

September 2020



## Rytons Background Room Ventilators

Interactive guide with links to technical information



# Contents

Product Name	Product Code	Equivalent Area	D <sub>n,e,w</sub> Sound Reduction (open/closed)	Page
Rytons Controllable LookRyt® AirCore®	AC10HP	7,500mm <sup>2</sup>	Unsilenced	4
Rytons Cowled Controllable LookRyt® AirCore®	AC10HPCWL	7,300mm <sup>2</sup>	Unsilenced	4
Rytons Baffled Controllable LookRyt® AirCore®	AC7HP	6,500mm <sup>2</sup>	Unsilenced	4
Rytons Cowled Baffled Controllable LookRyt® AirCore®	AC7HPCWL	6,700mm <sup>2</sup>	Unsilenced	4
Rytons Internal Fit Controllable LookRyt® AirCore®	ACH75HP	6,700mm <sup>2</sup>	Unsilenced	4
Rytons Super Acoustic Controllable LookRyt® AirCore®	AAC125HP	8,500mm <sup>2</sup>	43 dB / 50 dB	5
Rytons Cowled Super Acoustic Controllable LookRyt®	AAC125HPCWL	8,400mm <sup>2</sup>	45 dB / 50 dB	5
Rytons Internal Fit Super Acoustic Controllable LookRyt®	AAH125HP	7,700mm <sup>2</sup>	44 dB / 50 dB	5
Rytons '9x3' Ventilation Set with Hit & Miss	TC8H&M	10,200mm <sup>2</sup>	Unsilenced	7
Rytons '9x3' Cowled Ventilation Set with Hit & Miss	TC8HMCWL	10,000mm <sup>2</sup>	Unsilenced	7
Rytons '9x3' Acoustic AirLiner® Set with Hit & Miss	TAL4H&M	6,300mm <sup>2</sup>	38 dB / 39 dB	7
Rytons '9x3' Cowled Acoustic AirLiner® Set with Hit & Miss	TAL4HMCWL	6,300mm <sup>2</sup>	39 dB / 40 dB	7
Rytons '9x6' Ventilation Set with Hit & Miss	TC18HM	19,800mm <sup>2</sup>	Unsilenced	8
Rytons '9x6' Cowled Ventilation Set with Hit & Miss	TC18HCWL	18,000mm <sup>2</sup>	Unsilenced	8
Rytons '9x6' Acoustic AirLiner® Set with Hit & Miss	TALH&M	10,500mm <sup>2</sup>	39 dB / 40 dB	8
Rytons '9x6' Cowled Acoustic AirLiner® Set with Hit & Miss	TALHMCWL	9,800mm <sup>2</sup>	42 dB	8
Rytons '9x9' Ventilation Set with Hit & Miss	TC20HM	30,000mm <sup>2</sup>	Unsilenced	9
Rytons '9x9' Cowled Ventilation Set with Hit & Miss	TC20HCWL	27,000mm <sup>2</sup>	Unsilenced	9
Rytons '9x9' Acoustic AirLiner® Set with Hit & Miss	TAL9H&M	12,800mm <sup>2</sup>	38 dB	9
Rytons '9x9' Cowled Acoustic AirLiner® Set with Hit & Miss	TAL9HMCWL	12,700mm <sup>2</sup>	40 dB / 41 dB	9
Rytons Window Trickle Ventilator (265mm L)	R1700	1,700mm <sup>2</sup>	See technical	10
Rytons Window Trickle Ventilator (412mm L)	R2700	2,700mm <sup>2</sup>	See technical	10
Rytons Window Trickle Ventilator (497mm L)	R5000	5,000mm <sup>2</sup>	See technical	10

## What is a D<sub>n,e,w</sub> sound reduction figure?

A D<sub>n,e,w</sub> 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<sub>n,e,w</sub> 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:

- provision of outside air for breathing;
- dilution and removal of airborne pollutants, including odours;
- control of excess humidity (arising from water vapour in the indoor air);
- 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.

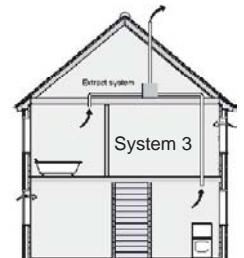
Note that it includes separate guidance for dwellings with habitable rooms having only a single exposed façade. Rytons is able to supply the non-mechanical aspects to achieve System 1.



### 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](mailto:admin@rytons.com) with the following information:-

- Total floor area in m<sup>2</sup> (all floor areas combined).
- Dwelling Type:
  - Single-storey dwelling located up to and including the fourth storey above ground level.
  - Multi-storey dwelling or a single-storey dwelling that is located more than four storeys above ground level.
- Number of bedrooms.
- Number of façades.
- Design air permeability.
- Acoustic requirements.



Make quick and easy ventilation calculations anytime with our free online calculators at [www.vents.co.uk](http://www.vents.co.uk).

# Rytons Controllable Unsilenced LookRyt® AirCore® Range

## AC10HP - Rytons Controllable LookRyt AirCore



- 5" core vent for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Draught reducing LookRyt panel easily adjusted with a push/pull or tilt action and may be painted or wallpapered for a discreet appearance.
- 7,500mm<sup>2</sup> (75cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.

## AC10HPCWL - Rytons Cowled Controllable LookRyt AirCore



- Cowled 5" core vent for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Draught reducing LookRyt panel easily adjusted with a push/pull or tilt action and may be painted or wallpapered for a discreet appearance.
- 7,300mm<sup>2</sup> (73cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.

## AC7HP - Rytons Baffled Controllable LookRyt AirCore



- Baffled 5" core vent for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Draught reducing LookRyt panel easily adjusted with a push/pull or tilt action and may be painted or wallpapered for a discreet appearance.
- 6,500mm<sup>2</sup> (65cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.

## AC7HPCWL - Rytons Cowled Baffled Controllable LookRyt AirCore



- Cowled and baffled 5" core vent for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Draught reducing LookRyt panel easily adjusted with a push/pull or tilt action and may be painted or wallpapered for a discreet appearance.
- 6,700mm<sup>2</sup> (67cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.

## ACH75HP - Rytons Internal Fit Controllable LookRyt AirCore

**Fitted from the inside**



- Baffled 5" core vent for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Draught reducing LookRyt panel easily adjusted with a push/pull or tilt action and may be painted or wallpapered for a discreet appearance.
- 6,700mm<sup>2</sup> (67cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.



# Rytons Controllable Super Acoustic LookRyt® AirCore® Range

## AAC125HP - Rytons Super Acoustic Controllable LookRyt AirCore



Acoustic

- Acoustic core vent for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Draught reducing LookRyt panel easily adjusted with a push/pull or tilt action and may be painted or wallpapered for a discreet appearance.
- Reduces sound by 43 dB (Dn,e,w) open and 50 dB (Dn,e,w) closed.
- 8,500mm<sup>2</sup> (85cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.

## AAC125HPCWL - Rytons Cowled Super Acoustic Controllable LookRyt AirCore



Acoustic

- Cowled acoustic core vent for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Draught reducing LookRyt panel easily adjusted with a push/pull or tilt action and may be painted or wallpapered for a discreet appearance.
- Reduces sound by 45 dB (Dn,e,w) open and 50 dB (Dn,e,w) closed.
- 8,400mm<sup>2</sup> (84cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.

## AAH125HP - Rytons Internal Fit Super Acoustic Controllable LookRyt AirCore

Fitted from the inside



Acoustic

- Acoustic core vent for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Draught reducing LookRyt panel easily adjusted with a push/pull or tilt action and may be painted or wallpapered for a discreet appearance.
- Reduces sound by 44 dB (Dn,e,w) open and 50 dB (Dn,e,w) closed.
- 7,700mm<sup>2</sup> (77cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.



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# Tailor-made by Rytons

## Bespoke ventilation service

- Plastic ventilators in custom colours (including RAL and NCS).
- Metal ventilators powder coated in a range of colours and finishes.
- Metal air bricks and adaptors in a range of finishes including Class 0 Flame Retardant paint.
- Specialists in bespoke ventilation for high-rise buildings over 18m high.
- Complete service from design and tooling to manufacture and supply.

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# Rytons Controllable Ventilation Sets '9x3'

## TC8H&M - Rytons 9x3 Ventilation Set with Hit & Miss Ventilator



- Ventilation set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-368mm L including air brick.
- 10,200mm<sup>2</sup> (102cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white, grey, blue/black, black, brown.

## TC8HMCWL - Rytons 9x3 Cowled Ventilation Set with Hit & Miss Ventilator



- Cowled and baffled venting set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-368mm L including air brick.
- 10,000mm<sup>2</sup> (100cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand.



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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

## TAL4H&M - Rytons 9x3 Acoustic AirLiner® Set with Hit & Miss Ventilator



Acoustic

- Acoustic ventilation set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-368mm L including air brick.
- Reduces sound by 38 dB (D<sub>n,e,w</sub>) open and 39 dB (D<sub>n,e,w</sub>) closed.
- 6,300mm<sup>2</sup> (63cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white, grey, blue/black, black, brown.

## TAL4HMCWL - Rytons 9x3 Cowled Acoustic AirLiner® Set with Hit & Miss Ventilator



Acoustic

- Cowled acoustic ventilation set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-368mm L including air brick.
- Reduces sound by 39 dB (D<sub>n,e,w</sub>) open and 40 dB (D<sub>n,e,w</sub>) closed.
- 6,300mm<sup>2</sup> (63cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand.



# Rytons Controllable Ventilation Sets '9x6'

## TC18HM - Rytons 9x6 Ventilation Set with Hit & Miss Ventilator



- Ventilation set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-404mm L including air brick.
- 19,800mm<sup>2</sup> (198cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white, grey, blue/black, black, brown.

## TC18HCWL - Rytons 9x6 Cowled Ventilation Set with Hit & Miss Ventilator



- Cowled and baffled venting set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-404mm L including air brick.
- 18,000mm<sup>2</sup> (180cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.



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Consider an acoustic option ...

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

World Health Organization

## TALH&M - Rytons 9x6 Acoustic AirLiner® Set with Hit & Miss Ventilator



Acoustic

- Acoustic ventilation set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-404mm L including air brick.
- Reduces sound by 39 dB (D<sub>n,e,w</sub>) open and 40 dB (D<sub>n,e,w</sub>) closed.
- 10,500mm<sup>2</sup> (105cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white, grey, blue/black, black, brown.

## TALHMCWL - Rytons 9x6 Cowled Acoustic AirLiner® Set with Hit & Miss Ventilator



Acoustic

- Cowled acoustic ventilation set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-404mm L including air brick.
- Reduces sound by 42 dB (D<sub>n,e,w</sub>) open or closed.
- 9,800mm<sup>2</sup> (98cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.



# Rytons Controllable Ventilation Sets '9x9'

## TC20HM - Rytons 9x9 Ventilation Set with Hit & Miss Ventilator



- Ventilation set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-404mm L including air brick.
- 30,000mm<sup>2</sup> (300cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white, grey, blue/black, black, brown.

## TC20HCWL - Rytons 9x9 Cowled Ventilation Set with Hit & Miss Ventilator



- Cowled and baffled venting set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-404mm L including air brick.
- 27,000mm<sup>2</sup> (270cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.



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Consider an acoustic option ...

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

World Health Organization

## TAL9H&M - Rytons 9x9 Acoustic AirLiner® Set with Hit & Miss Ventilator



Acoustic

- Acoustic ventilation set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-404mm L including air brick.
- Reduces sound by 38 dB (D<sub>n,e,w</sub>) open or closed.
- 12,800mm<sup>2</sup> (128cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white, grey, blue/black, black, brown.

## TAL9HMCWL - Rytons 9x9 Cowled Acoustic AirLiner® Set with Hit & Miss Ventilator



Acoustic

- Cowled acoustic ventilation set for the provision of background air into habitable rooms to disperse moisture, odours and other air pollutants.
- Internal hit & miss grille easily adjusted for controllable ventilation.
- Telescopic liner extends from 250mm-404mm L including air brick.
- Reduces sound by 40 dB (D<sub>n,e,w</sub>) open and 41 dB (D<sub>n,e,w</sub>) closed.
- 12,700mm<sup>2</sup> (127cm<sup>2</sup>) equivalent area.
- Terracotta, buff/sand, white.

# Rytons Window Trickle Ventilators

## R1700 - Rytons Window Trickle Ventilator (265mm L)



- Window frame ventilator for the provision of air into habitable rooms/wet rooms.
- Quickly and easily fitted over milled out slots in the window frame.
- Adjustable internal vent allows controllable ventilation.
- 1,700mm<sup>2</sup> (17cm<sup>2</sup>) equivalent area.
- 265mm L x 18.5mm H x 20-26mm D (overall internal).
- White, brown.

## R2700 - Rytons Window Trickle Ventilator (412mm L)



- Window frame ventilator for the provision of air into habitable rooms/wet rooms.
- Quickly and easily fitted over milled out slots in the window frame.
- Adjustable internal vent allows controllable ventilation.
- 2,700mm<sup>2</sup> (27cm<sup>2</sup>) equivalent area.
- 411mm L x 18.5mm H x 20-26mm D (overall internal).
- White, brown.

## R5000 - Rytons Window Trickle Ventilator (497mm L)



- Window frame ventilator for the provision of air into habitable rooms/wet rooms.
- Quickly and easily fitted over milled out slots in the window frame.
- Adjustable internal vent allows controllable ventilation.
- 5,000mm<sup>2</sup> (50cm<sup>2</sup>) equivalent area.
- 497mm L x 30mm H x 20-27mm D (overall internal).
- White, brown.



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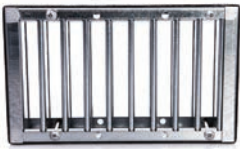
# Rytons Intumescent RytBlocks

## TL8FIRE - Rytons 9x3 Intumescent RytBlock



- Heavy duty intumescent grille for Rytons 9x3 AirLiner sets, walls, ducts and doors.
- Gives 3 hours protection preventing the passage of smoke and gases.
- In the event of a fire slats fuse together and seal within 2 minutes.
- Temperature increase insulated for 22 minutes.
- 5,330mm<sup>2</sup> (53.3cm<sup>2</sup>) free area.
- 206mm L x 58mm H x 44mm D.

## TL18FIRE - Rytons 9x6 Intumescent RytBlock



- Heavy duty intumescent grille for Rytons 9x6 AirLiner sets, walls, ducts and doors.
- Gives 3 hours protection preventing the passage of smoke and gases.
- In the event of a fire slats fuse together and seal within 2 minutes.
- Temperature increase insulated for 22 minutes.
- 13,390mm<sup>2</sup> (133.9cm<sup>2</sup>) free area.
- 206mm L x 124mm H x 44mm D.

## TL20FIRE - Rytons 9x9 Intumescent RytBlock



- Heavy duty intumescent grille for Rytons 9x9 AirLiner sets, walls, ducts and doors.
- Gives 3 hours protection preventing the passage of smoke and gases.
- In the event of a fire slats fuse together and seal within 2 minutes.
- Temperature increase insulated for 22 minutes.
- 22,520mm<sup>2</sup> (225.2cm<sup>2</sup>) free area.
- 192mm L x 207mm H x 43mm D.

## ACFIRE125 - Rytons 125mm AirCore<sup>®</sup> Intumescent RytBlock



- Heavy duty intumescent grille for Rytons 125mm AirCore sets, walls and ducts.
- Gives 3 hours protection preventing the passage of smoke and gases.
- In the event of a fire slats fuse together and seal within 2 minutes.
- Temperature increase insulated for 22 minutes.
- 5,150mm<sup>2</sup> (51.5cm<sup>2</sup>) free area.
- 118mm Dia. x 43mm D.

# Products & Services

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