

Rytons Background Room Ventilators

Technical information available from our website at: **www.vents.co.uk** Alternatively, call us on 01536 511874



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Rytons Window Trickle Ventilator (265mm L)	R1700	1,700mm ²	See technical	10

What is a **D**_{n,e,w} sound reduction figure?

A $D_{n,e,w}$ figure reflects testing at every frequency and it is the only result recommended by the BRE for products such as vents. As there is no industry standard for presenting acoustic test results, beware of any manufacturer who quotes an unspecified dB figure. An unspecified figure may simply be the highest dB achieved at an individual frequency and may not bear any relation to your circumstances or to the type of noise you are aiming to reduce. Only a $D_{n,e,w}$ figure gives you peace of mind that the result reflects the true performance of the product.

Extracts from The Building Regulations Approved Document F, Means of ventilation, 2010

Approved Document F is a complex document with many criteria for working out the background ventilation requirements of a dwelling. The following extracts are a brief introduction as to why ventilation is required and to which ventilation systems Rytons products are best suited. A free download of Approved Document F is available at http://www.planningportal.gov.uk/ buildingregulations/approveddocuments/partf

Section 4: Introduction to the provisions The purpose of ventilation

- **4.6** Ventilation is simply the removal of 'stale' indoor air from a building and its replacement with 'fresh' outside air. It is assumed within the Approved Document that the outside air is of reasonable quality.
- **4.7** Ventilation is required for one or more of the following purposes:
 - a) provision of outside air for breathing;
 - b) dilution and removal of airborne pollutants, including odours;
 - c) control of excess humidity (arising from water vapour in the indoor air);
 - d) provision of air for fuel-burning appliances (which is covered under Part J of the Building Regulations).

Control of ventilation

- **4.18** It is important that ventilation is controllable so that it can maintain reasonable indoor air quality and avoid waste of energy. These controls can be either manual (i.e. operated by the occupant) or automatic.
- **4.19** Manually controlled trickle ventilators (the most common type of background ventilators) can be located over the window frames, in window frames, just above the glass or directly through the wall. They are positioned typically 1.7m above floor level to avoid discomfort due to cold draughts.

Equivalent areas of ventilators

4.26 Equivalent area is used in the Approved Document instead of free area for the sizing of background ventilators (including trickle ventilators) because it is a better measurement of the air flow performance of the ventilator. BS EN 13141-1:2004 (Clause 4) includes a method of measuring the equivalent area of background ventilation openings.

All Rytons background ventilator sets (including acoustic) have equivalent area measurements calculated by the BRE at 1Pa to BS EN 13141-1:2004.

Section 5: New Dwellings

Ventilation systems for new dwellings without basements

Select one of the four ventilation systems. Rytons background ventilators are most suited to System 1 and System 3.

System 1: Background ventilators and intermittent extract fans

Guidance on minimum provisions for extract and whole dwelling ventilation is set out in Table 5.2a. Note that it includes separate guidance for dwellings with habitable rooms having only a single exposed façade. Rytons is able to supply the non-mechanical aspects to achieve System 1.

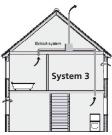


System 3: Continuous mechanical extract (MEV)

Guidance on minimum provisions for extract and whole dwelling ventilation is set out in Table 5.2c. Rytons is able to supply the non-mechanical aspects to

achieve System 3.

Refer to Approved Document F for details of System 2: Passive stack ventilation (PSV) and System 4: Continuous mechanical supply and extract with heat recovery (MVHR).



Equivalent Area Calculations

Calculating background ventilation requirements for houses can be a daunting task. If you would like us to help you with your calculations simply email **admin@rytons.com** with the following information:-

- 1. Total floor area in m² (all floor areas combined).
- 2. Dwelling Type:

a) Single-storey dwelling located up to and including the fourth storey above ground level.

b) Multi-storey dwelling or a single-storey dwelling that is located more than four storeys above ground level.

- 3. Number of bedrooms.
- 4. Number of façades.
- 5. Design air permeability.
- 6. Acoustic requirements.



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Rytons Controllable LookRyt® AirCore® Ventilators

- 5" dia. retro-fitted core ventilators for the provision of controllable background air to habitable rooms.
- Acoustic options available to reduce noise transfer for a more peaceful environment.
- All sets include a draught reducing LookRyt panel which disperses air evenly for maximum comfort.
- Paint or wallpaper the LookRyt panel to match room décor for a discreet appearance.
- High rise options available fitted from the inside for high level installations.
- External water baffle prevents transfer of water across the cavity.
- External louvre grille and optional cowl U.V. stabilised to slow down the effects of sunlight.
- Screws provided to secure the internal panel.
- Equivalent areas tested to BS EN 13141-1:2004 and independently verified by the BRE.
- Acoustic performance tests by BRE Acoustics.

Consider an acoustic option ...

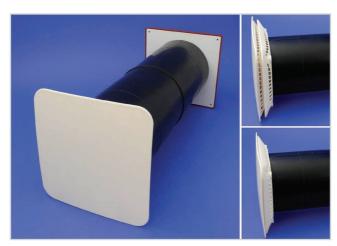
It is a common experience that noise is unpleasant and affects the quality of life.
World Health Organization

World Health Organization

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Size Guide	
Optional Cowl:	217mm L x 210mm H x 93mm D
External Louvre:	166mm L x 160mm H
Tube:	127mm Dia. x 358mm L
LookRyt Panel:	172mm L x 172mm H

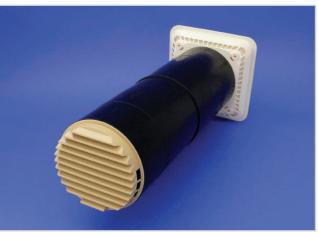
Colour Guide	
Optional Cowl:	Terracotta, buff/sand, white
External Louvre:	Terracotta, buff/sand, white
LookRyt Panel:	Magnolia (may be decorated)



Rytons controllable LookRyt panel: Patent No. GB 2523676



Rytons Controllable LookRyt AirCore Terracotta external grille



Rytons Controllable High Rise LookRyt AirCore Buff/sand external grille



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Rytons Controllable LookRyt® AirCore® Ventilators

Code	Noise Reduction	External Finish	Tube Lining	Equivalent Area
Rytons AAC125HP	43 dB open 50 dB closed	Louvre	Acoustic	8,500mm²
Rytons AAC125HPCWL	45 dB open 50 dB closed	Louvre & Cowl	Acoustic	8,400mm²
Rytons AAH125HP	44 dB open 50 dB closed	High Rise Louvre	Acoustic	7,700mm²
Rytons AC10HP	Unsilenced	Louvre	-	7,500mm²
Rytons AC10HPCWL	Unsilenced	Louvre & Cowl	-	7,300mm²
Rytons AC7HP	Unsilenced	Louvre	Baffles	6,500mm²
Rytons AC7HPCWL	Unsilenced	Louvre & Cowl	Baffles	6,700mm²
Rytons ACH75HP	Unsilenced	High Rise Louvre	Baffles	6,700mm²





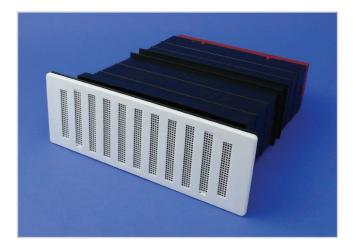
Rytons Controllable Ventilation Sets '9x3'

- Single brick through-wall ventilation set for the provision of controllable background air to habitable rooms.
- Acoustic options available to reduce noise transfer for a more peaceful environment.
- Multifix[®] Air Brick available in a choice of colours to complement external brickwork.
- External water baffles prevent transfer of water across the cavity.
- Internal and external grilles U.V. stabilised to slow down the effects of sunlight.
- Adjustable hit & miss grille gives control over the amount of ventilation let into the room.
- Telescopic cavity liner contains an internal baffle to reduce the transmission of light and draughts.
- Equivalent areas tested to BS EN 13141-1:2004 and independently verified by the BRE.
- Acoustic performance tests by BRE Acoustics.

Consider an acoustic option ...

One in three individuals is annoyed during the daytime and one in five has disturbed sleep at night because of traffic noise.
World Health Organization

Code Noise Exter Reduction Finish (**D**_{n,e,w}) 38 dB open Rytons TAL4H&M Air Brid 39 dB closed 39 dB open Rytons TAL4HMCWL Air Brid 40 dB closed Rytons TC8H&M Unsilenced Air Brid Rytons TC8HMCWL Unsilenced Air Brid



Size Guide		
Optional Cowl:	255mm L x 96mm H x 44mm D	
AirLiner®:	Extends from 250mm-368mm L with air brick fitted	
Hit & Miss:	271mm L x 95mm H	

Colour Guide	
Optional Cowl:	Terracotta, buff/sand
Air Brick:	Terracotta, buff/sand, white, grey, blue/black, black, brown
Hit & Miss:	White



nal 1	Sleeve Lining	Equivalent Area
ick	Baffle & Acoustic	6,300mm²
ick & Cowl	Baffle & Acoustic	6,300mm²
ick	Baffle	10,200mm ²
ick & Cowl	Baffle	10,000mm²

Rytons Controllable Ventilation Sets '9x6'

- Double brick through-wall ventilation sets for the provision of controllable background air to habitable rooms.
- Acoustic options available to reduce noise transfer for a more peaceful environment.
- Multifix[®] Air Bricks available in a choice of colours to complement external brickwork.
- External water baffles prevent transfer of water across the cavity.
- Internal and external grilles U.V. stabilised to slow down the effects of sunlight.
- Adjustable hit & miss grille gives control over the amount of ventilation let into the room.
- Telescopic cavity liner contains a system of internal baffles to reduce the transmission of light and draughts.
- Equivalent areas tested to BS EN 13141-1:2004 and independently verified by the BRE.
- Acoustic performance tests by BRE Acoustics.

Consider an acoustic option ...

Both road traffic noise and aircraft noise increase the risk of high blood pressure.

World Health Organization



Size Guide	
Optional Cowl:	255mm L x 154mm H x 74mm D
AirLiner®:	Extends from 250mm-404mm L with air bricks fitted
Hit & Miss:	271mm L x 171mm H

Colour Guide	
Optional Cowl:	Terracotta, buff/sand, white
Air Brick:	Terracotta, buff/sand, white, grey, blue/black, black, brown
Hit & Miss:	White



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Code	Noise Reduction (D _{n,e,w})	External Finish	Sleeve Lining	Equivalent Area
Rytons TALH&M	39 dB open 40 dB closed	Air Bricks	Baffles & Acoustic	10,500mm²
Rytons TALHMCWL	42 dB open or closed	Air Bricks & Cowl	Baffles & Acoustic	9,800mm²
Rytons TC18HM	Unsilenced	Air Bricks	Baffles	19,800mm ²
Rytons TC18HCWL	Unsilenced	Air Bricks & Cowl	Baffles	18,000mm²

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Rytons Controllable Ventilation Sets '9x9'

- Triple brick through-wall ventilation sets for the provision of controllable background air to habitable rooms.
- Acoustic options available to reduce noise transfer for a more peaceful environment.
- Multifix[®] Air Bricks available in a choice of colours to complement external brickwork.
- External water baffles prevent transfer of water across the cavity.
- Internal and external grilles U.V. stabilised to slow down the effects of sunlight.
- Adjustable hit & miss grille gives control over the amount of ventilation let into the room.
- Telescopic cavity liner contains a system of internal baffles to reduce the transmission of light and draughts.
- Equivalent areas tested to BS EN 13141-1:2004 and independently verified by the BRE.
- Acoustic performance tests by BRE Acoustics.

Consider an acoustic option ...

Road traffic noise has been shown to increase the risk of ischaemic heart disease.

World Health Organization

Code	Noise Reduction (D _{n,e,w})	External Finish	Sleeve Lining	Equivalent Area
Rytons TAL9H&M	38 dB open or closed	Air Bricks	Baffles & Acoustic	12,800mm²
Rytons TAL9HMCWL	40 dB open 41 dB closed	Air Bricks & Cowl	Baffles & Acoustic	12,700mm ²
Rytons TC20HM	Unsilenced	Air Bricks	Baffles	30,000mm²
Rytons TC20HCWL	Unsilenced	Air Bricks & Cowl	Baffles	27,000mm ²



Size Guide	
Optional Cowl:	274mm L x 235mm H x 103mm D
AirLiner®:	Extends from 250mm-404mm L with air bricks fitted
Hit & Miss:	271mm L x 247mm H

Colour Guide	
Optional Cowl:	Terracotta, buff/sand, white
Air Brick:	Terracotta, buff/sand, white, grey, blue/black, black, brown
Hit & Miss:	White



Rytons Window Trickle Ventilators

- Two piece window frame ventilator for the provision of controllable background air to habitable rooms and wet rooms.
- Quickly and easily fitted by surface mounting over milled out slots in the window frame.
- Use with PVCu, timber or aluminium windows and fit on the sash, frame or overhead section.
- Internal vent easily adjusted allowing control over the amount of ventilation let into the room.
- U.V. stabilised to slow down the effects of sunlight.
- Curved shape gives a pleasing appearance by reducing the profile.
- Fixing screws and styled screw head covers supplied to achieve a neat finish.

Colour Guide	
R5000:	White, brown
R2700:	White, brown
R1700:	White, brown







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Code	Size	Equivalent Area
Rytons R5000	Internal vent: 497mm L x 30mm H x 20-27mm D (overall) External canopy: 497mm L x 18mm H x 32.5mm D (overall)	5,000mm²
Rytons R2700	Internal vent: 411mm L x 18.5mm H x 20-26mm D (overall) External canopy: 412mm L x 17mm H x 24mm D (overall)	2,700mm²
Rytons R1700	Internal vent: 265mm L x 18.5mm H x 20-26mm D (overall) External canopy: 267mm L x 17mm H x 24mm D (overall)	1,700mm²

Rytons Intumescent RytBlocks

- Heavy duty intumescent grilles for walls and ducts.
- In the event of a fire slats fuse together and seal within 2 minutes.
- Gives 3 hours protection preventing the passage of smoke and gases.
- Temperature increase insulated for 22 minutes.
- ACFIRE125 compatible with our 125mm Dia. AirCore[®] sets.
- TL8FIRE compatible with our '9x3' AirLiner[®] Sets.
- TL18FIRE compatible with our '9x6' AirLiner[®] Sets.

Code	Size	Free Area
Rytons ACFIRE125	118mm Dia. x 43mm D	5,150mm ²
Rytons TL8FIRE	206mm L x 58mm H x 44mm D	5,330mm²
Rytons TL18FIRE	206mm L x 124mm H x 44mm D	13,390mm ²





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