

FRESH ACOUSTIC WALL VENTS



Fresh 80dB



Fresh 90dB



Fresh 99HdB



Fresh 100dB



Fresh TLFdB



STM

FRESH ACOUSTIC WALL VENT RANGE

Fresh acoustic wall vents provide effective ventilation and sound insulation, for use near noise sources such as main roads, railways or airports.

Fresh 80dB, 90dB, 100dB and TLF-dB are non-mechanical, controllable through-wall vents. Ideal for newbuild or refurbishment in domestic and small commercial applications.

Fresh 99HdB is a demand-controlled non-mechanical through-wall vent which responds automatically to changes in room humidity. Designed specifically to combat condensation problems, particularly in existing buildings, especially local authority and housing association dwellings.

STM is an acoustic wall ventilator providing options of either self-regulating or humidity-

controlled background ventilation combined with excellent acoustic properties. Specifically designed for newbuild applications, with the sound absorption box being built into the wall internally and terminating in a double airbrick externally.

Building Regulations

All vents can be used to meet the background ventilation requirements of building regulations throughout the UK and the Republic of Ireland, as part of a suitably designed ventilation system or strategy.

Also meets the requirements for security, adjustability, avoidance of discomfort due to cold draughts and prevention of rain ingress.

For more information see Building Regulations on page 8.

Features and benefits

Feature	Fresh type					
	80dB	90dB	100dB	99HdB	TLF-dB	STM
Easily controlled by pull cord	●	-	●	*	-	-
Easily controlled by slider control	-	●	-	-	●	-
Optional pre-settable trickle ventilation facility	●	●	●	●	-	-
Designed to prevent draughts and provide efficient air distribution	●	●	●	●	●	●
Condensation protection by insulation within internal controller unit	●	●	●	●	●	-
Dust and insect filter	●	●	●	●	●	-

*see special features below

Special features

Fresh 99HdB

- Energy saving: provides ventilation only when needed, minimising loss of warm air.
- Not dependent on occupier operation, and can be made tamper-proof.
- Needs no electrical connection or power supply, and has no running costs.
- No maintenance required.
- Manual on/off override cord control.

Fresh TL-dB

- Stylish new design.
- Easily controlled by slider-operated precision damper.
- Colour matched internal cover to special order.

STM

- Vent is set into the wall with only a narrow projecting air outlet.
- Self-regulating version prevents over-ventilation in windy conditions.
- Humidity-controlled version automatically provides ventilation to meet demand, minimising loss of warm air and thereby saving energy.

FRESH ACOUSTIC WALL VENTS

Ventilation area

Type code	Ventilation opening		trickle ⁽¹⁾
	free area	equivalent area	
Fresh 80dB	4000mm ²	2220mm ²	0-2000mm ²
Fresh 90dB	6000mm ²	2630mm ²	0-1200mm ²
Fresh 100dB	6000mm ²	3200mm ²	0-2800mm ²
Fresh 99HdB	6000mm ²	3350mm ²	-
Fresh TLF-dB	5000mm ²	2540mm ²	-
STM-SR ⁽²⁾	4000mm ²	3380mm ²	-
STM-HC ⁽³⁾	4000mm ²	3380mm ²	-

⁽¹⁾ Can be preset to free area shown when closed. ⁽²⁾ Self-regulating ⁽³⁾ Humidity-controlled

Material

All Fresh vents: ABS (recyclable) with sound insulating wall sleeve (glass fibre with PVC skin).

Colour: internal controller white, external grille terracotta.

Colour matched external grilles to special order.

STM: polystyrene. Colour white.

Sound insulation

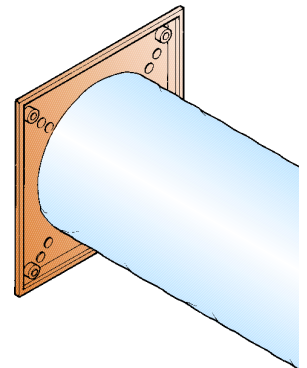
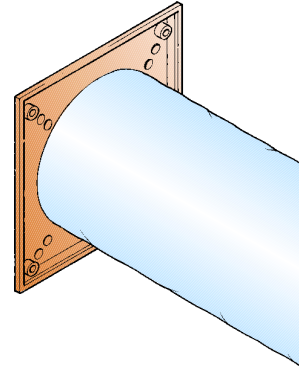
The vents provide sound reduction across 300mm wall thickness of up to the values shown in the table below. These can be increased by approximately 2dB $D_{n,e,w}$ when fitted with Fresh Acoustic Cowl (except for STM).

Test reports are available on request.

Type	Sound reduction up to
80dB	50dB $D_{n,e,w}$
90dB	45dB $D_{n,e,w}$
100dB	42dB $D_{n,e,w}$
99dBH	45dB $D_{n,e,w}$
TLF-dB	44dB $D_{n,e,w}$
STM	50dB $D_{n,e,w}$

Installation

Locate in a high position, typically 1.7m above floor level.



Fresh 99HdB

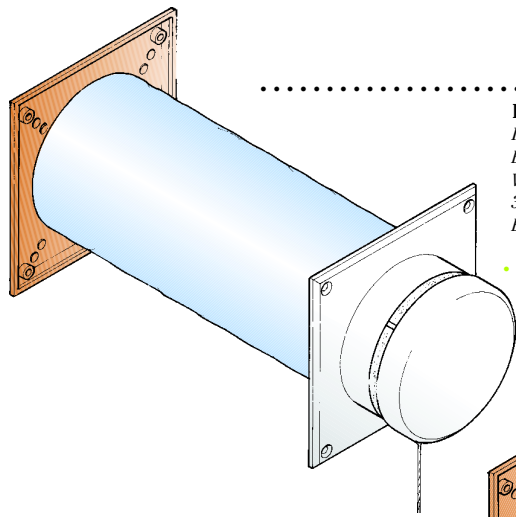
Internal controller 140 x 140mm x 60mm

Backplate 165 x 165mm

Wall sleeve outside diameter

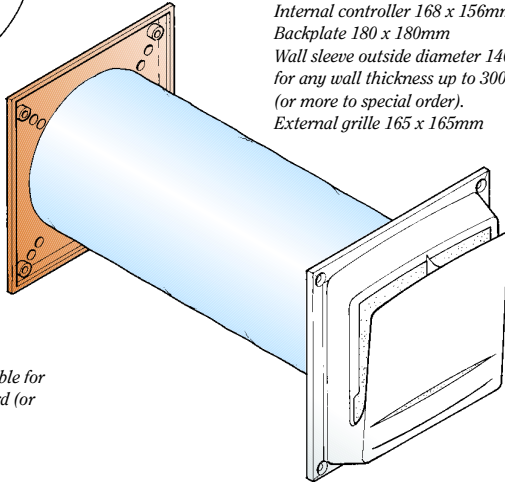
140mm. Suitable for any wall thickness up to 300mm as standard (or more to special order).

External grille 165 x 165mm



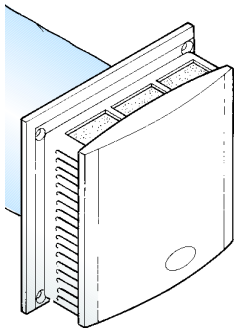
Fresh 80dB

Internal controller 138mm diameter x 60mm depth
 Backplate 165 x 165mm
 Wall sleeve outside diameter 140mm. Suitable for any wall thickness up to 300mm as standard (or more to special order).
 External grille 165 x 165mm



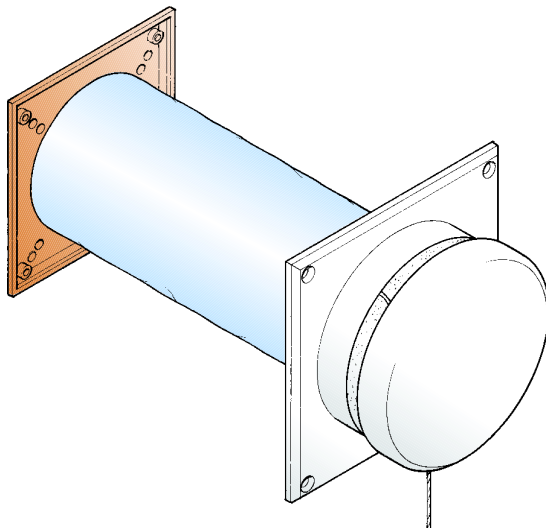
Fresh TLF-dB

Internal controller 168 x 156mm x 46mm
 Backplate 180 x 180mm
 Wall sleeve outside diameter 140mm. Suitable for any wall thickness up to 300mm as standard (or more to special order).
 External grille 165 x 165mm



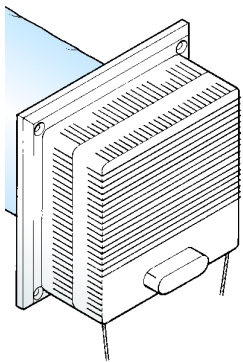
Fresh 90dB

Internal controller 150 x 150mm x 48mm
 Backplate 165 x 165mm
 Wall sleeve outside diameter 140mm. Suitable for any wall thickness up to 300mm as standard (or more to special order).
 External grille 165 x 165mm

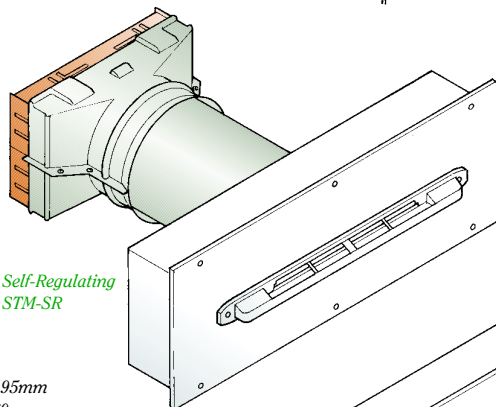


Fresh 100dB

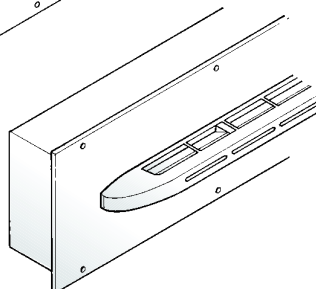
Internal controller 184mm diameter x 65mm depth
 Backplate 210 x 210mm
 Wall sleeve outside diameter 140mm. Suitable for any wall thickness up to 300mm as standard (or more to special order).
 External grille 165 x 165mm



Double airbrick



Self-Regulating STM-SR

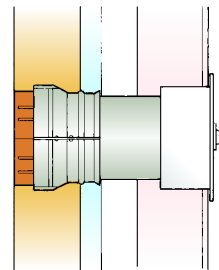


Humidity-Controlled STM-HC

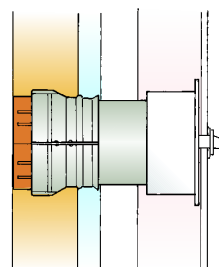
STM

Wall plate 535 x 195mm
 Wall box 500 x 160mm
 Wall sleeve outside diameter 125mm
 Suitable for any wall thickness up to 300mm as standard (or more to special order)

Section through wall: surface mounting



concealed mounting



Specification clause

Select options required, and insert information where necessary.
 Provide background ventilation with sound insulation complying with Building Regulations (England and Wales) Approved Document F OR Building (Scotland) Regulations Technical Handbook Domestic Section 3 OR Building Regulations (Northern Ireland) Technical Booklet K OR Building Regulations (Republic of Ireland) Technical Guidance Documents Part F,
 by means of acoustic wall ventilators (Passivent Fresh 80dB / 90dB / 100dB / 99HdB / TLF-dB / STM). Each vent to provide up to mm² ventilation free area or mm² equivalent area, and to achieve sound reduction of dB D_{n,e,w} for 300mm wall thickness under test.
 Vent controllable by pull cord / slider, with optional pre-settable trickle ventilation facility when closed.
 99HdB: ventilation rate demand-controlled automatically according to room humidity, with no electrical connection required.
 STM: self-regulating humidity controlled ventilator of polystyrene.
 All Fresh vents: ABS (recyclable) with sound insulating wall sleeve (glass fibre with PVC skin).
 Ventilators to meet or exceed the worst case requirements of BS 6375: Part 1: 2000 for resistance to water penetration.
 Ventilators and information available from Passivent Ltd, 2 Brooklands Road, Sale, Cheshire M33 3SS, Telephone: 0161 962 7113, Fax: 0161 905 2085 email: info@passivent.com.

COMBUSTION AIR VENTILATION

Passivent combustion air vents provide a permanent supply of combustion air to rooms containing fuel-burning appliances which are not room-sealed. Can be used to meet gas safety regulations and the requirements of Building Regulations Approved Document J1.

There are window and wall models, and standard vents are sufficient for most domestic heating appliances.

Requirements

All open-flued fuel-burning appliances require an adequate supply of combustion air from the room so that:

- The appliance and its flue operate efficiently.
- Fuel is properly burnt, so harmful fumes are not produced.
- The appliance will not draw oxygen from the air in the room.
- Combustion products are properly vented through the flue to avoid any risk of build-up inside the room.

The provision of an adequate air supply is a mandatory requirement of the Building Regulations J1. There is also a legal obligation when installing or servicing appliances to ensure that there is an adequate air supply. This is particularly important when new windows or doors have been fitted, which are usually weatherstripped, so cutting down the 'accidental' air supply. Failure to comply could have tragic consequences.

To meet the requirement, a vent should be installed which must not be closeable, should prevent draughts, and must be large enough for the rating of the appliance.

COMBUSTION WINDOW VENT



Through-frame window vent comprising two identical units, one fitted externally for weather protection and the other (inverted) internally.

Features and benefits

- Directs inward air flow upwards. Avoids draughts and discomfort, avoids risk of occupants blocking vent.
- 5000mm² free ventilation area as standard. Sufficient for most domestic heating appliances.
- 9mm insect grille of injection-moulded plastic. Complies with BS 5440-2: 2000. Robust, will not rot or corrode.

Capacity

- Based on Approved Document J1/2/3, one pair of Combustion Air Vents is suitable for:
- Gas appliances up to 18kW (61 000Btu/h) input.
 - Solid fuel closed appliances up to 14kW (47 000Btu/h) output.
 - Solid fuel open appliances up to 10 000mm² throat opening area.
 - Oil burning appliances up to 14kW (47 000Btu/h) output.

Material

Aluminium with polyester paint finish to BS 6496. Injection-moulded plastic end caps and insect grille.

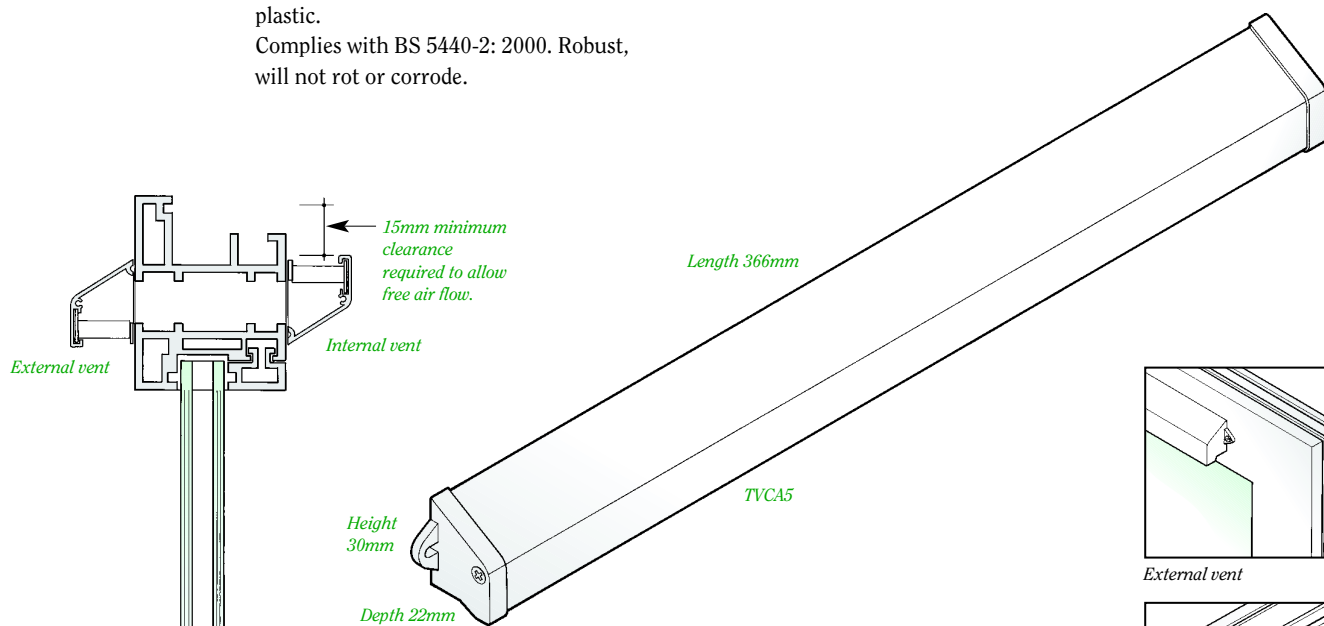
Colours: white or brown. Colour co-ordinated end caps. Other colours to special order subject to minimum quantities.

Fixing

By two screws through end lugs.

Ordering

Packed individually, therefore two vents must be ordered for each installation.



Dimensions

Type code	Ventilation free area	Length	Slot size
TVCA5	5000mm ²	366mm	340 x 15mm

Other lengths and ventilation areas to special order.

COMBUSTION WALL VENTS

Fresh 16 and 18

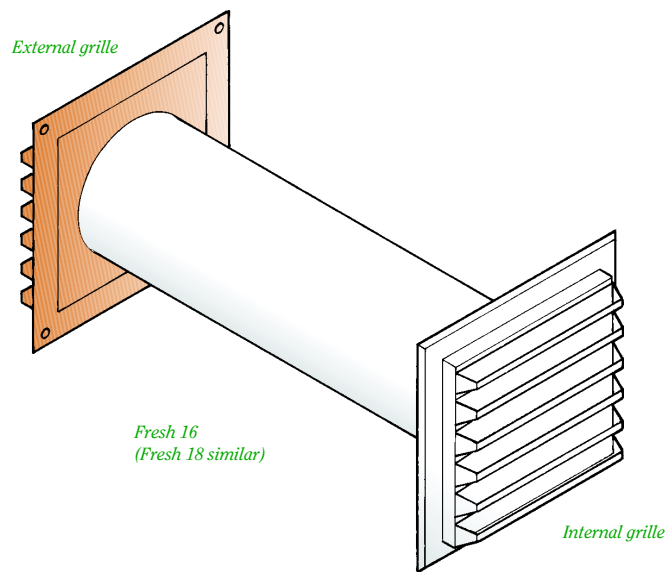
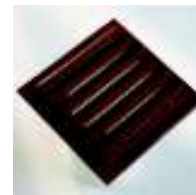
Fresh 16 and 18 wall vents comprise an internal grille, wall sleeve and external grille with insect screen and rain deflectors.

Ventilation area

See Dimensions table.

Material

ABS (recyclable), polystyrene wall sleeves.
Colour: internal grille white, external grille terracotta.



Specification clauses

TVCA5 Provide combustion air ventilation giving 5000mm² ventilation area by means of an internal vent combined with an external vent for weather protection (two Passivent Combustion Air Vents TVCA5), of aluminium with polyester paint finish to BS 6496: 1984, fitted with colour co-ordinated end caps and 9mm insect grille of injection-moulded plastic complying with BS 5440-2: 2000.

Fresh 16 and 18

Provide combustion air ventilation giving *5750 / 10 000 mm² ventilation area by means of a through-wall vent (Passivent *Fresh 16 / Fresh 18 combustion air vents). Internal grille, external grille and wall sleeve of ABS. Grilles to have 9mm apertures complying with BS 5440-2: 2000

*Delete as required

Ventilators and information available from Passivent Ltd, 2 Brooklands Road, Sale, Cheshire M33 3SS, Telephone: 0161 962 7113, Fax: 0161 905 2085. Email: info@passivent.com

Dimensions

	Fresh 16	Fresh 18
Ventilation free area	5750mm ²	10 000mm ²
Wall sleeve outside diameter	99mm	122mm
Suitable for wall thickness up to (as standard)	310mm	310mm
Internal and external grilles	140 x 140mm	180 x 180mm

Capacity

Vents are suitable for the following maximum appliance ratings.

Appliance type	Fresh 16	Fresh 18
Gas (input)	19kW (64 000Btu/h)	29kW (98 000Btu/h)*
Solid fuel closed (output)	15kW (51 000Btu/h)	23kW (78 000Btu/h)
Oil (output)	15kW (51 000Btu/h)	23kW (78 000Btu/h)

* Including decorative fuel effect fires.



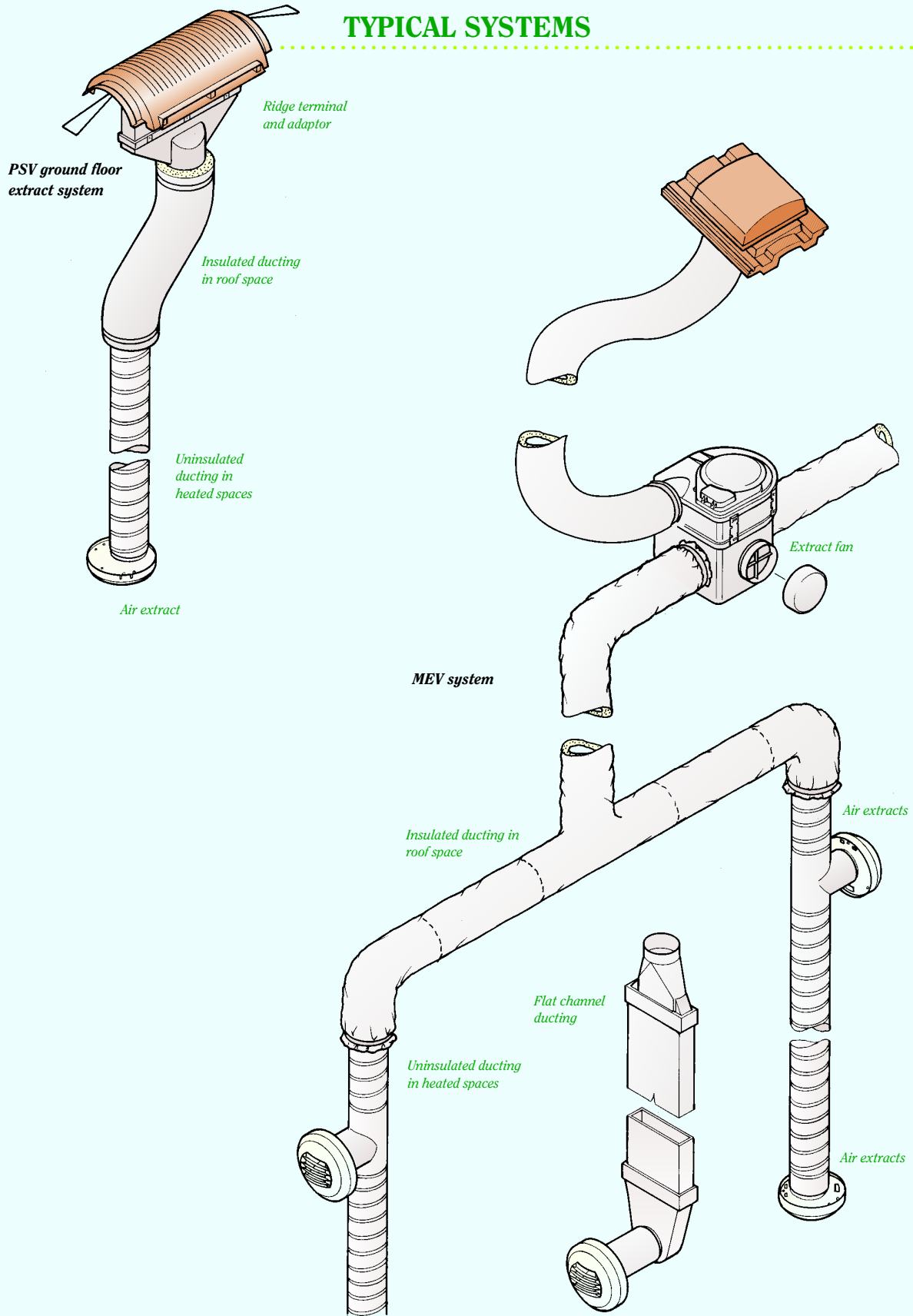
COMPONENTS, SERVICES

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TYPICAL SYSTEMS

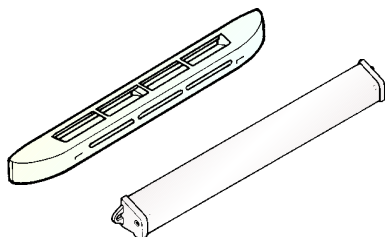


SELECTED COMPONENTS FOR PSV/MEV SYSTEMS

Window inlets

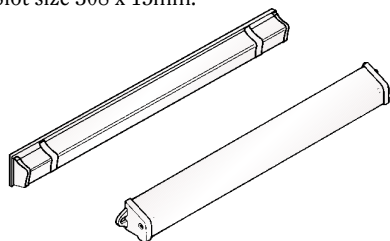
A101 plus PVCG4

Humidity-sensitive window inlet and external canopy grille.
Slot size 290 x 15mm.



PV4V4 plus PVCG4

Manually-controlled window inlet and external canopy grille.
Slot size 308 x 15mm.



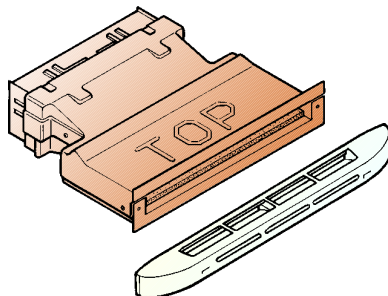
Fixing

Cut a slot in the head of the window frame (if necessary) and screw-fix the internal vent to the inside and the canopy grille to the outside.

Wall inlets

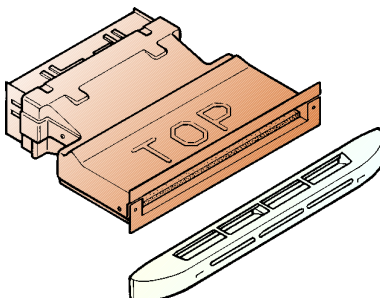
A111 plus PV250

Humidity-sensitive wall inlet with airbrick and telescopic sleeve. For walls up to 300mm thick.
Hole size 57 x 290mm.



A111 plus PV250DB, Acoustic

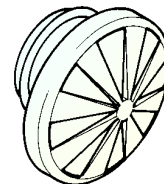
Humidity-sensitive wall inlet with airbrick and acoustic telescopic sleeve. For walls up to 300mm thick.
Hole size 57 x 290mm.



Air extracts

A161

Humidity-sensitive extract 195mm dia
Hole 135mm dia.

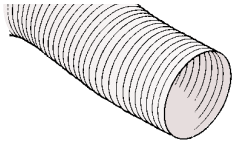


SELECTED COMPONENTS FOR PSV/MEV SYSTEMS

Ducting

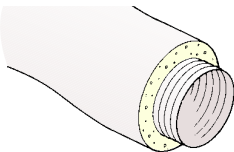
F12513M

Flexible uninsulated ducting:
125mm dia. x 3m



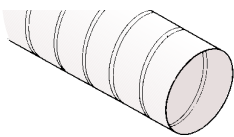
F12524M

Flexible insulated ducting: 125mm dia. x 4m



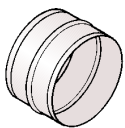
R1251

Rigid uninsulated ducting: 125mm dia. x 3m



MC01

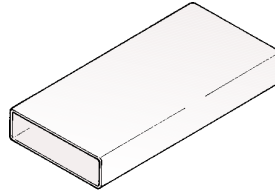
Sleeve coupling, male: 125mm dia.



Flat channel ducting

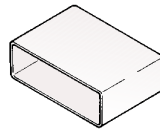
FCD1

Flat channel ducting 204 x 60mm x 1.5m



FCA3

Straight connector
208 x 64mm x 74mm



FCA4

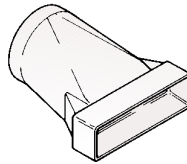
Circular connector
125mm dia.



FCA6

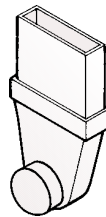
Circular adaptor

FCA4 and FCA6 are required for connection to flexible ducting.



FCA10

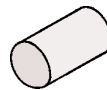
Elbow connector
125mm dia.



FCA11

Round pipe

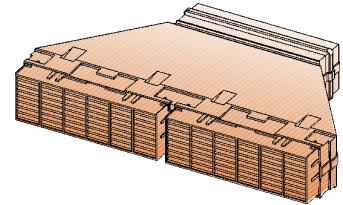
FCA10 and FCA11 are required for connection to wall-mounted extract
129mm dia x 350mm



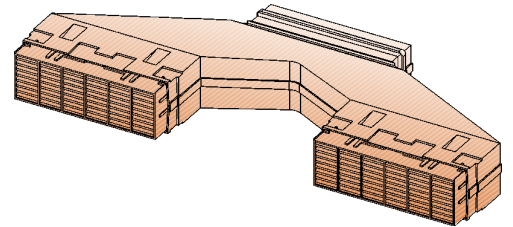
Airbricks

Horizontal Double Airbricks with flat channel adaptor

HDAA



HDAS

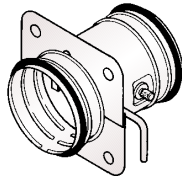


Fire dampers

Provide 1 hour fire resistance tested to BS476.

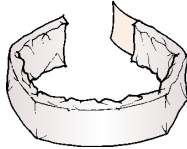
FDR125

Resettable fire damper for 125mm dia ducting



PFW200

Intumescent wrap for use with flat channel ducting



Joining accessories

X331

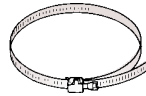
Duct tape

One roll is normally sufficient for one house.



X332

Speedclamp

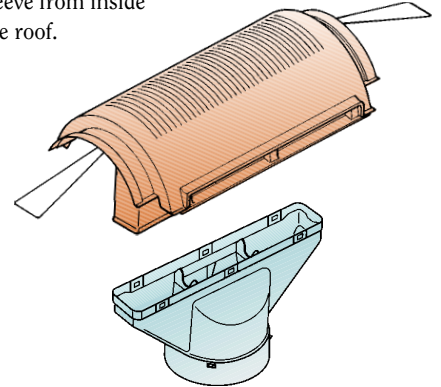


Terminals

PRT Ridge terminal

Connect insulated ducting to the adaptor spigot using tape (X331) and a Speedclamp (X332).

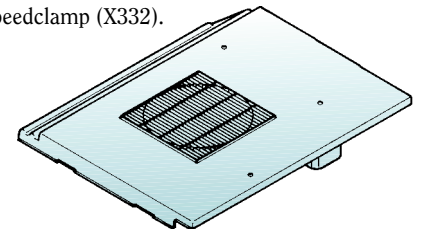
Fit the adaptor to the extension sleeve from inside the roof.



TT7 In-Line tile/slate terminal

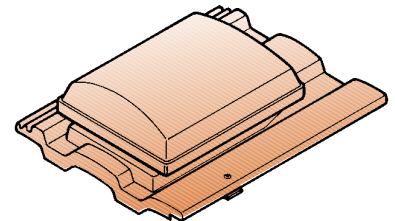
Alternative termination suitable for bathrooms and WC's only.

Connect insulated ducting to the spigot using tape (X331) and a Speedclamp (X332).



TT9 Tile/slate terminal

Connect insulated ducting to the spigot using tape (X331) and a Speedclamp (X332).



DESIGN AND SUPPORT



Technical expertise

Passivent Limited boast a full team of highly trained technical sales representatives and technical officers, which allow Passivent to take the worry of ventilation away from the client.



The experienced Passivent Limited technical team are highly skilled and experienced in identifying specific client requirements, and recommending the optimum method of ventilation, both to ensure that Part F of the Building Regulations is adhered to, and to ensure that the air inside a dwelling is as clean and comfortable as possible for the intended occupants.

Design services

Passivent Limited offer a design service based on building drawings supplied for both PSV and MEV systems.

Acoustic systems can be individually designed in conjunction with acousticians to meet noise reduction targets set by the client or local authority.

For MEV systems we can provide an outline proposal based on building drawings supplied to us. This will comprise typical outline schematic drawings and a system description together with a cost indication. The benefit of this is that the proposal and cost can be provided rapidly at an early stage.

Following confirmation of acceptance of the outline proposal, a detailed design and costing will be prepared including system drawings and detailed component requirements.

Passivent use state of the art Computer Aided Design (CAD) software which offers full tailorability, allowing technical experts to design systems for a client's specific needs. The system will also generate airflow schedules for use when commissioning, along with accurate BOM's and installation schematics, all assisting the client throughout the design and installation process.

Customer services

- *Design consultation (at client's office)*
Convenient and efficient for the client and ensures that the total focus is on the client's own specific needs.
- *Research and development*
Ensuring that Passivent technologies are always at the cutting edge of ventilation solutions.
- *Product design, manufacture and supply*
Allows full control over the whole process giving a fully tailored solution to the client's specific needs.
- *Project management*
From the identification of initial requirements right through to the installation and operation of an efficient and effective ventilation solution, Passivent can manage every stage to minimise client workload and concern.
- *Full design and quotation service*
Ensures that systems are tailored and designed to meet specific client needs in line with budgetary requirements.
- *Technical back-up and site visits*
Ensures that clients always have access to expertise and minimises any on-site problems which may arise.
- *Installation (Mastercare)*
Passivent can provide fully trained and approved installers to install Passivent systems. This ensures that ventilation solutions operate as planned and designed.
- *Free appraisal and quotation*
Allows the client, at no cost, to assess what is required to comply with building regulations and improve air quality in dwellings



Mastercare™ Installer Scheme

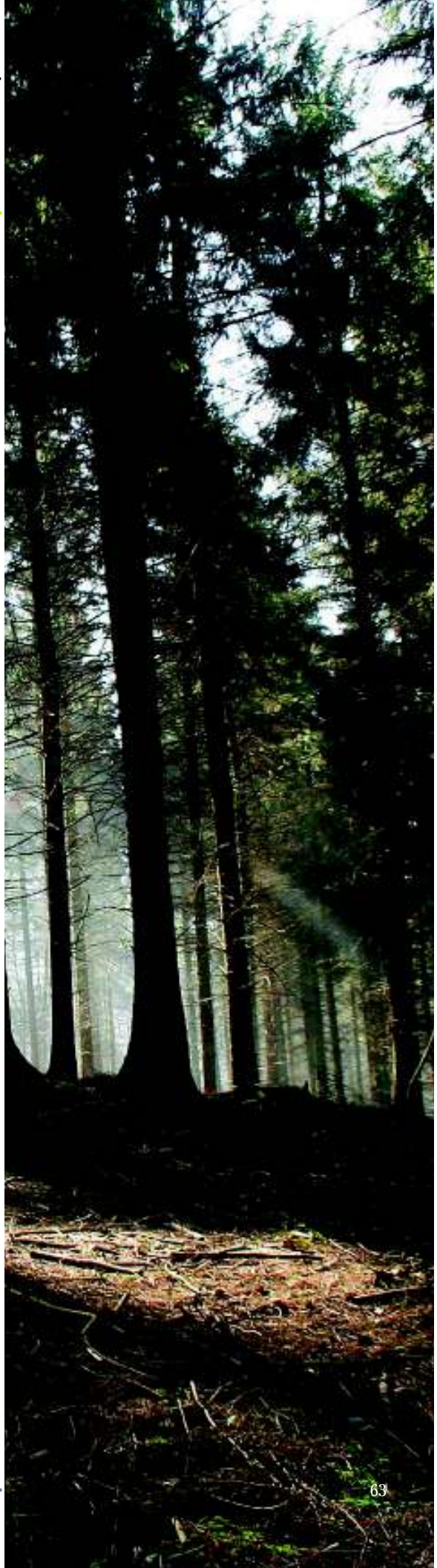
We recommend that installation is carried out by a specialist Passivent Mastercare Installer. The Mastercare scheme, operated by Passivent Limited, comprises well-established and reputable companies who have been fully trained and assessed by Passivent Limited to install any Passivent system in both new build and refurbishment projects.



Mastercare provides:

- Assurance that work is carried out by trained and experienced installers who are familiar with the systems.
- Quality installations.
- Compliance with relevant codes of practice.
- Competitive cost.

All Passivent Mastercare Installers hold a certificate from Passivent Limited. They are regularly monitored to ensure standards of work are maintained, and also receive full technical support from Passivent Limited.



FURTHER INFORMATION

References

Building regulations

England and Wales

Building Regulations 2000

Approved Document F Means of ventilation (2006)

Approved Document L

L1A 2006 Conservation of fuel and power (New dwellings) (2006 edition)

L1B 2006 Conservation of fuel and power (Existing dwellings) (2006 edition)

Scotland

Building (Scotland) Regulations 2004, Technical Handbook Domestic Section 3 Environment (2007)

Northern Ireland

Building Regulations (Northern Ireland) Technical Booklet K Ventilation (1998)

Republic of Ireland

Building Regulations Technical Guidance Documents, Part F Ventilation (2002)

Other documents

BS 5250: 2002 incorporating Amendment 1: 2005 Code of practice for control of condensation in buildings

BS EN 13141-1: 2004 Ventilation for buildings. Performance testing of components / products for residential ventilation. Externally and internally mounted air transfer devices

BS 5925: 1991 Code of practice for ventilation principles and designing for natural ventilation

The Government's Standard Assessment Procedure for Energy Rating of Dwellings (2005). Published by BRE for DEFRA

Energy efficient ventilation in dwellings - a guide for specifiers (2006). Energy Saving Trust GPG 268

Acoustics

PPG24 Planning policy guidance: Planning and noise (DCLG, 1994)

BS 8233: 1987 Sound insulation and noise reduction for buildings

BS EN 20140-10: 1992 Acoustics. Measurement of sound insulation in buildings and building elements. Laboratory measurement of airborne sound insulation of small building elements (= ISO 140-10:1991)

BRE Digest 338 1988 Insulation against external noise

Other products

Passivent market a wide range of other natural ventilation and daylighting products for which separate literature is available, including:

Passivent commercial ventilation products
Airscoop ventilators (roof-mounted natural ventilation terminals)

Airstract ventilators (roof-mounted high-capacity terminals)

Aircool ventilators (controllable façade ventilators)

Passivent natural daylighting solutions (Glidevale Sunscope, Metro modular rooflights, Litevent ventilation/daylighting units)

Passivent ventilation system controls

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Passivent Limited maintains a policy of continuous development and reserves the right to amend product specifications without notice.

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