| CAB-315 | 441 | 609 | 555 | 315 | 305 | 221 | 659 | 585 | 580 |
| CAB-355 | 501 | 699 | 578 | 355 | 350 | 251 | 682 | 668 | 606 |
| CAB-400 | 501 | 699 | 578 | 400 | 350 | 251 | 682 | 668 | 606 |

## Performance Curves



q\_v: Airflow in m³/h | psf: Static pressure in Pa | SFP: Specific fan power in W/m³/s (blue curves) | Dry air at 20°C and 760 mmHg  
Performance data in accordance with ISO 5801 and AMCA 210-99 Standards



Scan the QR code to find out more about  
the product or visit:  
[envirovent.com/cabecowatt](http://envirovent.com/cabecowatt)

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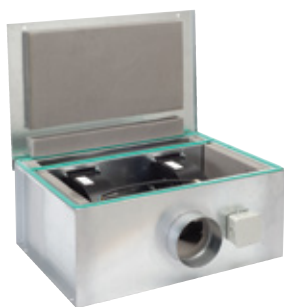
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CAB ECOWATT



# CAB TWIN ECOWATT

Acoustic Twin Cabinet Fans



## About

The CAB TWIN ECOWATT range comprises 7 sizes of centrifugal twin fans with acoustically-lined cabinets; each consisting of two direct-driven low pressure centrifugal fans which work independently for run and standby plus duty-share function. The low-noise forward-curved fans are fitted with maintenance-free single phase motors. Recirculation of air is prevented by integral back-draught gravity shutters.

Impellers are designed for high efficiency and are manufactured from galvanised steel and balanced to ISO-1940.

The fan housings are of heavy gauge galvanised steel sheet. The cabinets are welded and are lined with 25mm of flame-retardant V0 rated acoustic insulation lining (50mm insulation is available to order). As standard, they are supplied suitable for mounting indoors; however weatherproof units for roof mounting are available on request. The cabinets are provided with 4 corner fixing holes for ease of mounting horizontally, with access either from above or below the unit via the panel secured with screws.

## Features & Benefits

### Motors

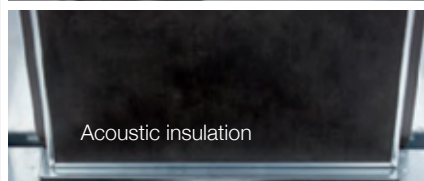
Motors are suitable for continuous operation at up to +40°C ambient temperature.

### Electrical Supply

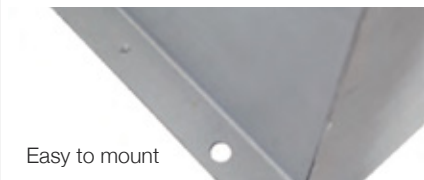
The units are fitted with an IP54 rated terminal box positioned on the inlet face of the cabinet.



IP54 terminal box



Acoustic insulation



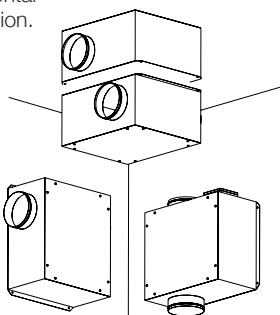
Easy to mount



EC Backward curved Motorised impeller

### Installation

Can be mounted in a vertical, horizontal or inverted position.



### Dimensions (mm)

| Dimensions<br>Filtration Boxes |     |     |     |     |     |
|--------------------------------|-----|-----|-----|-----|-----|
|                                | A   | B   | D   | E   | F   |
| EV-FILTB-125                   | 200 | 200 | 125 | 160 | 196 |
| EV-FILTB-160                   | 200 | 200 | 160 | 154 | 196 |
| EV-FILTB-250                   | 293 | 294 | 250 | 154 | 206 |

### Mounting Accessories

| Product | Code(s)                      |
|---------|------------------------------|
|         | Sound Attenuators            |
|         | IN-SA125X900                 |
|         | IN-SA150X900                 |
|         | IN-SA250X900                 |
|         | Circular Flexible Connectors |
|         | EV-CIRCTR-140                |
|         | EV-CIRCTR-160                |
|         | EV-CIRCTR-250                |
|         | Anti-Vibration Mounts        |
|         | EV-AVMT (4 supplied in bag)  |
|         | Discharge Protection Guards  |
|         | EV-DPG-125                   |
|         | EV-DPG-160                   |
|         | EV-DPG-250                   |
|         | Filtration Boxes             |
|         | EV-FILTB-125                 |
|         | EV-FILTB-160                 |
|         | EV-FILTB-250                 |

## Technical Characteristics

Before installation check that the product's electrical characteristics listed on the data plate label (voltage, power, frequency etc) match those of the intended electrical supply.

| Model                | Speed (r.p.m.) | Maximum Absorbed Power (W) | Maximum Absorbed Current @ 230V (A) | Maximum Air Volume (m³/h) | Sound Level Pressure dB(A) @ 1.5m |       |          | Weight (Kg) |
|----------------------|----------------|----------------------------|-------------------------------------|---------------------------|-----------------------------------|-------|----------|-------------|
|                      |                |                            |                                     |                           | Outlet                            | Inlet | Radiated |             |
| CAB TWIN-125 ECOWATT | 2970           | 66                         | 0.5                                 | 485                       | 42                                | 49    | 37       | 13          |
| CAB TWIN-150 ECOWATT | 2975           | 94                         | 0.7                                 | 610                       | 47                                | 50    | 40       | 15          |
| CAB TWIN-250 ECOWATT | 2650           | 219                        | 1.4                                 | 1220                      | 52                                | 58    | 42       | 24.5        |
| CAB TWIN-315 ECOWATT | 1990           | 238                        | 1.0                                 | 1910                      | 54                                | 57    | 52       | 28.5        |
| CAB TWIN-355 ECOWATT | 1940           | 335                        | 1.4                                 | 2580                      | 54                                | 58    | 49       | 32.5        |
| CAB TWIN-400 ECOWATT | 1940           | 335                        | 1.4                                 | 2650                      | 54                                | 55    | 48       | 32.5        |
| CAB TWIN-355 ECOWATT | 1940           | 335                        | 1.4                                 | 2580                      | 54                                | 58    | 49       | 32.5        |

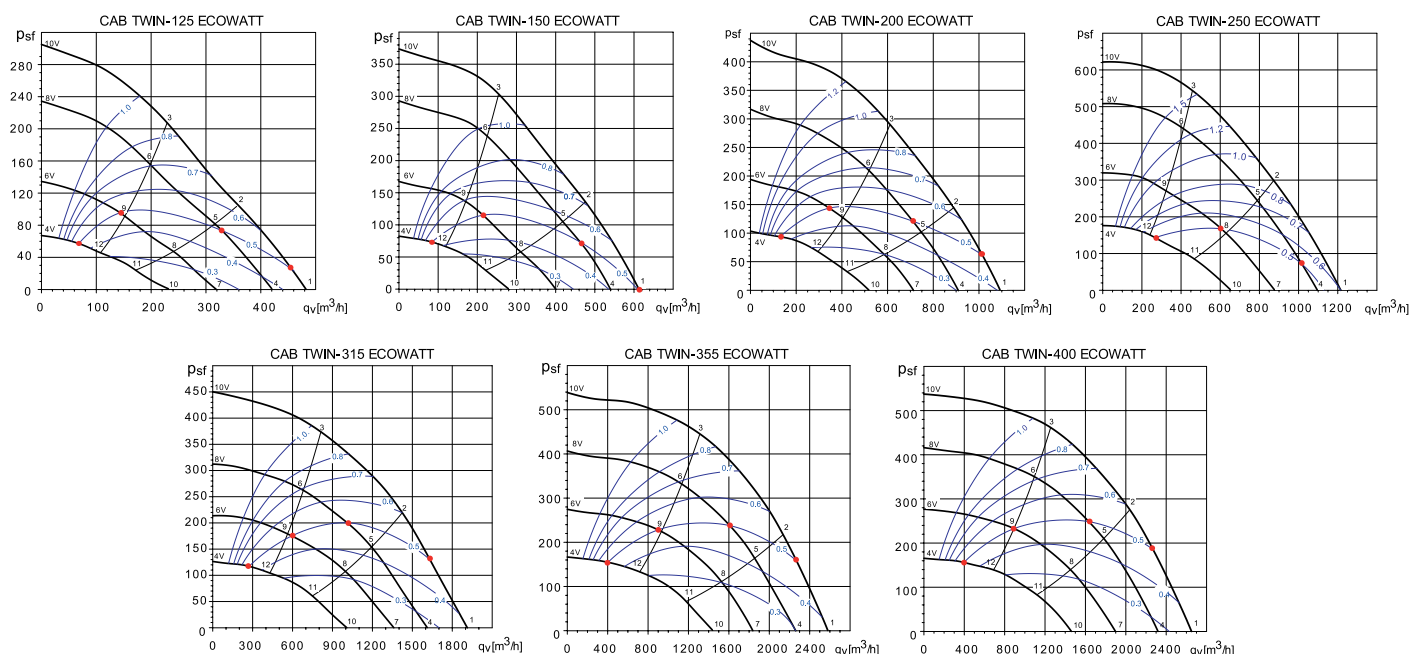
## Electrical Accessories

| PRODUCT                    | CODE(S)       |
|----------------------------|---------------|
| Auto Changeover Controller | ACOAS-ECOWATT |
| Variable Speed Controller  | REB-ECOWATT   |

We recommend speed control by auto changeover controllers to improve acoustic properties.

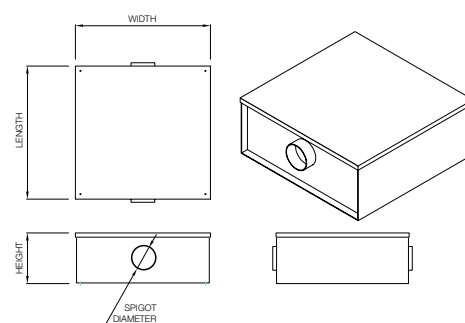


## Performance Curves



## Dimensions (mm)

| Model                | Width (mm) | Length (mm) | Height (mm) | Spigot Diameter (mm) | Spigot Length (mm) |
|----------------------|------------|-------------|-------------|----------------------|--------------------|
| CAB-TWIN 125 ECOWATT | 575        | 400         | 238         | 125                  | 55                 |
| CAB-TWIN 150 ECOWATT | 800        | 450         | 275         | 150                  | 55                 |
| CAB-TWIN 200 ECOWATT | 800        | 550         | 360         | 200                  | 55                 |
| CAB-TWIN 250 ECOWATT | 1000       | 650         | 425         | 250                  | 55                 |
| CAB-TWIN 315 ECOWATT | 1000       | 650         | 425         | 315                  | 55                 |
| CAB-TWIN 355 ECOWATT | 1000       | 650         | 425         | 355                  | 55                 |
| CAB-TWIN 400 ECOWATT | 1150       | 650         | 475         | 400                  | 55                 |



Scan the QR code to find out more about the product or visit:  
[envirovent.com/cabtwin](http://envirovent.com/cabtwin)

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CAB TWIN ECOWATT

# Heating & Drying

A selection of heating and drying solutions for residential and commercial applications



## The beauty is in the simple details

The Electric Collection consists of a selection of models which are both functional and design-led.

Electric only models can be used in rooms where there is no water supply and are finished in a way that create inconspicuous seams and sleek surfaces; perfect for keeping your space organised and stylish.



# Heated Towel Rails

Extensive range of stylish heated towel rails

## 19mm Multirail



- 19mm cross bars give clean simple lines
- Moveable brackets for optimal positioning
- Large towel slots for ease of hanging
- Modern looks combined with efficiency

| Code         | Dimensions       |
|--------------|------------------|
| EVTR750500M  | 750(H) x 500(W)  |
| EVTR750600M  | 750(H) x 600(W)  |
| EVTR1200500M | 1200(H) x 500(W) |
| EVTR1200600M | 1200(H) x 600(W) |
| EVTR1400500M | 1400(H) x 500(W) |
| EVTR1400600M | 1400(H) x 600(W) |

## Swirl



- A focal point in any room
- One piece curved rail gives ample hanging capacity
- Can be ordered left or right hand mounted
- Elegant and practical design at its best

| Code              | Code             |
|-------------------|------------------|
| EVTR10001200S     | EVTR1200500S     |
| Dimensions        | Dimensions       |
| 1000(H) x 1200(W) | 1200(H) x 500(W) |
| Chrome            | Chrome           |

## Jazz



- Modern flat tube design
- Additional towel slots for extra hanging capacity
- Stunning looks and performance combined
- Ideal for bathrooms and kitchens

| Code            | Code             |
|-----------------|------------------|
| EVTR950500J     | EVTR1300500J     |
| Dimensions      | Dimensions       |
| 950(H) x 500(W) | 1300(H) x 500(W) |
| Chrome          | Chrome           |

# Heated Towel Rails

Extensive range of stylish heated towel rails

## Ladder



- Manufactured from high quality stainless steel
- Capped off smooth ends for cleaner lines
- Additional towel slots for extra hanging capacity
- Ideal for bathrooms or kitchens

| Code         | Dimensions       |
|--------------|------------------|
| EVTR800300L  | 800(H) x 300(W)  |
| EVTR800500L  | 800(H) x 500(W)  |
| EVTR1200500L | 1200(H) x 500(W) |
| EVTR1600500L | 1600(H) x 500(W) |

## Elegance



- 25mm cross bars for greater heat output
- Capped off smooth ends for cleaner lines
- Additional towel slots for extra hanging capacity
- Design features for good looks that differentiate it from the competition

| Code         | Dimensions       |
|--------------|------------------|
| EVTR800300E  | 800(H) x 300(W)  |
| EVTR800500E  | 800(H) x 500(W)  |
| EVTR1200500E | 1200(H) x 500(W) |

White



## Curvee



- 25mm cross bars for greater heat output
- Capped off smooth ends for cleaner lines
- Additional towel slots for extra hanging capacity
- Ideal for bathrooms or kitchens

| Code            | Code            |
|-----------------|-----------------|
| EVTR800500CW    | EVTR800500CC    |
| Dimensions      | Dimensions      |
| 800(H) X 500(W) | 800(H) X 500(W) |

White



Chrome



# Hand Dryers

Range of stylish hand dryers

## Ecohand



### The fast, hygienic and energy efficient hand drying system

The Ecohand hand dryer uses a powerful, high speed layer of clean air to eliminate every drop of water from the hands, leaving them dry in just 10 seconds.

The innovative design prevents water droplets from falling to the ground, guaranteeing higher standards of hygiene.

|                 |                   |
|-----------------|-------------------|
| Nominal Voltage | 220-240V 50 Hz    |
| Nominal Power   | 850 W             |
| Nominal Current | 6.5 A             |
| Protection      | IP22              |
| Insulation      | Class I           |
| Airflow         | 50 l/s (150 m³/h) |
| Air Speed       | 86 m/s            |
| Sound Level     | 80 dB             |
| Dimensions (mm) | 650 x 292 x 250   |
| Weight          | 11 Kg             |
| Colour          | White             |

## SL-2500 N / SL-2500 N A



### Highly effective and elegant warm air hand dryer

#### SL-2500 N

- Push button activation
- Programmed operation time
- Automatic stop after 30 seconds

#### SL-2500 N A

- Photo-electric cell activation
- Photo-electric cell sensitivity control
- Stops automatically when hands are removed

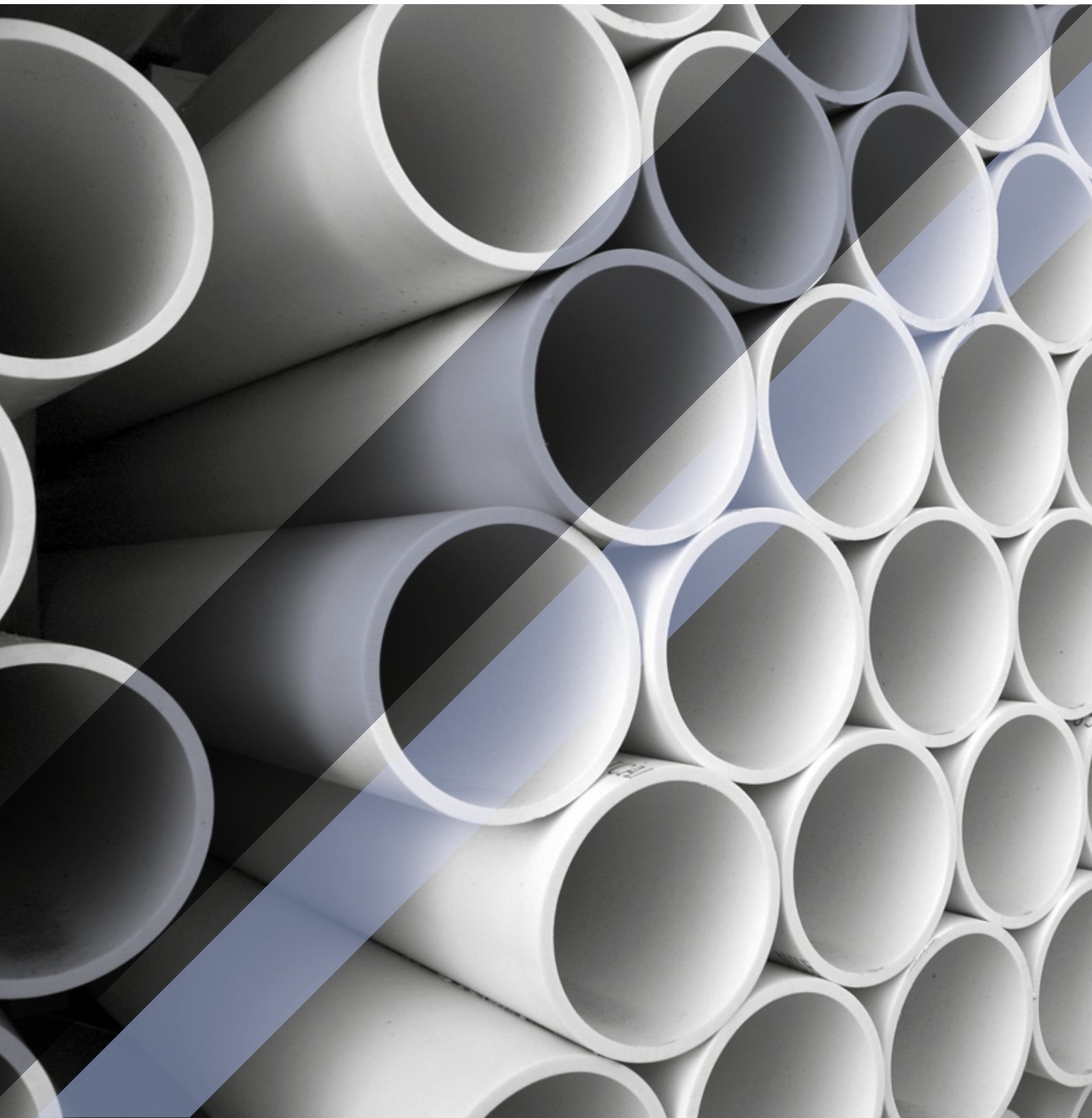
|                 |                   |
|-----------------|-------------------|
| Nominal Voltage | 220-240V 50 Hz    |
| Nominal Power   | 2500 W            |
| Nominal Current | 11.5 A            |
| Protection      | IPX1              |
| Insulation      | Class I           |
| Airflow         | 75 l/s (270 m³/h) |
| Air Speed       | 30 m/s            |
| Dimensions (mm) | 240 x 270 x 192   |
| Weight          | 5.5 Kg            |
| Colour          | Chrome            |















# Ancillaries

Our extensive range of domestic, commercial, industrial ducting and ancillaries



# Domestic Ancillaries

Extensive range of domestic ducting and ancillaries

|                      | Product & Description   | Order Code           | Dimensions (mm)  | Resistance (Pa)<br>(these are estimates only) |         |         |
|----------------------|---|----------------------|------------------|---|---------|---------|
|                      |   |                      |                  | @15 l/s                                       | @30 l/s | @60 l/s |
| Round & Flat Ducting |  Rigid Ducting<br>PVC  | 1RD 100 X 350MM      | Ø100 L 350       | -   | -       | -       |
|                      |   | 1RD 100 X 1M         | Ø100 L 1000      | -   | -       | -       |
|                      |   | 1RD 100 X 2M         | Ø100 L 2000      | 1.0   | 2.8     | 6.2     |
|                      |   | 1RD 100 X 3M         | Ø100 L 3000      | -   | -       | -       |
|                      |   | 1RD 125 X 350MM      | Ø125 L 350       | -   | -       | -       |
|                      |   | 1RD 125 X 2M         | Ø125 L 2000      | 0.4   | 1.4     | 3.8     |
|                      |   | 1RD 150 X 2M         | Ø150 L 2000      | 0.2   | 0.8     | 2.4     |
|                      |  Pre-Insulated Rigid Ducting   | 1RD INSRIGID 100 X 2 | Ø100 L 2000      | -   | -       | -       |
|                      |   | 1RD INSRIGID 125 X 2 | Ø125 L 2000      | -   | -       | -       |
|                      |   | 1RD INSRIGID 150 X 2 | Ø150 L 2000      | -   | -       | -       |
|                      |  Flexible Polyester<br>Reinforced Hose Ducting<br>PVC                      | 1RD FLEXGR 100 X 3M  | Ø100 L 3000      | -   | -       | -       |
|                      |   | 1RD FLEXGR 100 X 6M  | Ø100 L 6000      | -   | -       | -       |
|                      |   | 1RD FLEXGR 100 X 10M | Ø100 L 10000     | -   | -       | -       |
|                      |   | 1RD FLEXGR 125 X 6M  | Ø125 L 6000      | -   | -       | -       |
|                      |   | 1RD FLEXGR 125 X 10M | Ø125 L 10000     | -   | -       | -       |
|                      |   | 1RD FLEXGR 150 X 10M | Ø150 L 10000     | -   | -       | -       |
|                      |   | 1RD FLEXGR 200 X 10M | Ø200 L 10000     | -   | -       | -       |
|                      |  Flexible Insulated<br>Hose Ducting                                       | 1RD INS FLEX 100     | Ø100 L 10000     | Figures vary on installation                  |         |         |
|                      |   | 1RD INS FLEX 125     | Ø125 L 10000     | Figures vary on installation                  |         |         |
|                      |   | 1RD INS FLEX 150     | Ø150 L 10000     | Figures vary on installation                  |         |         |
|                      |  Flexible Hose Ducting   | 1RD FLEX 100 X 3M    | Ø100 L 3000      | Figures vary on installation                  |         |         |
|                      |   | 1RD FLEX 100 X 6M    | Ø100 L 6000      | Figures vary on installation                  |         |         |
|                      |   | 1RD FLEX 100 X 15M   | Ø100 L 15000     | Figures vary on installation                  |         |         |
|                      |   | 1RD FLEX 125 X 3M    | Ø125 L 3000      | Figures vary on installation                  |         |         |
|                      |   | 1RD FLEX 125 X 6M    | Ø125 L 6000      | Figures vary on installation                  |         |         |
|                      |   | 1RD FLEX 150 X 3M    | Ø150 L 3000      | Figures vary on installation                  |         |         |
|                      |   | 1RD FLEX 200 X 1M    | Ø200 L 1000      | Figures vary on installation                  |         |         |
|                      |   | 1RD FLEX 200 X 3M    | Ø200 L 3000      | Figures vary on installation                  |         |         |
|                      |   | 1RD FLEX 200 X 6M    | Ø200 L 6000      | Figures vary on installation                  |         |         |
|                      |  Acoustically Insulated<br>Aluminium Hose Ducting                        | 1RD ACO FLEX 100     | Ø100 L 10000     | -   | -       | -       |
|                      |   | 1RD ACO FLEX 125     | Ø125 L 10000     | -   | -       | -       |
|                      |   | 1RD ACO FLEX 150     | Ø150 L 10000     | -   | -       | -       |
|                      |  Round Sleeve Pipe   | 1RD SL 100 X 1M      | Ø100 L 1000      | 0.5   | 1.4     | 3.1     |
|                      |   | 1RD SL 125 X 1M      | Ø125 L 1000      | 0.2   | 0.7     | 1.9     |
|                      |   | 1RD SL 150 X 350MM   | Ø150 L 350       | -   | -       | -       |
|                      |   | 1RD SL 150 X 1M      | Ø150 L 1000      | 0.1   | 0.4     | 1.2     |
|                      |  Round Telescopic Pipe<br>Creates telescopic assembly<br>with round pipe | 1RD TA 100MM         | Ø100 L 250 - 450 | Figures vary according to length              |         |         |
|                      |   | 1RD TA 125MM         | Ø125 L 250 - 450 | Figures vary according to length              |         |         |
|                      |   | 1RD TA 150MM         | Ø150 L 250 - 450 | Figures vary according to length              |         |         |
|                      |  Round Connector   | 1RD CON 100MM        | Ø100             | 0.9   | 4.2     | 20.4    |
|                      |   | 1RD CON 125MM        | Ø125             | 0.2   | 0.9     | 4.3     |
|                      |   | 1RD CON 150MM        | Ø150             | 0.1   | 0.2     | 1.1     |
|                      |  'T' Piece Connector   | 1RD TPIECE 100       | Ø100             | Figures vary on installation                  |         |         |
|                      |   | 1RD TPIECE 125       | Ø125             | Figures vary on installation                  |         |         |
|                      |   | 1RD TPIECE 150       | Ø150             | Figures vary on installation                  |         |         |

We offer a full range of domestic, commercial and industrial ancillaries. If the product that you require is not listed, please contact us on **0345 27 27 810**

L  
Length

Ø  
External Diameter
















External Measurement

Internal Measurement

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# Domestic Ancillaries













Extensive range of domestic ducting and ancillaries

| Product & Description   | Order Code   | Dimensions (mm)     | Resistance (Pa)<br>(these are estimates only) |         |         |      |
|---|--|---------------------|---|---------|---------|------|
|   |  |                     | @15 l/s                                       | @30 l/s | @60 l/s |      |
| Round & Flat Ducting  |  Pre-Insulated 'T' Piece Connector  | 1RD TPIECE INS 100  | Ø100  | -       | -       | -    |
|   |  | 1RD TPIECE INS 125  | Ø125  | -       | -       | -    |
|   |  | 1RD TPIECE INS 150  | Ø150  | -       | -       | -    |
|   |  'Y' Piece Connector                | 1RD YPIECE 100      | Ø100  | -       | -       | -    |
|   |  | 1RD YPIECE 125      | Ø125  | -       | -       | -    |
|   |  | 1RD YPIECE 150      | Ø150  | -       | -       | -    |
|   |  90° Elbow Bend                     | 1RD 90 BEND 100     | Ø100  | 5.6     | 21.1    | 80.1 |
|   |  | 1RD 90 BEND 125     | Ø125  | 2.0     | 8.4     | 34.9 |
|   |  | 1RD 90 BEND 150     | Ø150  | 1.0     | 4.2     | 18.2 |
|   |  Pre-Insulated 90° Elbow Bend       | 1RD 90 BEND INS 100 | Ø100  | -       | -       | -    |
|   |  | 1RD 90 BEND INS 125 | Ø125  | -       | -       | -    |
|   |  | 1RD 90 BEND INS 150 | Ø150  | -       | -       | -    |
|   |  45° Elbow Bend                     | 1RD 45 BEND 100     | Ø100  | 2.1     | 8.2     | 31.4 |
|   |  | 1RD 45 BEND 125     | Ø125  | 0.7     | 2.9     | 12.2 |
|   |  | 1RD 45 BEND 150     | Ø150  | -       | -       | -    |
|   |  Pre-Insulated 45° Elbow Bend      | 1RD 45 BEND INS 100 | Ø100  | -       | -       | -    |
|   |  | 1RD 45 BEND INS 125 | Ø125  | -       | -       | -    |
|   |  Flat Channel Ducting             | 1FD 110 X 54 1M     | ■ 110 x 54 L 1000                             | -       | -       | -    |
|   |  | 1FD 110 X 54 1.5M   | ■ 110 x 54 L 1500                             | -       | -       | -    |
|   |  | 1FD 110 X 54 2M     | ■ 110 x 54 L 2000                             | -       | -       | -    |
|   |  | 1FD 204 X 60 1M     | ■ 204 x 60 L 1000                             | -       | -       | -    |
|   |  | 1FD 204 X 60 1.5M   | ■ 204 x 60 L 1500                             | -       | -       | -    |
|   |  | 1FD 204 X 60 2M     | ■ 204 x 60 L 2000                             | -       | -       | -    |
|   |  Rectangular Flexible PVC Ducting | 1FD FLEX 204 0.5M   | ■ 204 x 60 L 500                              | -       | -       | -    |
|   |  | 1FD FLEX 204 3M     | ■ 204 x 60 L 3000                             | -       | -       | -    |
|   |  Flexible Bend                    | 1FD ADJBEND 110     | ■ 110 x 54                                    | -       | -       | -    |
|   |  | 1FD ADJBEND 204     | ■ 204 x 60                                    | -       | -       | -    |
|   |  Flat Channel Duct Connector      | 1FD CON 110 X 54    | ■ 110 x 54                                    | 0.3     | 1.4     | 6.3  |
| 1FD CON 204 X 60  |  | ■ 204 x 60          | 0.1   | 0.4     | 1.5     |      |
|  Horizontal 'T' Piece  | 1AD TPIECE 110   | ■ 110 x 54          | -   | -       | -       |      |
|   | 1AD TPIECE 204   | ■ 204 x 60          | -   | -       | -       |      |
|  Horizontal 45° Bend   | 1FD 45H BEND 110   | ■ 110 x 54          | -   | -       | -       |      |
|   | 1FD 45H BEND 204   | ■ 204 x 60          | 0.7   | 2.1     | 6.3     |      |
|  Horizontal 90° Bend<br>Female fittings suitable for above kitchen cupboards | 1FD 90H BEND 110   | ■ 110 x 54          | 9.8   | 39.8    | 161.9   |      |
|   | 1FD 90H BEND 204   | ■ 204 x 60          | 2.1   | 8.4     | 33.7    |      |
|  Vertical 45° Bend   | 1FD 45V BEND 204   | ■ 204 x 60          | 2.6   | 10.8    | 44.3    |      |
|  Vertical 90° Bend<br>Female fittings suitable for above kitchen cupboards   | 1FD 90V BEND 110   | ■ 110 x 54          | Figures vary on installation                  |         |         |      |
|   | 1FD 90V BEND 204   | ■ 204 x 60          | Figures vary on installation                  |         |         |      |



# Domestic Ancillaries

Extensive range of domestic ducting and ancillaries

|   | Product & Description   | Order Code  | Dimensions (mm)   | Resistance (Pa)<br>(these are estimates only) |                         |         |      |       |
|---|---|---|---|---|-------------------------|---------|------|-------|
|   |   |   |   | @15 l/s                                       | @30 l/s                 | @60 l/s |      |       |
| <div>Colour Codes</div> <div><div><div></div><div></div><div></div><div></div></div><div>WH TC BR CO</div></div> <div>Available in White, Terracotta, Brown and Cotswold Stone</div> <div>When ordering, state which colour grille you require and replace the ** at the end of the code with one of the four colour codes.</div> |   |   |   |   |                         |         |      |       |
| Round Grilles   |    | Cowled Wall Outlet<br>With damper   | 1RD COWL 100 **   | Ø100  | 6.7                     | 12.5    | 41.6 |       |
|   |   |   | 1RD COWL 125 **   | Ø125  | 5.8                     | 7.7     | 13.1 |       |
|   |   |   | 1RD COWL 150 **   | Ø150  | 5.3                     | 8.0     | 14.5 |       |
|   |    | Fixed Louvre Grille<br>External wall grille<br><br>(Available with flyscreen, please specify) | 1RD GRILL 100 **  | grille ■ 140 x 140 spigot Ø100                | -                       | -       | -    |       |
|   |   |   | 1RD GRILL 125 **  | grille ■ 160 x 160 spigot Ø125                | -                       | -       | -    |       |
|   |   |   | 1RD GRILL 150 **  | grille ■ 180 x 180 spigot Ø150                | -                       | -       | -    |       |
|   |   |   | 1RD GRILL 300 **  | grille ■ 362 x 362 spigot Ø300                | -                       | -       | -    |       |
|   |    | Egg Crate Grille<br>External wall grille  | 1RD EGG 100 **  | grille ■ 140 x 140 spigot Ø100                | -                       | -       | -    |       |
|   |   |   | 1RD EGG 125 **  | grille ■ 160 x 160 spigot Ø125                | -                       | -       | -    |       |
|   |   |   | 1RD EGG 150 **  | grille ■ 180 x 180 spigot Ø150                | -                       | -       | -    |       |
|   |   | Stainless Steel Gravity Grille  | 1RD GRAV 100 SS   | grille ■ 140 x 140 spigot Ø100                | -                       | -       | -    |       |
|   |  | Gravity Shutters<br>External wall grille  | 1RD GRAV 100 **   | grille ■ 140 x 140 spigot Ø100                | -                       | -       | -    |       |
|   |   |   | 1RD GRAV 125 **   | grille ■ 160 x 160 spigot Ø125                | -                       | -       | -    |       |
|   |   |   | 1RD GRAV 150 **   | grille ■ 180 x 180 spigot Ø150                | -                       | -       | -    |       |
|   | Rectangular Grilles   |            | Fixed Louvre<br>External wall grille for flat channel ducting | 1FD FIX LOUV **                               | ■ 110 x 54              | -       | -    | -     |
|   |   |            | Slimline Airbrick   | 1AC HOR LOUV **                               | ■ 204 x 60 (Horizontal) | 7.2     | 27.8 | 108.1 |
| 1AC VER LOUV **   |   |   |   | ■ 60 x 204 (Vertical)                         | 5.1                     | 21.0    | 80.0 |       |
|    |   | Slimline Airbrick Grille  | 1FD HOR GR WH   | System 204 Airbrick Grille                    | -                       | -       | -    |       |
|   |   |   | 1FD HOR GR TC   | System 204 Airbrick Grille                    | -                       | -       | -    |       |
|    |   | Gravity Shutter<br>To fit low profile ducting   | 1FD GRAVITY **  | ■ 110 x 54                                    | 5.0                     | 8.0     | 33.0 |       |
|    |   | Cowled Wall Outlet<br>With damper to fit low profile ducting                                  | 1FD COWL OUT **   | ■ 110 x 54                                    | 6.1                     | 16.7    | 68.2 |       |
|    |   | Egg Crate Grille<br>To fit low profile ductin   | 1FD EGG CRATE **  | ■ 110 x 54                                    | 2.0                     | 7.5     | 30.0 |       |
| Multi-Fit Grilles   |  | Multi-Fit Grilles<br>Dual fitting for round and rectangular ducting                           | 1MF FIX LOUV ** (White Fixed Louvre)                          | Ø100 or ■ 110 x 54                            | 2.0                     | 7.9     | 30.4 |       |
|   |   |   | 1MF GRAVITY (Gravity Shutter)                                 | Ø100 or ■ 110 x 54                            | 9.2                     | 10.8    | 11.4 |       |
|   |   |   | 1MF COWL OUT ** (Brown Cowled Outlet)                         | Ø100 or ■ 110 x 54                            | 6.7                     | 12.5    | 41.6 |       |
|   |   |   | 1MF EGG CRATE ** (Egg Crate Grille)                           | Ø100 or ■ 110 x 54                            | 2.0                     | 7.5     | 30.0 |       |
|   |   |   |   |   |                         |         |      |       |

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**L**  
Length

**Ø**  
External Diameter












**■**  
External Measurement

**■**  
Internal Measurement

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# Domestic Ancillaries

Extensive range of domestic ducting and ancillaries

| Product & Description   |   | Order Code  | Dimensions (mm)   | Resistance (Pa)<br>(these are estimates only)   |   |   |   |
|---|---|---|---|---|---|---|---|
|   |   |   |   | @15 l/s   | @30 l/s   | @60 l/s   |   |
| <div>Colour Codes</div> <div><div><div></div><div></div><div></div><div></div></div><div>WH TC BR CO</div></div> <div>Available in White, Terracotta, Brown and Cotswold Stone</div> <div>When ordering, state which colour grille you require and replace the ** at the end of the code with one of the four colour codes.</div> |   |   |   |   |   |   |   |
| Round Wall Kits   |  | <div>High Rise Wall Kit</div> <div>With round cowl outlet</div>                     | <div>1RD EFPTK **</div> <div>1RD EFPTK 150 **</div>   | <div>pipe Ø95</div> <div>pipe Ø150</div>  | <div>-</div> <div>-</div>   | <div>-</div> <div>-</div>   |   |
|   |  | <div>Telescopic Outlet Set</div> <div>With weatherproof cowl</div>                  | <div>1RD TELE 100 **</div> <div>1RD TELE 125 **</div> <div>1RD TELE 150 **</div>  | <div>Ø100 L 1000</div> <div>Ø125 L 1000</div> <div>Ø150 L 1000</div>  | <div>Figures vary on installation</div> <div>Figures vary on installation</div> <div>Figures vary on installation</div>                   |   |   |
|   |  | <div>Wall Kit</div>   | <div>1RD EFWAK **</div> <div>1RD EFWAK 125 **</div> <div>1RD EFWAK 150 **</div>   | <div>Ø100 L 250 - 450</div> <div>Ø125 L 250 - 450</div> <div>Ø150 L 250 - 450</div>   | <div>-</div> <div>-</div> <div>-</div>  | <div>-</div> <div>-</div> <div>-</div>  |   |
|   |  | <div>EnviroVent Filterless Extract Fan Window Kit Standard</div>                    | <div>EFWIK230V</div> <div>EFWIK12V</div>  | <div>To fit 105 - 160</div> <div>To fit 105 - 160</div>   | <div>-</div> <div>-</div>   | <div>-</div> <div>-</div>   |   |
|   | Diffusers   |   | <div>EnviroVent Diffuser</div> <div>For the EnviroVent Loft Mounted Unit</div>  | <div>1DIF EVL DIF</div>   | <div>Ø200 - W 285 x H 285 x D 55</div>  | <div>1.5</div>  | <div>6.4</div> <div>27.8</div>                      |
|    |   | <div>EnviroVent Mini Diffuser</div>   | <div>1DIF EVL SML1</div>  | <div>Ø100 - W 156 x H 156 x D 46</div>  | <div>-</div>  | <div>-</div>  |   |
|    |   | <div>Adjustable Ceiling Vents</div> <div>Duct valves with spring connection</div>   | <div>1DIF VALVE 100</div> <div>1DIF VALVE 125</div> <div>1DIF VALVE 150</div>   | <div>Ø100</div> <div>Ø125</div> <div>Ø150</div>   | <div>7.0</div> <div>3.0</div> <div>1.0</div>  | <div>60.0</div> <div>60.0</div> <div>30.0</div> <div>-</div> <div>150.0</div> <div>100.0</div>          |   |
|    |   | <div>White Powder-Coated Metal Ceiling Valves</div> <div>Extract and Supply</div>   | <div>1DIF EXTRACT 100</div> <div>1DIF SUPPLY 100</div> <div>1DIF EXTRACT 125</div> <div>1DIF SUPPLY 125</div> <div>1DIF EXTRACT 150</div> <div>1DIF SUPPLY 150</div> <div>1DIF EXTRACT 200</div> <div>1DIF SUPPLY 200</div> | <div>Ø100</div> <div>Ø100</div> <div>Ø125</div> <div>Ø125</div> <div>Ø150</div> <div>Ø150</div> <div>Ø200</div> <div>Ø200</div> | <div>-</div> <div>-</div> <div>-</div> <div>-</div> <div>-</div> <div>-</div> <div>-</div> <div>-</div>                                   | <div>-</div> <div>-</div> <div>-</div> <div>-</div> <div>-</div> <div>-</div> <div>-</div> <div>-</div> |   |
|    |   | <div>Stainless Steel Extract &amp; Supply Valves</div>                              | <div>1DIF SUPEXT 100 SS</div> <div>1DIF SUPEXT 125 SS</div> <div>1DIF SUPEXT 150 SS</div>   | <div>Ø100</div> <div>Ø125</div> <div>Ø150</div>   | <div>-</div> <div>-</div> <div>-</div>  | <div>-</div> <div>-</div> <div>-</div>  |   |
| Adaptors  |   |  | <div>Offset Spigot</div>  | <div>1AD OFFSET SPIG</div>  | <div>Ø140 to Ø100 - W 195 x H 250 x D 35</div>  | <div>2.0</div>  | <div>7.0</div> <div>30.0</div>                      |
|   |   |  | <div>Self-Sealing Couplings</div>   | <div>EV-SC125PF</div> <div>EV-SC125PP</div> <div>EV-SC204DF</div> <div>EV-SC204DD</div>   | <div>Ø125 (Male to Female)</div> <div>Ø125 (Male to Male)</div> <div>Ø204 X 60 (Male to Female)</div> <div>Ø204 X 60 (Male to Male)</div> | <div>-</div> <div>-</div> <div>-</div> <div>-</div>   | <div>-</div> <div>-</div> <div>-</div> <div>-</div> |

# Domestic Ancillaries

Extensive range of domestic ducting and ancillaries

|                           | Product & Description   | Order Code          | Dimensions (mm)                  | Resistance (Pa)<br>(these are estimates only) |         |         |
|---------------------------|---|---------------------|----------------------------------|---|---------|---------|
|                           |   |                     |                                  | @15 l/s                                       | @30 l/s | @60 l/s |
| Adaptors                  |  <b>Airbrick Adaptor</b><br>For use with flat channel ducting and slimline airbricks   | 1AD AIRBRICK 204    | ■ 204 x 60                       | 1.2   | 4.7     | 17.8    |
|                           |  <b>Airbrick to Round Ducting Adaptor</b>  | 1AD AIRBRICK 100    | ■ 204 x 60 to Ø100               | 3.5   | 14.0    | 57.0    |
|                           |  <b>90° Round to Rectangular Bend</b>  | 1AD 90BD 100-110    | Ø100 to ■ 110 x 54               | 8.0   | 33.1    | 136.4   |
|                           |   | 1AD 90BD 100-204    | Ø100 to ■ 204 x 60               | 1.2   | 7.0     | 28.0    |
|                           |   | 1AD 90BD 125-204    | Ø125 to ■ 204 x 60               | 1.2   | 6.6     | 26.0    |
|                           |   | 1AD 90BD 150-204    | Ø150 to ■ 204 x 60               | 1.1   | 5.6     | 21.0    |
|                           |  <b>Round to Rectangular Adaptor</b>   | 1AD CON 100-110     | Ø100 to ■ 110 x 54               | 3.7   | 14.6    | 58.0    |
|                           |   | 1AD CON 125-204     | Ø125 to ■ 204 x 60               | 0.7   | 3.0     | 12.0    |
|                           |  <b>Circular Reducer</b><br>To connect differing pipe sizes  | 1AD CON 125-100     | Ø125 to Ø100                     | 1.5   | 5.9     | 24.0    |
|                           |   | 1AD CON 150-100     | Ø150 to Ø100                     | 0.6   | 1.0     | 2.8     |
|                           |   | 1AD CON 150-125     | Ø150 to Ø125                     | 0.6   | 1.0     | 2.8     |
|                           |   | 1AD CON 200-100     | Ø200 to Ø100                     | -   | -       | -       |
|                           |   | 1AD CON 200-150     | Ø200 to Ø150                     | -   | -       | -       |
| Roof Venting Kits & Cowls |  <b>Weathering Slates</b><br>Aluminium   | 1RV SLATE ANGLE     | Ø110 - 457 x 457 (Angled)        | -   | -       | -       |
|                           |   | 1RV SLATE FLAT      | 406 x 406 (Flat)                 | -   | -       | -       |
|                           |  <b>Weathering Collar</b><br>For extract ventilation pipes   | 1RV COLLAR 110      | Ø110                             | -   | -       | -       |
|                           |  <b>Extract Cover</b><br>Roof cowl for extract ventilation pipes   | 1RV COVER 110       | Ø110                             | -   | -       | -       |
|                           |  <b>Through Roof Vent</b><br>With weathering slate, 100mm roof cowl and 500mm soil pipe  | 1RV VENT ANGLED     | Ø110 - 457 x 457 (Angled)        | -   | -       | -       |
|                           |   | 1RV VENT FLAT       | Ø110 - 406 x 406 (Flat)          | -   | -       | -       |
| Ducting Accessories       |  <b>Five In One Roof Vent Kit</b><br>500 x 500mm lead through roof ventilation terminal.<br>Available in dark grey and only suitable for pitched roofs of 25° or more. | 1RV VENT 5 IN 1     | Ø100 / Ø110 / Ø125 / Ø150 / Ø160 | -   | -       | -       |
|                           |  <b>Flat Channel Clip</b>  | 1FD CLIP 110 X 54   | ■ 110 x 54                       | -   | -       | -       |
|                           |   | 1FD CLIP 204 X 60   | ■ 204 x 60                       | -   | -       | -       |
|                           |  <b>Condensation Traps</b><br>With overflow, requires 22mm pipe  | 1RD CONTRAP 100     | Ø100 L 2000                      | 1.0   | 2.8     | 6.2     |
|                           |   | 1RD CONTRAP 125     | Ø125 L 2000                      | 0.4   | 1.4     | 3.8     |
|                           |   | 1RD CONTRAP 150     | Ø150 L 2000                      | 0.2   | 0.8     | 2.4     |
|                           |  <b>Cable Ties</b><br>Pack of 100  | 1 AC CAB TIE PK     | 450 x 8                          | -   | -       | -       |
|                           |  <b>Duct Insulation Sleeve</b>   | 1RD SL INS 100 X 1M | Ø100 L 1000                      | -   | -       | -       |
|                           |   | 1RD SL INS 100      | Ø100 L 2000                      | -   | -       | -       |
|                           |   | 1RD SL INS 125      | Ø125 L 2000                      | -   | -       | -       |
|                           |   | 1RD SL INS 150      | Ø150 L 2000                      | -   | -       | -       |

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L  
Length

Ø  
External Diameter

■  
External Measurement
















■  
Internal Measurement

**envirovent**








# Domestic Ancillaries

Extensive range of domestic ducting and ancillaries

|             | Product & Description   | Order Code          | Dimensions (mm)                           | Resistance (Pa)<br>(these are estimates only) |         |         |
|-------------|---|---------------------|---|---|---------|---------|
|             |   |                     |   | @15 l/s                                       | @30 l/s | @60 l/s |
| Accessories |  EnviroVent Filterless Fan Ceiling Mounting Kit      | 1AC EFCMBR          | ■ 235 x 285 - ■ 195 x 250                 | -   | -       | -       |
|             |  Round Wall Plate                                    | 1AC RWP 100         | Ø100                                      | -   | -       | -       |
|             |   | 1AC RWP 125         | Ø125                                      | -   | -       | -       |
|             |   | 1AC RWP 150         | Ø150                                      | -   | -       | -       |
|             |  Key Switch  | 1AC SWITCH KEY      | 80 x 80                                   | -   | -       | -       |
|             |  Galvanised Fixing Band<br>Zinc coated 10mm          | 1AC GALV BAND       | 12mm x 0.7mm L 10000                      | -   | -       | -       |
|             |  Fire Collars  | 1RD FIRE COLLAR 110 | Metal - 1 hour rating wrap (To suit Ø100) | -   | -       | -       |
|             |   | 1RD FIRE COLLAR 130 | Metal - 1 hour rating wrap (To suit Ø125) | -   | -       | -       |
|             |   | 1RD FIRE COLLAR 160 | Metal - 1 hour rating wrap (To suit Ø150) | -   | -       | -       |
|             |   | 1RD FIRE WRAP       | Metal - 1 hour rating wrap                | -   | -       | -       |
|             |   | 1FD FIRE COLLAR     | ■ 204 x 60                                | -   | -       | -       |
|             |  Fire Dampers<br>Mounted vertically or horizontally | 1RD FIREDAM 100     | Ø100                                      | -   | -       | -       |
|             |   | 1RD FIREDAM 125     | Ø125                                      | -   | -       | -       |
|             |   | 1RD FIREDAM 150     | Ø150                                      | -   | -       | -       |
|             |  Acoustic Instumescent Mastic                      | 1AC ACR MASTIC      | 310ml                                     | -   | -       | -       |
|             |  Duct Tape<br>Silver PVC                           | 1AC DUCT TAPE       | 50 metre roll - 50mm wide                 | -   | -       | -       |
|             |  Universal Backdraught Shutter                     | 1RD EFBDS           | Ø95                                       | -   | -       | -       |
|             |  Box Profile                                       | 1AC BP CAS 2020     | casing 200 x 200 x 5 L 3000               | -   | -       | -       |
|             |   | 1AC BP CAS 3020     | casing 300 x 200 x 5 L 3000               | -   | -       | -       |
|             |   | 1AC BP EXT 2020     | external bend 200 x 200                   | -   | -       | -       |
|             |   | 1AC BP INT 2020     | internal bend 200 x 200                   | -   | -       | -       |
|             |   | 1AC BP EXT 2030     | external bend 200 x 300                   | -   | -       | -       |
|             |   | 1AC BP INT 2030     | internal bend 200 x 300                   | -   | -       | -       |
|             |   | 1AC BP EXT 3020     | external bend 300 x 200                   | -   | -       | -       |
|             |   | 1AC BP INT 3020     | internal bend 300 x 200                   | -   | -       | -       |
|             |   | 1AC BP CAP 2020     | profile stop ends caps 200 x 200 x 5      | -   | -       | -       |
|             |   | 1AC BP CAP 2030     | profile stop ends caps 200 x 300 x 5      | -   | -       | -       |
|             |   | 1AC BP CAP 3020     | profile stop ends caps 300 x 200 x 5      | -   | -       | -       |
|             |  EnviroVent Loft Mounted Unit Filter               | FILTER EVL          | G4 standard high grade filter             | -   | -       | -       |
|             |  EnviroVent Air Source Unit Filter                 | FILTER MIVAS        | G4 standard high grade filter             | -   | -       | -       |
|             |  EnviroVent Wall Mounted Unit Filter               | FILTER EVF          | Insect filter                             | -   | -       | -       |
|             |  Exhaust Ceiling Valve Filter                      | 1AC FILTERCONE 100  | Ø100                                      | -   | -       | -       |
|             |   | 1AC FILTERCONE 120  | Ø125                                      | -   | -       | -       |
|             |   | 1AC FILTERCONE 150  | Ø150                                      | -   | -       | -       |
|             |  Inline Filter                                     | IL-F125             | In-line intake filter                     | -   | -       | -       |
|             |   | IL-F150             | In-line intake filter                     | -   | -       | -       |

# Commercial & Industrial Ancillaries

Extensive range of commercial & industrial ducting and ancillaries

|               | Product & Description   | Order Code           | Dimensions (mm) |
|---------------|---|----------------------|-----------------|
| Round Ducting |  Polyester Reinforced Flexible Hose Ducting      | 1RD FLEXGR 200 X 10M | Ø200 L 10000    |
|               |   | 1RD FLEXGR 250 X 10M | Ø250 L 10000    |
|               |   | 1RD FLEXGR 300 X 10M | Ø300 L 10000    |
|               |   | 1RD FLEXGR 350 X 10M | Ø350 L 10000    |
|               |   | 1RD FLEXGR 400 X 10M | Ø400 L 10000    |
|               |   | 1RD FLEXGR 450 X 10M | Ø450 L 10000    |
|               |   | 1RD FLEXGR 500 X 10M | Ø500 L 10000    |
|               |  Flexible Aluminium Hose Ducting                 | 1RD ALU FLEX 100     | Ø100 L 10000    |
|               |   | 1RD ALU FLEX 125     | Ø125 L 10000    |
|               |   | 1RD ALU FLEX 150     | Ø150 L 10000    |
|               |   | 1RD ALU FLEX 160     | Ø160 L 10000    |
|               |   | 1RD ALU FLEX 200     | Ø200 L 10000    |
|               |   | 1RD ALU FLEX 250     | Ø250 L 10000    |
|               |   | 1RD ALU FLEX 300     | Ø300 L 10000    |
|               |   | 1RD ALU FLEX 315     | Ø315 L 10000    |
|               |   | 1RD ALU FLEX 355     | Ø355 L 10000    |
|               |   | 1RD ALU FLEX 400     | Ø400 L 10000    |
|               |   | 1RD ALU FLEX 455     | Ø455 L 10000    |
|               |   | 1RD ALU FLEX 500     | Ø500 L 10000    |
|               |  Insulated Flexible Aluminium Hose Ducting     | 1RD INS FLEX 200     | Ø200 L 10000    |
|               |   | 1RD INS FLEX 250     | Ø250 L 10000    |
|               |   | 1RD INS FLEX 300     | Ø300 L 10000    |
|               |   | 1RD INS FLEX 350     | Ø350 L 10000    |
|               |   | 1RD INS FLEX 400     | Ø400 L 10000    |
|               |   | 1RD INS FLEX 450     | Ø450 L 10000    |
|               |   | 1RD INS FLEX 500     | Ø500 L 10000    |
|               |  Acoustically Insulated Aluminium Hose Ducting | 1RD ACO FLEX 200     | Ø200 L 10000    |
|               |   | 1RD ACO FLEX 250     | Ø250 L 10000    |
|               |   | 1RD ACO FLEX 300     | Ø300 L 10000    |
|               |   | 1RD ACO FLEX 350     | Ø350 L 10000    |
|               |   | 1RD ACO FLEX 400     | Ø400 L 10000    |
|               |   | 1RD ACO FLEX 450     | Ø450 L 10000    |
|               |   | 1RD ACO FLEX 500     | Ø500 L 10000    |
|               |  Spiral Duct                                   | 1RD SPI 100          | Ø100 L 3000     |
|               |   | 1RD SPI 125          | Ø125 L 3000     |
|               |   | 1RD SPI 150          | Ø150 L 3000     |
|               |   | 1RD SPI 200          | Ø200 L 3000     |
|               |   | 1RD SPI 250          | Ø250 L 3000     |
|               |   | 1RD SPI 300          | Ø300 L 3000     |
|               |   | 1RD SPI 315          | Ø315 L 3000     |
|               |   | 1RD SPI 355          | Ø355 L 3000     |
|               |   | 1RD SPI 400          | Ø400 L 3000     |
|               |   | 1RD SPI 450          | Ø450 L 3000     |

We offer a full range of domestic, commercial and industrial ancillaries. If the product that you require is not listed, please contact us on **0345 27 27 810**

**L**  
Length

**Ø**  
External Diameter






**■**  
External Measurement

**■**  
Internal Measurement

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# Commercial & Industrial Ancillaries







Extensive range of commercial & industrial ducting and ancillaries

|               | Product & Description   | Order Code         | Dimensions (mm)    |
|---------------|---|--------------------|--------------------|
| Round Ducting |  <b>Semi-Rigid Flexible Ducting</b>                    | 1RD FLEXRIGID 100  | Ø100 <b>L</b> 3000 |
|               |   | 1RD FLEXRIGID 125  | Ø125 <b>L</b> 3000 |
|               |   | 1RD FLEXRIGID 150  | Ø150 <b>L</b> 3000 |
|               |   | 1RD FLEXRIGID 200  | Ø200 <b>L</b> 3000 |
|               |   | 1RD FLEXRIGID 224  | Ø224 <b>L</b> 3000 |
|               |  <b>90° Elbow Bend Metal</b>                           | 1RD FLEXRIGID 250  | Ø250 <b>L</b> 3000 |
|               |   | 1RD FLEXRIGID 300  | Ø300 <b>L</b> 3000 |
|               |   | 1RD FLEXRIGID 315  | Ø315 <b>L</b> 3000 |
|               |   | 1RD FLEXRIGID 355  | Ø355 <b>L</b> 3000 |
|               |   |                    |                    |
|               |  <b>45° Elbow Bend Metal</b>                         | 1RD MT 90 BEND 100 | Ø100               |
|               |   | 1RD MT 90 BEND 125 | Ø125               |
|               |   | 1RD MT 90 BEND 150 | Ø150               |
|               |   | 1RD MT 90 BEND 200 | Ø200               |
|               |   | 1RD MT 90 BEND 250 | Ø250               |
|               |  <b>45° Twin Bends</b><br>Suitable for metal ducting | 1RD MT 90 BEND 300 | Ø300               |
|               |   | 1RD MT 90 BEND 315 | Ø315               |
|               |   | 1RD MT 90 BEND 355 | Ø355               |
|               |   | 1RD MT 90 BEND 400 | Ø400               |
|               |   | 1RD MT 90 BEND 450 | Ø450               |
|               |  <b>Equal Tees</b><br>Suitable for metal ducting     | 1RD MT 45 BEND 100 | Ø100               |
|               |   | 1RD MT 45 BEND 125 | Ø125               |
|               |   | 1RD MT 45 BEND 150 | Ø150               |
|               |   | 1RD MT 45 BEND 200 | Ø200               |
|               |   | 1RD MT 45 BEND 250 | Ø250               |
|               |   | 1RD MT 45 BEND 300 | Ø300               |
|               |   | 1RD MT 45 BEND 315 | Ø315               |
|               |   | 1RD MT 45 BEND 355 | Ø355               |
|               |   | 1RD MT 45 BEND 400 | Ø400               |
|               |   | 1RD MT 45 BEND 450 | Ø450               |
|               |   | IN-45 YPIECE 100   | Ø100               |
|               |   | IN-45 YPIECE 125   | Ø125               |
|               |   | IN-45 YPIECE 150   | Ø150               |
|               |   | IN-45 YPIECE 200   | Ø200               |
|               |   | IN-45 YPIECE 250   | Ø250               |
|               |   | IN-45 YPIECE 300   | Ø300               |
|               |   | IN-45 YPIECE 315   | Ø315               |
|               |   | IN-45 YPIECE 355   | Ø355               |
|               |   | IN-45 YPIECE 400   | Ø400               |
|               |   |                    |                    |
|               |   | IN-EQT 100         | Ø100               |
|               |   | IN-EQT 125         | Ø125               |
|               |   | IN-EQT 150         | Ø150               |
|               |   | IN-EQT 200         | Ø200               |
|               |   | IN-EQT 250         | Ø250               |
|               |   | IN-EQT 300         | Ø300               |
|               |   | IN-EQT 315         | Ø315               |
|               |   | IN-EQT 355         | Ø355               |
|               |   | IN-EQT 400         | Ø400               |
|               |   |                    |                    |



# Commercial & Industrial Ancillaries

Extensive range of commercial & industrial ducting and ancillaries

|         | Product & Description  | Order Code      | Dimensions (mm) |
|---------|--|-----------------|-----------------|
| Grilles |  Polymer Air Transfer Door Grilles        | IN-TG150X150    | 150 x 150       |
|         |  | IN-TG200X200    | 200 x 200       |
|         |  | IN-TG250X250    | 250 x 250       |
|         |  | IN-TG300X150    | 300 x 150       |
|         |  | IN-TG300X300    | 300 x 300       |
|         |  Fire Rated Transfer Grilles              | IN-FRTG150X150  | 150 x 150       |
|         |  | IN-FRTG200X200  | 200 x 200       |
|         |  | IN-FRTG250X250  | 250 x 250       |
|         |  | IN-FRTG300X150  | 300 x 150       |
|         |  | IN-FRTG300X300  | 300 x 300       |
|         |  Recessed Frame Louvres                   | IN-RFL200X200   | 200 x 200       |
|         |  | IN-RFL315X315   | 315 x 315       |
|         |  | IN-RFL400X400   | 400 x 400       |
|         |  | IN-RFL500X500   | 500 x 500       |
|         |  | IN-RFL600X600   | 600 x 600       |
|         |  | IN-RFL710X710   | 710 x 710       |
|         |  Weather Louvres With mesh              | IN-WLOUV150X150 | 150 x 150       |
|         |  | IN-WLOUV200X200 | 200 x 200       |
|         |  | IN-WLOUV250X250 | 250 x 250       |
|         |  | IN-WLOUV300X300 | 300 x 300       |
|         |  | IN-WLOUV350X350 | 350 x 350       |
|         |  | IN-WLOUV400X400 | 400 x 400       |
|         |  | IN-WLOUV450X450 | 450 x 450       |
|         |  | IN-WLOUV500X500 | 500 x 500       |
|         |  | IN-WLOUV550X550 | 550 x 550       |
|         |  | IN-WLOUV600X600 | 600 x 600       |
|         |  White Egg Crate Grilles Without damper | IN-ECGR150X150  | 150 x 150       |
|         |  | IN-ECGR200X200  | 200 x 200       |
|         |  | IN-ECGR250X250  | 250 x 250       |
|         |  | IN-ECGR300X300  | 300 x 300       |
|         |  | IN-ECGR350X350  | 350 x 350       |
|         |  | IN-ECGR400X400  | 400 x 400       |
|         |  | IN-ECGR450X450  | 450 x 450       |
|         |  | IN-ECGR500X500  | 500 x 500       |
|         |  | IN-ECGR595X595  | 595 x 595       |
|         |  White Egg Crate Grilles With damper    | IN-ECGWD150X150 | 150 x 150       |
|         |  | IN-ECGWD200X200 | 200 x 200       |
|         |  | IN-ECGWD250X250 | 250 x 250       |
|         |  | IN-ECGWD300X300 | 300 x 300       |
|         |  | IN-ECGWD350X350 | 350 x 350       |
|         |  | IN-ECGWD400X400 | 400 x 400       |
|         |  | IN-ECGWD450X450 | 450 x 450       |
|         |  | IN-ECGWD500X500 | 500 x 500       |
|         |  | IN-ECGWD595X595 | 595 x 595       |

We offer a full range of domestic, commercial and industrial ancillaries. If the product that you require is not listed, please contact us on **0345 27 27 810**

**L**  
Length

**Ø**  
External Diameter







**■**  
External Measurement

**□**  
Internal Measurement

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

# Commercial & Industrial Ancillaries

Extensive range of commercial & industrial ducting and ancillaries

|  | Product & Description   | Order Code                          | Dimensions (mm)   |
|--|---|-------------------------------------|---|
| Adaptors   |    | Pressed Short Concentric Reducers   | Please refer to page 143 for a comprehensive table of order codes     |
|  |    | Male Couplers                       | Please refer to page 143 for a comprehensive table of available sizes |
|  |   | IN-MFCOUP 100                       | Ø100  |
|  |   | IN-MFCOUP 125                       | Ø125  |
|  |   | IN-MFCOUP 150                       | Ø150  |
|  |   | IN-MFCOUP 200                       | Ø200  |
|  |   | IN-MFCOUP 250                       | Ø250  |
|  |   | IN-MFCOUP 300                       | Ø300  |
|  |   | IN-MFCOUP 315                       | Ø315  |
|  | IN-MFCOUP 355   | Ø355                                |   |
|  | IN-MFCOUP 400   | Ø400                                |   |
|  | IN-MFCOUP 450   | Ø450                                |   |
|  | Female Couplers   |                                     |   |
|  | IN-FFCOUP 100   | Ø100                                |   |
|  | IN-FFCOUP 125   | Ø125                                |   |
|  | IN-FFCOUP 150   | Ø150                                |   |
|  | IN-FFCOUP 200   | Ø200                                |   |
|  | IN-FFCOUP 250   | Ø250                                |   |
|  | IN-FFCOUP 300   | Ø300                                |   |
|  | IN-FFCOUP 315   | Ø315                                |   |
| IN-FFCOUP 355  | Ø355  |                                     |   |
| IN-FFCOUP 400  | Ø400  |                                     |   |
| IN-FFCOUP 450  | Ø450  |                                     |   |
| Roof Cowls   |  | Roof Cowls                          |   |
|  | IN-ROOFC 100  | Ø100                                |   |
|  | IN-ROOFC 125  | Ø125                                |   |
|  | IN-ROOFC 150  | Ø150                                |   |
|  | IN-ROOFC 200  | Ø200                                |   |
|  | IN-ROOFC 250  | Ø250                                |   |
|  | IN-ROOFC 300  | Ø300                                |   |
|  | IN-ROOFC 315  | Ø315                                |   |
|  | IN-ROOFC 355  | Ø355                                |   |
|  | IN-ROOFC 400  | Ø400                                |   |
| IN-ROOFC 450   | Ø450  |                                     |   |
| Diffusers  |  | Ceiling Diffusers<br>Without damper |   |
|  | IN-4WCD150X150  | 150 x 150                           |   |
|  | IN-4WCD225X225  | 225 x 225                           |   |
|  | IN-4WCD300X300  | 300 x 300                           |   |
|  | IN-4WCD375X375  | 375 x 375                           |   |
|  | IN-4WCD600X600  | 595 x 595                           |   |
|  |  | Ceiling Diffusers<br>With damper    |   |
|  | IN-4WCDWD150X150  | 150 x 150                           |   |
|  | IN-4WCDWD225X225  | 225 x 225                           |   |
|  | IN-4WCDWD300X300  | 300 x 300                           |   |
| IN-4WCDWD375X375   | 375 x 375   |                                     |   |
| IN-4WCDWD600X600   | 595 x 595   |                                     |   |

# Commercial & Industrial Ancillaries

Extensive range of commercial & industrial ducting and ancillaries

|              | Product & Description   | Order Code   | Dimensions (mm)  |
|--------------|---|--|--|
| Plenum Boxes |  <p>Plastic Plenum Boxes for Diffusers or Egg Crate Grilles</p> <p>*Please specify the spigot size on order</p> <p>(Sizes Ø100mm up to Ø300mm)</p> | IN-PB100X100*<br>IN-PB150X150*<br>IN-PB200X200*<br>IN-PB225X225*<br>IN-PB250X250*<br>IN-PB300X300*<br>IN-PB350X350*<br>IN-PB400X400*<br>IN-PB450X450*  | 100 x 100<br>150 x 150<br>200 x 200<br>225 x 225<br>250 x 250<br>300 x 300<br>350 x 350<br>400 x 400<br>450 x 450  |
|              |  <p>Metal Side Entry Plenum Boxes</p> <p>*Please specify the spigot size on order</p> <p>(Sizes Ø100mm up to Ø300mm)</p>                           | IN-MTPBSE100X100*<br>IN-MTPBSE125X125*<br>IN-MTPBSE150X150*<br>IN-MTPBSE200X200*<br>IN-MTPBSE225X225*<br>IN-MTPBSE250X250*<br>IN-MTPBSE300X300*<br>IN-MTPBSE350X350*<br>IN-MTPBSE375X375*<br>IN-MTPBSE400X400*<br>IN-MTPBSE450X450*<br>IN-MTPBSE500X500*<br>IN-MTPBSE550X550*<br>IN-MTPBSE600X600* | 100 x 100<br>125 x 125<br>150 x 150<br>200 x 200<br>225 x 225<br>250 x 250<br>300 x 300<br>350 x 350<br>375 x 375<br>400 x 400<br>450 x 450<br>500 x 500<br>550 x 550<br>600 x 600 |
|              |  <p>Metal Top Entry Plenum Boxes</p> <p>*Please specify the spigot size on order</p> <p>(Sizes Ø100mm up to Ø300mm)</p>                          | IN-MTTEPB100X100*<br>IN-MTTEPB125X125*<br>IN-MTTEPB150X150*<br>IN-MTTEPB200X200*<br>IN-MTTEPB225X225*<br>IN-MTTEPB250X250*<br>IN-MTTEPB300X300*<br>IN-MTTEPB350X350*<br>IN-MTTEPB375X375*<br>IN-MTTEPB400X400*<br>IN-MTTEPB450X450*<br>IN-MTTEPB500X500*<br>IN-MTTEPB550X550*<br>IN-MTTEPB600X600* | 100 x 100<br>125 x 125<br>150 x 150<br>200 x 200<br>225 x 225<br>250 x 250<br>300 x 300<br>350 x 350<br>375 x 375<br>400 x 400<br>450 x 450<br>500 x 500<br>550 x 550<br>600 x 600 |
|              |  <p>Wall Louvre Boxes (350mm deep)</p> <p>*Please specify the spigot size on order</p> <p>(Sizes Ø100mm up to Ø300mm)</p>                        | IN-WLB100X100*<br>IN-WLB150X150*<br>IN-WLB200X200*<br>IN-WLB250X250*<br>IN-WLB300X300*<br>IN-WLB350X350*<br>IN-WLB400X400*<br>IN-WLB450X450*<br>IN-WLB500X500*<br>IN-WLB550X550*<br>IN-WLB600X600*   | 100 X 100<br>150 X 150<br>200 X 200<br>250 X 250<br>300 X 300<br>350 X 350<br>400 X 400<br>450 X 450<br>500 X 500<br>550 X 550<br>600 X 600  |

We offer a full range of domestic, commercial and industrial ancillaries. If the product that you require is not listed, please contact us on **0345 27 27 810**

L  
Length

Ø  
External Diameter

External Measurement








Internal Measurement

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# Commercial & Industrial Ancillaries

Extensive range of commercial & industrial ducting and ancillaries

|             | Product & Description  | Order Code   | Dimensions (mm)    |
|-------------|--|--------------|--------------------|
| Accessories |  <b>Filtration Boxes</b>              | EV-FILTB-100 | Ø100 <b>L</b> 196  |
|             |  | EV-FILTB-125 | Ø125 <b>L</b> 196  |
|             |  | EV-FILTB-160 | Ø160 <b>L</b> 196  |
|             |  | EV-FILTB-200 | Ø200 <b>L</b> 202  |
|             |  | EV-FILTB-250 | Ø250 <b>L</b> 206  |
|             |  | EV-FILTB-315 | Ø315 <b>L</b> 206  |
|             |  | EV-FILTB-355 | Ø355 <b>L</b> 254  |
|             |  | EV-FILTB-400 | Ø400 <b>L</b> 254  |
|             |  <b>Wire Guards</b>                   | EV-CAWG-250  | Ø250               |
|             |  | EV-CAWG-315  | Ø315               |
|             |  | EV-CAWG-355  | Ø355               |
|             |  | EV-CAWG-400  | Ø400               |
|             |  | EV-CAWG-450  | Ø450               |
|             |  | EV-CAWG-500  | Ø500               |
|             |  | EV-CAWG-560  | Ø560               |
|             |  | EV-CAWG-630  | Ø630               |
|             |  <b>Anti-Vibration Mounts</b>         | EV-AVMT      | 4 supports per bag |
|             |  <b>Wire Protection Guards</b>      | EV-PMWPG-250 | ■ 332 x 332        |
|             |  | EV-PMWPG-325 | ■ 394 x 394        |
|             |  | EV-PMWPG-375 | ■ 449 x 449        |
|             |  | EV-PMWPG-450 | ■ 501 x 501        |
|             |  | EV-PMWPG-525 | ■ 553 x 553        |
|             |  | EV-PMWPG-630 | ■ 808 x 808        |
|             |  <b>Discharge Protection Guards</b> | EV-DPG-125   | Ø125 <b>L</b> 232  |
|             |  | EV-DPG-160   | Ø160 <b>L</b> 252  |
|             |  | EV-DPG-200   | Ø200 <b>L</b> 275  |
|             |  | EV-DPG-250   | Ø250 <b>L</b> 304  |
|             |  | EV-DPG-315   | Ø315 <b>L</b> 342  |
|             |  | EV-DPG-355   | Ø355 <b>L</b> 365  |
|             |  | EV-DPG-400   | Ø400 <b>L</b> 391  |
|             |  <b>Matching Flanges</b>            | EV-CAMF-250  | Ø250               |
|             |  | EV-CAMF-315  | Ø315               |
|             |  | EV-CAMF-355  | Ø355               |
|             |  | EV-CAMF-400  | Ø400               |
|             |  | EV-CAMF-450  | Ø450               |
|             |  | EV-CAMF-500  | Ø500               |
|             |  | EV-CAMF-560  | Ø560               |
|             |  | EV-CAMF-630  | Ø630               |
|             |  <b>Mounting Feet</b>               | EV-MFEET-250 | Ø250               |
|             |  | EV-MFEET-315 | Ø315               |
|             |  | EV-MFEET-355 | Ø355               |
|             |  | EV-MFEET-400 | Ø400               |
|             |  | EV-MFEET-450 | Ø450               |
|             |  | EV-MFEET-500 | Ø500               |
|             |  | EV-MFEET-560 | Ø560               |
|             |  | EV-MFEET-630 | Ø630               |

# Commercial & Industrial Ancillaries

Extensive range of commercial & industrial ducting and ancillaries

|             | Product & Description   | Order Code      | Dimensions (mm) |
|-------------|---|-----------------|-----------------|
| Accessories |  Worm Drive Clips  | IN-WDC 100      | Ø90 - Ø110      |
|             |   | IN-WDC 125      | Ø120 - Ø140     |
|             |   | IN-WDC 150      | Ø140 - Ø160     |
|             |   | IN-WDC 200      | Ø200 - Ø230     |
|             |   | IN-WDC 300      | Ø300 - Ø320     |
|             |   | IN-WDC 400      | Ø400 - Ø420     |
|             |  Wall Termination Boxes  | IN-WTB200       | Ø200            |
|             |   | IN-WTB250       | Ø250            |
|             |   | IN-WTB300       | Ø300            |
|             |  Plastic Exhaust Side Louvre Shutter   | EV-PLS-250      | ■ 294 x 294     |
|             |   | EV-PLS-355      | ■ 394 x 394     |
|             |   | EV-PLS-400      | ■ 457 x 457     |
|             |   | EV-PLS-450      | ■ 499 x 499     |
|             |   | EV-PLS-500      | ■ 548 x 548     |
|             |   | EV-PLS-560      | ■ 605 x 605     |
|             |   | EV-PLS-630      | ■ 696 x 696     |
|             |  Circular Flexible Connectors  | EV-CIRCTR-140   | Ø140            |
|             |   | EV-CIRCTR-160   | Ø160            |
|             |   | EV-CIRCTR-200   | Ø200            |
|             |   | EV-CIRCTR-250   | Ø250            |
|             |   | EV-CIRCTR-315   | Ø315            |
|             |   | EV-CIRCTR-355   | Ø355            |
|             |   | EV-CIRCTR-400   | Ø400            |
|             |  Flexible Coupling   | EV-FLEXCNTR-250 | Ø250            |
|             |   | EV-FLEXCNTR-315 | Ø315            |
|             |   | EV-FLEXCNTR-355 | Ø355            |
|             |   | EV-FLEXCNTR-400 | Ø400            |
|             |   | EV-FLEXCNTR-450 | Ø450            |
|             |   | EV-FLEXCNTR-500 | Ø500            |
|             |   | EV-FLEXCNTR-560 | Ø560            |
|             |  Sound Attenuators<br>Lengths of 300, 600 and 1200 are available on request<br>Please refer to page 143 for sound data | IN-SA100X900    | Ø100 L 900      |
|             |   | IN-SA125X900    | Ø125 L 900      |
|             |   | IN-SA150X900    | Ø150 L 900      |
|             |   | IN-SA200X900    | Ø200 L 900      |
|             |   | IN-SA250X900    | Ø250 L 900      |
|             |   | IN-SA315X900    | Ø315 L 900      |
|             |   | IN-SA355X900    | Ø355 L 900      |
|             |  Suspension Rings  | IN-SA400X900    | Ø400 L 900      |
|             |   | EV-SUS100       | Ø100            |
|             |   | EV-SUS125       | Ø125            |
|             |   | EV-SUS150       | Ø150            |
|             |   | EV-SUS200       | Ø200            |
|             |   | EV-SUS224       | Ø224            |
|             |   | EV-SUS250       | Ø250            |
|             |   | EV-SUS300       | Ø300            |
|             |   | EV-SUS315       | Ø315            |

We offer a full range of domestic, commercial and industrial ancillaries. If the product that you require is not listed, please contact us on **0345 27 27 810**

L  
Length

Ø  
External Diameter

■  
External Measurement

■  
Internal Measurement

**envirovent**

# Commercial & Industrial Ancillaries

Extensive range of commercial & industrial ducting and ancillaries

## Pressed Short Concentric Reducers Codes

| Ø   | 100                   | 125                   | 150                   | 200                   | 250                   | 300                   | 315                   | 355                   |
|-----|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 100 | •                     | •                     | •                     | •                     | •                     | •                     | •                     | •                     |
| 125 | 1AD MT CON<br>125-100 | •                     | •                     | •                     | •                     | •                     | •                     | •                     |
| 150 | 1AD MT CON<br>150-100 | 1AD MT CON<br>150-125 | •                     | •                     | •                     | •                     | •                     | •                     |
| 200 | 1AD MT CON<br>200-100 | 1AD MT CON<br>200-125 | 1AD MT CON<br>200-150 | •                     | •                     | •                     | •                     | •                     |
| 250 | 1AD MT CON<br>100-250 | 1AD MT CON<br>250-125 | 1AD MT CON<br>250-150 | 1AD MT CON<br>250-200 | •                     | •                     | •                     | •                     |
| 300 | 1AD MT CON<br>300-100 | 1AD MT CON<br>300-125 | 1AD MT CON<br>300-150 | 1AD MT CON<br>300-200 | 1AD MT CON<br>300-250 | •                     | •                     | •                     |
| 315 | 1AD MT CON<br>315-100 | 1AD MT CON<br>315-125 | 1AD MT CON<br>315-150 | 1AD MT CON<br>315-200 | 1AD MT CON<br>315-250 | 1AD MT CON<br>315-300 | •                     | •                     |
| 355 | •                     | •                     | •                     | •                     | 1AD MT CON<br>355-250 | 1AD MT CON<br>355-300 | 1AD MT CON<br>355-315 | •                     |
| 400 | •                     | •                     | •                     | •                     | 1AD MT CON<br>400-250 | 1AD MT CON<br>400-300 | 1AD MT CON<br>400-315 | 1AD MT CON<br>400-355 |

## Sound Attenuators - Sound data

| Ød1 | l   | Attenuation in dB for centre frequency Hz |     |     |     |      |      |      |      | Ødy | m  |
|-----|-----|---|-----|-----|-----|------|------|------|------|-----|----|
| mm  | mm  | 63  | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | mm  | Kg |
| 100 | 900 | 5   | 4   | 15  | 34  | 50   | 50   | 48   | 23   | 210 | 5  |
| 125 | 900 | 4   | 4   | 12  | 33  | 45   | 50   | 30   | 17   | 235 | 7  |
| 150 | 900 | 2   | 4   | 11  | 29  | 42   | 45   | 23   | 16   | 260 | 8  |
| 200 | 900 | 2   | 4   | 8   | 24  | 32   | 34   | 13   | 10   | 310 | 10 |
| 250 | 900 | 3   | 4   | 8   | 20  | 26   | 23   | 10   | 8    | 365 | 12 |
| 300 | 900 | 1   | 3   | 7   | 17  | 23   | 15   | 7    | 7    | 410 | 18 |
| 400 | 900 | 1   | 3   | 5   | 10  | 13   | 7    | 5    | 6    | 510 | 26 |



# Electrical Accessories

Remote sensors, controllers and switches

## HIG-2 Humidity Sensor



Enables the automatic on/off operation of an extract fan by monitoring the relative humidity level.

- Adjustable pre-set RH level 60%-90%
- Automatically switches the fan on or off

|                             |         |
|-----------------------------|---------|
| IP Protection               | IP-21   |
| Electrical Insulation Class | Class 2 |
| Maximum Current (A)         | 6 (2)   |
| Operating Temp              | 0-40°C  |
| Humidity Adjust             | 60%-90% |

## SQA Air Quality Sensor



Automatically switches the fan on when the quality of the ambient air deteriorates below an acceptable level due to fumes, odours, tobacco, smoke or dampness etc. The SQA has an adjustable run on timer facility, which enables the fan to operate for a pre-selected time period after the air quality sensor has switched off.

|                             |         |
|-----------------------------|---------|
| IP Protection               | IP-21   |
| Electrical Insulation Class | Class 2 |
| Maximum Current (A)         | 6 (2)   |
| Operating Temp              | 0-50°C  |
| Humidity Adjust (mins)      | 1-25    |

## CPFL-S PIR Detector



Wall fitting PIR detector, sensitive to infrared radiation from body heat of people moving, with a 360° detection angle. Power Supply: 1-230V

## REB-1N / REB-1NE / REB-2.5N / REB-2.5NE

Electronic Single Phase Speed Controllers



REB-1N  
Surface Mounted



REB-1NE  
Flush Mounted

- Available in wall box or flush mounted versions
- Fuse protected with spare fuse included
- Minimum speed adjustment
- Single ON/OFF and speed regulation control dial

| Model     | IP Protection | Electrical Supply |             | Power (VA) | Maximum Current (A) | Class  | Operating Temperature Range |
|-----------|---------------|-------------------|-------------|------------|---------------------|--------|-----------------------------|
|           |               | Frequency (Hz)    | Voltage (V) |            |                     |        |                             |
| REB-1N    | IP44          | 50                | 220-240     | 220        | 1                   | II (□) | 0-40°C                      |
| REB-1NE   | IP44          | 50                | 220-240     | 220        | 1                   | II (□) | 0-40°C                      |
| REB-2.5N  | IP44          | 50                | 220-240     | 550        | 2.5                 | II (□) | 0-40°C                      |
| REB-2.5NE | IP44          | 50                | 220-240     | 550        | 2.5                 | II (□) | 0-40°C                      |

## REB-ECOWATT Remote Speed Controller



The REB ECOWATT can control the speed of the ECOWATT fans continuously, manually and remotely.  
Power supply: 1-230V

|                           |                |
|---------------------------|----------------|
| IP Protection             | IP44           |
| Class                     | II (□)         |
| Operating Temp Range      | -10°C to +50°C |
| Dimensions L x A x H (mm) | 80 x 68 x 80   |

## RMB

Single phase speed controllers by auto-transformer



- IP56 ABS casing
- Electrical supply: 1/230V/50-60Hz
- Five position knob (0/1/2/3/4)
- Voltage: 80V, 105V, 130V, 160V & 230V
- Pilot light

| Model   | Maximum Current (A) | Casing | IP   | Weight (Kg) |
|---------|---------------------|--------|------|-------------|
| RMB 1.5 | 1.5                 | ABS    | IP56 | 3           |
| RMB 3.5 | 3.5                 | ABS    | IP56 | 4           |
| RMB 8   | 8                   | ABS    | IP56 | 10          |

## REB-5

Electronic Single Phase Speed Controller



- Surface mounted
- Fuse protected
- Minimum speed adjustment
- Separate ON/OFF switch

|                      |                       |
|----------------------|-----------------------|
| IP Protection        | IP55                  |
| Electrical Supply    | 50 (Hz)   220-240 (V) |
| Power (VA)           | 1100                  |
| Maximum Current (A)  | 5                     |
| Class                | II (□)                |
| Operating Temp Range | 5-45°C                |

## CR-150 Controller



Control unit for STYLVENT HV-150AE. The control unit is fitted with:

- On/off switch for fan operation
- On/off switch for shutter operation

## REB-1R Speed Controller



Control unit for STYLVENT HV230AE, HV300AE and HVE230AE models. Speed controller including a switch to reverse the airflow direction.

## COM-2 Two Speed Switch



## REGUL-2 Two Speed Switch

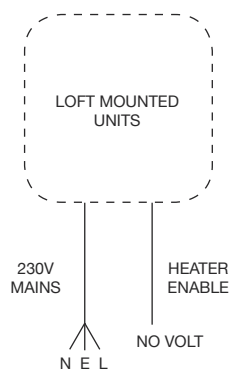


# Wiring Diagrams

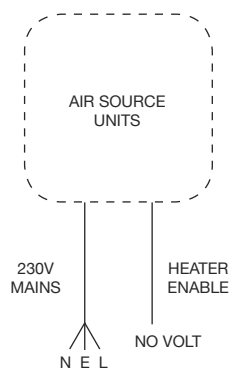


## The Lifetime Range® & Low Energy Products

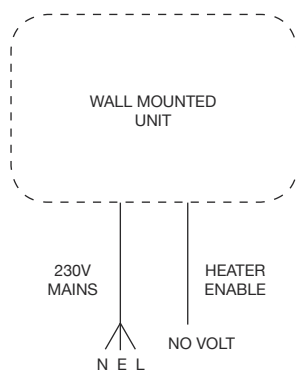
### PIV Loft Mounted Unit / MIV® Loft Mounted Unit



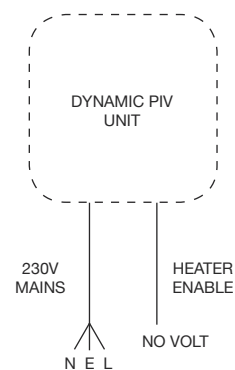
### PIV Air Source / MIV® Air Source



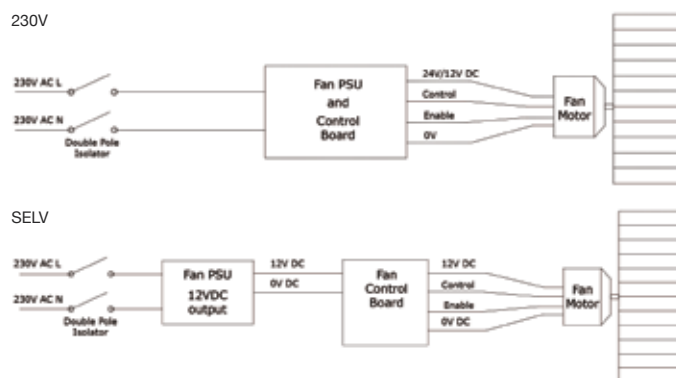
### Wall Mounted Unit



### Dynamic PIV



### Filterless Extract Fan / Filterless Infinity Fan

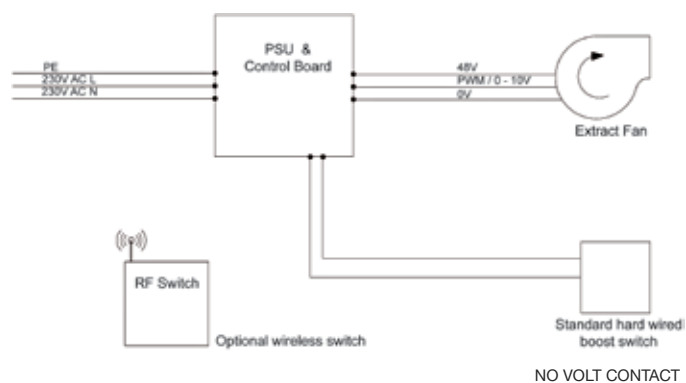




# Wiring Diagrams

The Lifetime Range® & Low Energy Products

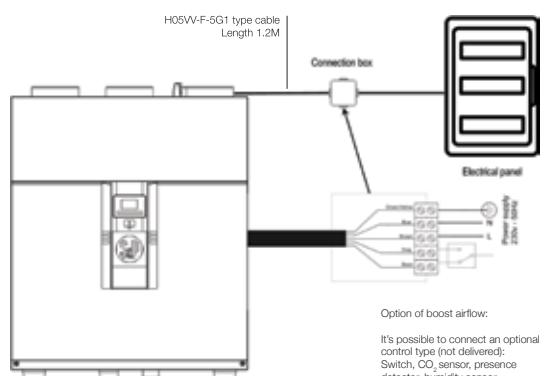
## MEV Spider



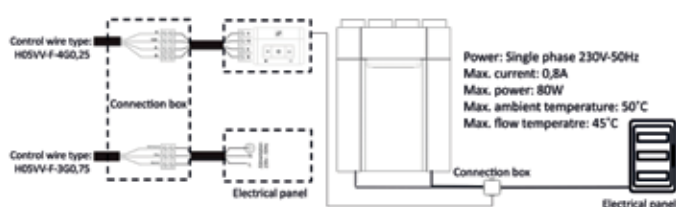
## OZEO



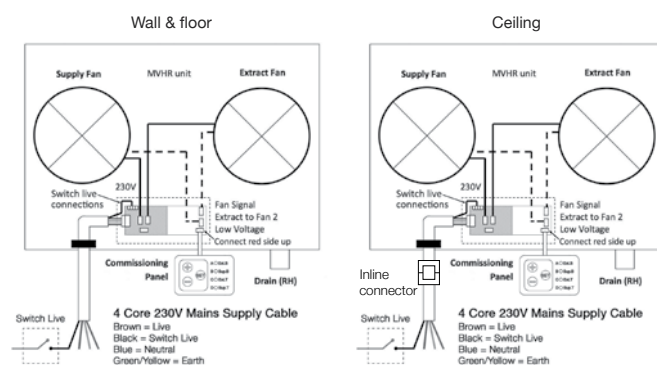
## IDEO



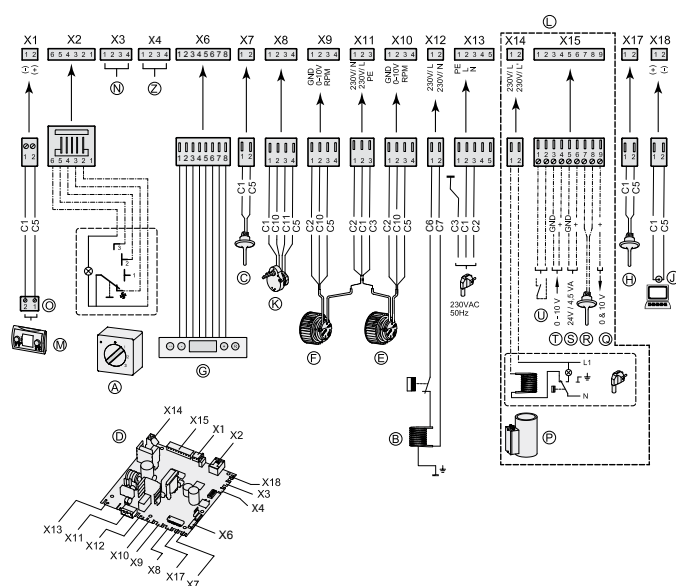
## energiSava 210



## energiSava 250

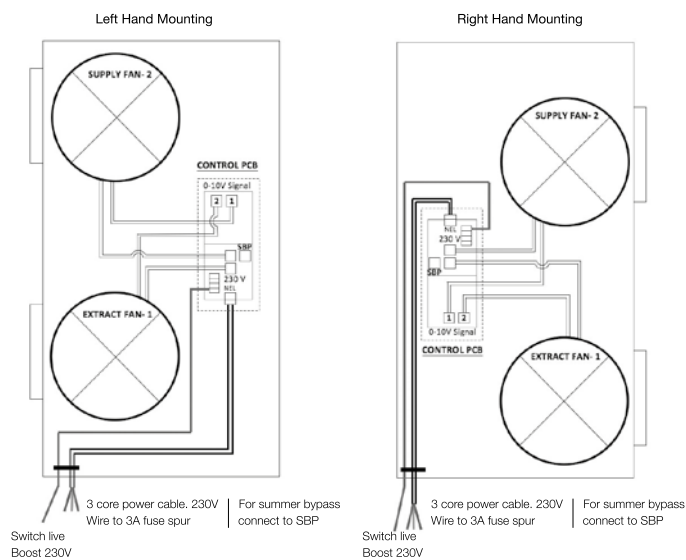


## energiSava 300 & 400



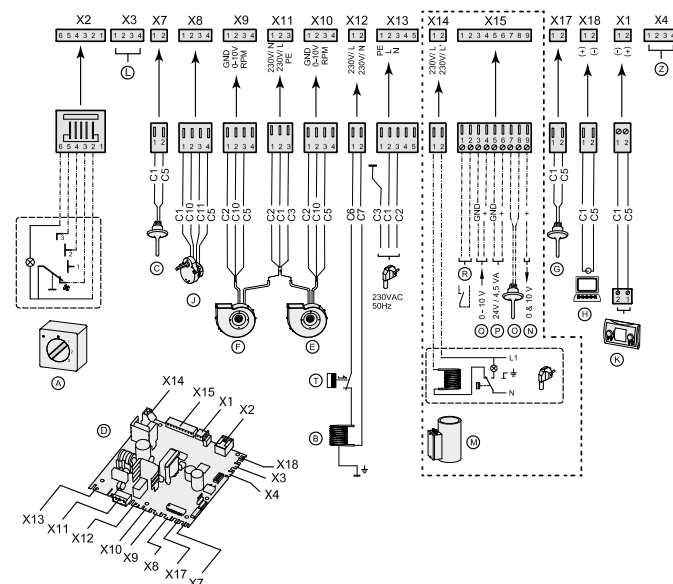
## The Lifetime Range® &amp; Low Energy Products

## energiSava 380

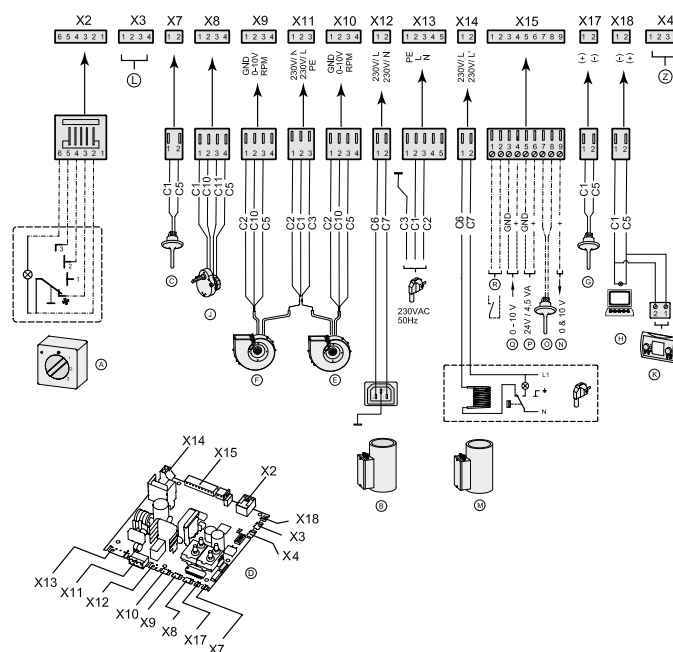


## Slimline 150 &amp; 300

## Slimline 150



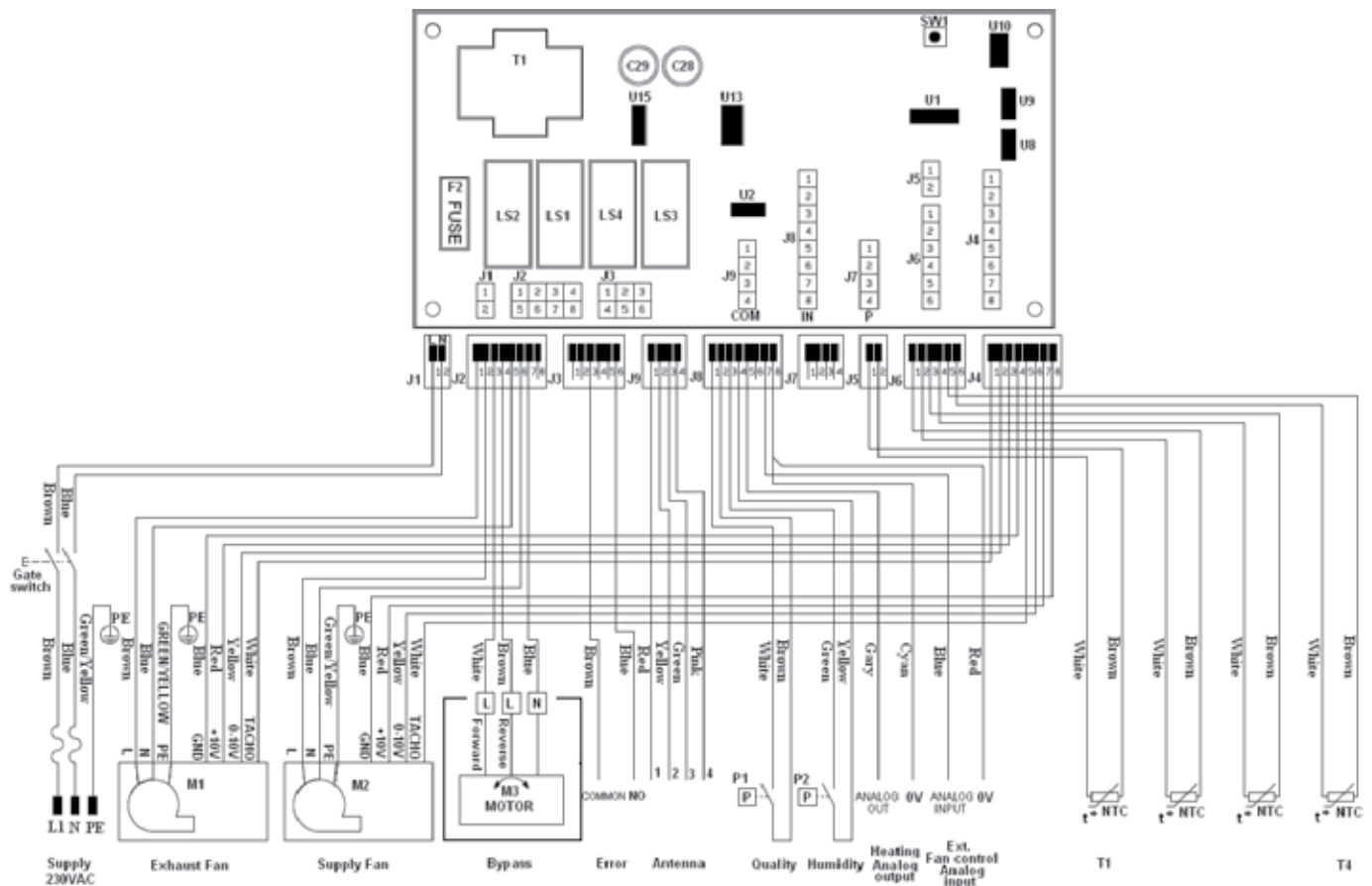
## Slimline 300



# Wiring Diagrams

The Lifetime Range® & Low Energy Products

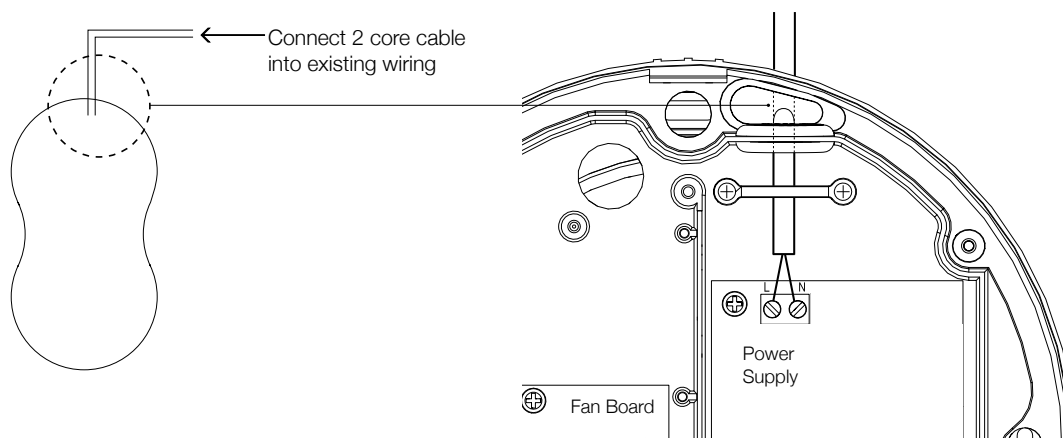
REFRESH



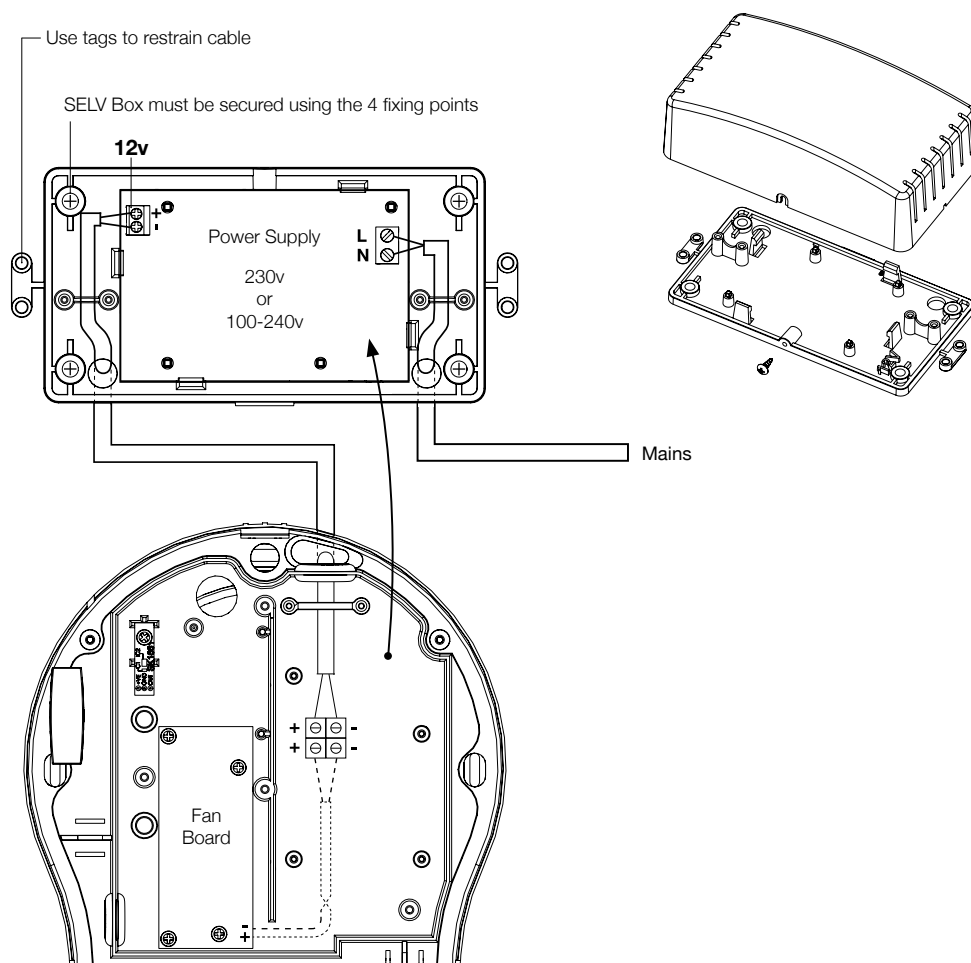


## The Lifetime Range® & Low Energy Products

### heatSava 230V



### heatSava SELV



# Wiring Diagrams

## SILENT 100 / SILENT 100 *Design*

S

Fig. 1

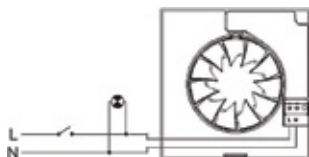
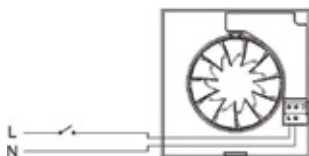


Fig. 2



T / IT

Fig. 3

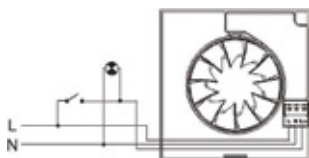
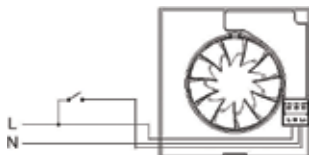
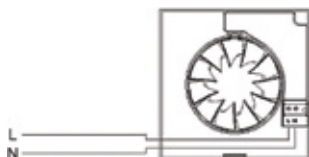


Fig. 4



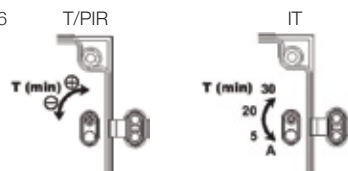
HT / PIR

Fig. 5



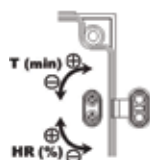
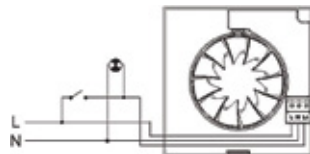
T / IT / PIR

Fig. 6



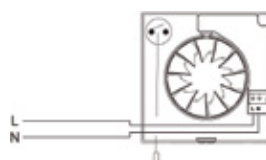
HT

Fig. 7



P / HTP

Fig. 8



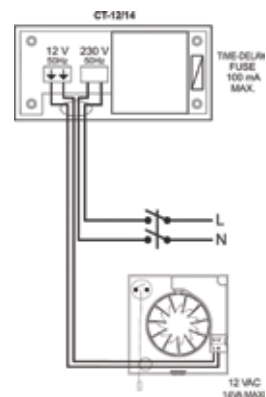
### REFERENCE

| MODEL(S)     | FIG | DESCRIPTION                             |
|--------------|-----|---|
| S            | 1   | Operating through a light switch        |
|              | 2   | Operating through an independent switch |
| T / IT       | 3   | Operating through a light circuit       |
|              | 4   | Operating through an independent switch |
| HT / PIR     | 5   | Automatic operation                     |
| T / IT / PIR | 6   | Setting the timer                       |
| HT           | 7   | Setting the humidity and timer          |
| P / HTP      | 8   | Operating with pulloord                 |

## SILENT 100 SELV

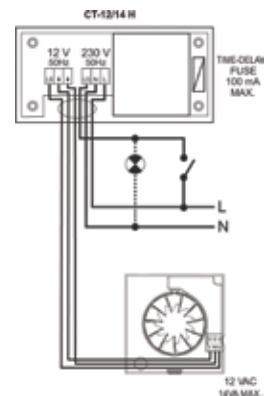
S / T / HTP

Fig. 1



T

Fig. 2



T / TP

HTP

Fig. 3

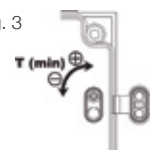
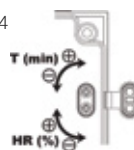


Fig. 4

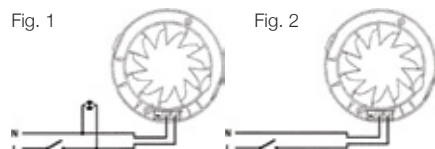


### REFERENCE

| MODEL(S)     | FIG | DESCRIPTION                             |
|--------------|-----|---|
| S / TP / HTP | 1   | Operating through an independent switch |
| T            | 2   | Operating through a light switch        |
| T / TP       | 3   | Setting the timer                       |
| HTP          | 4   | Setting the humidity and timer          |

## SILENTUB 100

S



## REFERENCE

| MODEL(S) | FIG | DESCRIPTION                             |
|----------|-----|---|
| S        | 1   | Operating through a light switch        |
|          | 2   | Operating through an independent switch |

## SILENT MV 160/100

Fig. 1 Non-earthed dual isolation devices

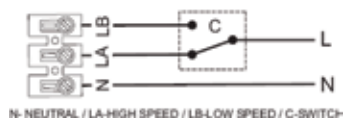


Fig. 2 Non-earthed dual isolation devices

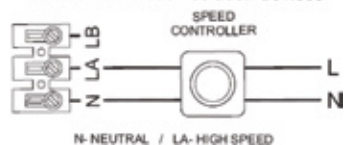
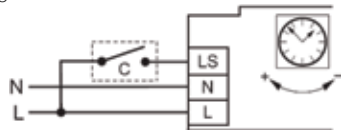


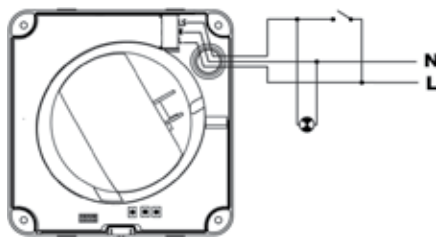
Fig. 3



## REFERENCE

| MODEL(S) | FIG | DESCRIPTION                                       |
|----------|-----|---|
| S        | 1   | For connection using a two-speed selection switch |
|          | 2   | For connection via a variable speed controller    |
| T        | 3   | Timer models                                      |

## ECO dMEV / ECO dMEV LC



## PROFILE

S / P

Fig. 1

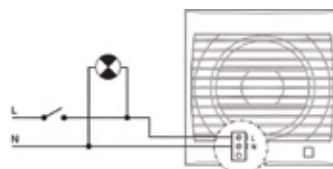
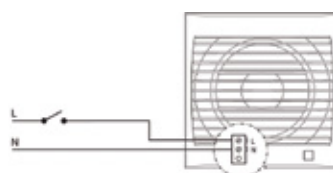


Fig. 2



T

Fig. 3

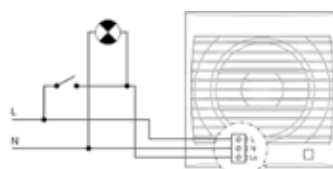
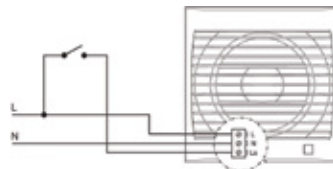


Fig. 4



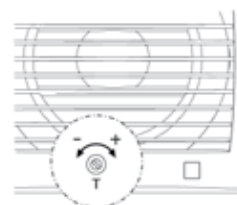
HT / PIR

Fig. 5



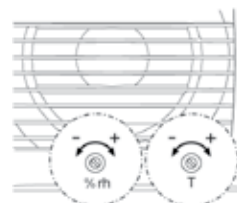
T / PIR

Fig. 6



HT

Fig. 7



## REFERENCE

| MODEL(S) | FIG | DESCRIPTION                                |
|----------|-----|--|
| S / P    | 1   | Operating through a light switch           |
|          | 2   | Operating through a standard switch        |
| T        | 3   | Operating through a light switch           |
|          | 4   | Operating through an independent switch    |
| HT / PIR | 5   | Automatic operation through a light switch |
| T / PIR  | 6   | Setting the timer                          |
| HT       | 7   | Setting the humidity and timer             |

# Wiring Diagrams

## PROFILE 150

### S

Fig. 1

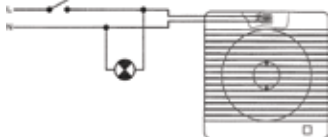
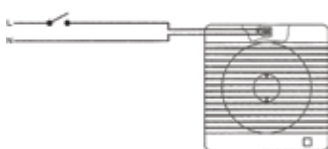


Fig. 2



### T

Fig. 3

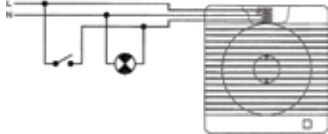


Fig. 4

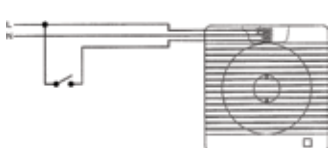
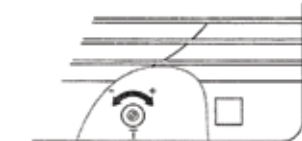


Fig. 5



### HT

Fig. 6

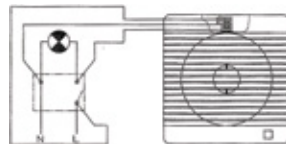


Fig. 7

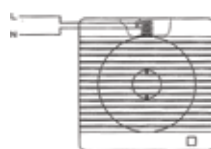


Fig. 8



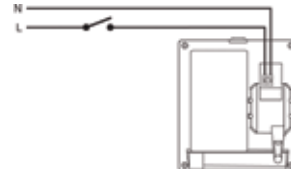
#### REFERENCE

| MODEL(S) | FIG | DESCRIPTION                                |
|----------|-----|--|
| S        | 1   | Operating through a light switch           |
|          | 2   | Operating through an independent switch    |
| T        | 3   | Operating through a light switch           |
|          | 4   | Operating through an independent switch    |
| HT       | 5   | Setting the timer                          |
|          | 6   | Operating through a light switch           |
|          | 7   | Automatic operation through a light switch |
|          | 8   | Setting the humidity timer                 |

## ENV

### S

Fig. 1



### T - HT

Fig. 2

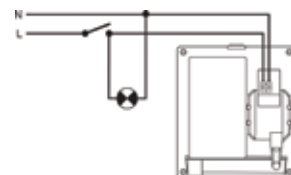


Fig. 3

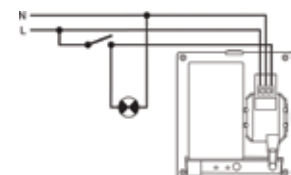
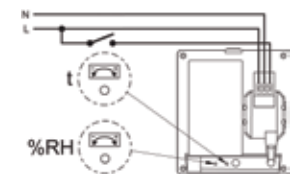


Fig. 4



#### REFERENCE

| MODEL(S) | FIG | DESCRIPTION   |
|----------|-----|---|
| S        | 1   | Operating through an independent switch             |
|          | 2   | Operating through a light switch                    |
| T / HT   | 3   | Operating through a light switch with fan and timer |
|          | 4   | Operating through an independent switch with timer  |



## CLASSIC 100

## S

Fig. 1

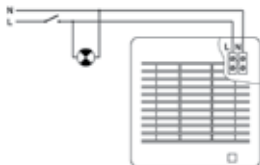
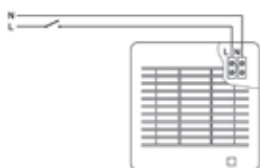


Fig. 2



## T - XT - XHT

Fig. 3

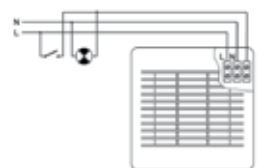


Fig. 4

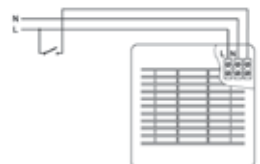
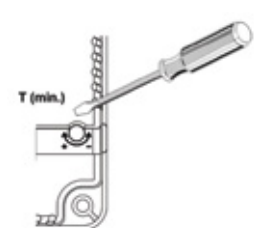
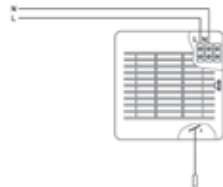


Fig. 5



## HP - XP - XHP

Fig. 6



## XHT

Fig. 7

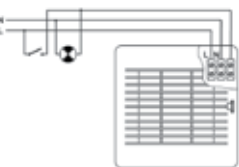
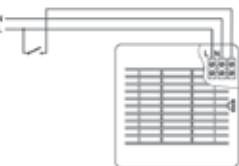


Fig. 8



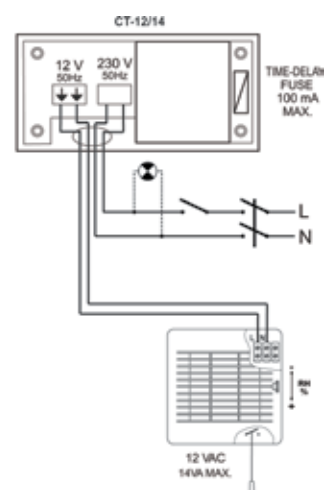
## REFERENCE

| MODEL(S)      | FIG | DESCRIPTION                             |
|---------------|-----|---|
| S             | 1   | Operating through a light switch        |
|               | 2   | Operating through an independent switch |
| T / XT / XHT  | 3   | Operating through a light switch        |
|               | 4   | Operating through an independent switch |
| HP / XP / XHP | 5   | Setting the timer                       |
|               | 6   | Pullcord override                       |
| XHT           | 7   | Operating through a light switch        |
|               | 8   | Operating through an independent switch |

## CLASSIC 100 SELV

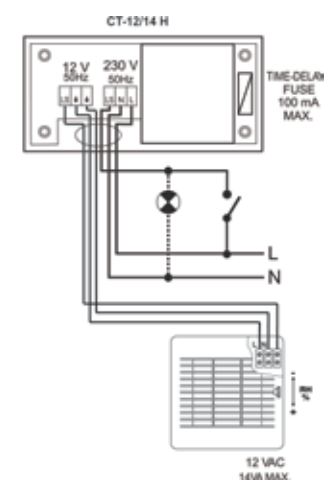
## S12V - X2V - HP12V - XHP12V

Fig. 1



## XHT 12V

Fig. 2



## REFERENCE

| MODEL(S)                        | FIG | DESCRIPTION                      |
|---------------------------------|-----|----------------------------------|
| S12V<br>X12V<br>HP12V<br>XHP12V | 1   | Operating through a light switch |
| XHT12V                          | 2   | Operating through a light switch |

# Wiring Diagrams

EBB *Design*

Fig. 1

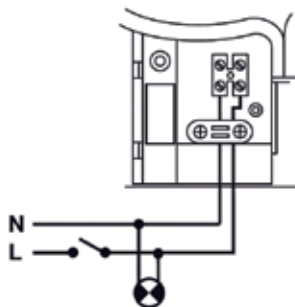


Fig. 2

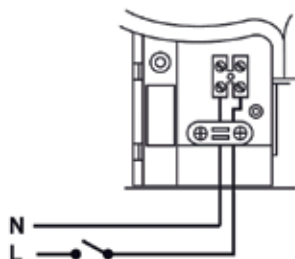


Fig. 3

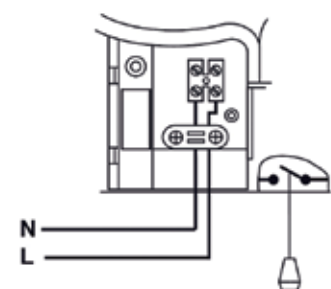


Fig. 4

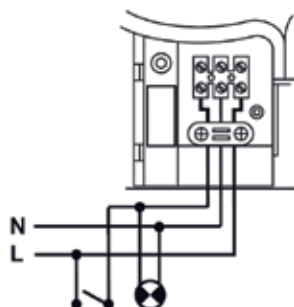


Fig. 5

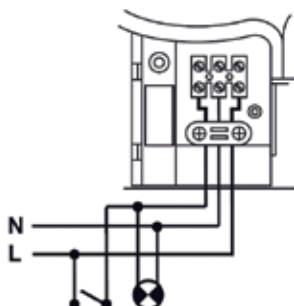
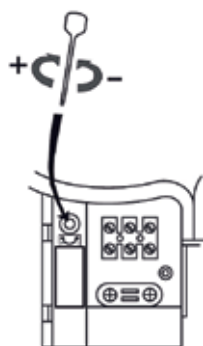


Fig. 6



## REFERENCE

| MODEL(S)    | FIG | DESCRIPTION   |
|-------------|-----|---|
| S           | 1   | Single speed operation with an independent switch               |
|             | 2   | Single speed operation using the same switch as the light       |
| M / DV / HM | 3   | Single speed operation with pullcord                            |
| DV / T / HM | 4   | Dual speed operation with an independent switch                 |
| T           | 5   | Operation for the time set, when the switch has been turned off |
| HM          | 6   | Set to operate the humidity                                     |

KUDOS

S

Fig. 1

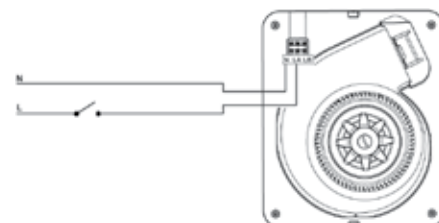


Fig. 2

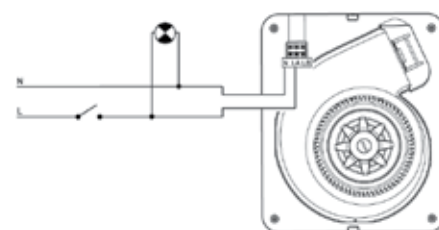


Fig. 3

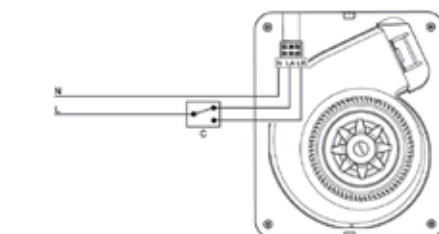
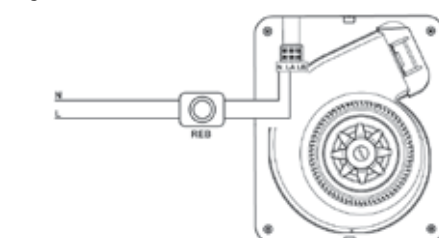


Fig. 4



## KUDOS

T

Fig. 5

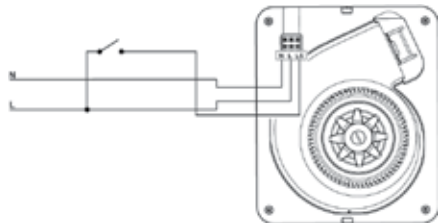
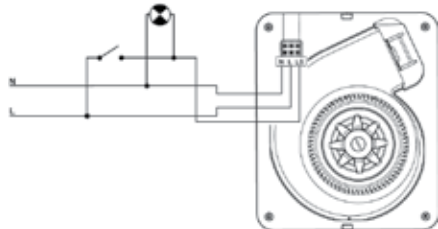


Fig. 6



HT

Fig. 7

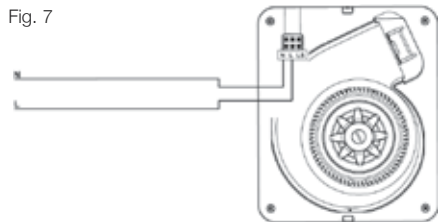
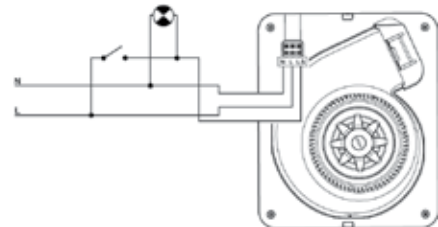
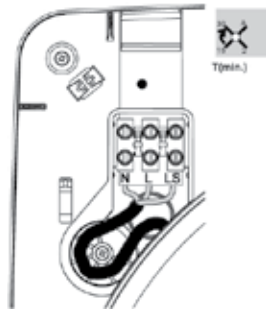


Fig. 8



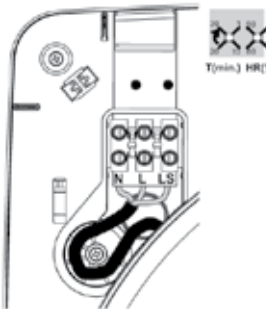
T

Fig. 9



T - HT

Fig. 10



### REFERENCE

| MODEL(S) | FIG | DESCRIPTION   |
|----------|-----|---|
| S        | 1   | Single speed operation with an independent switch   |
|          | 2   | Single speed operation using the same switch as the light                                   |
|          | 3   | Two-speed operation with a switch   |
|          | 4   | Operation with an REB-type voltage regulator  |
| T        | 5   | Operation for the time set, when the switch has been turned off                             |
|          | 6   | Timer based operation so that the device starts up by means of the same switch as the light |
| HT       | 7   | Set to operate on humidity only   |
|          | 8   | Set to operate through light switch and humidity  |
| T        | 9   | Setting the timer   |
| T / HT   | 10  | Setting the timer and humidity  |

## STYLVENT 150

AE - M

Fig. 1



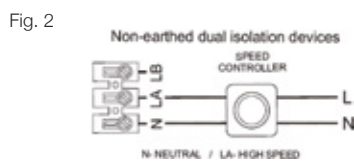
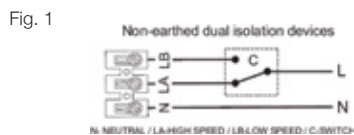
### REFERENCE

| MODEL(S) | FIG | DESCRIPTION                |
|----------|-----|----------------------------|
| AE<br>M  | 1   | HV-150AE - Pullcord models |

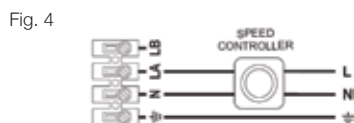
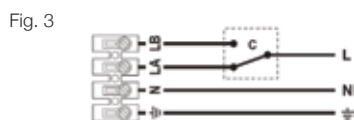
# Wiring Diagrams

## TD-MIXVENT

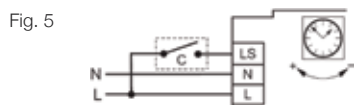
TD 250/100 - TD 350/125  
TD 500/150 - TD 800/200



TD 1000/250 - TD 2000/315



TD 250/100T - TD 500/150T

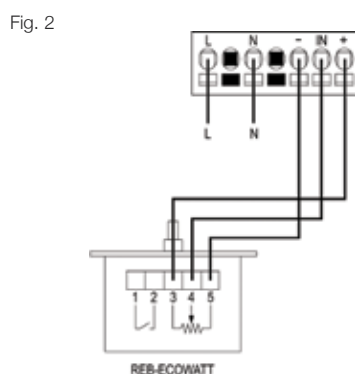
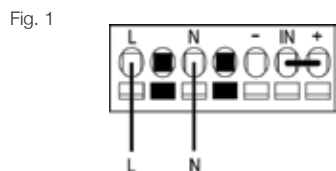


### REFERENCE

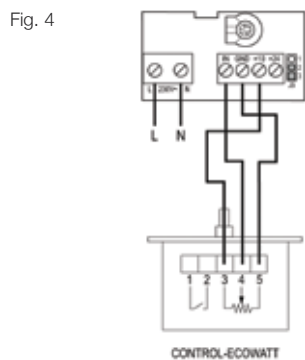
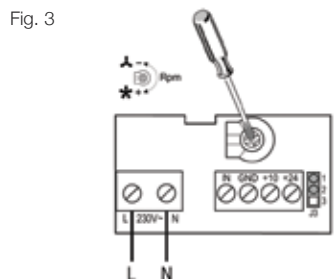
| MODEL(S)   | FIG | DESCRIPTION                                       |
|--|-----|---|
| TD 250/100<br>TD 350/125<br>TD 500/150<br>TD 800/200 | 1   | For connection using a two-speed selection switch |
|  | 2   | For connection using a variable speed controller  |
| TD 1000/250<br>TD 2000/315                           | 3   | For connection using a two-speed selection switch |
|  | 4   | For connection using a variable speed controller  |
| TD 250/100 T<br>TD 500/150 T                         | 5   | Timer models                                      |

## TD-ECOWATT

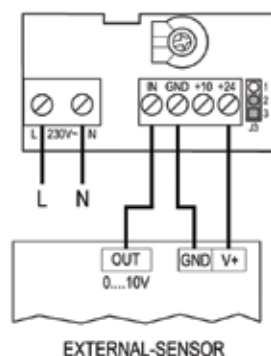
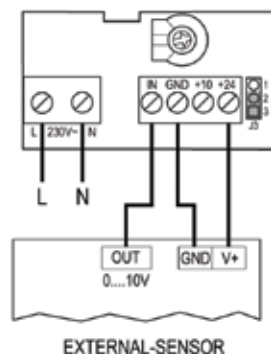
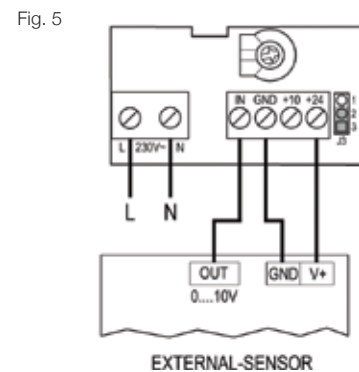
TD 160/100 ECOWATT



TD 250/100 ECOWATT  
TD 350/125 ECOWATT



TD 250/100 ECOWATT  
TD 350/125 ECOWATT





## TD-ECOWATT

TD 500/150 ECOWATT  
TD 800/200 ECOWATT

Fig. 6

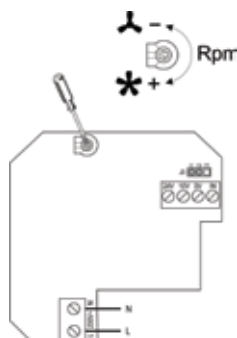
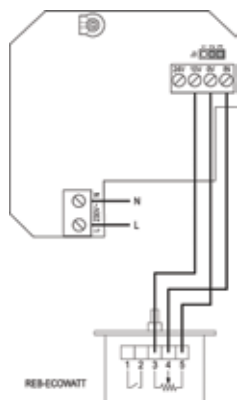


Fig. 7



### REFERENCE

| MODEL(S)                                 | FIG | DESCRIPTION                                 |
|--|-----|---|
| TD-160/100 ECOWATT                       | 1   | Connection directly to a 230V supply        |
|  | 2   | Connection to an available speed controller |
| TD-250/100 ECOWATT<br>TD-350/125 ECOWATT | 3   | Connection to a 230V supply                 |
|  | 4   | Connection to a variable speed controller   |
|  | 5   | Connection to other external sensors        |
| TD-500/150 ECOWATT                       | 6   | Directly to a 230V supply                   |
| TD-800/200 ECOWATT                       | 7   | Connection to a variable speed controller   |

## SILENT MV

250/100 - 350/125 - 500/150  
800/200 - 1000/200

Fig. 1

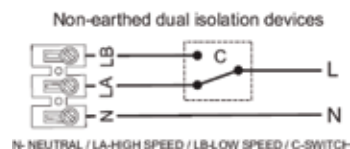


Fig. 2

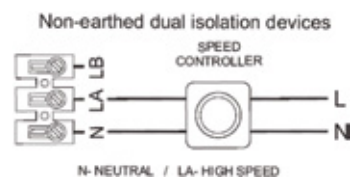
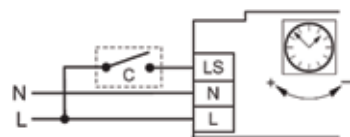


Fig. 3



### REFERENCE

| MODEL(S)  | FIG | DESCRIPTION                                       |
|---|-----|---|
| MV 250/100<br>MV 350/125<br>MV 500/150<br>MV 800/200<br>MV 1000/200 | 1   | For connection using a two-speed selection switch |
|   | 2   | For connection via a variable speed controller    |
|   | 3   | Timer Models                                      |

## TH-ECOWATT

TH-500/150 - TH-800/200

Fig. 1

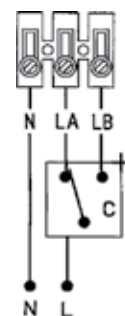
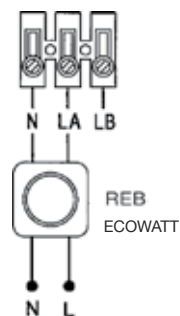


Fig. 2



TH-1300/250 - TH-2000/315

Fig. 3

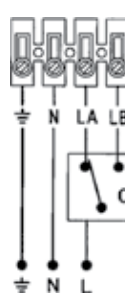
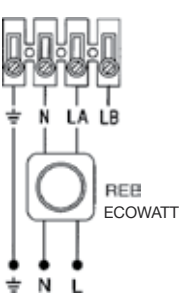


Fig. 4



### REFERENCE

| MODEL(S)                           | FIG | DESCRIPTION                                       |
|------------------------------------|-----|---|
| TD-500 ECOWATT<br>TD-800 ECOWATT   | 1   | For connection using a two-speed selection switch |
|                                    | 2   | For connection via a variable speed controller    |
| TD-1300 ECOWATT<br>TD-2000 ECOWATT | 3   | For connection using a two-speed selection switch |
|                                    | 4   | For connection via a variable speed controller    |

# Glossary

The meaning behind commonly used terms

## Airflow

This is the amount of air a fan is capable to move per unit of time. In the UK, it is given in l/s. In Europe, it is given in m<sup>3</sup>/h. In the general product characteristics, this figure is always given at free discharge, i.e. with no obstacles to the air circulation (ducting, grilles, filters, bends, etc.).

## Absorbed Power

This is the electrical power required by the fan motor under specific working conditions. In the catalogue the figures shown are for the maximum absorbed power.

## Pressure

This is the force with which the fan blows the air in order to overcome the resistance of a ventilation system caused by ducts, accessories, filters, etc. It is usually measured in Pa (Pascals).

### Static Pressure

This is the force per surface unit that the air exerts on an enclosure or ducting.

### Dynamic Pressure

This is the force per surface unit that the air exerts in movement on any object that opposes this movement. It depends on the speed of the air and the section of the fan.

### Total Pressure

This is the arithmetic sum of the static and dynamic pressures.

## Sound level

Most of the noise we hear is caused by fluctuations in the pressure of the air that surrounds it. It spreads out from its source in the form of pressure waves which vibrate in our eardrums causing signals to be sent to the brain. In ventilation, the unit of measurement usually used is the (dB)A: decibel. In general, it can be defined that an increase of 3 dB(A) means that the perception of noise is doubled.

### Sound Power (Lw)

This is the amount of energy, as sound waves, emitted by a source every second.

### Sound Pressure (Lp)

This is the change in pressure generated by mechanic vibrations, and it varies depending on the distance at which the receiver is located.

| Distance (m)<br>Source - listener | Attenuation due to<br>distance (dB) |
|-----------------------------------|-------------------------------------|
| 1                                 | 11                                  |
| 1.5                               | 14.5                                |
| 2                                 | 17                                  |
| 3                                 | 20                                  |
| 4                                 | 23                                  |
| 5                                 | 25                                  |
| 6                                 | 26                                  |
| 7                                 | 28                                  |
| 8                                 | 29                                  |
| 9                                 | 30                                  |
| 10                                | 31                                  |
| 15                                | 34                                  |
| 20                                | 37                                  |
| 25                                | 39                                  |
| 30                                | 40                                  |

## Axial Flow Fans

Axial flow fans are those in which the air is impelled by a blade and its flow has the same direction on entry and exit from the fan.

They are usually installed in applications where the volume of air to be moved is more important than the pressure drops to be overcome. These are generally used for installation on a wall, or cylindrical, where the motor blade unit is situated within a cylindrical case designed to be installed in the ducting.

## Centrifugal Fans

In these fans the air is driven by an impeller and directed through a scroll, forming a right angle between inlet and outlet.

### Forward Curved Blades

Impeller with a large number of short blades. Suitable for low and medium pressures with a fixed working point. It must not be used in applications with abrasive materials.

### Backward Curved Blades

Impeller with a small number of blades. Suitable for high performances as the curved blades help the air on its way, avoiding knocks and turbulence.

There is no danger of overloading the motor when it is working freely. In order to reach high flows and pressures it must work a high speed, and, therefore, requires a very robust construction.

## In-line Duct Fans

These are a variation of the centrifugal fans. Constructively, via a series of deflectors, the air is made to circulate in-line with the ducting in which it is installed.

## Mixed Flow Fans

The characteristic that defines these fans is the incorporation of a hybrid impeller which offers the qualities of both axial flow fans and centrifugal fans. Via a carefully designed system of guides it enables medium flows and pressures to be achieved with the advantage of only occupying very small spaces. These fans are used in cases in which it is necessary to move medium flows where there are problems of space (suspended ceilings).

# Glossary

The meaning behind commonly used terms

## Electric Motor



The electric motor is a machine that transforms electrical energy into mechanical energy.

## Stator / Casing



The stator is the fixed part of the motor and the casing is the most external part of the motor where the stator is installed.

## Rotor



The rotor is the moving part of the motor, next to the shaft. An internal rotor turns inside the stator and an external rotor turns outside the stator.

## Bearings

Pieces on which the rotor is supported and turns (ball bearings or sleeves).












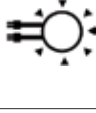
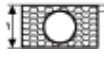
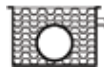
**Bearings** - The bearings are formed by two concentric rings, with balls between them which help it to turn. They are lubricated to roll more easily (-40°C to +150°C). They can work in any shaft position and the life expectancy of the ball bearings is approximately 20,000 to 30,000 hours (depending on the working conditions).

**Sleeve Bearings** - The sleeves are formed by one single piece, with a very low friction coefficient, low friction coefficient, located inside the part where is rotating the shaft. They have oil to attenuate the friction (-5°C to +120°C). They should preferably work with the axle in horizontal position. The life expectancy of the sleeve bearings is approximately 10,000 to 15,000 hours (depending on the working conditions).

## IP Ratings

Indicates the degree of protection of the casings for the electrical materials against the penetration of solid objects (1st figure) and liquids (2nd figure). In some cases, there may be a third figure which indicates the degree of resistance to impact.

IP54 = IP letter code - IP | 1<sup>st</sup> digit - 5 | 2<sup>nd</sup> digit - 4

| 1 <sup>st</sup> digit   | Protection from solid objects   | 2 <sup>nd</sup> digit | Protection from moisture   |
|---|---|-----------------------|--|
| 0   | No protection   | 0                     | No protection  |
| 1   |  Protected against solids objects over 50 mm (e.g. accidental touching with hands) | 1                     |  Protected against vertically falling drops of water (condensation) |
| 2   |  Protected against solid objects over 12 mm (e.g. fingers)                         | 2                     |  Protected against direct sprays up to 15° from the vertical        |
| 3   |  Protected against solid objects over 2.5 mm (e.g. tools and wires)              | 3                     |  Protected against direct sprays up to 60° from the vertical      |
| 4   |  Protected against solid objects over 1 mm (e.g. tools, wires and small wires)   | 4                     |  Protected against sprays from all directions                     |
| 5   |  Protected against dust (no harmful deposits)                                    | 5                     |  Protected against low pressure jets of water from all directions |
| 6   |  Totally protected against dust  | 6                     |  Protected against strong jets of water similar to sea waves      |
| Note<br><br>EN 60529 does not specify sealing effectiveness against the following:<br>mechanical damage of the equipment; the risk of explosions; certain types of moisture conditions, e.g. those that are produced by condensation; corrosive vapours; fungus; vermin |   | 7                     |  Protected against immersion                                      |
|   |   | 8                     |  Protected against long periods of immersion under pressure       |

# Contact

Get in touch with us about our services and products

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Due to our policy of continuous innovation and improvement, EnviroVent reserves the right to alter products specification and appearance without notice.  
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