



## Ventilation

Ventilation is not provided as a single service but as a measure alongside other wall and attic services provided.

## What is Ventilation?

Warm air, through the process of convection will flow naturally to colder areas of the building. Warm air will also rise due to pressure differences between warm and cold air, this is known as the stack effect.





The consequences of not having adequate ventilation is that the warm air will condense, which means the gaseous vapour in the air turns to a liquid. Over time moisture can damage the building in a number of ways, damp, mould, wet rot and structural failures are some of the main defects associated with condensation.

## Why is investing in good ventilation beneficial?

- Supplies a fresh air supply, reducing the concentration of harmful pollutants in your property
- Mitigate the risk of condensation
- Reduces the risk of carbon monoxide production
- Minimise radon accumulation
- Supplies air flow to fuel burning appliances, ensuring your appliances work efficiently.



## Types of ventilation:

No.	Type of Ventilation	Definition	Example
1	<b>Background Ventilation</b>	Generally, a controllable ventilation grill which can be fully closed. It is located in walls and windows offering secure ventilation e.g. trickle vent	
2	<b>Permanent Ventilation</b>	A ventilator permanently fixed in the open position with no means of closure. This maintains air supply through the device, normally used for rooms with fuel burning devices that require continuous airflow.	
3	<b>Extract Ventilation</b>	Normally used in wet rooms as it facilitates rapid removal of water vapour and other pollutants directly to the outside.	
4	<b>Purge Ventilation</b>	Adjustable ventilation opening/ openings e.g. window. This facilitates substantial airflow in a short timeframe from occasional activities such as painting.	

## Background Ventilation Options

There are two options for the provision of background ventilation;

1. **Natural-** Vents which have an adjustable closing option. The vent size is dependent on the size of the room.
2. **Mechanical-** There is a wide variety of mechanical ventilation methods including whole house heat recovery systems and single room heat recovery systems.

Mechanical ventilation can be comparably more energy efficient than natural ventilation due to the increased control measure which consequently reduces heat loss. However, natural ventilation is the more economical option.

## Permanent Ventilation Options

Permanent ventilation is required to supply air to an open flued room (non-room sealed) combustion appliance such as a stove, oven, gas fire, or cooker and open fire (where applicable).

Open flued appliance is defined as one that draws air from the room where its located. Therefore, the room requires a vent for safe use of the appliance.

When an appliance is room sealed, it acquires its own dedicated air supply. Normally, there is an air duct connecting the outside to the indoor open flued appliance. Room sealed appliances do not require installation of a permanent vent.

**Roof and Attic ventilation-** Warm air can make its way into your attic space through cracks, service penetrations, light fitting and unsealed attic hatches.

Warm air holds more moisture than cold air therefore, it's very important to maintain adequate ventilation within the attic space to allow any moist warm air that enters the space to escape. We ensure your roof space is adequately ventilated up to current standards during the insulation installation process. The provision of passive ventilation can be achieved in two ways:






- a. **Soffit Vents-** These are small vents placed on the underside of where your roof overhangs the wall, known as soffit.
- b. **Roof tile vents-** these are vents that are installed on top of your roof. For each vent a tile will be removed and a vent will be installed in its place.







## Extract Ventilation Options

Extract ventilation assists in rapid removal of water vapour and other pollutants from indoor to outside environs. All wet rooms should be fitted with a mechanical extract fan. Note for wet rooms where there is no background ventilation or a window, the mechanical ventilation should include a 15 minute timer. Typically, homes would have extractor fans in bathrooms and an extractor fan in a kitchen hood.

## Ventilation Selection (As applicable)

Room Type	Which Vent Do I Need?	
<b>Habitable room with no open flued appliance</b> Habitable room: a room in a dwelling used for living or sleeping purposes.	 <i>Background Vent</i>	
<b>Any room with an open flued appliance including wet rooms</b> Open flued appliance: designed to be connected to an open flue system, its combustion air being drawn from the room or space in which it is installed.	 <i>Permanent Vent</i>	
<b>Kitchen (Without any open flued appliances)</b> Open flued appliance: designed to be connected to an open flue system, its combustion air being drawn from the room or space in which it's installed.	 <i>Background Vent</i>	 <i>Extractor Ventilation</i>
<b>Bathroom (without any open flued appliances)</b> Bathroom; a room in which the primary functions is for bathing or showering	 <i>Extractor Ventilation</i>	

<p><b>Utility room (without any open flued appliances)</b></p> <p>Utility room: room used for laundry purposes which contains a sink, washing machine, tumble drier or similar equipment and which is not entered solely from outside the building.</p>	 <p><i>Background Vent</i></p>	 <p><i>Extractor Ventilation</i></p>
<p><b>Attic space</b></p> <p>Attic; A space used for storage or habitable purposes</p>	 <p><i>Soffit Vent</i></p>	 <p><i>Roof Tile Vent</i></p>