

Appendix A

Design Summary

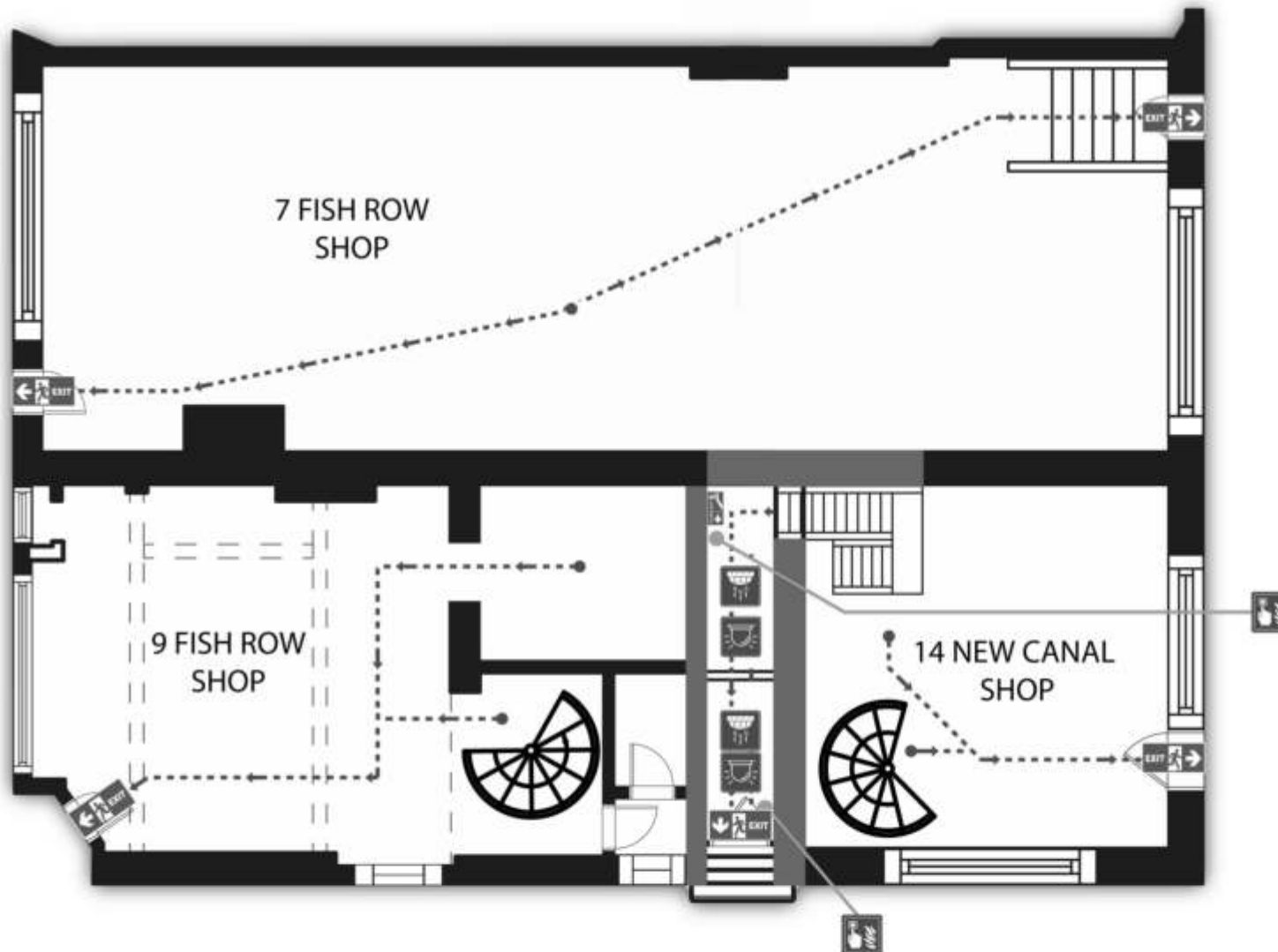
Background ventilation conducts

Extractors conducts

Purge conducts

GROUND FLOOR

7,9,11 Fish Row and 14 New Canal, Salisbury



Date of issue: October 2025

EMERGENCY PROCEDURE

- R** Rescue and relocate anyone in immediate danger
- A** Alert others by activating the building fire alarm
- C** Confine the emergency by closing the doors
- E** Evacuate immediately

In case of fire or emergency, proceed to the nearest exit and gather at the assembly area



ASSEMBLY AREA

The assembly area is located on the Guildhall Square in front of the Guildhall entrance.



IN AN EMERGENCY DIAL

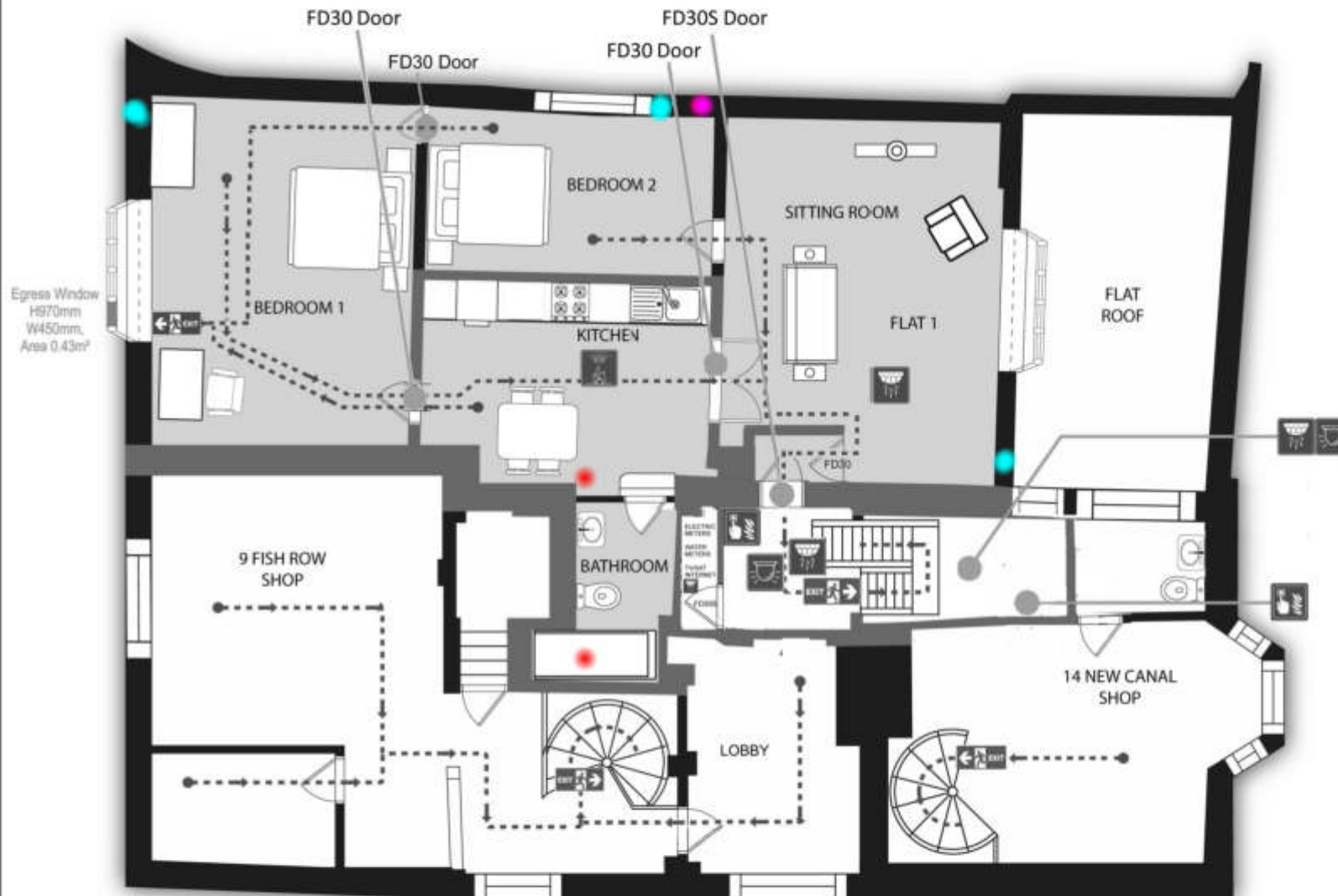
999 | Ambulance
Police
Fire

MAP KEY

Assembly Point	Primary Exit
Emergency Light	Secondary Exit
Smoke Alarm	Primary Exit Path
Heat Alarm	Secondary Exit Path
Fire Alarm Call Point	30 min (minimum) Fire rated partition
	30 min fire resistance on the ceiling below

FIRST FLOOR

7,9,11 Fish Row and 14 New Canal, Salisbury



Date of issue: October 2025

EMERGENCY PROCEDURE

- R** Rescue and relocate anyone in immediate danger
- A** Alert others by activating the building fire alarm
- C** Confine the emergency by closing the doors
- E** Evacuate immediately

In case of fire or emergency, proceed to the nearest exit and gather at the assembly area



ASSEMBLY AREA

The assembly area is located on the Guildhall Square in front of the Guildhall entrance.



IN AN EMERGENCY DIAL

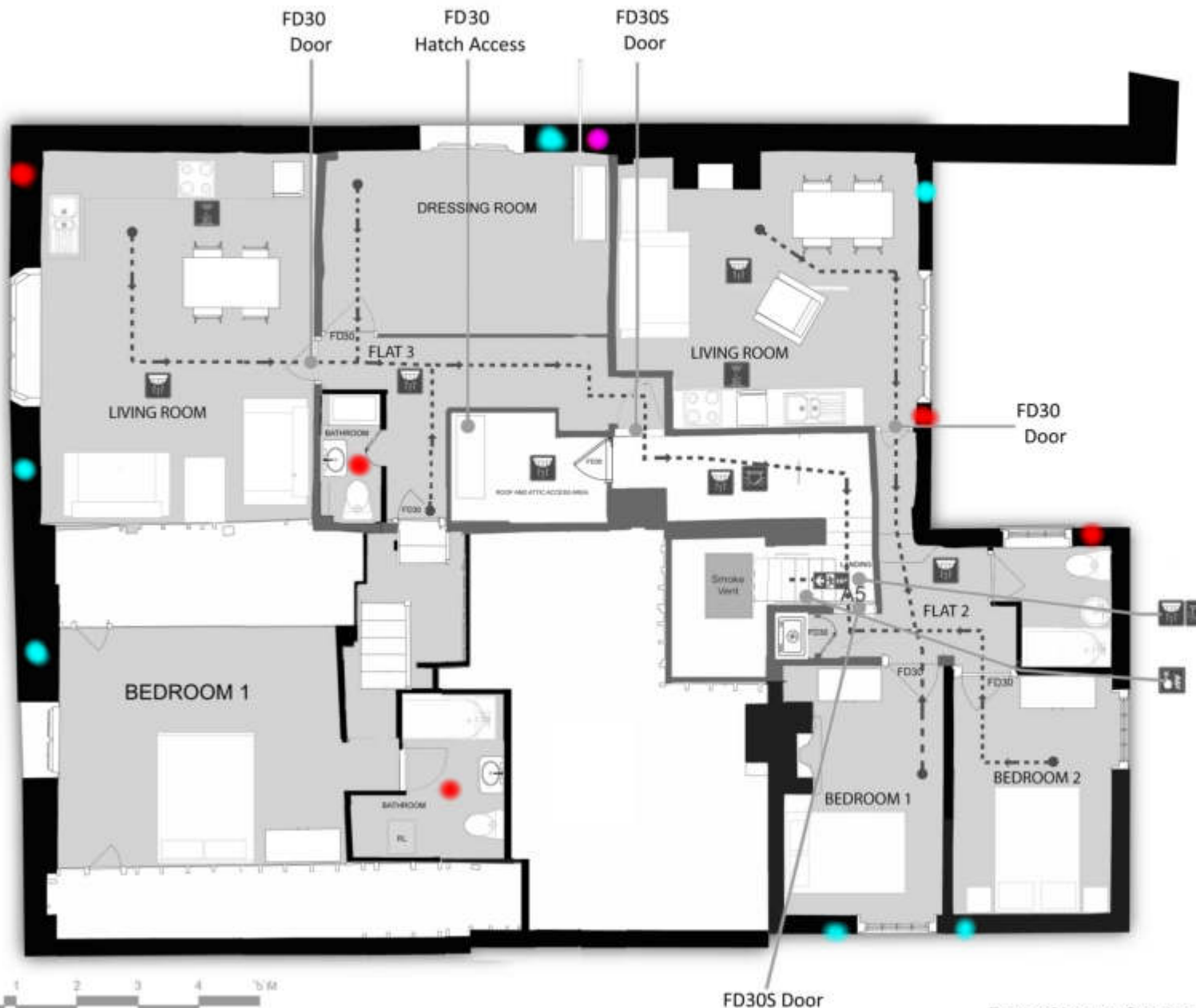
999 | Ambulance
Police
Fire

MAP KEY

	Assembly Point		Primary Exit
	Emergency Light		Secondary Exit
	Smoke Alarm		Primary Exit Path
	Heat Alarm		Secondary Exit Path
	Fire Alarm Call Point		30 min (minimum) Fire rated partition
			30 min fire resistance on the ceiling below

SECOND FLOOR

7,9,11 Fish Row and 14 New Canal, Salisbury



EMERGENCY PROCEDURE

- R** Rescue and relocate anyone in immediate danger
- A** Alert others by activating the building fire alarm
- C** Confine the emergency by closing the doors
- E** Evacuate immediately

In case of fire or emergency, proceed to the nearest exit and gather at the assembly area



ASSEMBLY AREA

The assembly area is located on the Guildhall Square in front of the Guildhall entrance.



IN AN EMERGENCY DIAL

999 Ambulance
Police
Fire

MAP KEY

Assembly Point	Primary Exit
Emergency Light	Secondary Exit
Smoke Alarm	Primary Exit Path
Heat Alarm	Secondary Exit Path
Fire Alarm Call Point	30 min (minimum) Fire rated partition
	30 min fire resistance on the ceiling below

Date of issue: October 2025

AAC125HP – Rytons Super Acoustic Controllable LookRyt® AirCore®



NBS Source
PARTNER



43 dB open / 50 dB closed (Dn,e,w)

8,500mm² (85cm²) Equivalent Area

Categories: [Acoustic AirCore and AirLiner Sets](#), [Background Ventilators](#)

- General Details
- NBS Specification
- BRE Test Report
- Fitting Instructions
- Quote Request
- Related Products

Features and Benefits

- Retro-fitted core ventilator for background room ventilation.
- Allows the introduction of fresh outside air into the room to disperse moisture, odours and other airborne pollutants.
- Use in noisy areas to reduce the amount of noise entering the building for a more peaceful environment.
- Unique draught reducing panel manually adjusted with an easy push/pull or tilt action allowing air to be controlled as required.
- Paint or wallpaper the panel to match room décor for a discreet appearance.

- External water baffle prevents the transfer of water across the cavity.
- External grille U.V. stabilised to slow down the effects of sunlight.
- Position at a high level (typically 1.7m above floor level) for all dwelling types and storey heights.
- Patent Approved GB2523676.
- Registered Design 4018848.
- Please note: This item is a plastic component and therefore is not suitable for use within a) the external walls of buildings more than 11m high where people sleep on the premises (residential, institutional or hospitality) or b) external wall surfaces within 1m of the boundary if the building is 11m high or less, in England. Contact our technical sales office on 01536 511874 about a compliant alternative using Rytons A1 Fire-rated Bespoke Metal Service.

Sound Reduction & Equivalent Area:

- Sound reduced by 43 dB with internal grille fully open and 50 dB when closed ($D_{n,e,w}$) (tested by BRE Acoustics).
- 8,500mm² (85cm²) equivalent area (tested to BS EN 13141-1:2004 and independently verified by the BRE).

Size:

- External grille: 166mm L x 160mm H.
- Tube: 127mm (5") Dia. x 358mm L.
- LookRyt® panel: 172mm L x 172mm H.

Colours:

- Terracotta external: AAC125HPTC.
- Buff/Sand external: AAC125HPBS.
- White external: AAC125HPWH.
- LookRyt® panel: Magnolia (may be painted or wallpapered to match décor).
- Bespoke colour matching service available. Call our sales office on 01536 511874 or email admin@rytons.com for details and pricing.

Composition:

- External grille: U.V. stabilised high impact polystyrene.
- Tube: High impact polystyrene containing sound absorbent foam lining.
- Tube contains recycled plastic.
- Tube softening point: 70°C (unlined).
- Tube melting point: 120°C (unlined).
- Foam flammability testing: UL94 HF-1.
- Foam burn rate testing: FMVSS302, 4 inches min-1 (max).
- LookRyt® panel: High impact styrene.
- LookRyt® panel melting point: 160-180°C (unlined).

Reference Material:

- **England: view extracts>>**
- Approved Document F: Means of Ventilation in Dwellings (2010 edition incorporating 2013 amendments).

- Approved Document F: Means of Ventilation in Dwellings (2021 edition). Note: The 2021 update takes effect on 15 June 2022. It does not apply to work subject to a building notice, full plans application or initial notice submitted before that date, provided the work for each building is started before 15 June 2023.
- **Wales: [view extracts>>](#)**
- Approved Document F: Means of Ventilation in Dwellings (2010 edition incorporating 2013 amendments).
- Approved Document F: Means of Ventilation in Dwellings (2022 edition). Note: The 2022 update takes effect on 23 November 2022. It does not apply to work subject to a building notice, full plans application or initial notice submitted before that date, provided the work for each building is started before 23 November 2023.
- **Scotland: [view extracts>>](#)**
- Building Standards Scotland Technical Handbook – Domestic: Mandatory Standard 3.14 Ventilation.
- **Northern Ireland: [view extracts>>](#)**
- Building Regulations (Northern Ireland) Technical Booklet K, Ventilation.
- **Republic of Ireland: [view extracts>>](#)**
- NSAI SR54: Code of practice for the energy efficient retrofit of dwellings.
- Building Regulations 2019, Technical Guidance Document F: Ventilation.
- Measurement of airborne sound insulation was made in accordance with BS EN 20140-10: 1992.
- Single number quantities were calculated in accordance with BS EN ISO 717-1:1997.
- Equivalent area tested to BS EN 13141-1:2004 and independently verified by the BRE.

Handling Information:

- Box quantity: 1 set.
- Box size: 44cm W x 19cm H x 22.5cm D.
- Box weight: 0.756kg.

Questions & Answers:

- **Will the vent reduce sound from inside to outside as well as from outside to inside?** The BRE has advised us that it's reasonable to assume that 'reciprocity' applies to the vents. That is, the third octave values for sound reduction index are the same in both directions (out to in and in to out).



Laboratory measurement of airborne sound insulation of small building elements
Element-normalized level difference according to BS EN 20140-10:1992
BRE horizontal transmission suite (B9)

Client: Rytons Building Products Ltd

Test date: 12/02/2013

Test number: L112-079

Test element: vent

0578

Filler wall area: 9.8 m²

Description:

AAC125HP-OPEN- Super Acoustic Controllable LookRyt® AirCore®

Source room volume: 130 m³

Air temperature: 9 °C

Receive room volume: 115 m³

Air relative humidity: 55 %

Frequency (Hz)	Reverberation time (s)	Background level (dB)	Source level (dB)	Receive level (dB)	$D_{n,e}$ (dB)
50	1.68	23.1	92.6	58.9	24.6
63	1.51	20.1	98.0	72.8	25.6
80	1.28	17.7	96.8	64.9	31.4
100	1.56	19.4	98.0	58.6	39.9
125	1.72	16.6	98.6	56.4	43.2
160	1.72	16.8	96.7	52.3	45.4
200	1.80	12.1	98.2	57.0	41.6
250	1.58	14.6	95.9	60.2	35.0
315	1.66	11.0	93.7	57.7	35.5
400	1.60	11.8	92.4	54.3	37.5
500	1.57	15.7	93.5	56.3	36.4
630	1.51	14.7	95.1	55.6	38.9
800	1.59	12.1	95.4	55.4	39.4
1,000	1.56	9.3	94.9	49.0	45.1
1,250	1.62	11.3	95.4	40.4	54.4
1,600	1.59	12.8	95.7	35.3	59.8
2,000	1.57	10.3	93.3	37.9	54.7
2,500	1.51	8.7	93.7	35.9	56.9
3,150	1.38	7.5	94.6	32.4	60.9
4,000	1.25	7.9	99.6	30.7	67.2
5,000	1.13	7.4	100.0	27.9	69.9

x Adjusted for flanking transmission

a Correction = 13 dB

Rating according to BS EN ISO 717-1:1997					
$D_{n,w}(C;C_{tr}) = 43 (0;-2) \text{ dB}$	$C_{50-500} = 0 \text{ dB}$	$C_{50-5000} = 1 \text{ dB}$	$C_{100-5000} = 1 \text{ dB}$	$C_{100-5000} = 1 \text{ dB}$	$C_{100-5000} = 1 \text{ dB}$
	$C_{tr,50-5000} = -$	$C_{tr,50-5000} = -$	$C_{tr,100-5000} = -2 \text{ dB}$	$C_{tr,100-5000} = -2 \text{ dB}$	$C_{tr,100-5000} = -2 \text{ dB}$
Evaluation based on laboratory measurement results obtained by an engineering method					
Based on the data provided in BS EN 20140-2:1993 it is estimated that the measurement uncertainty should not exceed $\pm 1 \text{ dB}$ for the single quantity ($D_{n,w}$) and should not exceed the values in Table A1 of BS EN 20140-2:1993 for the data in the individual third octaves ($D_{n,w}$)					

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Laboratory measurement of airborne sound insulation of small building elements
Element-normalized level difference according to BS EN 20140-10:1992
BRE horizontal transmission suite (B9)

Client: Ryttons Building Products Ltd

Test date: 12/02/2013

Test number: L112-079

Test element: vent

Q578

Filler wall area: 9.8 m²

Description:

AAC125HP-OPEN- Super Acoustic Controllable LookRyt® AirCore®

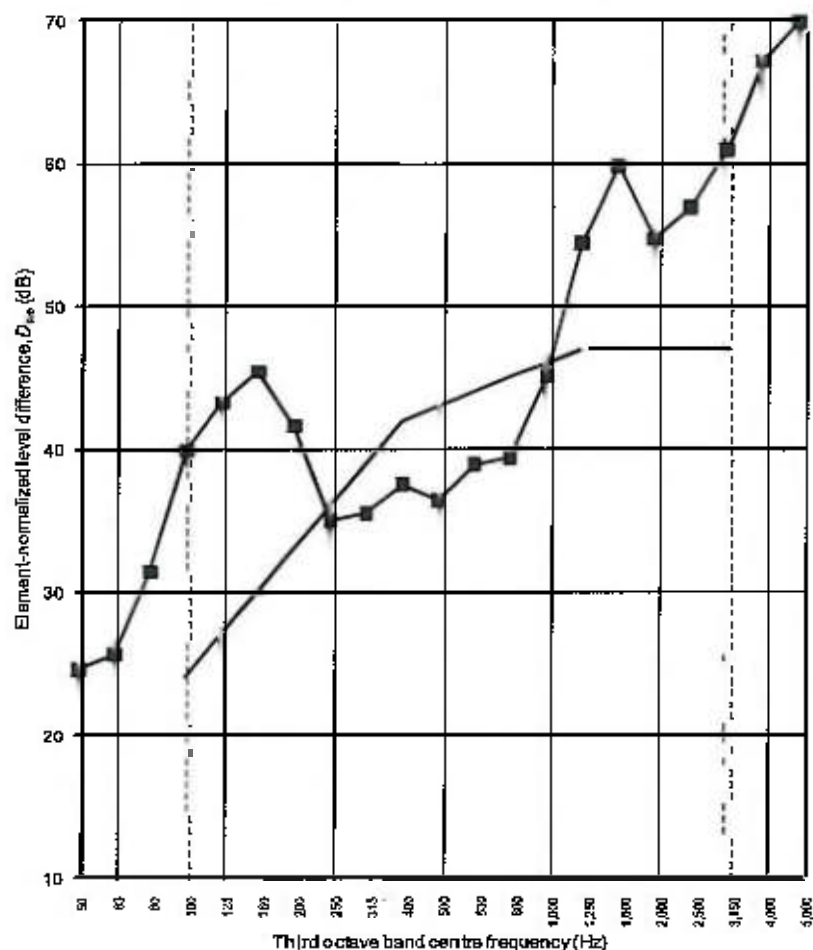
Source room volume: 130 m³

Air temperature: 9 °C

Receive room volume: 115 m³

Air relative humidity: 55 %

Frequency (Hz)	$D_{n,e}$ One-third octave (dB)
50	24.6
63	25.6
80	31.4
100	39.9
125	43.2
160	45.4
200	41.6
250	35.0
315	35.5
400	37.5
500	36.4
630	38.9
800	39.4
1,000	45.1
1,250	54.4
1,600	59.8
2,000	54.7
2,500	56.9
3,150	60.9
4,000	67.2
5,000	69.9



x Adjusted for flanking transmission

a Correction = 12 dB

Rating according to BS EN ISO 717-1:1997

$D_{n,e,w}(C;C_{tr}) = 43 (0;-2)$ dB

$C_{50-3150} = 0$ dB

$C_{500-3150} = 1$ dB

$C_{100-5000} = 1$ dB

$C_{10-50-3150} = -$

$C_{10-50-5000} = -$

$C_{10-100-5000} = -2$ dB

Evaluation based on laboratory measurement results obtained by an engineering method

Based on the data provided in BS EN 20140-2:1993 it is estimated that the measurement uncertainty should not exceed ± 1 dB for the single quantity ($D_{n,e,w}$) and should not exceed the values in Table A1 of BS EN 20140-2:1993 for the data in the individual third octaves ($D_{n,e,w}$)

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Laboratory measurement of airborne sound insulation of small building elements
Element-normalized level difference according to BS EN 20140-10:1992
BRE horizontal transmission suite (B9)

Client: Rytens Building Products Ltd

Test date: 12/02/2013

Test number: L112-080

Test element: vent

0578

Filter wall area: 9.8 m²

Description:

AAC125HP-CLOSED- Super Acoustic Controllable LookRyt® AirCore®

Source room volume: 130 m³

Air temperature: 9 °C

Receive room volume: 115 m³

Air relative humidity: 55 %

Frequency (Hz)	Reverberation time (s)	Background level (dB)	Source level (dB)	Receive level (dB)	$D_{n,e}$ (dB)
50	1.68	23.1	93.1	69.0	25.0
63	1.51	20.1	98.2	73.0	25.7
80	1.28	17.7	96.7	64.9	31.6
100	1.56	19.4	97.5	58.4	39.7
125	1.72	16.6	98.4	56.6	42.8
160	1.72	16.8	96.5	52.1	45.4
200	1.80	12.1	98.2	56.5	42.2
250	1.58	14.6	96.0	57.9	37.5
315	1.66	11.0	93.8	51.4	42.0
400	1.60	11.8	92.6	49.8	42.2
500	1.57	15.7	93.6	50.3	42.6
630	1.61	14.7	95.2	46.7	48.0
800	1.59	12.1	95.5	46.5	48.3
1,000	1.56	9.3	94.9	39.0	55.2
1,250	1.62	11.3	95.4	31.4	63.5
1,600	1.59	12.8	95.7	31.4	63.7
2,000	1.57	10.3	93.4	33.8	58.9
2,500	1.51	8.7	93.7	33.4	59.4
3,150	1.38	7.5	94.6	31.1	62.3
4,000	1.25	7.9	99.6	29.7	68.2
5,000	1.13	7.4	99.9	26.5	71.3

x Adjusted for flanking transmission

o Correction = 13 dB

Rating according to BS EN ISO 717-1:1997

$D_{n,e,w}(C;C_T) = 50 (-1;-3) \text{ dB}$

$C_{50-5150} = -1 \text{ dB}$

$C_{50-5000} = 0 \text{ dB}$

$C_{100-5000} = 0 \text{ dB}$

$C_{1250-3150} = -$

$C_{1250-5000} = -$

$C_{1250-5000} = -3 \text{ dB}$

Evaluation based on laboratory measurement results obtained by an engineering method

Based on the data provided in BS EN 20140-2:1993 it is estimated that the measurement uncertainty should not exceed $\pm 1 \text{ dB}$ for the single quantity ($D_{n,e,w}$) and should not exceed the values in Table A1 of BS EN 20140-2:1993 for the data in the individual third octaves ($D_{n,e,w}$)

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Laboratory measurement of airborne sound insulation of small building elements
Element-normalized level difference according to BS EN 20140-10:1992
BRE horizontal transmission suite (B9)
Client: Rytens Building Products Ltd
Test date: 12/02/2013 **Test number:** L112-080 **Test element:** vent

0578

Filter wall area: 9.8 m²

Description:

AAC125HP-CLOSED- Super Acoustic Controllable LookRyt® AirCore®

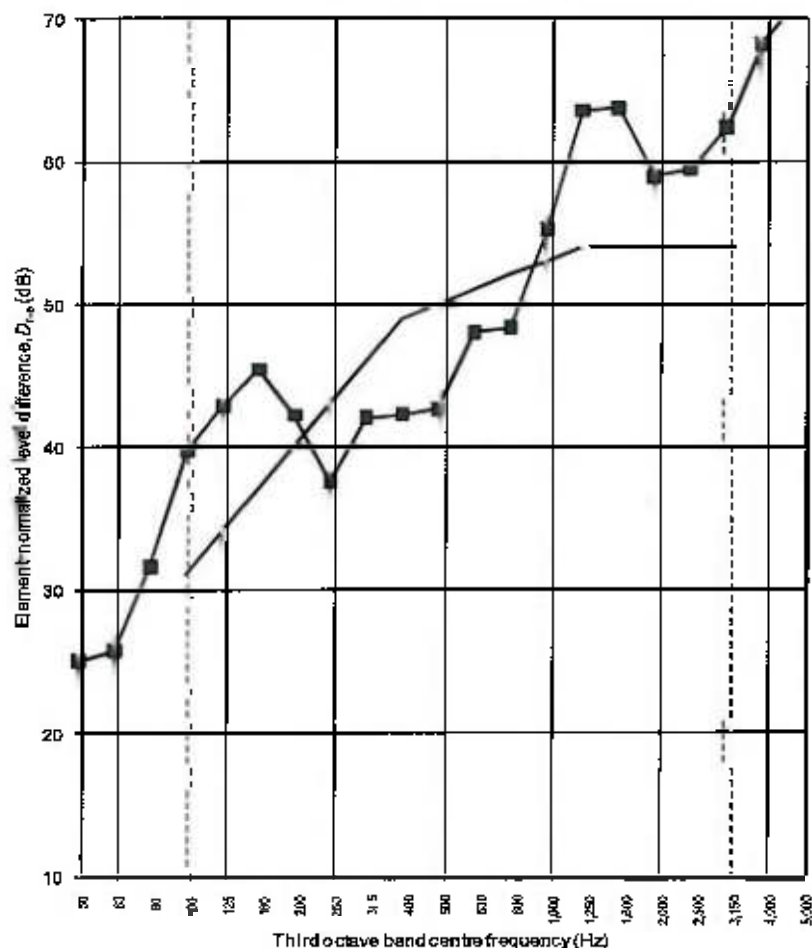
Source room volume: 130 m³

Air temperature: 9 °C

Receiv room volume: 115 m³

Air relative humidity: 55 %

Frequency (Hz)	$D_{n,e}$ One-third octave (dB)
50	25.0
63	25.7
80	31.6
100	39.7
125	42.8
160	45.4
200	42.2
250	37.5
315	42.0
400	42.2
500	42.6
630	48.0
800	48.3
1,000	55.2
1,250	63.5
1,600	63.7
2,000	58.9
2,500	59.4
3,150	62.3
4,000	68.2
5,000	71.3



y Adjusted for flanking transmission

a Correction = 13 dB

Rating according to BS EN ISO 717-1:1997

$D_{n,e,w}(C;C_{tr}) = 50 (-1;-3)$ dB

$C_{50-5000} = -1$ dB

$C_{50-5000} = 0$ dB

$C_{100-5000} = 0$ dB

$C_{tr,50-3150} = -$

$C_{tr,50-5000} = -$

$C_{tr,100-5000} = -3$ dB

Evaluation based on laboratory measurement results obtained by an engineering method

Based on the data provided in BS EN 20140-2:1993 it is estimated that the measurement uncertainty should not exceed ± 1 dB for the single quantity ($D_{n,e,w}$) and should not exceed the values in Table A1 of BS EN 20140-2:1993 for the data in the individual third octaves ($D_{n,e,w}$)

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The BRE logo is displayed in a bold, yellow, sans-serif font. It is positioned on the left side of the page, which has a dark teal background. The background is decorated with a series of thin, yellow, curved lines that sweep across the page from the top left towards the bottom right, creating a sense of motion and depth.

bre

**Rytons Building
Products Ltd.
Laboratory Sound
Insulation Test of Core
Ventilators in the BRE
Horizontal Transmission
Suite**

Prepared for:
Design House
Orion Way
Kettering Business Park
Kettering Northants
NN15 6NL

3rd April 2013

Test report number **284908**



0578

AAC125HPCWL – Rytons Cowled Super Acoustic Controllable LookRyt® AirCore®



NBS Source
PARTNER

bre



45 dB open / 50 dB closed (Dn,e,w)

8,400mm² (84cm²) Equivalent Area

Categories: Acoustic AirCore and AirLiner Sets, Background Ventilators

- General Details
- NBS Specification
- BRE Test Report
- Fitting Instructions
- Quote Request
- Related Products

Features and Benefits

- Retro-fitted core ventilator with external cowl for background room ventilation.
- Allows the introduction of fresh outside air into the room to disperse moisture, odours and other airborne pollutants.

- Use in noisy areas to reduce the amount of noise entering the building for a more peaceful environment.
- External cowl protects against excessive weather conditions and alleviates air blasts through the cavity.
- Unique draught reducing panel manually adjusted with an easy push/pull or tilt action allowing air to be controlled as required.
- Paint or wallpaper the panel to match room décor for a discreet appearance.
- External water baffle prevents the transfer of water across the cavity.
- Cowl and external grille U.V. stabilised to slow down the effects of sunlight.
- Position at a high level (typically 1.7m above floor level) for all dwelling types and storey heights.
- Patent Approved GB2523676.
- Registered Design 4018848.
- Please note: This item is a plastic component and therefore is not suitable for use within a) the external walls of buildings more than 11m high where people sleep on the premises (residential, institutional or hospitality) or b) external wall surfaces within 1m of the boundary if the building is 11m high or less, in England. Contact our technical sales office on 01536 511874 about a compliant alternative using Rytons A1 Fire-rated Bespoke Metal Service.

Sound Reduction & Equivalent Area:

- Sound reduced by 45 dB with internal grille fully open and 50 dB when closed (Dn,e,w) (tested by BRE Acoustics).
- 8,400mm² (84cm²) equivalent area (tested to BS EN 13141-1:2004 and independently verified by the BRE).

Size:

- Cowl: 217mm L x 210mm H x 93mm D.
- External grille: 166mm L x 160mm H.
- Tube: 127mm (5") Dia. x 358mm L.
- LookRyt® panel: 172mm L x 172mm H.

Colours:

- Terracotta external: AAC125HPTCWL.
- Buff/Sand external: AAC125HPBCWL.
- White external: AAC125HPWCWL.
- LookRyt® panel: Magnolia (may be painted or wallpapered to match décor).
- Bespoke colour matching service available. Call our sales office on 01536 511874 or email admin@rytons.com for details and pricing.

Composition:

- Cowl and external grille: U.V. stabilised high impact polystyrene.
- Tube: High impact polystyrene containing sound absorbent foam lining.
- Tube contains recycled plastic.
- Tube softening point: 70°C (unlined).
- Tube melting point: 120°C (unlined).
- Foam flammability testing: UL94 HF-1.
- Foam burn rate testing: FMVSS302, 4 inches min-1 (max).

- LookRyt® panel: High impact styrene.
- LookRyt® panel melting point: 160-180°C (unlined).

Reference Material:

- **England: [view extracts>>](#)**
- Approved Document F: Means of Ventilation in Dwellings (2010 edition incorporating 2013 amendments).
- Approved Document F: Means of Ventilation in Dwellings (2021 edition). Note: The 2021 update takes effect on 15 June 2022. It does not apply to work subject to a building notice, full plans application or initial notice submitted before that date, provided the work for each building is started before 15 June 2023.
- **Wales: [view extracts>>](#)**
- Approved Document F: Means of Ventilation in Dwellings (2010 edition incorporating 2013 amendments).
- Approved Document F: Means of Ventilation in Dwellings (2022 edition). Note: The 2022 update takes effect on 23 November 2022. It does not apply to work subject to a building notice, full plans application or initial notice submitted before that date, provided the work for each building is started before 23 November 2023.
- **Scotland: [view extracts>>](#)**
- Building Standards Scotland Technical Handbook – Domestic: Mandatory Standard 3.14 Ventilation.
- **Northern Ireland: [view extracts>>](#)**
- Building Regulations (Northern Ireland) Technical Booklet K, Ventilation.
- **Republic of Ireland: [view extracts>>](#)**
- NSAI SR54: Code of practice for the energy efficient retrofit of dwellings.
- Building Regulations 2019, Technical Guidance Document F: Ventilation.
- Measurement of airborne sound insulation was made in accordance with BS EN 20140-10: 1992.
- Single number quantities were calculated in accordance with BS EN ISO 717-1:1997.
- Equivalent area tested to BS EN 13141-1:2004 and independently verified by the BRE.

Handling Information:

- Box quantity: 1 set.
- Box size: 44cm W x 19cm H x 22.5cm D.
- Box weight: 0.885kg.

Questions & Answers:

- **Will the vent reduce sound from inside to outside as well as from outside to inside?** The BRE has advised us that it's reasonable to assume that 'reciprocity' applies to the vents. That is, the third octave values for sound reduction index are the same in both directions (out to in and in to out).



Laboratory measurement of airborne sound insulation of small building elements
Element-normalized level difference according to BS EN 20140-10:1992
BRE horizontal transmission suite (B9)

Client: Rytons Building Products Ltd

Test date: 12/02/2013

Test number: L112-081

Test element: vent

0578

Filler wall area: 9.8 m²

Description:

AAC125HPCWL – OPEN – Cowled Super Acoustic Controllable LookRyt® AirCore®

Source room volume: 130 m³

Air temperature: 9 °C

Receive room volume: 115 m³

Air relative humidity: 55 %

Frequency (Hz)	Reverberation time (s)	Background level (dB)	Source level (dB)	Receive level (dB)	$D_{n,e}$ (dB)
50	1.68	23.1	92.8	89.8	23.8
63	1.51	20.1	97.8	73.5	24.7
80	1.28	17.7	96.6	64.3	32.0
100	1.56	19.4	97.8	58.3	40.0
125	1.72	16.6	98.6	56.6	43.0
160	1.72	16.8	96.8	53.3	44.5
200	1.80	12.1	98.3	59.3	38.8
250	1.58	14.6	96.0	62.4	32.9
315	1.66	11.0	93.8	58.0	35.3
400	1.80	11.8	92.5	57.4	34.4
500	1.57	15.7	93.6	54.4	38.5
630	1.61	14.7	95.2	52.2	42.4
800	1.59	12.1	95.5	49.4	45.5
1,000	1.58	9.3	94.9	42.4	51.8
1,250	1.62	11.3	95.5	36.4	58.8
1,600	1.59	12.8	95.7	30.0	65.1
2,000	1.57	10.3	93.3	31.6	61.0
2,500	1.51	8.7	93.8	32.9	59.9
3,150	1.38	7.5	94.6	27.7	65.6
4,000	1.25	7.9	99.7	27.0	71.0
5,000	1.13	7.4	100.0	24.7	73.1

a Correction = 13 dB

Rating according to BS EN ISO 717-1:1997

$D_{n,e,w}(C;C_T) = 45 (-1;-3) \text{ dB}$

$C_{50-5000} = -1 \text{ dB}$

$C_{63-5000} = 0 \text{ dB}$

$C_{100-5000} = 0 \text{ dB}$

$C_{125-2000} = -$

$C_{125-5000} = -$

$C_{125-5000} = -3 \text{ dB}$

Evaluation based on laboratory measurement results obtained by an engineering method

Based on the data provided in BS EN 20140-2:1999 it is estimated that the measurement uncertainty should not exceed $\pm 1 \text{ dB}$ for the single quantity ($D_{n,e,w}$) and should not exceed the values in Table A1 of BS EN 20140-2:1999 for the data in the individual third octaves ($D_{n,e,w}$)

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Laboratory measurement of airborne sound insulation of small building elements
Element-normalized level difference according to BS EN 20140-10:1992
BRE horizontal transmission suite (B9)
Client: Rytens Building Products Ltd
Test date: 12/02/2013 **Test number:** L112-081 **Test element:** vent

0578

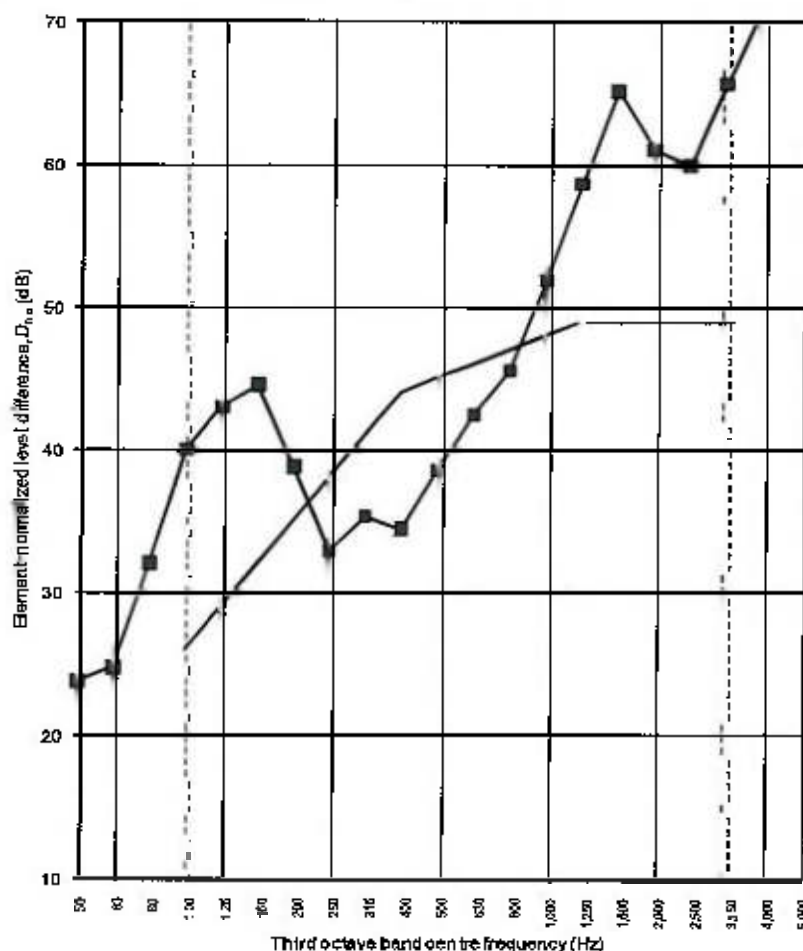
Filler wall area: 9.8 m²
Description:

AAC125HPCWL – OPEN – Cawled Super Acoustic Controllable LookRyt® AirCore®

Source room volume: 130 m³
Air temperature: 9 °C

Receive room volume: 115 m³
Air relative humidity: 55 %

Frequency (Hz)	$D_{n,e}$ One-third octave (dB)
50	23.8
63	24.7
80	32.0
100	40.0
125	43.0
160	44.5
200	38.8
250	32.9
315	35.3
400	34.4
500	38.5
630	42.4
800	45.5
1,000	51.8
1,250	58.6
1,600	65.1
2,000	61.0
2,500	59.9
3,150	65.6
4,000	71.0
5,000	73.1



a Correction = 1.3 dB

Rating according to BS EN ISO 717-1:1997

$D_{n,e,w}(C;C_{tr}) = 45 (-1;-3) \text{ dB}$ $C_{50-5000} = -1 \text{ dB}$ $C_{63-5000} = 0 \text{ dB}$ $C_{100-5000} = 0 \text{ dB}$
 $C_{tr,50-2150} = -$ $C_{tr,50-5000} = -$ $C_{tr,125-5000} = -3 \text{ dB}$

Evaluation based on laboratory measurement results obtained by an engineering method

Based on the data provided in BS EN 20140-2:1993 it is estimated that the measurement uncertainty should not exceed $\pm 1 \text{ dB}$ for the single quantity ($D_{n,e,w}$) and should not exceed the values in Table A1 of BS EN 20140-2:1993 for the data in the individual third octaves ($D_{n,e}$)

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Laboratory measurement of airborne sound insulation of small building elements
Element-normalized level difference according to BS EN 20140-10:1992
BRE horizontal transmission suite (B9)

Client: Rytons Building Products Ltd

Test date: 12/02/2013

Test number: L112-062

Test element: vent

0578

Filler wall area: 9.8 m²

Description:

AAC125HPCWL-CLOSED- Cowled Super Acoustic Controllable LookRyt® AirCore®

Source room volume: 130 m³

Air temperature: 9 °C

Receve room volume: 115 m³

Air relative humidity: 55 %

Frequency (Hz)	Reverberation time (s)	Background level (dB)	Source level (dB)	Receve level (dB)	$D_{n,e}$ (dB)
50	1.66	23.1	93.1	69.1	24.8
63	1.51	20.1	96.1	73.0	25.5
80	1.28	17.7	96.3	64.8	31.3
100	1.56	19.4	97.8	58.4	40.0
125	1.72	16.6	98.7	56.4	43.3
160	1.72	16.8	96.8	52.8	45.0
200	1.80	12.1	98.0	57.3	40.6
250	1.58	14.6	95.9	58.2	37.0
315	1.66	11.0	93.9	53.4	40.1
400	1.60	11.8	92.6	54.2	37.8
500	1.57	15.7	93.6	48.6	44.4
630	1.61	14.7	95.2	43.8	50.8
800	1.59	12.1	95.5	41.0	53.9
1,000	1.56	9.3	95.0	32.5	61.7
1,250	1.62	11.3	95.5	30.3	64.6
1,600	1.59	12.8	95.7	29.8	65.3
2,000	1.57	10.3	93.3	30.3	62.3
2,500	1.51	8.7	93.7	31.5	61.3
3,150	1.38	7.5	94.7	28.4	65.0
4,000	1.25	7.9	99.7	28.1	69.9
5,000	1.13	7.4	100.1	25.2	72.7

a Correction = 1.3 dB

Rating according to BS EN ISO 717-1:1997

 $D_{n,e,w}(C;C_{tr}) = 50 (-1;-4)$ dB $C_{50-3150}$

= -2 dB

 $C_{50-6300}$

= -1 dB

 $C_{100-8000}$

= 0 dB

 $C_{tr,50-3150}$

= -

 $C_{tr,63-6300}$

= -

 $C_{tr,100-10000}$

= -4 dB

Evaluation based on laboratory measurement results obtained by an engineering method.

Based on the data provided in BS EN 20140-2:1993 it is estimated that the measurement uncertainty should not exceed ± 1 dB for the single quantity ($D_{n,e,w}$) and should not exceed the values in Table A1 of BS EN 20140-2:1993 for the data in the individual third octaves ($D_{n,e,w}$)

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Laboratory measurement of airborne sound insulation of small building elements
Element-normalized level difference according to BS EN 20140-10:1992
BRE horizontal transmission suite (B9)
Client: Rytons Building Products Ltd
Test date: 12/02/2013 **Test number:** L112-082 **Test element:** vent

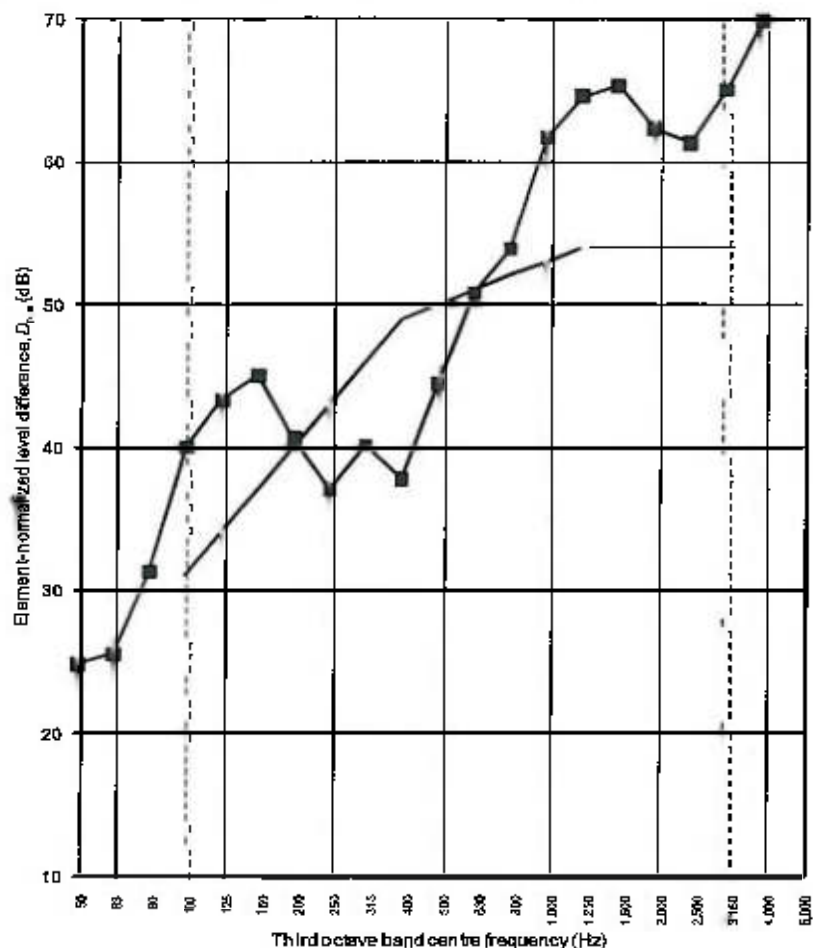
0578

Filler wall area: 9.8 m²**Description:**

AAC125HPCWL-CLOSED- Cowed Super Acoustic Controllable LookRyt® AirCore®

Source room volume: 130 m³**Air temperature:** 9 °C**Receive room volume:** 115 m³**Air relative humidity:** 55 %

Frequency (Hz)	$D_{n,s}$ One-third octave (dB)
50	24.8
63	25.5
80	31.3
100	40.0
125	43.3
160	45.0
200	40.6
250	37.0
315	40.1
400	37.8
500	44.4
630	50.8
800	53.9
1,000	61.7
1,250	64.6
1,600	65.3
2,000	62.3
2,500	61.3
3,150	65.0
4,000	69.9
5,000	72.7



a Correction = 13 dB

Rating according to BS EN ISO 717-1:1997

 $D_{n,e,w}(C;C_{tr}) = 50 (-1;-4)$ dB $C_{50-3150} = -2$ dB $C_{50-5000} = -1$ dB $C_{100-5000} = 0$ dB $C_{tr 50-3150} = -$ $C_{tr 50-5000} = -$ $C_{tr 100-5000} = -4$ dB

Evaluation based on laboratory measurement results obtained by an engineering method

Based on the data provided in BS EN 20140-2:1993 it is estimated that the measurement uncertainty should not exceed ± 1 dB for the single quantity ($D_{n,e,w}$) and should not exceed the values in Table A1 of BS EN 20140-2:1993 for the data in the individual third octaves ($D_{n,s}$)

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The BRE logo is displayed in a bold, yellow, sans-serif font. It is positioned on the left side of the page, which has a dark teal background. The background is decorated with a series of thin, yellow, curved lines that sweep across the page from the top left towards the bottom right, creating a sense of motion and depth.

bre

**Rytons Building
Products Ltd.
Laboratory Sound
Insulation Test of Core
Ventilators in the BRE
Horizontal Transmission
Suite**

Prepared for:
Design House
Orion Way
Kettering Business Park
Kettering Northants
NN15 6NL

3rd April 2013

Test report number **284908**



0578

Titon Ultimate® dMEV

Decentralised Mechanical Extract Ventilation
or constant flow intermittent extract fan

For use in residential dwellings and light commercial applications

The new high performing Titon Ultimate® dMEV is an ultra quiet low profile fan, which is suitable for new build or refurbishment projects. It can be either wall or ceiling mounted and is ideal for bathrooms, kitchens and utility room applications.

With adjustable continuous and boost speed settings available. The patent applied fan utilises an efficient DC motor and uniquely designed impeller/guide vane combination to produce high flow rates and pressure.

The Titon Ultimate® dMEV uses a boost overrun and boost delay timer that is adjustable between 0 - 60 minutes. The unit has optional humidity control, constant flow and optional data logging.



For use with Titon Trickle Ventilators.



Features & Benefits

- One of the quietest solutions and best performing dMEV fan on the market
- PCDB listed for inclusion within SAP (Consp10/SAP10 compliant)
- Low specific fan power down to 0.11 W/l/s
- Airflow up to 30 l/s (108 m³/h)
- Extremely low running costs
- 3 configurable speed options (Trickle, Boost and High Boost)
- Eligible for Energy Compliance Obligation (ECO) fourth iteration funding
- Constant flow technology
- 4 button & LED display to allow for simple control
- Extract fan designed to run continuously (24/7)
- Integral pressure sensor to maintain constant flow to overcome external back pressures of up to 20Pa
- Unit running time and average RH Data Logging
- Fast straightforward commissioning and set up
- CFC Ceiling Fan Cuff available. Independently tested to BS EN 1364-2: 2018 Fire Resistance Tests for non-load bearing elements – Part 2: Ceilings and additional guidance from BS EN 1366-3: 2009. (Test Report 510322B/R). Up to 60 minutes integrity and insulation
- Ideal for removing condensation which can lead to mould and ill health
- Low profile aesthetic circular design
- Quiet running, only 10 dB(A) at 3m, low speed
- Unique high performance impeller and guide vane design
- IPX4 rated (Ceiling mounted TP646 Kit required)*
- Double insulated (requires no earth)
- Designed and manufactured in accordance with EN60335-2-80 Low Voltage Directive and the EMC Directive (Electromagnetic Compatibility)
- Display in l/s or m³/h
- Intermittent function
- Humidity control suspend timer
- Unit lock out button for installers/landlords
- Complies with Building Regulations Part F (England and Wales)
- Exceeds newly proposed stringent 20 Pa back pressure requirement

* To maintain the IPX4 rating when ceiling mounted, a kit must be used. Please contact Titon for availability of ceiling mounting kits.

The Ultimate Choice

Description

Titon Ultimate® dMEV constant flow decentralised mechanical extract ventilation fan.

Product Codes

TP640i – Basic version

TP640Hi – Humidity Control

TP640Hdi – Humidity Control with Data Logging

Standards

Designed and manufactured in accordance with EN60335-2-80 (Low Voltage Directive) and the EMC Directive (Electromagnetic Compatibility).
Air performance measured according to ISO 5801 at 230V 50Hz, air density 1,2 Kg/m³.
CE and UKCA marked.

Specification

Dimensions: Ø195mm with 45mm projection

Weight: 0.5Kg

Finish: Gloss White

Materials: ABS, PCB's, LED display & brushless motor.

Controls: Onboard 4 button controls with 4 digit LED display

Guarantee period: 18 months (UK only)

Electrical: 220-240 V ~ 50/60Hz

Installation: To be installed accordance with the relevant and applicable building regulations.

Maintenance: Service, clean, replace subject to local environment - see product manual.

Accessories

TP645/BR - Telescopic Wall Kit (Brown)

TP645/BE - Telescopic Wall Kit (Beige)

TP645/TC - Telescopic Wall Kit (Terracotta)

TP645/WH - Telescopic Wall Kit (White)

TP646 - IPx4 Ceiling Kit

TP647 - Decorative Wall Plate

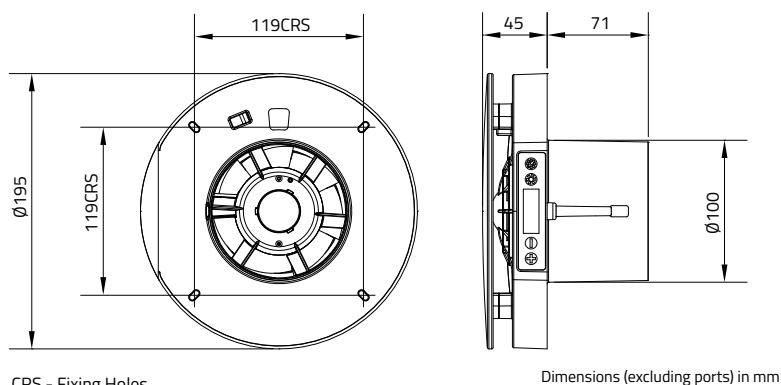
CFC100 - CFC Ceiling Fan Cuff

QSS310 - Quelstop Acrylic Sealant

Ducting Kits

Our ducting kits are recommended to maintain flow rates and are available in Ø100mm and 110x54mm rectangular. Kits contain; 3m duct, bends, grille and accessories. Calculated resistance rates are also included in ducting kit literature.

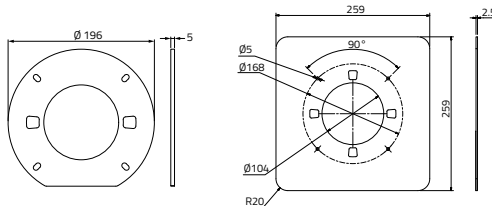
Drawing & Dimensions



CRS - Fixing Holes

Ceiling IPX4 Kit*
(TP646)

Decorative Wall Plate
(TP647)



* To be used with Window Kits TP203 & TP204

Performance

The results detailed below have been determined from independent laboratory testing performed in accordance with the latest SAP10 dMEV (Consp10) test standard introduced on 15th June 2022. Tests were performed with rigid ducting.

		Ducted in Room					Through Wall	
		Kitchen		Wet Room			Kitchen	Wet Room
Fan Speed Setting	l/s	13	16	5	8	11	13	8
SFP	w/l/s	0.15	0.16	0.21	0.15	0.15	0.11	0.14
Volume reduction with 20Pa back pressure	%	1	2	6	5	2	1	1
Max volume reduction allowed	%	30	30	30	30	30	30	30
Power	W	1.89	2.52	1.07	1.23	1.60	1.47	1.13
Noise Level	dBA @ 3m	28**		19**			26	15

Figures taken from the BRE Test Results.

**Using 100mm diameter round duct and tested in accordance with SAP PCDB method V2.0:2013.

Nominal Fan Performance

