

Technical Data Sheet

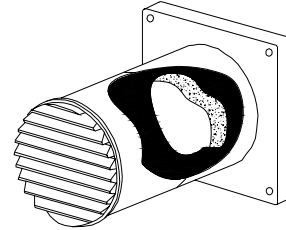
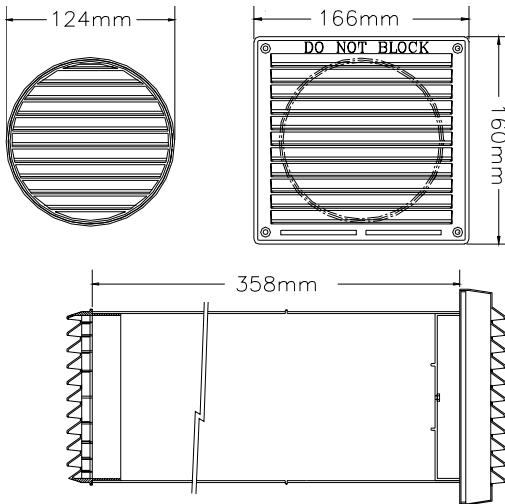
Rytons Acoustic High Rise AirCore®

(Reduces Sound)

www.vents.co.uk ACOUSTIC section

April 2005

Dimensional Drawing



U.V. stabilised internal and external grilles.

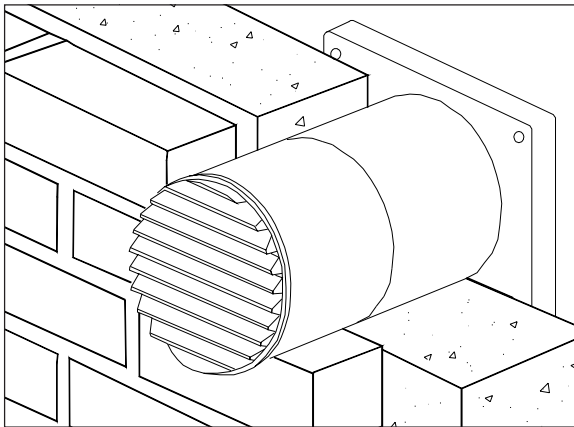


Vent has acoustic properties.

Main Uses, Features and Benefits

- Acoustic high level core ventilator.
- Soundproofed by 41dB.
- Background ventilator - meets 4000mm² regulation requirements.
- Appliance ventilator - Advantica tested Effective Free Area.
- Fitted from the inside.
- For new or refurbishment projects.
- Designed by Rytons, tested by the Building Research Establishment.

In-Situ Line Drawing



F30 Accessories/Sundry Items for Brick/Block/Stone Walling

171 VENTILATION DUCTS IN EXTERNAL WALLING



U90 General Ventilation - Domestic

310 VENTILATOR FOR HEATING APPLIANCES

340 THROUGH WALL VENTILATOR DUCT

Product Specification Code

Rytons AAH5.

Size

Tube: 127mm (5") (Dia.) x 358mm (L).

Internal Louvre: 166mm (L) x 160mm (H).

R14 AutoCAD drawing available by e-mail.

Free Area for Background Ventilation

4400mm² (44cm²) (6³/₄"²) per unit.

Effective Free Area for Heat Producing Appliances (Advantica tested)

3800mm² (38cm²) (5³/₄"²) per unit.

Suitable for an open-flued gas appliance installed in a room or internal space with a gross rated input up to 14kW (47700 Btu/h).

Composition

External Louvre: U.V. stabilised high impact polystyrene.

Tube: High impact polystyrene containing sound absorbent foam lining.

Internal Louvre: U.V. stabilised high impact polystyrene.

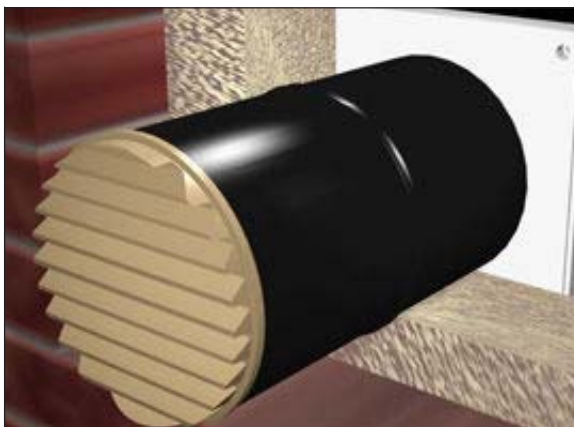
Colours

External Louvre: White, buff/sand, terracotta.

Tube: Black.

Internal Louvre: White.

In-Situ Drawing



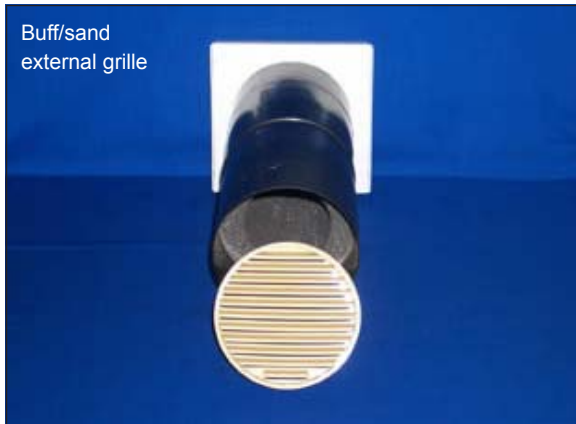
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Photo Library



Specification Paragraph

Manufacturer:

Rytons Building Products Ltd Tel: 01536 511874 Fax: 01536 310455
Email: admin@rytons.com Web: www.vents.co.uk (updated regularly)

Product ref:

- Rytons Acoustic High Rise AirCore® White (ref AAH5WH)
- Rytons Acoustic High Rise AirCore® Buff/Sand (ref AAH5BS)
- Rytons Acoustic High Rise AirCore® Terracotta (ref AAH5TC)

Type: Acoustic Core Ventilator with Internal and External Grilles

Free Area:

- 4400mm² (background ventilation)
- 3800mm² Effective (Advantica tested for heat producing appliances)

Installation

Drill a hole using a 127mm core drill. Cut tube to length if necessary. Push fit round louvre into tube and insert into hole. Push fit internal louvre to finish (screw if necessary). Consideration should be given to using Rytons '9 x 6' Cowl (ABC6) in exposed areas.

Extra Features and Benefits

Tested by Advantica using the dynamic test procedure referred to in BS 5440-2:2000 (full test results available on request).

Individually boxed sets for easy identification, handling and efficient installation. Injection moulded one piece tube makes handling easier and installation quicker. External water baffle prevents transfer of water across the cavity. Internal louvre ventilator embossed with DO NOT BLOCK.

UK Regulations, Standards and Guidelines

The Building Regulations Approved Document E

Although aimed to reduce noise transmission between internal and separating walls and floors, Rytons believe noise ingress through background ventilation should also be considered and an 'acoustic' option selected if appropriate.

For heat producing appliances refer to:

The Building Regulations Approved Document J.
The Building Standards (Scotland) Technical Standards Part F.
British Standard BS 5440-2:2000.

For decorative fuel effect gas fires refer to:

British Standard BS 5871-3:2001.

For background ventilation refer to:

The Building Regulations Approved Document F.
The Building Standards (Scotland) Technical Standards Part K2 and K4.
British Standard BS 5250:2002.

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Test Details and Results

Components Tested	D _{n,e,w} (dB)
Rytons 6x6 Square Internal Louvre, Un-silenced AirCore® Tube and Rytons 125mm Round External Louvre	31
Rytons 6x6 Square Internal Louvre, AirCore® Tube with Acoustic Lining and Rytons 125mm Round External Louvre	41

Conclusion

BRE results indicate that a significant acoustic improvement in the order of 10dB to the single figure rating can be achieved by the use of Rytons purpose designed 'acoustic' AirCore® tube.

Regulations

Measurement of sound insulation made by BRE in accordance with BS EN20140-Part 10: (1992) 'Laboratory measurement of airborne sound insulation of small building elements'. Single figure ratings calculated in accordance with BS EN ISO 717 Part 1 (1997) 'Rating of sound insulation in buildings and of building elements'.

Questions

Is a copy of the BRE test report available?

Yes, ask Rytons sales office for a copy of test report 208491.

What is the difference between Free Area and Effective Free Area?

Free Area is Rytons calculation of air space achieved by measuring the minimum unobstructed gaps in a vent through which air can pass.

Effective Free Area is a calculated reading of how much air passes through a vent using the Advantica test procedure and should be referred to when calculating ventilation for a heat producing appliance.

What can I use to extend the AirCore®?

Rytons AirCore® Tube (see data sheet dsaircorebits).

How high should a background ventilator be fitted?

The Building Regulations Approved Document F states typically 1.7m above floor level to avoid discomfort due to cold draughts.

Will installing more than one vent to achieve a greater free area have an effect on the acoustic performance?

Yes, by installing two vents anywhere in a room the combined performance of both vents would be reduced by 3dB. Installing four vents would give a reduction of 6dB.