

# PermaPROTECT®

## Passive Air Vent



### Description

The PermaPROTECT Passive Air Vent is specifically designed to alleviate localised condensation in areas of high humidity including lounges, kitchens, bathrooms and bedrooms.

The PermaPROTECT Passive Air Vent has been brought into the range as a direct upgrade to the Perma-Vent Standard, ensuring compliance with Part F of Schedule 1 of the Building Regulations 2010. Manufactured from high-impact polypropylene in accordance with Domestic Plastic Ductwork Specification DW/154, the passive air vent also meets the UL94HB flammability standard.

The PermaPROTECT Passive Air Vent contains no moving parts and requires no maintenance. It works on the principle that when the room temperature and humidity are greater internally than externally, moist air is ventilated outside the building due to vapour air differences.

The PermaPROTECT Passive Air Vent contains a vapour permeable membrane. This membrane allows moisture out of the building without allowing a draught back inside. This means moisture laden air is naturally ventilated externally to maintain lower internal humidity levels. This significantly reduces or eliminates surface condensation, the main cause for mould growth.

### Features

- Fly screen in both internal and external grille
- Anti-draught vapour permeable membrane
- Over 20 years proven performance
- Maintenance free (no moving parts)
- Unobtrusive design, low-profile grilles
- Free area 11440mm<sup>2</sup>
- 150mm Core Ducting
- Complies with Part F of Schedule 1 of the Building Regulations 2010
- Meets the UL94HB flammability standard

### Installation guidance

Carefully survey the property to identify the most suitable location for the PermaPROTECT Passive Air Vent. Condensation, dampness, and mould growth are caused by high humidity levels; therefore, the PermaPROTECT Passive Air Vent should be installed in the area most affected to achieve maximum effectiveness.

Select a position on an external wall that is free from obstructions both internally and externally. Before finalising the installation point, check for water and soil pipes, electrical wiring, and any other potential obstructions.

As a general rule the vent should be located on an external wall around 150-300mm from the ceiling. This helps maximise the impact of thermal buoyancy, allowing rising moisture laden warm air to be displaced from the room. Ideally, when you have a corner room, you want to pick the external wall that is least impacted by wind.

1. The PermaPROTECT Passive Air Vent is designed for installation using a 162mm core drill system. The core hole must be drilled at a slight downward angle, to a maximum of 1.5° from horizontal, sloping towards the exterior of the wall. This ensures that any moisture or rain cannot run inwards.
2. Once the installation position has been confirmed, drill the 162mm core hole. Take care to prevent masonry from falling, which could cause injury or damage to property below.

3. Measure the length of the hole between the external brick face and the internal plasterwork. Cut the tube accurately to the required length using a hacksaw.
4. Remove the internal vent end and install the PermaPROTECT Passive Air Vent from the outside of the wall.
5. Ensure the slats on the external vent housing are facing downwards. Drill fixing holes into the brickwork through the pre-cut holes in the plastic grille housing, insert wall plugs, and secure with screws. Do not overtighten, as this may split the plastic.
6. Check that the vapour-permeable membrane is centred within the tube. Fit the internal vent end into the pipe, ensuring the slats on the grille housing are facing downwards. Drill fixing holes through the pre-cut holes in the plastic grille housing into the brickwork or plaster, insert wall plugs, and secure with screws. Do not overtighten, as this may split the plastic.

## Performance

**Free area:** 11'440mm<sup>2</sup>

**Water vapour transmission:** 2-2.6 litres @ 20<sup>o</sup>C /24 hrs  
(Maximum)

## Dimensions

**Duct diameter:** Internal 150mm +/- 0.4mm  
External 153.6mm +/- 0.4mm

**Duct length:** 350mm (Can be cut to suit wall width)  
Minimum cut length 220mm

**Grille:** W: 183mm H: 183mm D: 16mm

## Installation note

Many systems are available on the market which successfully control condensation problems - electric extractor fans, heat recovery units, dehumidifiers, positive pressure fans etc. but all are costly to install and run in comparison to a PermaPROTECT Passive Air Vent. It is possible in severe instances that one of these alternatives is required to remedy the condensation.

## Treatment of residual moulds

When installed correctly, the PermaPROTECT Passive Air Vent reduces internal relative humidity levels and addresses the environmental conditions that contribute to mould growth. However, it does not remove or remediate existing black mould staining on internal surfaces.

Any residual mould contamination should be treated separately using a structured remediation process. Affected areas, including walls and ceilings, should first be treated with PermaPROTECT Mould Wash Concentrate, a fungicidal wash formulated to kill and neutralise mould spores.

Following treatment and adequate drying, the surfaces should be redecorated using a PermaPROTECT Anti Mould emulsion coating to inhibit further mould development.