

Rytons Building Products Ltd

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Agrément Certificate
11/4866
Product Sheet 1

RYTONS VENTILATORS

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This Agrément Certificate Product Sheet⁽¹⁾ relates to Rytons Ventilators, comprising Slim Vents, Retro Weep Vent and Airbricks (for use as ventilation ducts for wall cavities and subfloor voids), Rytons Rytweep⁽²⁾ (for forming weep holes), and Rytons Hit and Miss Background Ventilators, Louvre Ventilators and Airbricks (used to provide background ventilation for occupants of a room).

(1) Hereinafter referred to as 'Certificate'.

(2) Rytons Rytweep is a registered trademark.

CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.



KEY FACTORS ASSESSED

Ventilation — the products can provide ventilation to individual rooms, wall cavities and sub-floor voids (see section 6).

Condensation — certain products will contribute to limiting the risk of condensation (see section 7).

Durability — the products will remain effective for the life of the wall/door into which they are built (see section 11).

The BBA has awarded this Certificate to the company named above for the products described herein. These products have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Second issue: 18 November 2016

John Albon — Head of Approvals
Construction Products

Claire Curtis-Thomas
Chief Executive

Originally certificated on 17 October 1989

The BBA is a UKAS accredited certification body — Number 113. The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk

Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

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Regulations

In the opinion of the BBA, Rytons Ventilators, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



The Building Regulations 2010 (England and Wales) (as amended)

Requirement:	C2(c)	Resistance to moisture
Comment:		Certain products can contribute to satisfying this Requirement. See section 7 of this Certificate.
Requirement:	F1(1)	Means of Ventilation
Comment:		Certain products can contribute to satisfying this Requirement. See section 6 of this Certificate.
Regulation:	7	Materials and workmanship
Comment:		The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)	Durability, workmanship and fitness of materials
Comment:		The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	3.14	Ventilation
Comment:		Certain products can contribute to satisfying this Standard, with reference to clauses 3.14.3 ⁽¹⁾ , 3.14.6 ⁽¹⁾ , 3.14.2 ⁽²⁾ and 3.14.3 ⁽²⁾ . See section 6 of this Certificate.
Standard:	3.15	Condensation
Comment:		Certain products can contribute to satisfying this Standard, with reference to clauses 3.15.1 ⁽¹⁾⁽²⁾ and 3.15.5 ⁽¹⁾⁽²⁾ . See section 7 of this Certificate. (1) Technical Handbook (Domestic). (2) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation:	23	Fitness of materials and workmanship
Comment:		The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
Regulation:	29	Condensation
Comment:		Certain products can contribute to satisfying this Regulation. See section 7 of this Certificate.
Regulation:	65	Means of ventilation
Comment:		Certain products can contribute to satisfying this Regulation. See section 6 of this Certificate.

Construction (Design and Management) Regulations 2015

Construction (Design and Management) Regulations (Northern Ireland) 2016

In the opinion of the BBA there is no information in this Certificate which relates to the obligations of the client, designer (including Principal Designer) and contractor (including Principal Contractor) under these Regulations.

Additional Information

NHBC Standards 2016

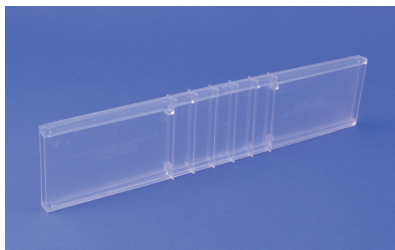
NHBC accepts the use of Rytons Ventilators⁽¹⁾, provided they are installed, used and maintained in accordance with this Certificate, in relation to *NHBC Standards*, Chapters 5.2 *Suspended ground floors*, 6.1 *External masonry walls* and 6.2 *External timber framed walls*.

(1) In the opinion of the BBA, the use of Rytons Hit and Miss Background Ventilators in relation to this Certificate is not subject to the requirements of these Standards.

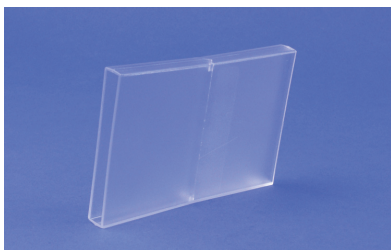
Technical Specification

1 Description

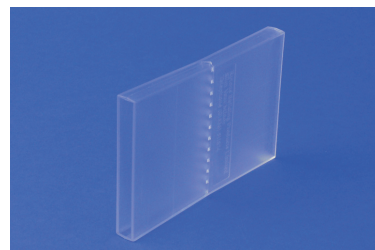
1.1 Rytons Ventilators are manufactured from thermoplastic materials, to the nominal dimensions given in Table 1 (see also Figure 1).



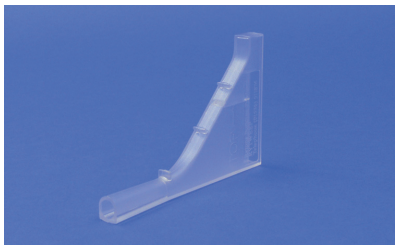
SVMAJ



SVMIN



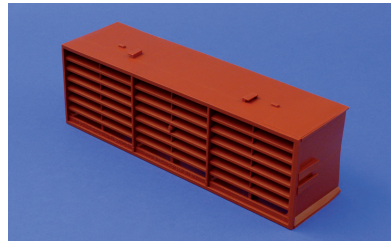
SVFMIN



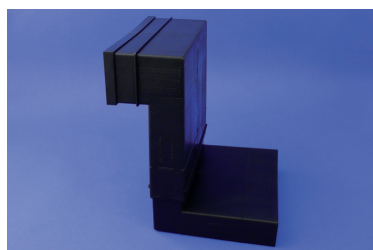
RYTWEEP



RTV250CL



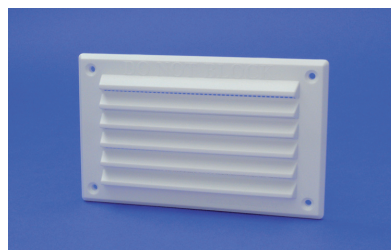
MFAB



PUFV



LV47



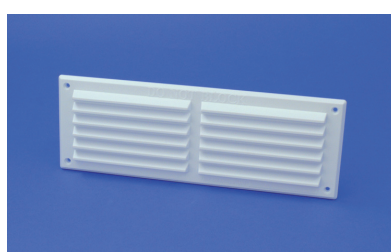
LV25F



LV103



LV74F



LV88



LV68F



LV177



LV137F



LV265



LV205F



CV60FWBG

Figure 1 Product details (continued)

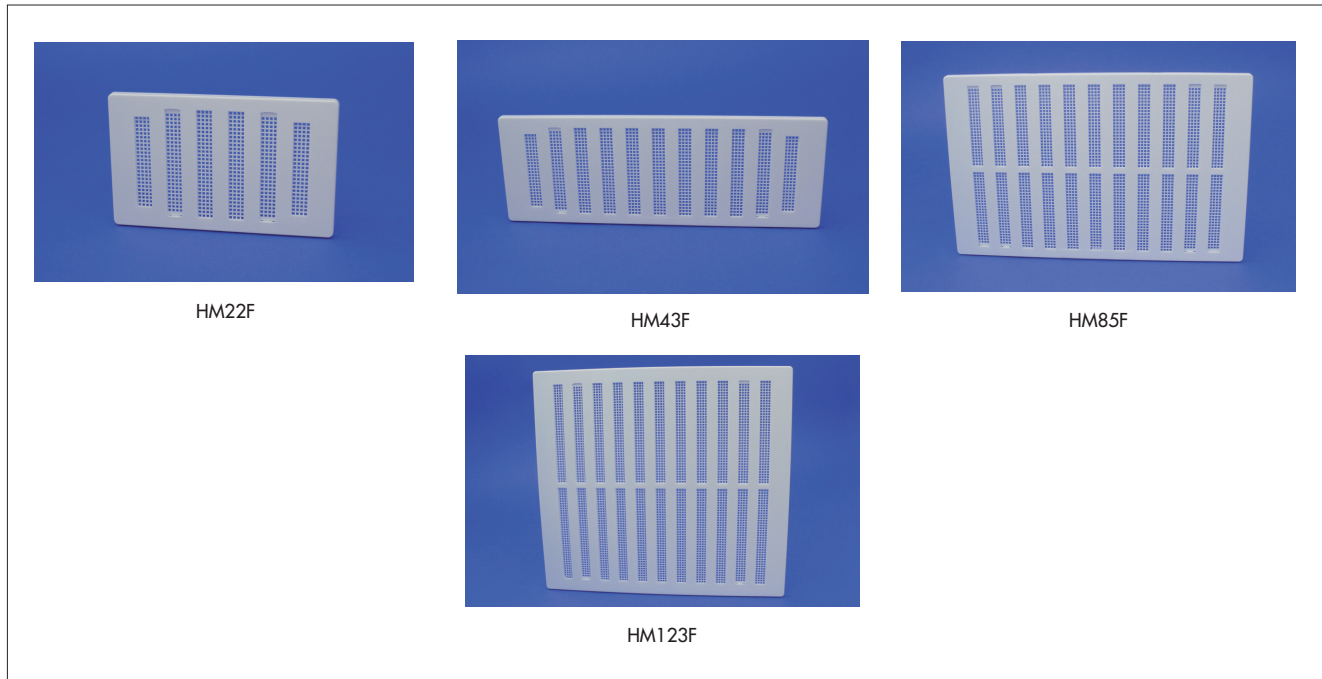


Table 1 Product range and nominal dimensions (see Figure 1)

Item	Length (mm)	Height (mm)	Width (mm)	Colour
Rytons Slim Vent ⁽¹⁾ Major (SVMAJ)	304	66	10	clear
Rytons Slim Vent Minor (SVMIN)	102	66	10	clear
Rytons Flyscreened Slim Vent Minor (SVFMIN)	103	66	10	grey, white, buff/sand, terracotta, black, clear
Rytons Rytweep ⁽¹⁾ (RYTWEEP)	101	66	10	buff/sand, terracotta, clear
Rytons Retro Weep Vent (RTV250CL)	80 ⁽²⁾	26 ⁽²⁾ diameter		clear
Rytons Multifix ⁽¹⁾ Air Brick (MFAB)	215	66	58	grey, white, buff/sand, terracotta, black, dark brown, blue/black
Rytons Periscope ⁽¹⁾ Underfloor Ventilator (PUFV)	250 ⁽³⁾	up to 368	218	black
Rytons Louvre Ventilator 6 x 3 (LV47) with Flyscreen (LV25F)	11	94	155	white, buff/sand, terracotta (white flyscreen)
Rytons Louvre Ventilator 6 x 6 (LV103) with Flyscreen (LV74F)	20	160	166	white, buff/sand, terracotta, black, brown (white flyscreen)
Rytons Louvre Ventilator 9 x 3 (LV88) with Flyscreen (LV68F)	12	95	271	white, brown (white flyscreen)
Rytons Louvre Ventilator 9 x 6 (LV177) with Flyscreen (LV137F)	12	171	271	white, brown (white flyscreen)
Rytons Louvre Ventilator 9 x 9 (LV265) with Flyscreen (LV205F)	12	247	271	white, brown (white flyscreen)
Rytons RytAround Ventilator (CV60FWBG)	13.5	156 (overall external diameter)		white (white flyscreen)
Rytons Hit and Miss Ventilator 6 x 3 (HM22F)	5.5	95	155	white (white flyscreen)
Rytons Hit and Miss Ventilator 9 x 3 (HM43F)	5.5	95	271	white (white flyscreen)
Rytons Hit and Miss Ventilator 9 x 6 (HM85F)	5	171	271	white (white flyscreen)
Rytons Hit and Miss Ventilator 9 x 9 (HM123F)	5	247	271	white (white flyscreen)

(1) Rytons Slim Vent, Rytweep, Multifix and Periscope are registered trademarks of Rytons Building Products Ltd.

(2) Excluding flange.

(3) Including Rytons Multifix Air Brick (MFAB) fitted.

1.2 Other components, which may be used with a Hit and Miss Ventilator to form a complete ventilator assembly system, but which are outside the scope of this Certificate, are as follows:

- Rytons AirLiners
- Rytons AirCores.

1.3 When the Hit and Miss Background Ventilators are combined with the products listed in section 1.2 of this Certificate, they may be used to provide ventilation to a ventilated space, as referred to in the national Building Regulations.

2 Manufacture

2.1 The components are manufactured from suitable grades of thermoplastic materials using injection moulds, high pressure aluminium dies and general machining.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

3 Delivery and site handling

3.1 The products are delivered in cardboard boxes bearing labels incorporating details of the contents.

3.2 The products should be stored in clean, dry surroundings out of direct sunlight until ready for use, and protected from mechanical damage.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Rytons Ventilators.

Design Considerations

4 Use

4.1 Slim Vent Minor (SVMIN), Flyscreened Slim Vent Minor (SVFMIN), Multifix Air Brick (MFAB) and Retro Weep Vent (RTV250CL) are suitable for use as ventilating ducts in cavity walls.

4.2 Rytweep (RYTWEEP), Slim Vent Minor (SVMIN), Flyscreened Slim Vent Minor (SVFMIN), Slim Vent Major (SVMAJ) and Retro Weep Vent (RTV250CL) are suitable for forming weep holes.

4.3 Rytons Slim Vent Major (SVMAJ) and Multifix Air Brick (MFAB), in conjunction with Rytons Periscope Underfloor Ventilator (PUFV), is suitable for use as ventilating ducts for sub-floor voids and, where appropriate, as per the relevant criteria in *NHBC Standards 2016*, Chapter 5.2. Rytons Periscope Underfloor Ventilator (PUFV) can be vertically adjusted through two to five brick courses (can also be cut to suit one brick course).

4.4 Externally-mounted Louvre Ventilators and Multifix Air Bricks are suitable for use in conjunction with Rytons AirLiners and internally-mounted Louvre Ventilators. They can be installed in brick and blockwork during construction. Cavity trays should be incorporated in building construction, as with conventional good building practice.

4.5 Louvre Ventilators are also suitable for use in internal walls or doors of small spaces, for example cupboards.

4.6 Hit and Miss Background Ventilators, when installed with other parts, are used to provide background ventilation for occupants of a room.

4.7 To avoid discomfort from cold draughts, ventilators should be sited not less than 1.75 m above floor level.

4.8 The ventilators should also be sited to minimise the risk of wind-driven rain or snow entering the building.

5 Practicability of installation

The products are designed to be installed by a competent general builder, or a contractor, experienced with these types of products.

6 Ventilation

Background ventilation



6.1 The requirements for the equivalent free area for a particular situation in a building are defined in the documents supporting the national Building Regulations.



6.2 The free areas of the Hit and Miss Background Ventilators are given in Table 2.

Table 2 Free areas⁽¹⁾ of background ventilator components

Vent	Free area (mm ²)
Hit and Miss Ventilator 6 x 3 (HM22F)	2180
Hit and Miss Ventilator 9 x 3 (HM43F)	4400
Hit and Miss Ventilator 9 x 6 (HM85F)	8600
Hit and Miss Ventilator 9 x 9 (HM123F)	13000

(1) Where two or more components are to be used to provide an assembly, the assembly should be taken to have a free area equal to that of the component with the smallest free area in the assembly.

6.3 The free areas of the vents are given in Table 3.

Table 3 Free areas of the vents

Item/Code	Free area (mm ²)
Slim Vent Minor (SVMIN)	330 ⁽¹⁾
Flyscreened Slim Vent Minor (SVFMIN)	220 ⁽¹⁾
Slim Vent Major (SVMAJ)	330 ⁽¹⁾
Multifix Air Brick (MFAB)	7750 ⁽¹⁾
Retro Weep Vent (RTV250CL)	250 ⁽¹⁾
Louvre Ventilator 6 x 3 (LV47)	4750
Louvre Ventilator 6 x 3 with Flyscreen (LV25F)	2570
Louvre Ventilator 6 x 6 (LV103)	10360
Louvre Ventilator 6 x 6 with Flyscreen (LV74F)	6420
Louvre Ventilator 9 x 3 (LV88)	8800
Louvre Ventilator 9 x 3 with Flyscreen (LV68F)	6600
Louvre Ventilator 9 x 6 (LV177)	17760
Louvre Ventilator 9 x 6 with Flyscreen (LV137F)	13300
Louvre Ventilator 9 x 9 (LV265)	26500
Louvre Ventilator 9 x 9 with Flyscreen (LV205F)	20000

(1) Of inlet.

Application rate



6.4 For the ventilation of wall cavities, Slim Vent Minor (SVMIN), Flyscreened Slim Vent Minor (SVFMIN) and Retro Weep Vent (RTV250CL), when evenly spaced at the top and the bottom of the cavity, will assist in drying-out of the walls. The lower ventilators should be placed below the damp-proof course (dpc), unless cavity trays are used, when they should be positioned above the tray.

6.5 Rytweep (RYTWEAP), Slim Vent Minor (SVMIN), Flyscreened Slim Vent Minor (SVFMIN), Slim Vent Major (SVMAJ) and Retro Weep Vent (RTV250CL), when evenly spaced, can be used for draining cavities above and below the dpc, and above lintels and cavity trays. At least two weep holes should be provided over an opening, such as a lintel.

6.6 Where a cavity wall incorporates insulation, Rytons Slim Vent Major (SVMAJ) or Rytons Multifix Air Brick (MFAB) in conjunction with Rytons Periscope Underfloor Ventilator (PUFV) can be used to span the cavity and provide an airflow across the cavity, without breaking the cavity seal.

6.7 When siting vents above and below horizontal fire stops, the vents should be vertically staggered.

6.8 Ventilators should be located so as to comply with the requirements of the documents supporting the national Building Regulations:

England and Wales — Approved Document F, Tables 5.2a, 5.2b and 5.2c

Scotland — Mandatory Standard 3.14, clauses 3.14.1⁽¹⁾⁽²⁾, 3.14.3⁽²⁾ and 3.14.5⁽¹⁾⁽²⁾

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

Northern Ireland — Technical Booklet K, clauses 2.23 and 2.25.

6.9 Buildings must include appropriate provision for rapid and whole building ventilation.

7 Condensation



Certain products can reduce the risk of condensation and contribute to satisfying the requirements of the national Building Regulations.

8 Weathertightness

Certain products have adequate resistance to water ingress.

9 Properties in relation to fire

Ventilation grilles mounted on an internal wall are of limited area and need not be taken into account when considering the classification of the lining's resistance to fire spread.

10 Maintenance

The units do not require maintenance, and should not be painted.

11 Durability



11.1 The products will remain effective for the life of the building in which they are incorporated.

11.2 There may be some colour change over time, which will be consistent over any one elevation of the building.

Installation

12 General

12.1 Rytons Ventilators do not require any special fixings. They are incorporated in the brickwork or blockwork during the normal course of laying.

12.2 The procedure for installation of the Retro Weep Vent is as follows:

- a 25 mm diameter hole is drilled through the external leaf at a slightly upward angle
- front louvres are positioned horizontally, using the top marker on the flange as a guide
- the vent is firmly pushed into the pre-drilled hole, ensuring the front louvres are kept horizontal, until the external flange sits tight and flush with the wall (it may be tapped lightly into position using a rubber mallet).

12.3 The procedure for installation of the Louvre Ventilators is as follows:

- the front face of the product is aligned with the brickwork, wall or door surface
- a suitable opening is created to accommodate the ventilator
- the ventilator is secured with screws.

12.4 The procedure for installation of the Background Ventilators is as follows:

- the flyscreen is removed from the front cover
- the flyscreen is positioned and fixed to a suitable product (outside the scope of this Certificate)
- the front cover is then positioned over the flyscreen and clicked into position.

12.5 If necessary, certain products can be cut easily with a fine-tooth saw, but when doing so, care must be taken not to reduce the ventilation area.

Technical Investigations

13 Tests

Tests were carried out to determine:

- ash content
- density
- stress relief
- Vicat softening point
- impact
- effect of UV and heat ageing
- risk of blockage
- minimum geometric area.

14 Investigations

14.1 The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of materials used.

14.2 An assessment was made of the data on which the previous Certificate was based. This included an assessment of the practicability of installation and reports of visits to sites to assess performance in use. The conclusions drawn remain valid.

Conditions of Certification

15 Conditions

15.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page — no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

15.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

15.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

15.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

15.5 In issuing this Certificate, the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

15.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.