



Technical information & installation advice

Page 1 of 1

Underfloor ventilation

If a building uses a suspended ground floor it is important to provide ventilation into the underfloor void. This prevents condensation, removes stagnant air and is particularly important in areas where radon or methane gas may pose a problem. The provision of ventilation is important regardless of whether the suspended floor is of beam and block or traditional joist and floor board construction.

The ideal method for providing ventilation into the underfloor void is to use the Timloc airbrick and telescopic underfloor ventilator.

- The airbrick and underfloor ventilator must always be used together. The airbrick is a push fit into the upper front opening of the ventilator
- The airbricks and ventilators should ideally be spaced along the wall at not more than 2m centres with the first and last ventilator being positioned within approximately 450mm of the wall corner. This is to ensure a good flow of air and to eliminate areas of calm air where stagnant air pockets could form
- If the building is a simple rectangular shape on plan it is acceptable to install airbricks and ventilators along the two longest sides of the building. If the building is 'L' shaped or of more complex design then airbricks and ventilators should be installed around the full perimeter of the building
- It is important to provide corresponding ventilation openings in any internal dividing walls so as to allow air to circulate throughout the underfloor void
- The airbricks should be built into the external wall above the finished ground level so as to prevent rain and snow water from entering the ventilator. They would usually be positioned at a similar level to the ground level DPC
- The lower section of the ventilator should be extended down to the level of the underfloor void by means of its telescopic action. This can accommodate a step of up to five vertical brick courses. The inner leaf blockwork must be cut to allow positioning of the lower section of the ventilator. If the design of the building is such that the standard ventilator is not long enough a vertical extension sleeve is available which will extend the ventilator to a height of nine vertical brick courses
- The standard ventilator suits a wall with a 100 mm thick outer leaf, 50mm cavity and 100mm thick inner leaf. If the cavity is slightly wider or the inner leaf slightly thicker than these dimensions then the standard ventilator will usually still be acceptable as long as the cut-out in the inner blockwork is kept clear. For thicker outerleaves a horizontal front extension is available and a horizontal rear extension for use with particularly wide cavities or thick inner blockwork

Telescopic gas vent outlets (1201+1201AB+1206+GVL900)

The combined units will allow ventilation outlets to either a sub floor void or via a range of adaptors to a venting layer and allow the provision of a minimum of one complete volume change per 24 hours as required by the NHBC. The Timloc vent units will achieve an airflow rate of 4.85L/sec (17m³/hr) or equal to an equivalent area of 6000mm². NB. All airflow testing has been independently tested by the BRE to BS EN 13141-1.

Through the wall ventilation

Through the wall ventilators provide passive ventilation through external walls into habitable rooms. It is important to differentiate between a ventilator which is required to provide general background ventilation and one which provides air into a room which contains a heat producing appliance such as a central heating boiler or gas fire.

- If the room contains a heat producing appliance the provision of constant and reliable ventilation is vitally important, extra and above to background ventilators. The anti draught ventilator products are strongly recommended for this application as they comply fully with legislation governing gas and heating appliances. The size and number of anti draught ventilator products required will be dictated by the requirements of the particular heating appliance and it is strongly recommended that advice is sought from the manufacturer

General recommendations for the specification and use of through the wall ventilators are detailed below:

- Always check that the appropriate size and number of through the wall ventilators are used to suit the application
- Never fit just an airbrick. A cavity sleeve must always be fitted to the back of the airbrick to ensure that the air is transmitted effectively through the wall and into the room
- Hit and miss grilles may only be used for general background ventilation, they must **never** be used to ventilate any kind of gas or heating appliance
- Ventilators used to provide air for gas or heating appliances must be permanently open, there must be no facility to block or close the ventilator. Also, they must **not** contain any kind of fine mesh or insect screen
- Through the wall ventilators should always be fitted well above external ground level so as to ensure that rain and snow water cannot enter the ventilator
- It is recommended that a section of horizontal cavity tray is installed directly above the through the wall ventilator so as to prevent water from tracking across the cavity sleeve from the outer leaf to the inside of the building
- In order to help reduce the effect of draughts it is worth considering positioning the through the wall ventilator close to any heating appliance rather than at the opposite side of the room. Positioning the ventilator at high level rather than close to the floor will also be of assistance