

# INTELLIGENT PASSIVE STACK VENTILATION (iPSVTM)

Intelligent Passive stack ventilation (iPSVTM) is driven primarily by the natural stack or convection effect by which warm air rises. A whole-house system ventilates all rooms in a property effectively, using the concept of planned air routes to ensure a fresh healthy environment.

## Planned air routes

Moisture is extracted at source from wet rooms (kitchens, bathrooms etc).

Air inlets located in dry rooms (living rooms, bedrooms etc) provide a flow of replacement fresh air into the building.

The siting of the inlets and extracts ensures that air always moves from dry rooms to wet rooms, so that moisture is removed and the whole house is ventilated.

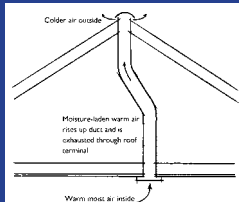
## Applications

Suitable for both new-build and refurbishment in private and social housing. Primarily designed for individual houses and low-rise flats and apartments.

## Demand control

Ventilation is controlled by 'intelligent' extracts and inlets which respond automatically to changes in relative humidity, thereby modulating the ventilation rate in each room to meet demand.

When humidity is low the ventilation rate is minimised, irrespective of external weather conditions, preventing unnecessary heat loss. Both inlets and extracts are operated by a set of nylon strands which respond to humidity levels and regulate the size of the air opening, giving **greater ventilation** when humidity is high whilst preventing unnecessary ventilation when humidity is low.



## BENEFITS

### Natural and energy-efficient

No electrical connection or power source is required

### Lasts the life of a dwelling

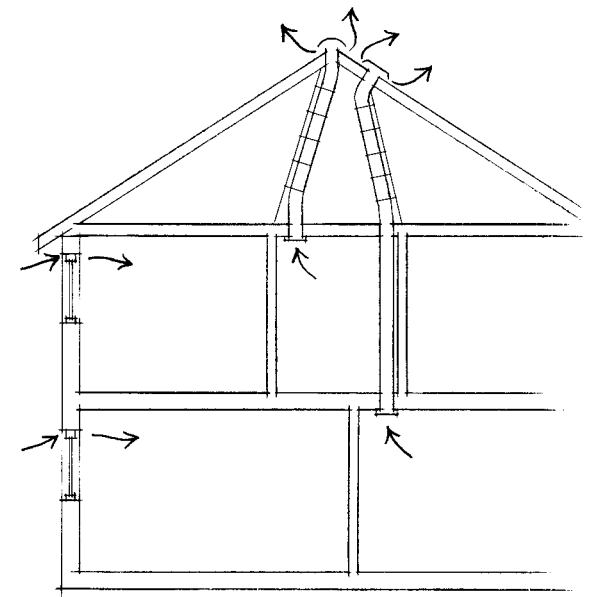
No replacement parts required

### Minimal maintenance

No electrical components to go wrong and no replacements required

### Continuous operation

The system provides 24-hour condensation control with continuous gentle extraction, operating all day and every day as required, combating condensation and mould growth



### Reduced background ventilation

As iPSVTM is BBA certified (no. 96/3273), fewer tricklevents or wall vents are required, when compared to using standard PSV or intermittent fans

### No noise

iPSVTM systems are completely silent in operation

### Environmentally Friendly

As iPSVTM will last the life of the dwelling, there will be no energy required to manufacture replacements

### BBA Certified

iPSVTM is BBA certified under certificate number 96/3273, and has been tested to BBA test procedures to demonstrate a high level of performance and give peace of mind to specifiers and users



The Ultimate Solution to resolve Mould, Condensation and restore clean air



# SYSTEM DESIGN

We have a highly experienced technical team, both office based and located around the UK, who are able to discuss specific requirements and offer a design service for iPSVTM systems, based on building drawings supplied.

In order to simplify design and installation we have created a number of 'standard' iPSVTM kits. The technical team will advise which is most suited to the project being designed, or design non-standard versions to suit.

PSV 01 Kit	PSV 02 Kit	PSV 03 Kit	PSV 04 Kit	PSV 05 Kit	PSV 06 Kit	PSV 07 Kit	PSV 08 Kit	PSV 09 Kit
Typical ground floor kitchen: Flat ducting, ridge terminal.	Typical ground floor kitchen: Circular ducting, ridge terminal.	Typical ground floor kitchen: Circular ducting, tile terminal.	Typical ground floor kitchen: Wall extract, flat ducting, ridge terminal.	Typical first floor bathroom: Ridge terminal.	Typical first floor bathroom: Tile terminal.	Typical ground floor kitchen: Wall extract, flat ducting, tile terminal.	Typical ground floor kitchen: Flat ducting, tile terminal.	Typical first floor bathroom: In-Line tile/slate terminal. Not suitable for kitchens.
<ul style="list-style-type: none"> <li>PRT</li> <li>X332</li> <li>F12524</li> <li>X332</li> <li>FCA4</li> <li>FCA6</li> <li>FCD1</li> <li>FCA3</li> <li>FCD1</li> <li>FCA6</li> <li>A161</li> </ul>	<ul style="list-style-type: none"> <li>PRT</li> <li>X332</li> <li>F12524</li> <li>X332</li> <li>MC01</li> <li>X332</li> <li>F12513</li> <li>X332</li> <li>A161</li> </ul>	<ul style="list-style-type: none"> <li>TT9</li> <li>X332</li> <li>F12524</li> <li>X332</li> <li>MC01</li> <li>X332</li> <li>F12513</li> <li>X332</li> <li>A161</li> </ul>	<ul style="list-style-type: none"> <li>PRT</li> <li>X332</li> <li>F12524</li> <li>X332</li> <li>FCA4</li> <li>FCA6</li> <li>FCD1</li> <li>FCA3</li> <li>FCD1</li> <li>FCA10</li> <li>A161</li> <li>FCA11</li> </ul>	<ul style="list-style-type: none"> <li>PRT</li> <li>X332</li> <li>F12524</li> <li>X332</li> <li>A161</li> </ul>	<ul style="list-style-type: none"> <li>TT9</li> <li>X332</li> <li>F12524</li> <li>X332</li> <li>FCA4</li> <li>FCA6</li> <li>FCD1</li> <li>FCA3</li> <li>FCD1</li> <li>FCA10</li> <li>A161</li> <li>FCA11</li> </ul>	<ul style="list-style-type: none"> <li>TT9</li> <li>X332</li> <li>F12524</li> <li>X332</li> <li>FCA4</li> <li>FCA6</li> <li>FCD1</li> <li>FCA3</li> <li>FCD1</li> <li>FCA6</li> <li>A161</li> </ul>	<ul style="list-style-type: none"> <li>TT7</li> <li>X332</li> <li>F12524</li> <li>X332</li> <li>A161</li> </ul>	

### Specification

Select options required, and insert information where necessary.

iPSV Whole- House ventilation system Provide a BBA-Certificated ventilation system complying with Building Regulations (England and Wales) Approved Document FOR Building ( Scotland ) Regulations Technical Handbook Domestic Sect ion 3 OR Building Regulations (Northern Ireland) Technical Booklet K OR Building Regulations (Republic

of Ireland) Technical Guidance Documents Part F, by means of a whole-house passive stack ventilation (PSV) automatic system comprising: Humidity- sensitive wall / window inlet vents operating between 47% and 65% relative humidity, sited in habitable rooms as required. Humidity sensitive ceiling extracts operating between 30% and 75% relative humidity sited in kitchen, bathroom, utility room and WC; each extract to be ducted separately to a roof terminal matching and forming an integral part of the ridge, or to pitched roof tile /slate terminals sited no lower than 0.5 metres down from the ridge. Ridge terminals to have an air flow resistance not exceeding 10Pa at an air movement rate of 100m<sup>2</sup>/h. Tile /slate terminals to have an air flow resistance not exceeding 5Pa at an air movement rate of 100m<sup>2</sup>/h. All terminals to provide insect and weather protection, and be designed to ensure any condensate forming will run off on to the roof. All ducting in roof spaces and other unheated spaces to be fully insulated with 25mm insulation. The system to be iPSV Whole-House system covered by BBA Certificate 96/3273. Installation to be in accordance with the manufacturer's instructions, Layout and installation must comply with any design recommendations supplied.

A full installation guide is supplied with every iPSVTM system.



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