



The Lossnay VL-220 Mechanical Ventilation with Heat Recovery (MVHR) unit is an energy efficient whole house ventilation solution which provides a clean, fresh air supply to a home.

It simultaneously extracts stale air from the internal environment whilst recovering valuable heat energy to maximise efficiency and minimise energy use.

Ideal for high humidity areas, the Lossnay VL-220 is also suitable for small commercial properties.

### Key Features

- Energy efficient whole house ventilation with heat recovery
- Free summer cooling function
- Low sound levels
- Simple and easy maintenance
- Dedicated remote controller
- New Lossnay sensible only heat exchanger core



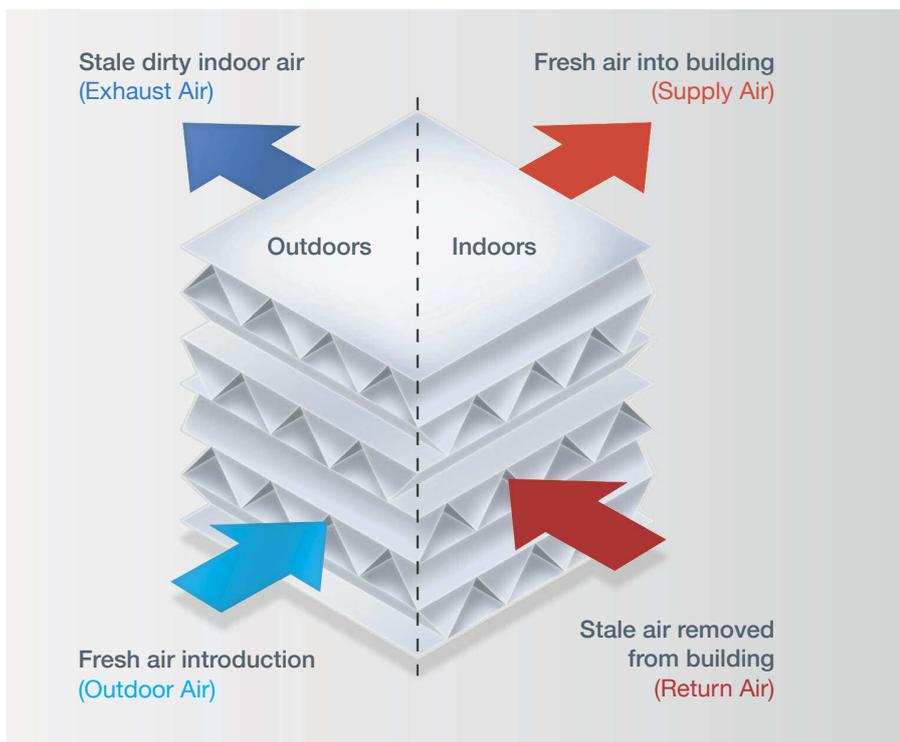
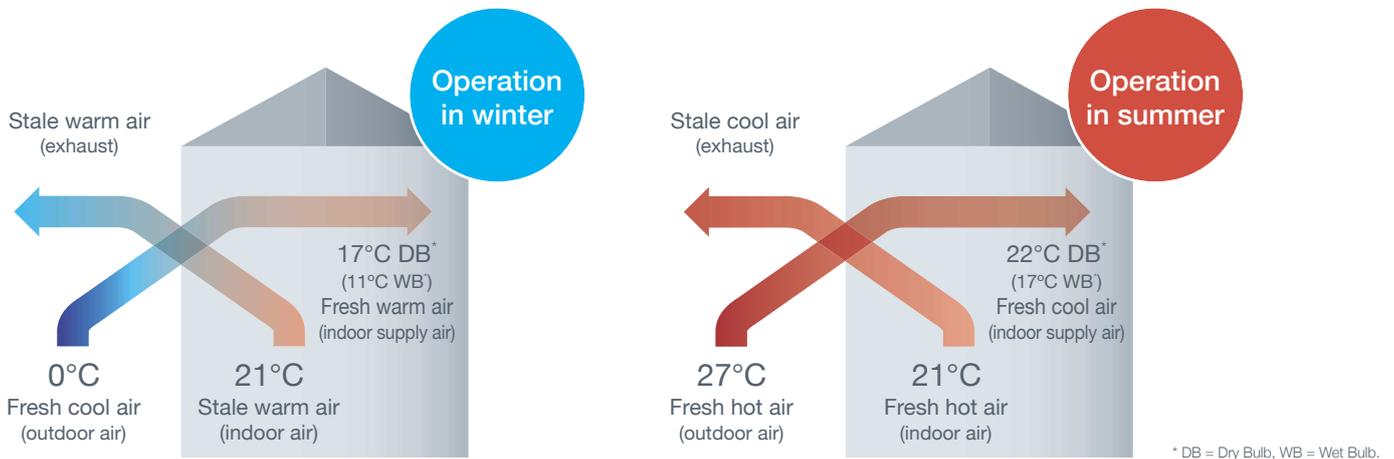
# How Lossnay works

The technology behind the energy efficiency of the Lossnay core lies in its construction, which enables exchange of sensible heat (temperature) to maintain a comfortable internal environment with minimal energy consumption.

The Lossnay core is made from a water resistant paper core and sits at the heart of the system. Constructed in a corrugated form and layered in alternate directions, the core allows a cross airflow to maximise heat recovery without the supply and exhaust air mixing, ensuring only fresh air is introduced into the home.

As stale air is extracted from a building, heat energy is recovered through the Lossnay core and transferred to the incoming fresh air

## Effective ventilation



# Features and Benefits



Mitsubishi Electric utilises Lossnay heat recovery cores within its MVHR and packaged AHU systems to provide excellent ventilation alongside a heating and/or cooling system, ensuring a healthy and comfortable environment, whatever the building.

## The benefits of Lossnay VL-220 include:

- Clean, fresh air
- Improved air quality & comfort
- Energy efficient heat recovery
- Increased climate control
- Pre-cooled / pre-heated fresh air
- Higher heat transfer efficiency
- Reduced energy bills

With the VL-220, advance controls also provide additional benefits:

## PZ-61DR-E controller includes:

- On/Off
- 4 Fan Speed Settings
- Weekly Timer
- Bypass Parameter Setting
- Multi Ventilation Mode
- Filter Cleaning Sign
- Error Indication & Error History
- Mode (Heat Recovery/Bypass/Auto)
- Controls Maximum 2 Units



## PZ-43SMF-E

controller includes:

- On/Off
- 2 Fan Speed Settings
- Filter Cleaning Sign
- Error Indication
- Mode (Heat Recovery/Bypass/Auto)
- Controls Maximum 2 Units



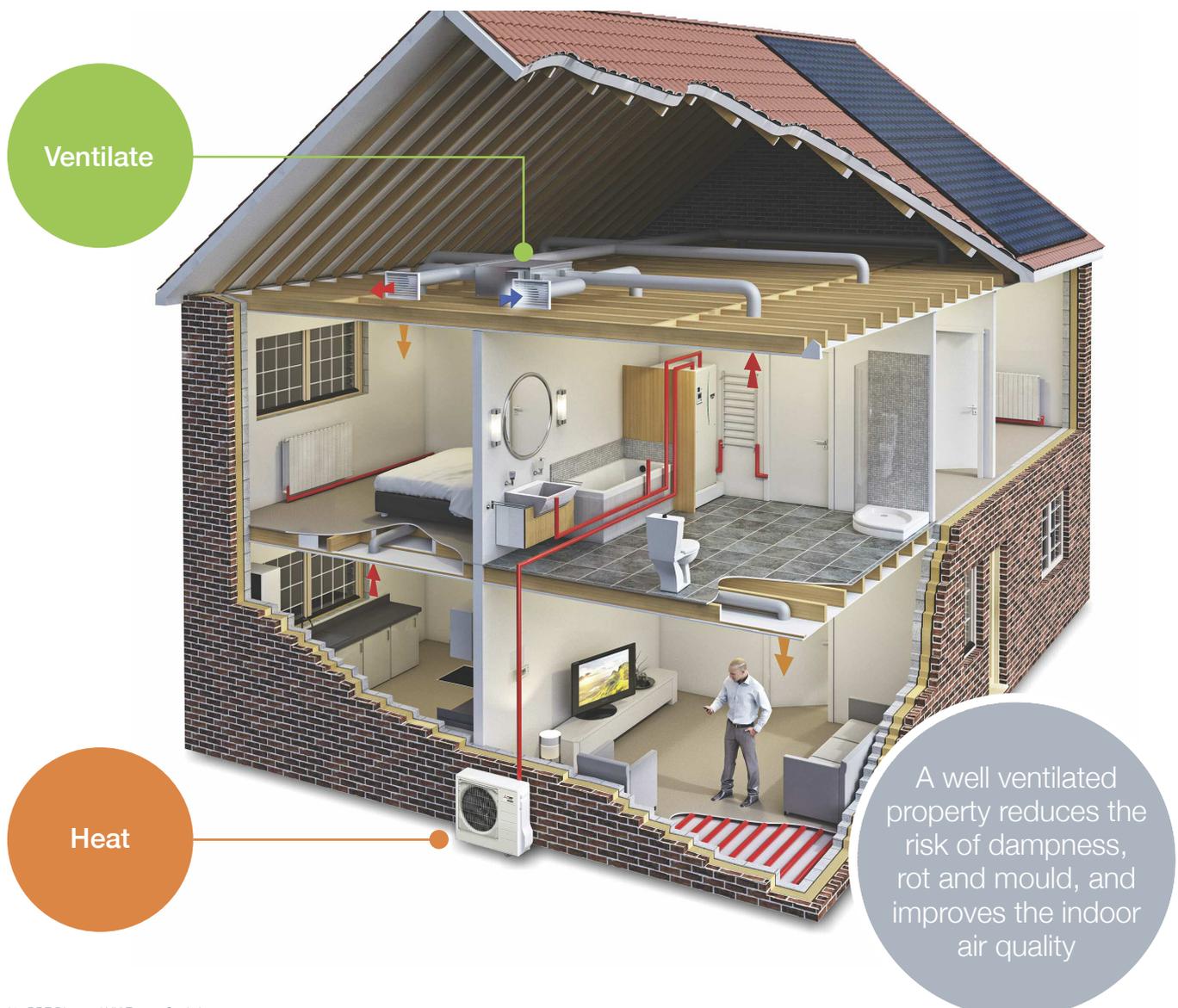
# The Whole House Solution

The Government is focused on the need for housing growth as an ideal opportunity to cut energy use in homes and continues to introduce legislation and guidelines to support this. However, existing homes also have an important role to play in helping reduce overall energy use.

Buildings account for 44% of all UK CO<sub>2</sub> emissions (more than industry or transport)<sup>\*1</sup>. As a nation we are now creating new low carbon houses, yet around 75% of existing homes will still be in use in 2050, so to a large extent our future housing stock is already built. If we can find ways of easily improving the efficiency of existing buildings we can make a dramatic difference to both CO<sub>2</sub> emissions and energy use.

The Lossnay VL-220 Mechanical Ventilation with Heat Recovery (MVHR) system is the energy efficient whole house solution suitable for any property, especially new-build.

Along with our VL-220 MVHR unit, our Ecodan air source heat pump (ASHP) provides a proven efficient way of heating homes. The Government's Department of Energy and Climate Change (DECC) will now pay for the generation of renewable heat through the **Domestic Renewable Heat Incentive (RHI)**.



<sup>\*1</sup> BRE Digest of UK Energy Statistics

# Ideal Applications

## RESIDENTIAL APPLICATIONS



With new-build homes being more air tight, minimal air leakage means fresh, clean air is essential

Mechanical ventilation is the ideal solution to supplying fresh air to maintain a healthy and comfortable home, especially during winter months.

Effective ventilation can provide just the right amount of fresh air whilst extracting stale, polluted air, including from high humidity areas such as kitchens and bathrooms; eliminating mould and mildew build up. With an energy efficient Lossnay MVHR, household energy use is reduced making it a cost effective, ingenious system for residential applications.

### If it's Lossnay

- Lossnay enables effective ventilation for high level indoor air quality and comfort
- Energy efficient heat recovery keeps room temperature change to a minimum by ensuring fresh air temperatures match current levels (when either heating or cooling a room)
- Sensible only heat exchanger core allows extraction from high humidity areas
- Summer bypass aids with cooling in summer
- Quiet operation means minimal disruption

## COMMERCIAL APPLICATIONS



A commercial premise can never be too clean and its air never too fresh

Cleanliness and air quality are crucial to securing and retaining customers and keeping staff productive.

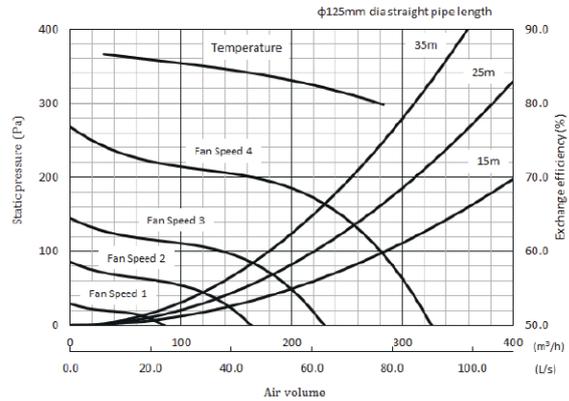
Ventilation requirements are not just within occupied spaces but also shower and toilet facilities where air quality can be naturally poor. Lossnay's superior ventilation capabilities enable extraction from high humidity areas, maintaining a pleasant environment with a fresh air supply. Furthermore, Lossnay's energy efficient ventilation provides an energy efficient, fresh air solution for cost-conscious commercial owners.

### If its Lossnay

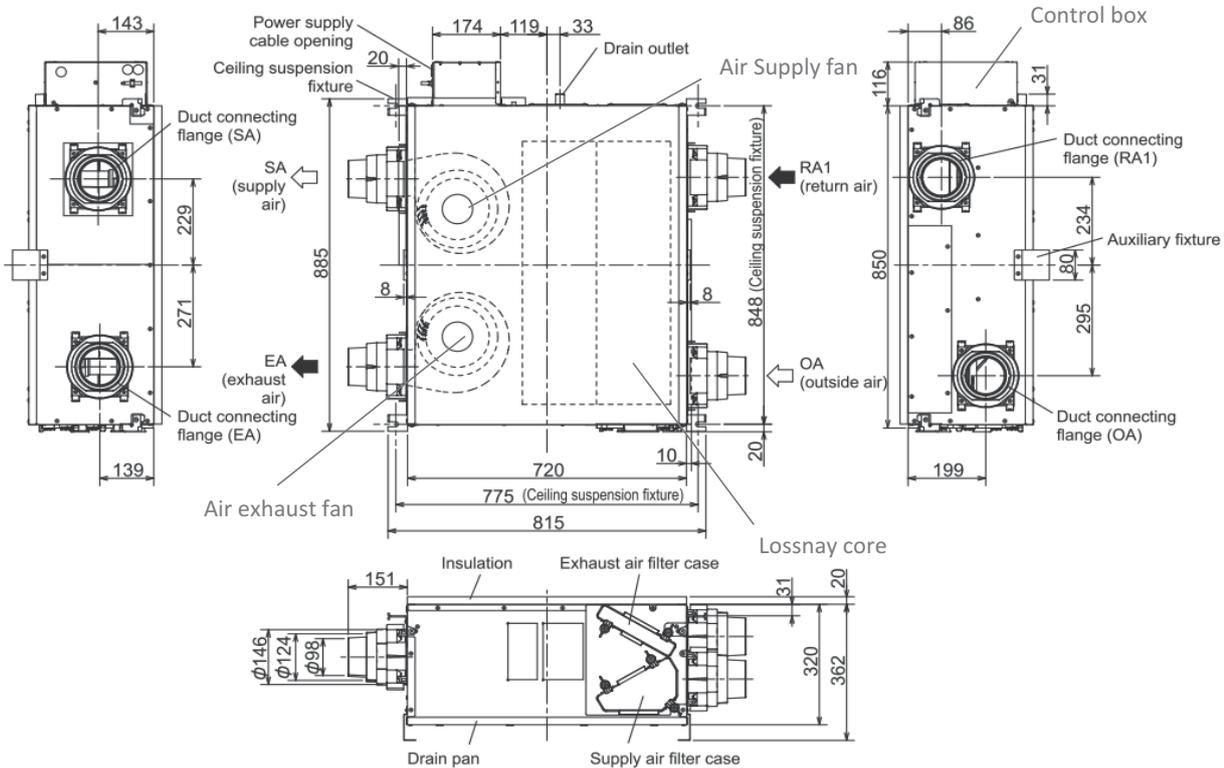
- Lossnay works to remove stale air and supply fresh, clean air which is free of odours
- Multi ventilation mode allows the exhaust fan to increase fan speed for higher extract ventilation rates
- Sensible only heat exchanger core allows extraction from high humidity areas such as bathrooms with heat recovery for added energy efficiency
- Summer bypass aids with cooling in summer
- Quiet operation means minimal disruption

MODEL	VL-220CZGV-EB			
Electrical Power Supply	220-240V/50Hz, 220V/60Hz			
Weight	32kg			
Ventilation Mode	Heat Recovery Mode			
Fan Speed	1	2	3	4
Running Current (A)	0.11	0.18	0.29	0.60
Input Power (W)	8.5	18.5	35	80
Airflow (m <sup>3</sup> /h)	65	120	165	220
Airflow (l/s)	18	33	46	64
External Static Pressure (Pa)	13	44	84	164
Temperature Exchange Efficiency (%)	86	85	84	82
Noise (dB)	14.0	19.0	25.0	31.0
Dimensions (mm) Width x Depth x Height	850 x 720 x 340			
Maximum Current (A)	0.8			

### FAN CURVE CHARACTERISTICS VL-220CZGV-EB



### DIMENSIONS VL-220CZGV-EB



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