

# PIV Loft Mounted Unit



Whole House Positive Input Ventilation Unit



## 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.



## 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



## 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 and PIV Air Source are manufactured in Harrogate, United Kingdom.



These products are supplied with five year maintenance free warranties.



The packaging is made from recycled material.

## • 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.

## • 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 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.



## 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.

## 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.



## 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

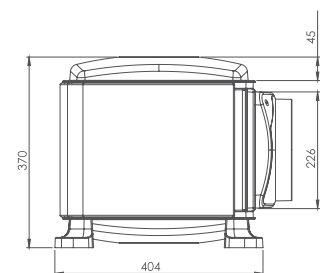
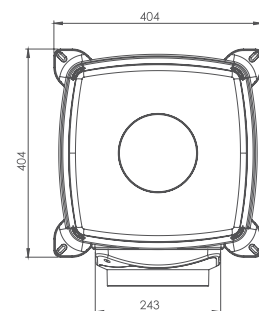
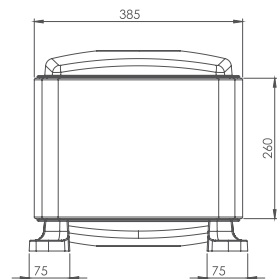
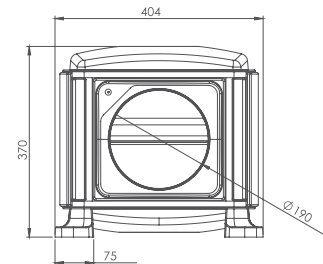
1DIF EVL DIF

Flexible Hose Ducting - Ø200

1RD FLEX 200 X 1M  
1RD FLEX 200 X 3M  
1RD FLEX 200 X 6M

## Dimensions (mm)

### PIV Loft Mounted Unit



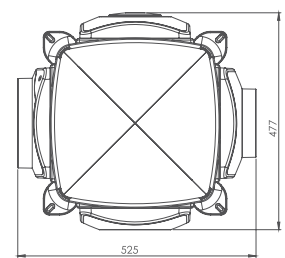
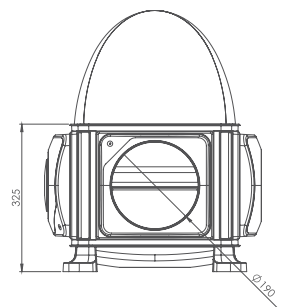
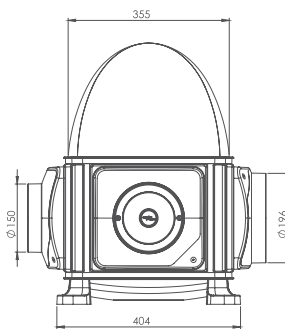
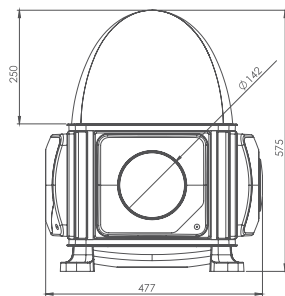
Don't have a loft space? Don't worry, turn to pages 36 and 37 for the EnviroVent Wall Mounted Unit which is suitable for flats and apartments.



Scan the QR code to see how these products can improve indoor air quality, solving condensation and mould problems.

## 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) (4)	Outlet noise dB(A) @ 3m
<19 (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) (4)	Outlet noise dB(A) @ 3m
<19 (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 (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	-

- (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. 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, +A2:2006, +A12:2006, +A13:2008, +A14:2010

EN 60335-2-80:2003, +A1:2004, +A2:2009

#### EMC Directive

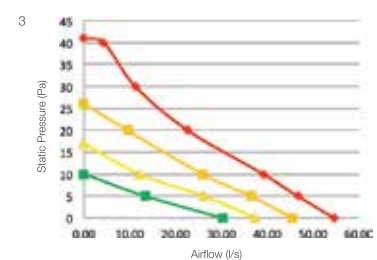
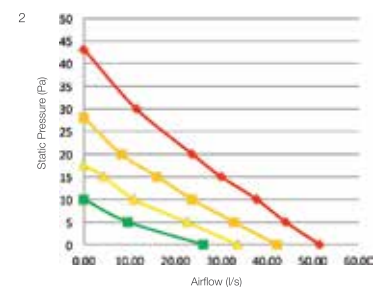
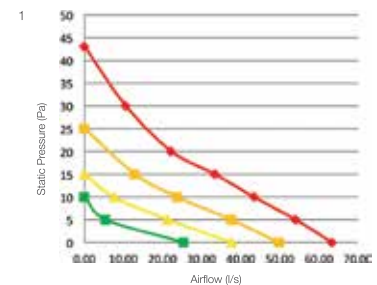
EN55014-1:2006 (EMISSIONS)

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

#### BBA

Certificate No: 03/4043

## Performance Curves



1. PIV Loft Mounted Unit
2. PIV Air Source with summer by-pass NOT activated
3. 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-H-W	PIV Loft Mounted Unit with heater and remote 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