

# Environmental Noise Assessment Report

<b>Title</b>	Land West of Shilton Road, Earl Shilton, Leicestershire
<b>Client</b>	Giles Stanley Ltd
<b>Location</b>	Shilton Road, Earl Shilton, Leicestershire
<b>Project number</b>	25-0320
<b>BIM reference</b>	SRES-BSP-ZZ-XX-RP-C-001-P2_Environmental_Noise_Assessment
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## GLOSSARY

## 1.0 EXECUTIVE SUMMARY

- 1.1 BSP Consulting has been commissioned by Giles Stanley Ltd to undertake an environmental noise assessment in respect of their planning application for a residential development at land west of Shilton Road, Earl Shilton, Leicestershire. The proposed development comprises to obtain outline planning permission for the construction of up to 120 residential dwellings (Access Arrangements to be determined with all other matters reserved).
- 1.2 Currently, the land comprises land used for the keeping of horses (western parcel) and an agricultural field (eastern parcel), the site falls within the Leicestershire Vales National character area and currently identified as being in the Countryside outside the defined settlement boundaries of Earl Shilton. Notwithstanding this designation, the site is not subject to any other site-specific constraints, physical, policy or otherwise. The site is not near the village Conservation Area, nor are there any listed buildings in proximity to the site. Vehicular access is proposed via a new all movements access directly onto Shilton Road, which could provide access to both parcels of land.
- 1.3 This Environmental Noise Assessment has been prepared in accordance with the Department for Communities and Local Government (DCLG) publication 'National Planning Policy Framework' (NPPF 2024). The survey was carried out to BS7445-1:2003 and BS7445-2:1991.
- 1.4 The NPPF noise assessment demonstrates that the current noise levels at the boundaries of the site (and therefore the closest facade of the nearest dwellings to the source) could be in excess of those values stated within BS8233, for both the daytime & night-time periods. Therefore, further attenuation will be required during both the daytime and night-time periods to ensure acceptable noise levels within the dwellings themselves.
- 1.5 An initial site inspection identified that noise associated with the road traffic noise emanating from the Leicester Road, located adjacent to the site's eastern boundary, and to a lesser degree A47 (further east) could potentially impact on some of the bedrooms/habitable rooms within the development. To ensure that the internal noise levels within the development are within those stated by BS8233 for the daytime and night-time periods, suitable protection will be required (as detailed within).

1.6 The development will provide gardens to the individual properties, which may back onto the main noise source. In relation to monitoring position A, the recorded daytime levels were lower than the 55dB LAeq quoted by the WHO guidance. Therefore, no additional protection, other than for security, will be required to protect the garden areas of the development.

1.7 **In conclusion, the site is not considered to be affected by any significant noise issues, and with the appropriate design methods set out above, will mitigate any minor noise issues. It is considered that under the present noise climate and with the above mitigation in place, the site is suitable for a residential development, with no acoustic reason why the site could not be developed.**

## 2.0 INTRODUCTION

2.1 BSP Consulting has been commissioned by Giles Stanley Ltd to undertake an environmental noise assessment in respect of their planning application for a residential development at Land west of Shilton Road, Earl Shilton, Leicestershire. The proposed development comprises to obtain outline planning permission for the construction of up to 120 residential dwellings (Access Arrangements to be determined with all other matters reserved). The location of the site is shown on **Figure 2.1** (overleaf).

2.2 Currently, the land comprises land used for the keeping of horses (western parcel) and an agricultural field (eastern parcel), the site falls within the Leicestershire Vales National character area and currently identified as being in the Countryside outside the defined settlement boundaries of Earl Shilton. Notwithstanding this designation, the site is not subject to any other site-specific constraints, physical, policy or otherwise. The site is not near the village Conservation Area, nor are there any listed buildings in proximity to the site. Vehicular access is proposed via a new all movements access directly onto Shilton Road, which could provide access to both parcels of land. The proposed masterplan for the eastern parcel of the site is included as **Appendix 2**.

2.3 An initial site inspection identified road traffic noise emanating from Leicester Road, located adjacent to the site's eastern boundary, as the main noise source affecting the site. Road traffic emanating from the A47 Earl Shilton bypass (located further east) was also audible, although to a lesser degree. No other existing noise sources were identified has a potential concern for the development. A plan of the local highway network and proposed site boundary are also shown on **Figure 2.2** (overleaf).

2.5 During the site walkover, a series of spot readings were taken. This confirmed that the site's eastern boundary was most impacted by noise, due to site's proximity to Leicester Road traffic noise source. Although to a lesser extent road traffic noise was audible across the entire site, noise from passing cars diminished with distance from Leicester Road.

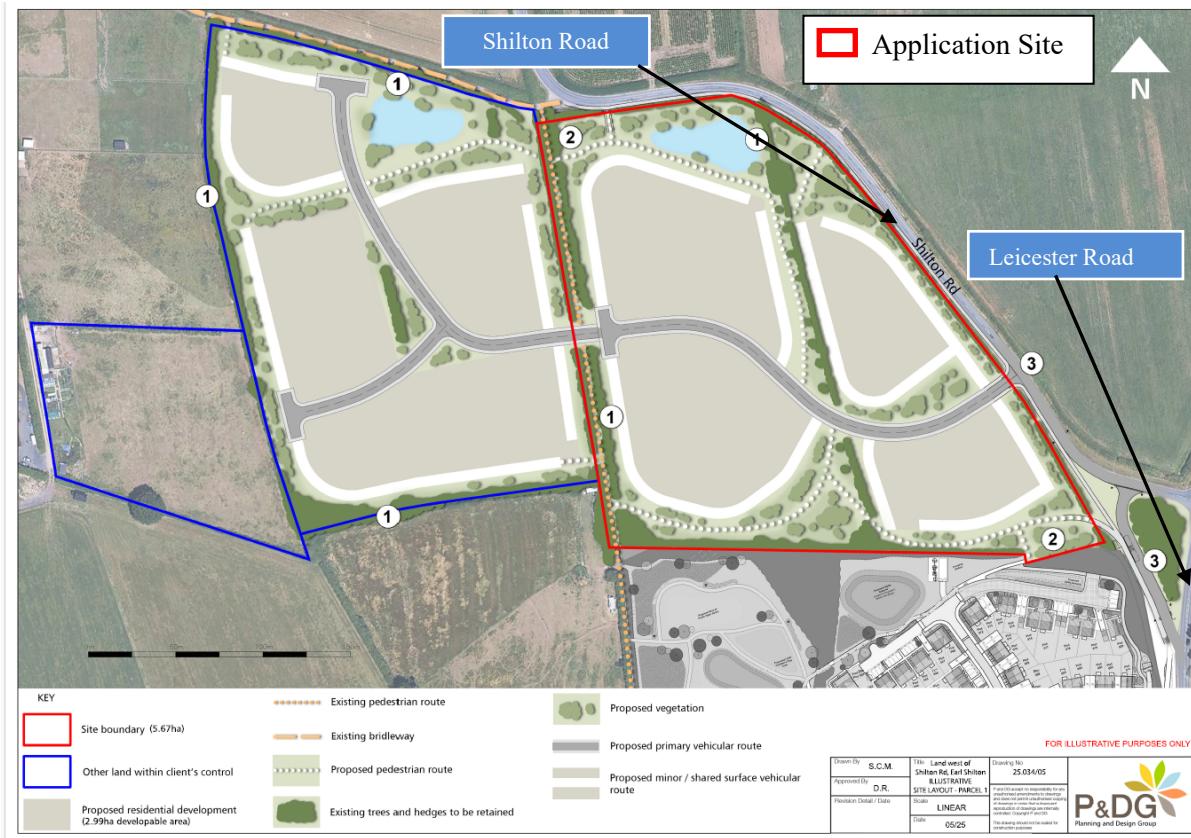
2.6 This Environmental Noise Assessment has been prepared in accordance with the Department for Communities and Local Government (DCLG) publication 'National Planning Policy Framework' (NPPF).

**Figure 2.1: Site Location Plan**



- 2.7 It was determined that the most applicable method of determining the effects of noise on the site was to undertake an environmental noise assessment in accordance with the principles laid down in NPPF. NPPF provides policy guidance to local authorities in England on the use of their planning powers to minimise the adverse impact of noise. The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied.
- 2.8 For residential use, the assessment should cover both daytime and night-time noise. Accordingly, noise monitoring would be undertaken during both night-time and daytime assessment in order to fully assess the site. In terms of noise impact, the eastern boundaries of the site, being of primary concern. However, we assessed the noise levels that emanated from the entire surrounding area.

**Figure 2.2: Local Context Plan**



2.9 In addition to the assessments discussed above, a further assessment of the site carried out in accordance with BS 8233: 2014 Guidance on sound insulation and noise reduction for buildings' was also undertaken to ensure the noise levels stated within the code are not exceeded. BS 8233:2014 "Guidance on sound insulation and noise reduction for buildings", amongst many other matters, has incorporated the WHO guidance (old and new) into its section 7.6.

### 3.0 INSTRUMENTATION

3.1 Free-field noise levels were measured at a height of 1.5 metres above the ground using the following Norsonic integrating sound level metre and microphone:

<u>Description</u>	<u>Model Type</u>	<u>Serial Number</u>
Norsonic Sound Level Meter	Nor-118	31497
Acoustic Calibrator	Nor-1251	29215
Microphone	Nor-1225	40867
Gras (Environmental Mic)	41AL	35153

3.2 The equipment was operated according to the manufacturer's instructions and calibrated before and after use, using the above portable acoustic calibrator, with no significant drifting occurring (not more than 0.5 dB).

## 4.0 NOISE SURVEY

4.1 The baseline noise surveys were carried out during both the daytime and night-time periods in accordance with the appropriate methodology for a NPPF assessment. A series of readings were taken throughout the period to ensure that the measured noise levels were representative of the worst-case scenario in noise terms. The survey was carried out from Wednesday 11<sup>th</sup> to Thursday 12<sup>th</sup> June 2025 for Position A, during both the daytime and night-time periods. The weather was dry with some cloud cover throughout the measurement period, remaining calm with an occasional light breeze. Temperatures varied from around 12 - 17 degrees in the daytime periods falling to around 7-11 degrees during the night-time.

4.2 The most applicable method of determining the most onerous noise sources affecting the site, was via a walk-over survey to identify all possible sources. The site walkover was therefore undertaken during which a series of spot readings were taken (see 4.4). These confirmed that due to the site's proximity to the road traffic noise emanating from Leicester Road, located adjacent to the site's eastern boundary, as the only significant noise source affecting the site.

4.3 For monitoring position A (eastern site boundary; existing baseline noise), the existing worst-case LAeq noise levels have been calculated from these results as **52.8dB(A)** during the daytime period and **42.8dB(A)** during the night-time period. With the maximum recorded LMax (23:00-07:00) being **68.6dB(A)**.  
In addition to the hourly LAeq, LMax and LA90 readings, a full set of octave band analysis for position A are detailed within data sheet 1, in **Appendix 1**.

4.4 Spot readings were taken at two further locations around the site (Position B & C), which recorded 15min LAeq values of 48.7dB(A) & 47.8dB(A), respectively. These were taken during the 11:00-12:00 period on the 12<sup>th</sup> June and are typically 1-2dB(A) below the readings recorded at Position A. This also confirms that the readings taken at Positions A are robust in assessing these areas of the site most affected by noise, and are used in the further assessment of the site.

4.5 The worst-case data obtained at Position A was also used in the BS 8233 assessment to ensure internal noise levels comply with those stated as being within a reasonable design range. These

results, together with the NPPF assessment are discussed in detail in the following sections, with the results of the NPPF noise survey shown on data sheet 1 in Appendix 1.

4.6 The application site location is shown, in the context of its immediate surrounds, within **Figure 4.1**. This plan also indicates the location of the 3 monitoring positions.

**Figure 4.1: Site Area Plan, Monitoring Positions –  
Land west of Shilton Road, Earl Shilton, Leicestershire**



## 5.0 DISCUSSION

5.1 This Environmental Noise Assessment has been prepared in accordance with the Department for Communities and Local Government (DCLG) publication 'National Planning Policy Framework' (NPPF 2024).

5.2 NPPF provides local authorities in England with policy guidance on the use of their planning powers to minimise the adverse impact of noise. The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied.

5.3 Paragraph 198 of NPPF relates to the consideration of noise impact for planning purposes and states;

198. Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

- a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life<sup>72</sup>;
- b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and
- c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

<sup>72</sup> See Explanatory Note to the Noise Policy Statement for England (Department for the Environment, Food and Rural Affairs).

## Noise Policy Statement for England

5.4 The Government's policy on noise is set out in the Noise Policy Statement for England. It sets out the long-term vision of promoting good health and a good quality of life through the management of noise. The NPSE should apply to all forms of noise including environmental noise, neighbour noise and neighbourhood noise. The NPSE does not apply to noise in the workplace (occupational noise).

5.5 The long-term vision is to promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.

5.6 The long-term vision is supported by the following aims;  
Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- Avoid significant adverse impacts health and quality of life;
- Mitigate and minimise adverse impacts on health and quality of life
- Where possible, contribute to the improvement of health and quality of life

5.7 The NPSE also states;

There are several key phrases within the NPSE aims and these are discussed below.  
“Significant adverse” and “adverse”

There are two established concepts from toxicology that are currently being applied to noise impacts, for example, by the World Health Organisation. They are:

NOEL. No Observed Effect Level

This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise.

LOAEL. Lowest Observed Adverse Effect Level

This is the level above which adverse effects on health and quality of life can be detected.

Extending these concepts for the purpose of this NPSE leads to the concept of a significant observed adverse effect level.

#### SOAEL. Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur.

It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our understanding of what may constitute a significant adverse impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available.

#### National Planning Practice Guidance

5.8 The National Planning Practice Guidance (PPG) is a web-based resource, launched by the Department for Communities and Local Government (DCLG) which was updated on the 22nd July 2019 to reflect the changes made to the NPPF and make it more accessible.

5.9 It advises on how planning can manage potential noise impacts in new development. The guidance is regularly reviewed and updated and noise is listed as a specific category. A summary of the effects of noise exposure (in terms of health and quality of life) associated with both noise generating developments and noise sensitive developments is presented within the PPG and reproduced in Table 1.

**Table 1 – Noise exposure hierarchy**

Perception	Examples of outcomes	Effect level	Action
Not noticeable	No effect	No observed effect	No specific measures required
Noticeable and not intrusive	Noise can be heard, but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No Observed Adverse Effect (NOAEL)	No specific measures required
<b>Lowest Observed Adverse Effect Level (LOAEL)</b>			
Noticeable and intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
<b>Significant Observed Adverse Effect Level (SOAEL)</b>			
Noticeable and disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Noticeable and very intrusive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory	Unacceptable Adverse Effect	Prevent

5.10 There are a number of factors that determine whether a noise could be a concern to a receptor. These include: the absolute level of the noise and when it occurs, whether it is existing or new to the area, temporal characteristics, spectral content and the acoustic absorption in the area.

5.11 It is emphasised in the PPG that the planning process should be used to mitigate and minimise the impact of noise. This could include: engineering the noise sources to be quiet, minimising the impact of noise through layout, using conditions/obligations to restrict activities, mitigating the impact in places where noise is likely to be experienced (e.g. using facade sound insulation).

#### **Noise Design Criteria**

5.12 As neither the NPPF or NPSE specify any objective noise criteria, BSP's suggested internal ambient noise level design criteria for the purpose of this assessment has been based on 'BS 8233: 2014 Guidance on sound insulation and noise reduction for buildings'. This can be considered as appropriately assessing the potential noise impact with regard to toxicology concepts in line with the principles of the NPPF and NPSE. Hence, if a development meets the recommendations of BS8233 and any associated local authority noise requirements, it can be considered as being below the level where there is no detectable adverse effect on health and quality of life due to noise, and this meets the NOEL (No Observed Effect Level) set out in the NPSE.

**The BS8233 recommended criteria for internal ambient noise levels are shown in Table 2 below:**

Criteria	Typical Situation	Design range $L_{AeqT}$ , dB	
		Daytime 07:00-23:00	Night-time 23:00-07:00
Reasonable resting/sleeping conditions	Living rooms	35	-
	Bedrooms*	35	30

For the purposes of this assessment, BSP propose the following noise criteria for control of external noise:

- Living rooms (0700-2300 hours): 35dB LAeq
- Bedrooms (2300-0700 hours): 30dB LAeq

(individual noise events in bedrooms should not normally exceed 45dB LAFmax (2300-0700 ))

5.13 In addition, World Health Organisation (WHO) guidelines recommend that 'general daytime outdoor noise levels of less than 55dB LAeq(16hour) are desirable'.

5.14 Appropriate acoustic design measures for the new dwellings to satisfy these criteria are set out below.

5.15 For monitoring position A (eastern site boundary; existing baseline noise), the existing worst-case LAeq noise levels have been calculated from these results as **52.8dB(A)** during the daytime period and **42.8dB(A)** during the night-time period. With the maximum recorded LMax (23:00-07:00) being **68.6dB(A)**.

5.16 The NPPF noise assessment demonstrated that the current noise levels at the boundaries of the site (and therefore the closest facade of the nearest dwellings to the source) could be in excess of those values stated within BS8233, for both the daytime & night-time periods. Therefore, further attenuation will be required during both the daytime and night-time periods to ensure acceptable noise levels within the dwellings themselves.

5.17 The development will provide gardens to the individual properties, which may back onto the main noise source. In relation to monitoring position A, the recorded daytime levels were lower than the 55dB LAeq quoted by the WHO guidance. Therefore, no additional protection, other than for security, will be required to protect the garden areas of the development.

5.18 In relation to internal noise levels, in order to control impact of the external noise climate on the proposed development the following outline specifications are advised. These are based on the calculation method defined in BS8233 using the measured noise data and stated noise design criteria.

5.19 As final construction information is not available at the time of writing, calculations are based on typical room dimensions and glazing areas. Therefore, recommendations should be checked once final detailed information becomes available. Alternative combinations of glazing and ventilation to that outlined above may also provide suitable acoustic performance. All proposals should be checked at the detailed design stage to ensure suitable acoustic performance.

## External Walls & Roof

5.20 For the purposes of the assessment the building envelope is assumed to be of cavity brick/blockwork construction, e.g. with a brickwork outer leaf and a solid blockwork inner leaf. If an alternative construction is proposed for the building envelope the specification should be checked by an acoustic consultant to ensure suitable acoustic performance is achieved.

5.21 The roof construction details can affect the level of sound insulation provided by the building envelope. For the purposes of the calculations in this section a traditional tile/slate roof with a plasterboard ceiling and mineral wool insulation above the ceiling has been assumed. A traditional pitched roof with concrete tiles and a 9 mm plasterboard ceiling, covered in thermal insulating material, has an insulation of approximately 43 dB Rw.

## Glazing & Ventilation

5.22 The windows, and any trickle ventilators, are normally the weakest part of a brick and block facade. Insulating glass units (6 mm / (6 - 16 mm) / 6 mm) provide a quoted insulation value of 27 dB Rw+Ctr. Assuming suitable sound attenuating trickle ventilators or mechanical ventilation units are used, then a noise attenuation provided by the windows & vents combination should be at least 27dB(A). This level is acceptable with the windows closed and attenuated background ventilation, even with the correction for first floor level. If partially open windows were relied upon for background ventilation, the insulation would be reduced to approximately 15 dB, resulting in the target levels also being achieved. However, windows may still be openable for rapid or purge ventilation, or occupant's choice.

5.23 The following suggested glazing and ventilation combinations are advised for the scheme. Bedrooms Insulating glass units (6 mm / (6 - 16 mm) / 6 mm) (or equivalent) would provide a weighted sound reduction, Rw+Ctr, of 27dB. Window head trickle vents of minimum Dn,e,w 36dB (Open). (N.B. if a greater number of vents are used the acoustic performance of each vent may need to be increased). Ceilings to top floor rooms to comprise minimum 2 x 12.5mm plasterboard.

Living rooms: Insulating glass units (6 mm / (6 - 16 mm) / 6 mm) (or equivalent) would provide a weighted sound reduction,  $R_w + Ctr$ , of 27dB. Window head trickle vents of minimum  $Dn,e,w$  36dB (Open). See Pilkington Glass Data Sheet (Appendix 3).

The trickle vents to allow adequate ventilation without the need to open the windows. As a rough guide, a typical reduction in level of around 27dB(A) could easily be expected through a combination of glazing and trickle vents. This level of mitigation would result in acceptable internal noise levels for the units closest to the noise source as demonstrated below.

5.24 To mitigate against all the various noise sources during the daytime/night-time periods and to ensure that noise sensitive areas (living rooms/bedrooms) within the dwellings are protected, the above treatment (or similar approved) should be adopted. Using the highest readings recorded, a typical reduction in level of around 27dB(A) could easily be expected which is more than adequate to attenuate the recorded levels i.e.  $52.8dB(A) - 27 dB(A) = 25.8dB(A)$  for the living room &  $42.8dB(A) - 27 dB(A) = 15.8dB(A)$  for the bedrooms. This level of mitigation would result in acceptable internal noise levels for the units closest to these noise sources.

The maximum recorded  $L_{max}$  being  $68.6dB(A) - 27dB(A) = 41.6B(A)$  for the bedrooms, which is less than the 45dB(A) max. This assessment demonstrates that the level of mitigation would result in acceptable internal noise levels for the units closest to these noise sources.

5.25 In addition to the specific noise levels, Noise Rating (NR) Levels have also been calculated based on the mitigation achieved by the selected glazing for the specific octave bands. This assessment is detailed on Data Sheets 1, which conclude that a maximum NR Level of NR20 would be achieved during the daytime (Living Rooms & Bedrooms), and NR10 during the night-time (Bedrooms).

## 6.0 CONCLUSIONS

- 6.1 BSP Consulting has been commissioned by Giles Stanley Ltd to undertake an environmental noise assessment in respect of their planning application for a residential development at Land west of Shilton Road, Earl Shilton, Leicestershire. The proposed development comprises to obtain outline planning permission for the construction of up to 120 residential dwellings (Access Arrangements to be determined with all other matters reserved).
- 6.2 Currently, the land comprises land used for the keeping of horses (western parcel) and an agricultural field (eastern parcel), the site falls within the Leicestershire Vales National character area and currently identified as being in the Countryside outside the defined settlement boundaries of Earl Shilton. Vehicular access is proposed via a new all movements access directly onto Shilton Road, which could provide access to both parcels of land.
- 6.3 This Environmental Noise Assessment has been prepared in accordance with the Department for Communities and Local Government (DCLG) publication 'National Planning Policy Framework' (NPPF). NPPF provides local authorities in England with policy guidance on the use of their planning powers to minimise the adverse impact of noise. The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied.
- 6.4 An initial site inspection identified road traffic noise emanating from Leicester Road, located adjacent to the site's eastern boundary, as the main noise source affecting the site. Road traffic emanating from the A47 Earl Shilton bypass (located further east) was also audible, although to a lesser degree. No other existing noise sources were identified has a potential concern for the development.
- 6.5 In order to ensure that the assessment is representative of the noise climate affecting the site, it was considered that full 24 hour noise surveys should be carried out on the site, at the closest point on the site to the dominant noise sources identified (site's eastern boundary). A site walkover was undertaken during which a series of spot readings were taken. These confirmed that the

readings taken at Position A (eastern site boundary) are robust in assessing these areas of the site most affected by noise.

- 6.6 The NPPF noise assessment demonstrates that the current noise levels at the boundary of the site (and therefore the closest facade of the nearest dwellings to the source) could be in excess of those values stated within BS8233, for both the daytime & night-time periods. Therefore, attenuation will be required during both the daytime and night-time periods to ensure acceptable noise levels within the dwellings themselves and within their garden areas.
- 6.7 To ensure that the internal noise levels within any potential dwellings of the development are within those stated by BS8233 for the daytime and night-time periods, suitable protection will be required. Detailed design has yet to occur, but suitable protection (see section 5.0) including ventilation without the need to open the windows, should be installed i.e. Insulating glass units (6 mm / (6 - 16 mm) / 6 mm) (or equivalent) would provide a weighted sound reduction,  $R_w+Ctr$ , of 27dB. Window head trickle vents of minimum  $D_{n,e,w}$  36dB. In combination, typically a reduction in noise level of around 27dB(A) could easily be expected, which is more than adequate to attenuate the recorded levels. This level of mitigation would result in acceptable internal noise levels for residential use for both the daytime and night-time periods.
- 6.8 In addition to the specific noise levels, Noise Rating (NR) Levels have also been calculated based on the mitigation achieved by the selected glazing for the specific octave bands. This assessment is detailed on Data Sheets 1, which conclude that a maximum NR Level of NR20 would be achieved during the daytime (Living Rooms & Bedrooms), and NR10 during the night-time (Bedrooms).
- 6.9 The development will provide gardens to the individual properties, which may back onto the main noise source. In relation to monitoring position A, the recorded daytime levels were lower than the 55dB LAeq quoted by the WHO guidance. Therefore, no additional protection, other than for security, will be required to protect the garden areas of the development.
- 6.10 In conclusion, the site is not considered to be affected by any significant noise issues, and with the appropriate design methods set out above, will mitigate any minor noise issues. It is considered

that under the present noise climate and with the above mitigation in place, the site is suitable for a residential development, with no acoustic reason why the site could not be developed.

**APPENDIX 1  
DATA SHEETS 1**

Land West of Shilton Road, Earl Shilton, Leicestershire  
Environmental Noise Measurement Results

APPENDIX 1-Data Sheet 1 Position A (Existing Noise Readings @ Eastern Site Boundary - Leicester Road)  
MEASURED NOISE LEVELS IN dB(A)  
HOURLY Laeq,1hr & Lmax

Period	Time	Noise Level dB(A) 11-12/06/2025				Octave Band Analysis						Noise Rating	
		L <sub>Aeq</sub>	L <sub>max</sub>	L <sub>A90</sub>	31.5Hz	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	
D	07:00 - 08:00	47.3	66.2	43	46.1	48.7	40.5	36.3	39.3	41.2	31.1	24.8	41.2
	08:00 - 09:00	51.7	69.4	44.8	48.7	53.2	44.2	42.7	41.7	46.2	35.3	28.8	46.2
	09:00 - 10:00	53.3	70.4	45	50.7	55.7	47.7	44.3	42.1	47.5	38.5	33.9	47.5
	10:00 - 11:00	54.6	71	45.9	52.4	56.5	51.2	47.5	44	48.7	39.2	32.6	48.7
	11:00 - 12:00	50.1	67.8	38.5	52.8	58.2	55.2	43.7	39	43	34.2	28.8	46
	12:00 - 13:00	52	74.5	37.3	53.2	58.2	54.2	45.9	41.5	44.2	37.7	33.5	44.2
	A 13:00 - 14:00	51.9	79	37.1	53.2	56.9	57.8	45.5	39.6	42.8	34.3	27.5	30
	Y 14:00 - 15:00	49.2	64.7	38.8	54.8	55.9	47.9	43.5	39.1	43	33.7	27.4	42.8
	T 15:00 - 16:00	50.3	72.8	39.5	53	58.1	50.3	47.3	39.7	43	34	26.7	43
	I 16:00 - 17:00	58.7	85.8	37.8	52.2	55.8	66.1	56.3	47.9	51	37	28.9	51
M	17:00 - 18:00	56.2	84	37.9	55.5	60.9	65	54.4	44.7	46.8	38.8	34.9	48.9
E	18:00 - 19:00	51.1	75.2	38.5	50.7	53	46.1	45.3	40.7	45.1	36.4	31.1	45.1
	19:00 - 20:00	51.3	75.9	37.1	49.3	52.6	49.3	46	40.8	44	34.2	27	44
	20:00 - 21:00	51.9	78.5	37.3	47	51.3	62.6	45.3	37.2	43.1	33.1	29.2	44
	21:00 - 22:00	48.6	68	37.8	47.7	46.7	43.9	39.6	37.3	43.6	32.7	25.5	46.2
	22:00 - 23:00	48.9	78.1	32.8	43.1	43.7	49.7	44.2	37.4	42.7	32.7	24.7	43.6
<b>Average Daytime L<sub>Aeq</sub></b>													42.7
T	23:00 - 00:00	44.7	64.6	34.9	43.4	45.5	39.1	37.2	33.5	39.4	28.7	17	39.4
I	00:00 - 01:00	40.1	63.8	32.5	38.5	48.9	38	30.3	29.8	33.8	19.7	11.5	33.8
M	01:00 - 02:00	37.2	54.8	33.3	37.7	39.8	31.9	27	29.9	31.2	13.2	3.7	31.2
E	02:00 - 03:00	40.5	62.1	34.7	42.3	45.3	36.7	36.6	33.3	32.6	21.2	14.7	32.6
	03:00 - 04:00	43.6	65.1	35.7	43.3	47.5	37.6	38.1	35.6	37.2	26.9	15.8	37.2
	04:00 - 05:00	42.1	58.2	35.6	42.4	45.1	36.7	41.7	36.3	31.9	14.2	3.2	32.3
	05:00 - 06:00	43.2	68.2	36.8	40.1	48.3	35.3	32	35.2	37.7	25.5	18.5	37.7
	<b>Average Night-time L<sub>Aeq</sub></b>	<b>45.8</b>	<b>68.6</b>	<b>37.5</b>	<b>49.7</b>	<b>50.3</b>	<b>40.1</b>	<b>39.8</b>	<b>36.9</b>	<b>39.1</b>	<b>30.2</b>	<b>27.4</b>	<b>39.1</b>

Insulating glass units 6 mm / (6 - 16 mm) / 6 mm Attenuation	20	18	28	38	34	38	NR20
Daytime	46.1	38.3	19.9	13	3	-9.1	NR10
Night-time	20.1	21.8	8.9	1.1	-3.8	-10.6	

$$\text{Mean } L_{\text{eq},t} = 10 \log((10^{L_{\text{eq},10}/10} + 10^{L_{\text{eq},20}/10}) \dots) / N$$

Daytime, L<sub>Aeq</sub> 16hr = 52.8 dB(A)  
 Night-time, L<sub>Aeq</sub> 8hr = 42.8 dB(A)

**APPENDIX 2  
SITE MASTERPLAN**



2

Shilton Rd

FOR ILLUSTRATIVE PURPOSES ONLY



P&DG  
Planning and Design Group

Proposed primary vehicular route

Proposed vegetation

Existing pedestrian route

Site boundary (5.67ha)

KEY

Existing bridleway      Proposed pedestrian route

Other land within client's control

1

Existing trees and hedges to be retained

KEY

- Site bound (Red box)
- Other land (Blue box)
- Proposed (Grey box)

**APPENDIX 3**  
**PILKINGTON GLASS DATA SHEET**



PILKINGTON

CI/Sfb (31) R08 (P2)

June 2014

NSG  
GROUP



Pilkington **Optiphon™**  
Laminated Glass for noise control



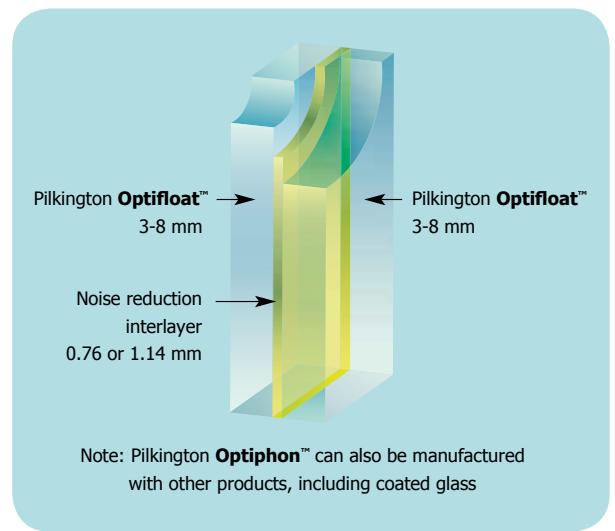
# Pilkington Optiphon™

## Laminated glass for superior noise insulation

Pilkington **Optiphon™** is the ideal choice of glass in situations where there is excess noise from road, rail or air traffic, or various other sources, for example factories or nightclubs.

Pilkington **Optiphon™** is a high quality acoustic laminated glass incorporating a special PVB (PolyVinyl Butyral) interlayer. It offers excellent noise reduction without compromising on light transmittance or impact performance.

The desired acoustic performance can be achieved through combining various thicknesses of glass with a PVB interlayer. With a large variety of product combinations, Pilkington **Optiphon™** offers the opportunity to achieve specific noise reduction requirements.



Note: Pilkington **Optiphon™** can also be manufactured with other products, including coated glass

### Benefits

- Special PVB interlayer for enhanced sound insulation performance
- A thinner and lighter glass for the equivalent acoustic performance
- Available in jumbo and lehr end sizes
- All products achieve at least safety class 1(B)1 (EN 12600) and are available to meet security glass grades contained in EN 356
- A high acoustic performance can be achieved when used in Insulating Glass Units (IGUs)
- Can also be used to improve noise insulation in a triple glazing construction

Pilkington **Optiphon™** can be combined with other Pilkington products for a multi-functional noise-reduction single glazing or IGU providing additional benefits, such as:

- Thermal insulation with Pilkington **K Glass™** / Pilkington **Optitherm™** (coating in position 3 in IGU)
- Solar control with Pilkington **Suncool™** (coating in position 2 in IGU)
- Self-cleaning with Pilkington **Activ™** (coating in position 1 in IGU)



## Technical Definitions

### Sound Reduction Index

$R_w$  is the weighted sound reduction, in decibels, which incorporates a correction for the ear's response.

$C$  and  $C_{tr}$  are the spectrum adjustments, which are the values added to  $R_w$  to take account of the characteristics of particular sound spectra. Typical noise sources for each spectrum adaptation terms are given below.



### Relevant spectrum adaptation term $C$

Type of noise source:

- Living activities (talking, music, radio, TV)
- Children playing
- Railway traffic at medium and high speed
- Jet aircraft, short distance away
- Motorway traffic >50 mph
- Factories emitting mainly medium and high frequency noise.

### Relevant spectrum adaptation term $C_{tr}$

Type of noise source:

- Urban road traffic
- Railway traffic at low speeds
- Aircraft, propeller driven
- Jet aircraft, long distance away
- Disco music
- Factory emitting mainly low and medium frequency noise.



## Sound insulation data for standard products

Glass	Sound reduction index (dB)									
	Octaveband Centre Frequency (Hz)						R <sub>w</sub> (C;C <sub>tr</sub> )	R <sub>w</sub>	R <sub>w</sub> +C	R <sub>w</sub> +C <sub>tr</sub>
	125	250	500	1000	2000	4000				
<b>Single glazing</b>										
4 mm Float Glass	17	20	26	32	33	26	29 (-2; -3)	29	27	26
6 mm Float Glass	18	23	30	35	27	32	31 (-2; -3)	31	29	28
8 mm Float Glass	20	24	29	34	29	37	32 (-2; -3)	32	30	29
10 mm Float Glass	23	26	32	31	32	39	33 (-2; -3)	33	31	30
12 mm Float Glass	27	29	31	32	38	47	34 (0; -2)	34	34	32
6 mm Laminated Glass	20	23	29	34	32	38	32 (-1; -3)	32	31	29
8 mm Laminated Glass	20	25	32	35	34	42	33 (-1; -3)	33	32	30
10 mm Laminated Glass	24	26	33	33	35	44	34 (-1; -3)	34	33	31
12 mm Laminated Glass	24	27	33	32	37	46	35 (-1; -3)	35	34	32
<b>Insulating glass units</b>										
4 mm / (6 - 16 mm) / 4 mm	21	17	25	35	37	31	29 (-1; -4)	29	28	25
6 mm / (6 - 16 mm) / 4 mm	21	20	26	38	37	39	32 (-2; -4)	32	30	28
6 mm / (6 - 16 mm) / 6 mm	20	18	28	38	34	38	31 (-1; -4)	31	30	27
8 mm / (6 - 16 mm) / 4 mm	22	21	28	38	40	47	33 (-1; -4)	33	32	29
8 mm / (6 - 16 mm) / 6 mm	20	21	33	40	36	48	35 (-2; -6)	35	33	29
10 mm / (6 - 16 mm) / 4 mm	24	21	32	37	42	43	35 (-2; -5)	35	33	30
10 mm / (6 - 16 mm) / 6 mm	24	24	32	37	37	44	35 (-1; -3)	35	34	32
6 mm / (6 - 16 mm) / 6 mm Laminated	20	19	30	39	37	46	33 (-2; -5)	33	31	28
6 mm / (6 - 16 mm) / 10 mm Laminated	24	25	33	39	40	49	37 (-1; -5)	37	36	32

The above are generally accepted values for generic products taken from EN 12758. They are conservative values that can be used in the absence of measured data.

Data for laminated glass is based on pvb interlayers (excluding acoustic pvb interlayers). Glass thickness for laminated glass excludes interlayer thickness.

Data can be adopted for air or argon gas-filled cavities

R<sub>w</sub> = Weighted sound reduction. This scale allows for the response of the human ear and could be used for determining a suitable product to reduce noise such as voices.

C = An adjustment to the R<sub>w</sub> scale that could be used for selecting a product to reduce noise from music, radio, tv, high speed traffic and other medium to high frequencies.

C<sub>tr</sub> = An adjustment to the R<sub>w</sub> scale that could be used for selecting a product to reduce noise from urban road traffic, disco music and other noises with a large component of low frequencies.

To the fullest extent permitted by applicable laws, Nippon Sheet Glass Co. Ltd. and its subsidiary companies disclaim all liability for any error in or omission from this publication and for all consequences of relying on it.



CE marking confirms that a product complies with its relevant harmonised European Norm.

The Declaration of Performance for each product, including declared values, can be found at [www.pilkington.com/CE](http://www.pilkington.com/CE)



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[www.pilkington.co.uk](http://www.pilkington.co.uk)



## Pilkington Optiphon™

Glass	Sound reduction index (dB)									
	Octaveband Centre Frequency (Hz)						$R_w(C; C_{tr})$	$R_w$	$R_w + C$	$R_w + C_{tr}$
	125	250	500	1000	2000	4000				
<b>Single glazing</b>										
6.8 mm Pilkington Optiphon™	26	27	31	36	40	39	36 (-1; -4)	36	35	32
8.8 mm Pilkington Optiphon™	24	28	34	38	37	43	37 (-1; -4)	37	36	33
9.1 mm Pilkington Optiphon™	26	29	34	38	38	43	37 (-1; -3)	37	36	34
12.8 mm Pilkington Optiphon™	30	32	37	39	41	51	39 (0; -2)	39	39	37
13.1 mm Pilkington Optiphon™	30	33	37	40	41	50	40 (0; -2)	40	40	38
<b>Insulating glass units</b>										
6 mm / 16 mm argon / 6.8 mm Pilkington Optiphon™	22	27	35	42	41	48	38 (-2; -5)	38	36	33
6 mm / 16 mm argon / 8.8 mm Pilkington Optiphon™	24	26	40	48	46	54	41 (-3; -7)	41	38	34
8 mm / 16 mm argon / 9.1 mm Pilkington Optiphon™	24	29	41	47	47	55	43 (-3; -7)	43	40	36
10 mm / 16 mm argon / 9.1 mm Pilkington Optiphon™	29	33	44	46	49	57	45 (-2; -5)	45	43	40
8.8 mm Pilkington Optiphon™ / 16 mm argon / 12.8 mm Pilkington Optiphon™	26	36	46	50	52	63	47 (-2; -7)	47	45	40
9.1 mm Pilkington Optiphon™ / 20 mm argon / 13.1 mm Pilkington Optiphon™	29	39	49	52	55	63	50 (-3; -8)	50	47	42

Measurements undertaken in accordance with BS EN ISO 10140 and  $R_w(C; C_{tr})$  determined in accordance with BS EN ISO 717-1

For insulating glass units, there is little difference in the sound insulation for cavity widths in the range 6 to 16 mm

Pendulum body impact resistance to BS EN 12600 for all Pilkington Optiphon™ is Class 1 (B) 1

To achieve low U values in insulating glass units, Pilkington Optiphon™ can be combined with low emissivity glass from the Pilkington K Glass™ or Pilkington Optitherm™ ranges

To calculate performance data for Pilkington products, please use our Spectrum online calculator at [www.pilkington.co.uk/spectrum](http://www.pilkington.co.uk/spectrum)

For glass combinations to achieve an  $R_w$  value higher than 50 dB, please contact us for more details

This publication provides only a general description of the products. Further, more detailed, information may be obtained from your local supplier of Pilkington products. It is the responsibility of the user to ensure that the use of these products is appropriate for any particular application and that such use complies with all relevant legislation, standards, codes of practice and other requirements. To the fullest extent permitted by applicable laws, Nippon Sheet Glass Co. Ltd. and its subsidiary companies disclaim all liability for any error in or omission from this publication and for all consequences of relying on it. Pilkington "Optiphon", "Optitherm", "K Glass", "Activ" and "Suncool" are trademarks owned by Nippon Sheet Glass Co. Ltd, or a subsidiary thereof.



CE marking confirms that a product complies with its relevant harmonised European Norm. The Declaration of Performance for each product, including declared values, can be found at [www.pilkington.com/CE](http://www.pilkington.com/CE)



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# Trickle Ventilation

May 2015 | V1.2

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# Introduction

Welcome to the latest version of the Glazpart Trickle Ventilation catalogue. Totally revised, this is the most comprehensive overview of our ever expanding product range dedicated to the Fenestration industry to comply with prevailing building regulations.

This edition also answers some of the key questions related to the need, use and specification of trickle ventilators. We also try to offer some guidance to the building regulations across the UK and Ireland. This must however be read in conjunction with the prevailing regulations in each country across the United Kingdom and Northern Ireland.

We have for the first time included colour referenced part number tables and highlight product combinations for new applications such as combustion air, sash window and patio or bi-fold doors.

**Our trickle ventilator products are available for delivery as:**

- packaged in sets (Canopy and Ventilator)
- point of sale (promotional packaging)
- bulk or standard packed (as sets or separate internal ventilators & external grilles)
- mix and match colours.

Let us know how you want the parts delivered and we can arrange it!

New in this edition are rendered CAD images to give a clear view of our products. These images are available from your customer services contact as .jpeg, 3D adobe PDF or .stp files to assist you and your design team in the design and development of your products.

**New products this year:**

- Colour options:
  - vacuum foiling, wood grain and solid colour
  - through moulded colour range extended, E.g. Anthracite Grey RAL7016
  - printed wood grain colours, E.g. Irish Oak, Mahogany, Rose Wood and Golden Oak
- Colour spraying service where if required parts can be paint sprayed to ANY RAL, BS or swatch matched colour for special applications.

All these supply benefits and new products from the manufacturer of the only range of BBA certificated Trickle vents in the UK (at the time of publication).

We hope you find this document useful and should you have any feedback please contact me.

Regards

*Dean Bradley*

Dean Bradley,  
 Sales and Marketing Manager  
[dbradley@glazpart.co.uk](mailto:dbradley@glazpart.co.uk)



Glass and Glazing Federation

Trickle Ventilation: V1.2

Made in Britain





# Why are trickle ventilators needed?



This has long been a controversial and puzzling question in the fenestration market since its introduction. The typical question has been -

***"Why having developed thermally efficient window systems do we then rout a hole in the top?"***

Over the last few revisions of the regulations, the airtightness of buildings has become an increasing issue. On the one hand there has been a drive to improve the thermal efficiency of windows whilst reducing energy consumption, as we build greener buildings. The consequence has been that as dwellings are made more airtight and internally generated pollutants affect disproportionately indoor air quality. This may cause adverse health effects unless unobtrusive background ventilation is installed.

Background ventilation is therefore necessary to provide a healthy indoor environment for the occupants. The primary purpose of trickle ventilation is to remove polluted indoor air from a building and replace it with 'Fresh' outside air. Background Ventilation is a key product for a healthy living environment. These small trickle ventilators are designed to deliver controllable whole room ventilation.

## Background ventilation using trickle ventilators provides:

- Low Co2 footprint,** as this system consumes no electrical power once installed.
- Security,** installation foot prints prevent intrusion into the property. Whilst allowing constant ventilation even when the window is locked, as even locking handles can be a risk.
- Controllable,** ventilators are designed to deflect the airflow to minimize draughts.
- Cost effective,** the lowest cost route for provision of background ventilation without the need for air bricks and no ongoing electricity costs.
- Cleaner building designs:** as background ventilation is delivered through the window reveal no additional means of ventilation need be installed.
- Noise reduction,** a property in a noisier location, E.g. near a busy road or airport. Trickle ventilators provide ventilation without the need to open the windows, reducing noise levels.
- Condensation reduction,** some properties may have an existing problem with condensation especially in colder weather. Fitting windows with suitable trickle ventilation may improve the problem and potential risk of mould growth is reduced, which could minimise damage to internal surfaces.
- Clean, fresh background air** may reduce health problems, E.g. Asthma sufferers. Whilst also helping to manage the levels of pollutants such as carbon monoxide and carbon dioxide. The building regulations require the number of inhabitants in a property to be a consideration when planning a ventilation requirement.
- 24 hours operation,** even at night and whilst you are on holiday they can still operate.
- Controlled heat loss,** by using calculated background ventilation the need for purge and extraction of warm air is managed. Background ventilation can assist with air temperature movement between the habitable room and the atmosphere.
- Thermal comfort,** trickle vents are designed and located (typically 1.70 m above floor level) to control air movement (draughts) in habitable rooms.

Other ventilation types include 'Purge' and 'Extraction' is mechanical and is used locally within a building typically for kitchens and bathrooms where pollutants and water vapour are removed to prevent spreading throughout the building.





# What are the Free and Equivalent areas of background trickle ventilators?

**Equivalent area (EQA)** is used instead of **free area** for the sizing of trickle ventilators as it is a better measure of the ventilators air flow performance.

**Free area** is the geometric cross sectional area of the opening of the ventilator. This however may not accurately reflect the air flow performance achieved by the ventilator. The more complex and/or restricted route of the air flow through the ventilator, the less air can flow through it.

Therefore, two separate ventilators with equal free areas may have different ventilation performance.

In order to calculate the EQA, the F1 Approved document uses a method defined in European Standard, BS EN 131 41-1 :2004 (Clause 4), for measuring the **EQA** of **background ventilators**.

**EQA** cannot be assessed on site, so it will be difficult to demonstrate that trickle ventilators have the correct **EQA**, so it is preferable to use ventilators which have the **EQA** (mm<sup>2</sup> at 1 Pa pressure difference), marked on the ventilator in a visible location, in the room to be ventilated, when installed.

The **EQA** is determined in accordance with BS EN 13141:2006 Part 1 "Ventilation for Buildings - Performance testing of components/products for residential ventilation - Part 1: Externally and internally mounted air transfer devices".

Clause 4.1 defines the test; "Flow Rate/Pressure" of BS EN13141 - 1 at pressures between 1 and 100Pa. The equivalent free area test calculates a value in mm<sup>2</sup> at a pressure difference of 1Pa.

The **EQA** is calculated using characteristic K at six pressures to measure the airflow. At 1Pa pressure difference the K value equals the corrected volume air flow rate Qvcor in l/s. This is multiplied by the coefficient C to give the equivalent free area in mm<sup>2</sup>.

This information is for guidance only and is based upon Approved Document F1 at the time of publication.

**Demonstrating this difference below is the geometric and EQA values of our modular ventilator range.**

Vent Type	E.Q.A. (Equivalent Area)	Geometric Area
Modular 2000 Mk 3	1480 mm <sup>2</sup>	2000 mm <sup>2</sup>
Modular 4000 Mk 3	2590 mm <sup>2</sup>	4000 mm <sup>2</sup>
Modular 2000 + Grille	1380 mm <sup>2</sup>	2000 mm <sup>2</sup>
Modular 2000 + Hood	1390 mm <sup>2</sup>	2000 mm <sup>2</sup>
Modular 4000 + Hood	2580 mm <sup>2</sup>	4000 mm <sup>2</sup>
Modular 4000 + Grille	2700 mm <sup>2</sup>	4000 mm <sup>2</sup>
Modular 8000 + Hood	5170 mm <sup>2</sup>	8000 mm <sup>2</sup>
Modular 8000 + Grille	5940 mm <sup>2</sup>	8000 mm <sup>2</sup>





# Independent Certification

**Unique Trickle vent approval for Glazpart customers**

## Advantages of BBA Certification

At the time of writing Glazpart are the **ONLY** trickle vent manufacturer holding a current BBA certification (certificate Number 96/3217). This is issued following detailed assessments as to compliance with building regulations. Then there is ongoing monitoring to ensure products are manufactured to these exacting standards.

### How can we help your sales?

**Q: How do we tell our customers?**

A: Request access to our customer secure web portal to download the certificate for your selected vent from the customer service team.

**Q: Will this help my sales?**

A: Yes, the BBA certificate / approval is often requested in specifications especially for major house builders, Local authorities and Housing associations.

### Which products are covered?

- Slim line (MK3) - Clip fix
- Standard Vent - Screw fix
- Modular Vent - Clip fix
- All in colour's white, Brown and Black.

*"This approval allows our customers to supply our trickle vent products with complete confidence as BBA certification assures compliance to building regulations..."*

*- Dean Bradley  
 Sales and Marketing Manager*





# Certificates

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**GLAZPART TRICKLE VENTILATORS**

**BBA AGREEMENT CERTIFICATE**  
 Agreement Certificate  
 96/3217  
 Product Sheet 2

**GLAZPART TRICKLE VENTILATORS 2000 ULTRASOK MODULAR VENTS**

**PRODUCTS COVERED BY THIS AGREEMENT**

This Certificate replaces Certificate 92/2975 and relates to Glazpart Trickle Ventilators 2000 (ultraSok Modular Vents), a range of surface ventilators for use in new and existing structures for the provision of trickle ventilation in both domestic and commercial buildings.

**AGREEMENT CERTIFICATION INCLUDES:**

- factors relating to compliance with Building Regulations where applicable
- factors relating to addressed non-regulatory issues where applicable
- independently verified technical specifications
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal Assessment by review

**KEY FACTORS ASSESSED**

**Ventilation** – the products can contribute to satisfying the local background ventilation requirements for building regulations. The appropriate area of the vents was also determined from section 3.

**Weather-tightness** – use of the products will not affect the safety of a wall or roof to comply with regulations (see section 4).

**Condensation** – the products can contribute to limiting the risk of surface and internal condensation.

**Durability** – the products will have a life equivalent to that of the windows into which they are fixed (see section 5).

The BBA has awarded this Agreement Certificate to the company named above for the products listed. These products have been assessed by the BBA on behalf of their intended use as provided in the table below.

On behalf of the British Board of Agrément

*Chris Hart*  
 Chris Hart  
 Head of Appraisals – Projects

Date of first issue: 28 January 2010  
 Originally confirmed in February 2010  
 The BBA is a UKAS accredited certification body – Number 113. The details of the UKAS accreditation are available in full detail on the BBA's website at [www.ukas.com](http://www.ukas.com).

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**GLAZPART TRICKLE VENTILATORS**

**BBA AGREEMENT CERTIFICATE**  
 Agreement Certificate  
 96/3217  
 Product Sheet 1

**GLAZPART TRICKLE VENTILATORS 2000 AND 4000**

**PRODUCTS COVERED BY THIS AGREEMENT**

This Certificate replaces Certificate 92/2975 and relates to Glazpart Trickle Ventilators 2000 and 4000. The products are used for in new and existing structures for the provision of trickle ventilation in both domestic and commercial buildings.

**AGREEMENT CERTIFICATION INCLUDES:**

- factors relating to compliance with Building Regulations where applicable
- factors relating to addressed non-regulatory issues where applicable
- independently verified technical specifications
- assessment criteria and technical investigations
- design considerations
- regular surveillance of production
- formal Assessment by review

**KEY FACTORS ASSESSED**

**Ventilation** – the products can contribute to satisfying the local background ventilation requirements for building regulations. The appropriate area of the vents was also determined from section 3.

**Weather-tightness** – use of the products will not affect the safety of a wall or roof to comply with regulations (see section 4).

**Condensation** – the products can contribute to limiting the risk of surface condensation (see section 5).

**Durability** – the products will have a life equivalent to that of the windows into which they are fixed (see section 5).

The BBA has awarded this Agreement Certificate to the company named above for the products listed. These products have been assessed by the BBA on behalf of their intended use as provided in the table below.

On behalf of the British Board of Agrément

*Chris Hart*  
 Chris Hart  
 Head of Appraisals – Projects

Date of first issue: 4 November 2009  
 Originally confirmed in November 2009  
 The BBA is a UKAS accredited certification body – Number 113. The details of the UKAS accreditation are available in full detail on the BBA's website at [www.ukas.com](http://www.ukas.com).

**British Board of Agrément**  
 Bostock Lane  
 Chorley  
 PR10 3JL  
 Tel: 01295 264533





# Independent Certification

## Unique Trickle vent approval for Glazpart customers

## Advantages of LABC Registered detail

Registered Details involves a one-off fast track certification process so your product solution can be instantly accepted by LABC building control surveyors in more than 300 local authorities across the country. So you can offer Glazpart trickle vents to your local authority building control department in the knowledge it will be approved, provided sufficient equivalent area is to be installed.

### How can we help your sales?

**Q: How do we tell our customers?**

A: Request access to our customer secure web portal to download the certificate for your selected vent from the customer service team.

**Q: Will this help my sales?**

A: Yes, the registered detail provides approval across all English and Welsh building control departments, simply highlight the approvals.

### Which products are covered?:

- Link-Vent 2500EQA and 500EQA (Cert No RD482C)
- Slim line (MK3) - Clip fix (Cert No RD482A)
- Standard Vent - Screw fix (Cert No RD482B)

*"This approval allows our customers to supply our trickle vent products with even more confidence as LABC registered detail assures compliance to building regulations..."*

*- Dean Bradley  
Sales and Marketing Manager*





# Certificates

**Certificate No: EW482A**

The Glazpart Trickle will provide Trickle Ventilation in accordance with the Building Regulations 2010 Approved Document F1. D3041 2010. The product is specifically designed for Through Profile PVC-U applications using a 1.0 mm thickness slot, and is suitable for Use Under All Windows and Clad Units. It is available with the advantage of rapid fitting to profiles.

The product consists of an internal ventilator with adjustable sashes to regulate incoming air flow and an external cover or an integrated cover if available. It has a maximum flow rate of 1.25 m³/min, measured at 1000Pa at 20°C. The product is available in white or grey.

**Health, Safety and Environmental - Approved Document C**  
**Safety in Use - Approved Document D**  
**Protection against noise**  
**Energy Efficiency and heat retention - Approved Document E**  
**Disability accessibility and identifiability**

This certificate was first issued 1st September 2011 and is valid until 1st September 2013  
Issue Date 1st August 2011

**Certificate No: EW482B**

The Glazpart Trickle will provide Trickle Ventilation in accordance with the Building Regulations 2010 Approved Document F1. D3041 2010. The product is specifically designed for Through Profile PVC-U applications using a 1.0 mm thickness slot, and is suitable for Use Under All Windows and Clad Units. It is available with the advantage of rapid fitting to profiles.

The product consists of an internal ventilator with adjustable sashes to regulate incoming air flow and an external cover or an integrated cover if available. It has a maximum flow rate of 1.25 m³/min, measured at 1000Pa at 20°C. The product is available in white or grey.

**Health, Safety and Environmental - Approved Document C**  
**Safety in Use - Approved Document D**  
**Protection against noise**  
**Energy Efficiency and heat retention - Approved Document E**  
**Disability accessibility and identifiability**

This certificate was first issued 1st September 2011 and is valid until 1st September 2013  
Issue Date 1st August 2011

**Certificate No: EW482C**

The Glazpart Trickle will provide Trickle Ventilation in accordance with the Building Regulations 2010 Approved Document F1. D3041 2010. The innovative 'Tilt' allows the closure plate to be positioned to either straight with the benefit of directing air away from occupants.

**Health, Safety and Environmental - Approved Document C**  
**Safety in Use - Approved Document D**  
**Protection against noise**  
**Energy Efficiency and heat retention - Approved Document E**  
**Disability accessibility and identifiability**

This certificate was first issued 1st September 2011 and is valid until 1st September 2013  
Issue Date 1st August 2011





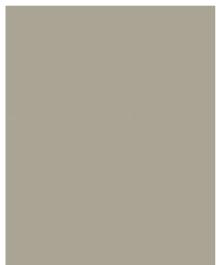
## Through Moulded Vents



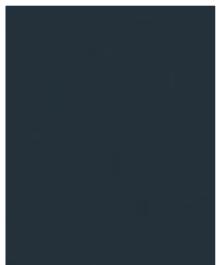
Basalt Grey 7012



Anthracite  
Grey 7016



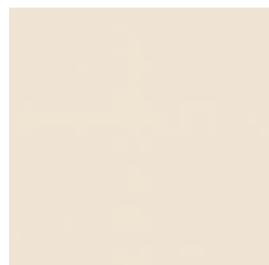
Agate Grey 7038



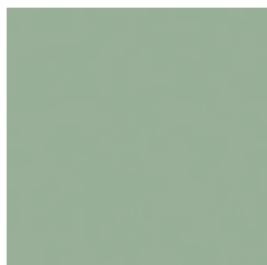
Gale Grey 7016



Hazy Grey 7001



Cream White



Chartwell Green



Moss Green



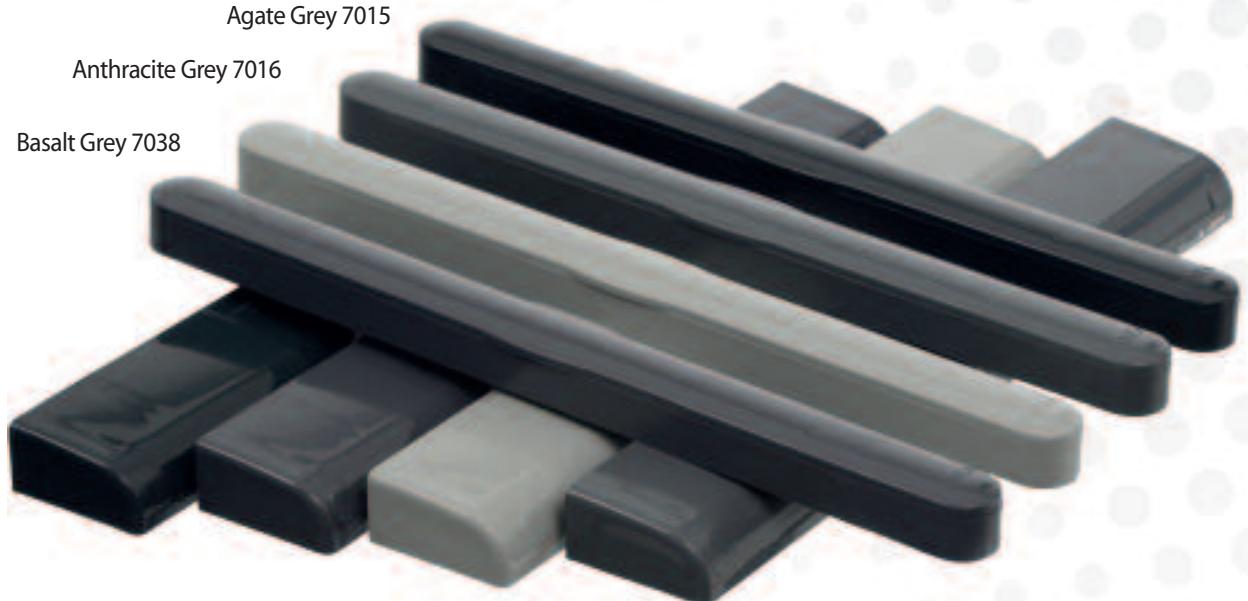
Dark Green

Hazy Grey 7015

Agate Grey 7015

Anthracite Grey 7016

Basalt Grey 7038

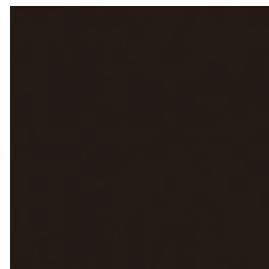




# Never spray another tricklevent again!



Wine Red



Dark Brown



Steel Blue



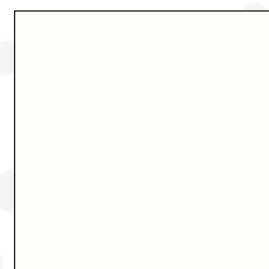
Dark Red



Black



Tan



White



Plain Irish Oak





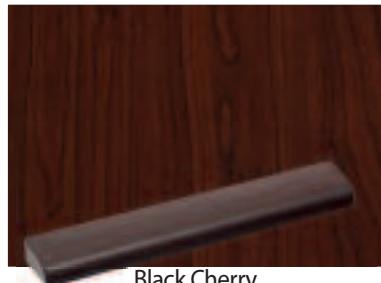
# Colour Options

## Vacuum Foil – Woodgrain Effects



Anteak

MXP0113.9.3241.002.119500



Black Cherry

MXP0059.9.3202.001-116700  
FX.9.3202.701.116701

Golden Oak

MXP0031.9.2178.001.116700  
PX.9.2178.301.116700  
FXP0040.9.2178.701.116701

Irish Oak

MXP0109.9.3211.005.114800



Mahogany

MXP0019.9.2097.013.116700



Sapeli / Ambassador

MXP0016.9.2065.021.116700  
PX.9.2065.321.116700

Dark Oak FL-F1

MXP0012.9.2052.089.116700  
PX.9.2052.389.116700  
FX.9.2052.789.116701

Light Oak

MXP0013.9.2052.090.116700



Macore

MXP0051.9.3162.002.116700  
PX.9.3162.302.116700  
FX.9.3162.702.116701

Mountain Pine

MXP0039.9.3069.041.116700



Natural Oak ST-F2

MXP0044.9.3118.076.116800



Oregon Pine 4

MXP0008.9.1192.001.116700



Piedmont A

MX46095.9.0049186.101100  
PX46822.9.0046822.101100

Regency A

MX46096.9.0049177.101100



Rustic Cherry

MXP0086.9.3214.007.119500



Rustic Oak 1

MXP0046.9.3149.008.16700  
FX.9.3149.708-116701

Sherwood G

MX46049.9.0049158.101100  
PX46820.9.0046820.101100

Sherwood W

MX46050.9.0049201.101100  
PX46821.9.0046821.101100

Shogun AC

MX46100.9.0049197.101100



Shogun AD

MX46099.9.0049195.101100



Siena PN

MX46102.9.0049237.114800  
PX46828.9.0046828.114800

Siena PR

MX46101.9.0049233.114800  
PX46827.9.0046827.114800

Soft Cherry

MXP0108.9.3214.009.119500



Stripe Douglas

MXP0047.9.3152.009.116700



MXP0053.9.3167.004.116700

MXP0033.9.2178.007.116700  
PX.9.2178.307-116700

MXP0041.9.2178.707.116701

### Note:

Colours are reproduced as near as possible, and we recommend samples are approved to compare compatibility. Foil numbers are for Renolit foils and should be quoted to clearly identify foil colour or pattern.



Rely on it.

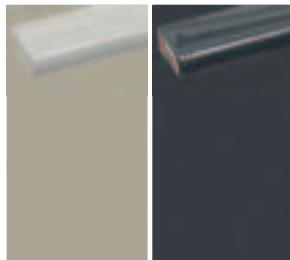
Made in Britain





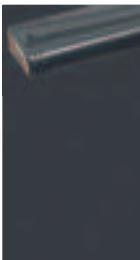
# Colour Options

## Vacuum Foil – Solid Colour Effects



Agate Grey

MXS0061  
 7038.05.116700  
 RAL:7038



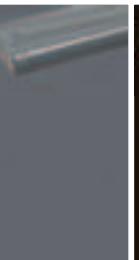
Anthracite  
 Grey 083

MXS0053  
 7016.05.808300  
 PX.02.20.71  
 000001.808300  
 RAL:7016



Anthracite  
 Grey 167

MXS0054  
 7016.05.116700  
 PX.02.20.71.  
 000001.116700  
 FX.02.12.71.  
 000003.116701  
 RAL:7016



Basalt Grey

MXS0050  
 7012.05.116700  
 RAL:7012



Beck Brown

MX462226  
 49116.101100  
 RAL:8022



Chartwell  
 Green

MX45894  
 49246.101100



Cream White

PX47848.02.20.  
 11.000011.116700  
 FX.02.12.11.  
 000011.116701  
 RAL:9001



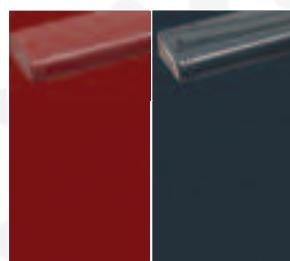
Ice Cream

PX47835  
 46835.101100  
 RAL:9001



Dark Green

MXS0045  
 6125.05.116700  
 PX.02.20.61.  
 000001.116700  
 FX.02.12.61.  
 000008.116701  
 RAL:6009



Dark Red

MXS0026  
 3081.05.116700  
 RAL:3011

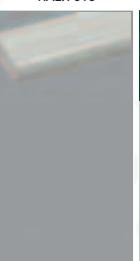


Gale Grey

MX46312  
 49122.101100  
 PX46838.46838.116700

Finesse available

MX46172  
 49122.801300  
 RAL:7016

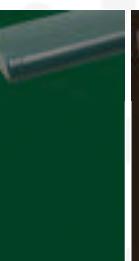


Hazy Grey  
 Finesse

MX46325  
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 PX46839  
 46839.116700

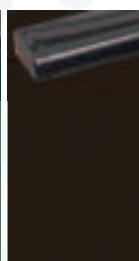
Finesse available

MX46242  
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 RAL:7001



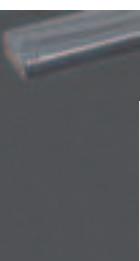
Moss Green

MXS0042  
 6005.05.116700  
 FX.02.12.61.  
 000001.116701



Black Brown

MXS0078  
 8518.05.116700  
 RAL:8022



Slate Grey

MX46188  
 49229.101100  
 PX46833  
 46833.116700

Finesse available

MX46391  
 49229-801300  
 RAL:7015



Steel Blue

MXS0037  
 5150.05.116700  
 RAL:5011



White

PX47849.02.20.91.  
 000001.116801  
 FX50128.02.12.91.  
 000014.116801  
 RAL:9010



Wine Red  
 Finesse

MXS0022  
 3005.05.116700  
 RAL:3005



Quartz Grey

MXS0062.7039.05.116700  
 RAL:7039



Brilliant Blue

MXS0031.5007.05.116700  
 RAL:5007



Chocolate Brown

MXS0080.8875.05.116700  
 RAL:8022



Crystal White

Crystal White 083  
 FX.02.12.91.000005.808302  
 Crystal White 167  
 FXS0112.02.12.91.  
 000005.116701



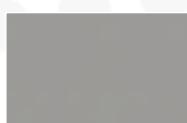
Grey

MXS0064  
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 FX.02.12.71.00004.116701  
 RAL:7001  
 Emboss available



Light Grey

MXS0067  
 7251.05.116700  
 RAL:7035



Signal Grey

MXS0047  
 7004.05.808300  
 RAL:7004

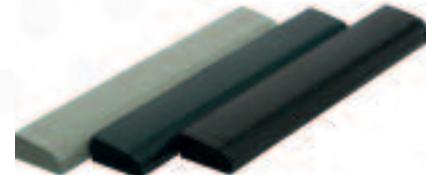


Silver Platinum

MXP0124  
 9.1293.003.119500

### Note:

RAL numbers are for reference only and samples should be approved.  
 Colours are reproduced as near as possible, and we recommend samples are approved to compare compatibility. Foil numbers are for Renolit foils and should be quoted to clearly identify foil colour or pattern.



Rely on it.



Glass and Glazing Federation

Trickle Ventilation: V1.2

Made in Britain





## Colour Options Woodgrain Print Effect

Close Match Woodgrain	Woodgrains Available
SIENA PR SOFT CHERRY	Black Cherry
ANTIQUE OAK MOUNTAIN PINE NATURAL OAK ST-F2 RUSTIC OAK 1	Irish Oak
DARK OAK FL-F1 MACORE PIEDMONT A REGENCY A SAPELI SHERWOOD W SIENA PN SWAMP OAK ST-F WALNUT V	Mahogany
GOLDEN OAK OREGON PINE RUSTIC CHERRY SHERWOOD G SHOGUN AD STRIPED DOUGLAS WINCHESTER XA	Golden Oak



Visit our website to select from over 500 patterns (the skies the limit)





# Colour Options

## Spraying

**Glazpart are proud to be a high quality colour paint sprayer using the latest paint technology and suppliers**

The spray system is a special coating designed to paint uPVC and other hard plastic such as ABS, polycarbonate and acrylic where the system forms a molecular cross bond with the plastic surface.

To enable the production of coloured window frames, coloured doors and coloured conservatories thousands of colours are available. We can offer all standard RAL and BS colours and match to most other colour systems. In addition, we have a specialist colour matching service that allows us to match non-standard colours and supplied colour samples.

The system is extremely colour stable and resistant to UV, so will hold its colour without excessive fading.

Technical data sheets show that the system does not contain lead, cadmium, zinc, formaldehyde or isocyanates so is kinder to the environment and safer for operators.

- Very colour stable
- UV resistant (perfect for Conservatories and Patio Doors)
- Resistant to Abrasion – ideal for doors and windows
- Available in almost any colour
- Available in gloss, satin or matt finish
- Available in metallic and pearlescent finishes





## Link Vent



### Product Overview

The Link Vent will provide Trickle Ventilation in accordance with the Building Regulations 2000: Part F:Approved Document F1 October 2010 and Scottish Building Regulations October 2011 Standard 3.14.

The product is specifically designed for "Through Profile" PVC-U applications using a 13 mm routed slot, and is available in two sizes. All ventilators have the option to be "Screw" or "Clip" fixed with the advantage of rapid fitting to profiles.

#### The products key features are as follows:

- The innovative design eliminates screw cap covers
- Option to be "Screw" or "Clip" fixed
- Unique closure mechanism provides for a uniquely adjustable air flow
- LABC Certification
- Sash window application

### Contents

- 1 Product Detail
- 2 Physical Data
- 3 Materials Of Construction
- 4 Performance Data
- 5 Acoustic Values
- 6 Installation Instructions
- 7 Slimline Vent Routing Detail
- 8 Part numbers



### 1. Product Detail

The product consists of an internal ventilator with adjustable closures to regulate incoming air flow and an external canopy with integral fly screen.

#### Internal ventilator

This is injection moulded in ASA, which is highly UV and temperature resistant. The optional acetal spring clips that enable the ventilators to be firmly snapped into the routed slot in the profile or conventionally screw fixed. The clip fixed option of this vent provides installation time cost savings when compared with 'screw fitting' alternatives.

The closure plate has a positive action and multiple units in the 4000 version provide control of airflow.





### External canopy

This is complimentary to the interior unit and features the same materials and fixing methods. The canopy has an integral fly screen. A flat grille is available.



## 2. Physical Data

	Internal		External	
	Dimension	Weight	Dimension	Weight
Link-Vent 2500	18.5 mm x 236.5 mm Depth 15 mm	28g	18 mm x 236.5 mm Depth 37.5 mm	39g
Link-Vent 5000	18 mm x 454.5 mm Depth 15 mm	59g	18 mm x 454.5 mm Depth 37.5 mm	78g

For colour options please see page 8 - 13.

## 3. Materials of Construction

Internal and external units are primarily moulded in UV stabilised PVC-U. The spring fixing clips are in UV stabilised Acetal. Suppliers data sheets for these polymers are available on request.

## 4. Performance Data

	Ventilator			
	Attachment type	Dimension	E.Q.A (Equivalent area)	Cross sectional area
2500	Clip or Screw	13 mm x 204 mm	2500mm <sup>2</sup>	2574mm <sup>2</sup>
5000	Clip or Screw	13 mm x 422 mm Depth 14 mm	5000mm <sup>2</sup>	5158mm <sup>2</sup>

## 5. Acoustic Values

Position	Closed	Open
2500 EQA	dB = 42 (-1;0)	dB = 36 (-1;1)
5000 EQA	dB = 40 (-0;1)	dB = 36 (-1;1)
D,n,e,w as defined in BS EN 20140-10-1992		

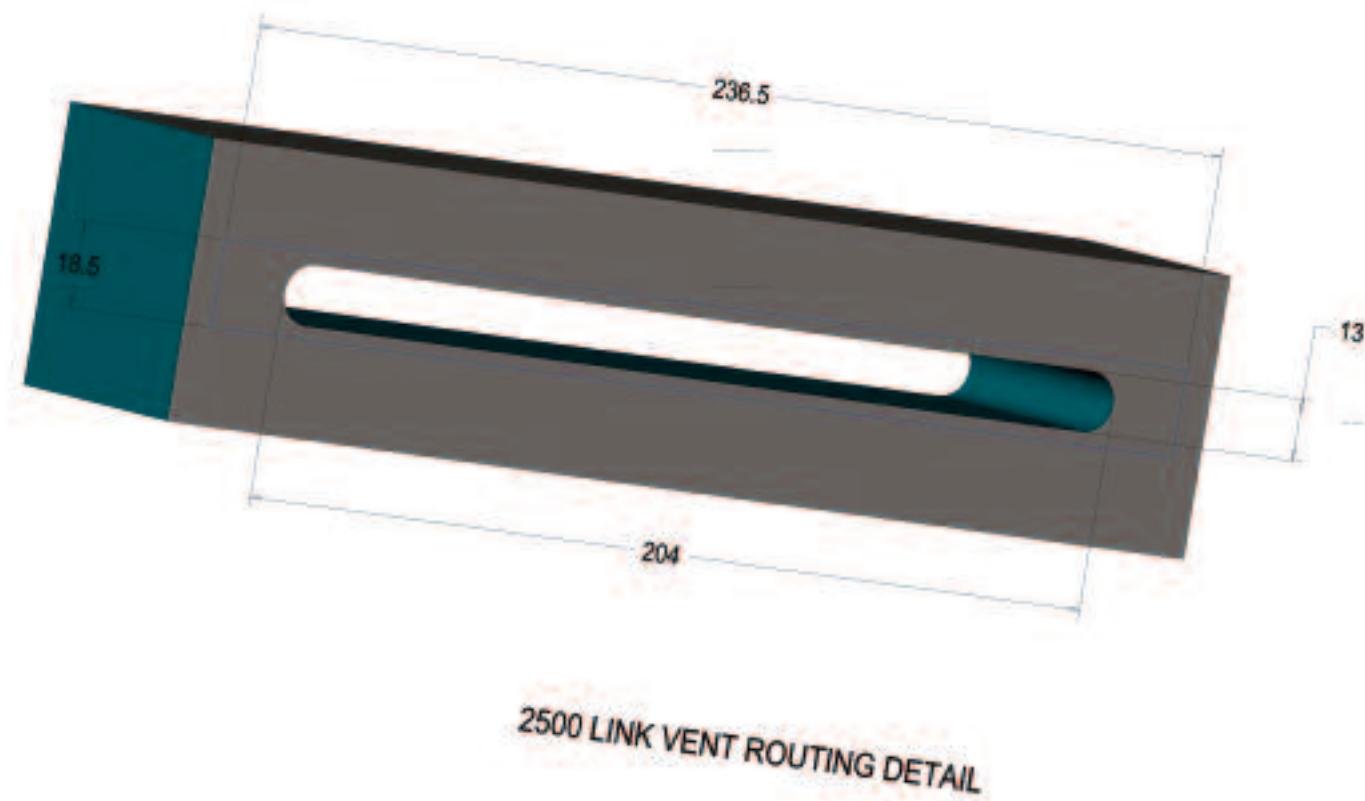


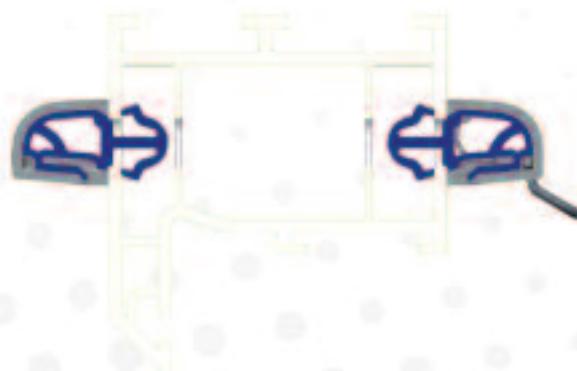


## 6. Installation Instructions

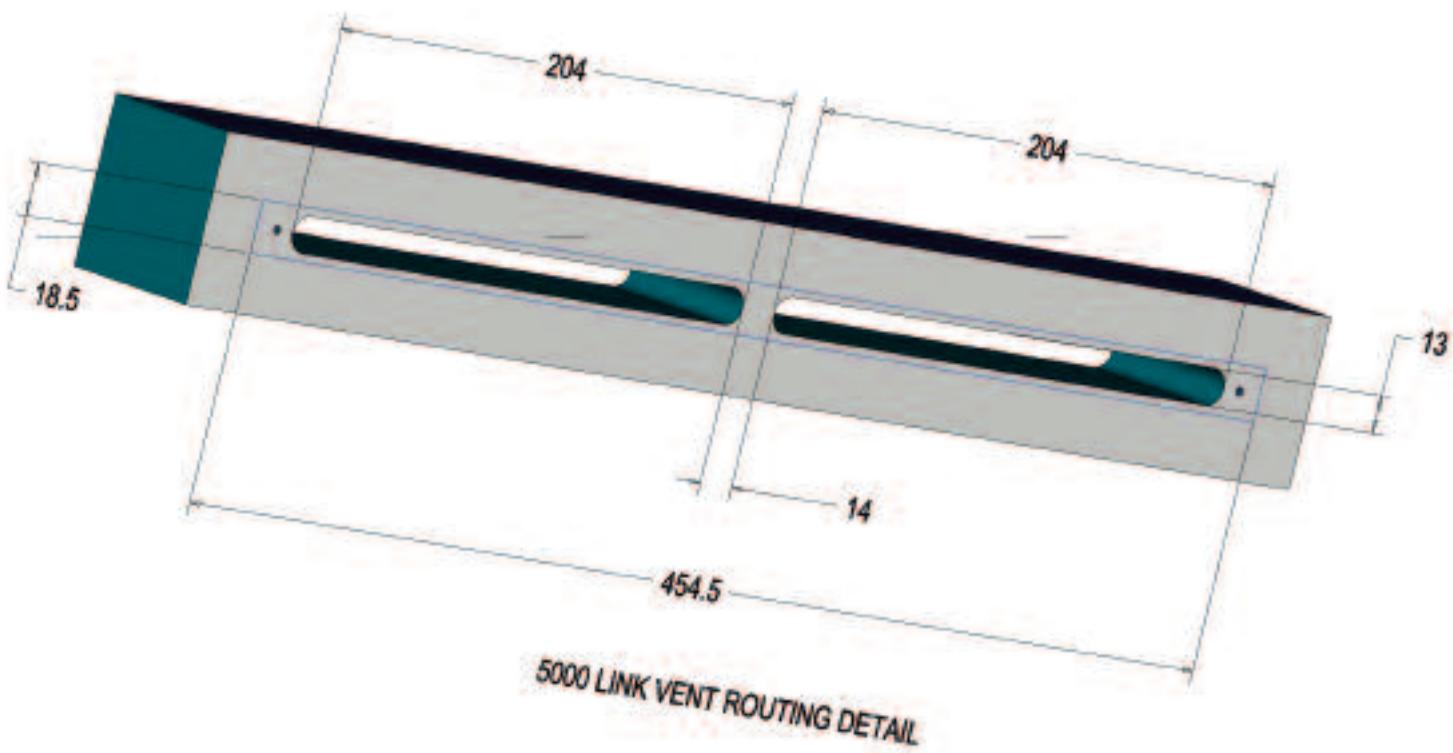
1. The ventilator is normally fitted in the head of the frame or sash in a section that does not contain a reinforcing member.
2. Rout a 10 mm slot as detailed in the below diagrams.
3. Units are fitted by locating the spring fixings into the routed slots and pressing firmly into place.

### Link Vent 2500 Routing and Vent Footprint detail





### Link Vent 5000 Routing and Vent Footprint detail





## 7. Part numbers – Link Vent Clip Fix 2500

LINK VENT CLIP FIX 2500	Internal	External	Full Vent	Colour and White vent
<b>Traditional Colours</b>				
White	2100-00000B	2200-00000B	2000-00000	N/A
Brown	2100-00001B	2200-00001B	2000-00001	2000-01001
Black	2100-00002B	2200-00002B	2000-00002	2000-01002
White (Cream Tint)				
White (Blue Tint)				
Oak Brown Tan 21	2100-00005B	2200-00005B	2000-00005	2000-01004
Oak Brown	2100-00006B	2200-00006B	2000-00006	
Cream RAL 9001				2000-01008
Cream RAL 1015	2100-00014B	2200-00014B	2000-00014	2000-01014
Cream White	2100-00007B	2200-00007B		2000-01007
<b>Woodgrain Patterns</b>				
Mahogany (Aqua)	2100-00500B	2200-00500B	2000-00500	2000-01500
Rosewood (Aqua)	2100-00501B	2200-00501B	2000-00501	2000-01501
Light Oak (Aqua)	2100-00502B	2200-00502B	2000-00502	2000-01502
Irish Oak (Aqua)	2100-00503B	2200-00503B	2000-00503	2000-01503
<b>Modern Colours</b>				
Grey 7001				
Grey 7015	2100-00009B	2200-00009B	2000-00009	2000-01009
Grey 7016	2100-00010B	2200-00010B	2000-00010	2000-01010
Quartz Grey				
Agate Grey	2100-00017B	2200-00017B		
Basalt Grey	2100-00016B	2200-00016B		
Steel Blue				
Chartwell Green	2100-00015B	2200-00015B	2000-00015	2000-01015
Moss Green				
Dark Green				
Wine Red				
Dark Red				
Plain Irish Oak	2100-00011B	2200-00011B	2000-00011	2000-01011

## Part numbers – Link Vent Clip Fix 5000

LINK VENT CLIP FIX 5000	Internal	External	Full Vent	Colour and White vent
<b>Traditional Colours</b>				
White	5100-00000B	5200-00000B	5000-00000	N/A
Brown	5100-00001B	5200-00001B	5000-00001	5000-01001
Black	5100-00002B	5200-00002B	5000-00002	5000-01002
White (Cream Tint)				
White (Blue Tint)				
Oak Brown Tan 21	5100-00005B	2200-00005B	5000-00005	5000-01004
Oak Brown	5100-00006B	5200-00006B	5000-00006	
Cream RAL 9001				5000-01008
Cream RAL 1015	5100-00014B	5200-00014B	5000-00014	5000-01014
Cream White	5100-00007B	5200-00007B		5000-01007
<b>Woodgrain Patterns</b>				
Mahogany (Aqua)	5100-00500B	5200-00500B	5000-00500	5000-01500
Rosewood (Aqua)	5100-00501B	5200-00501B	5000-00501	2000-01501
Light Oak (Aqua)	5100-00502B	5200-00502B	5000-00502	5000-01502
Irish Oak (Aqua)	5100-00503B	5200-00503B	5000-00503	5000-01503
<b>Modern Colours</b>				
Grey 7001				
Grey 7015	5100-00009B	5200-00009B	5000-00009	5000-01009
Grey 7016	5100-00010B	5200-00010B	5000-00010	5000-01010
Quartz Grey				
Agate Grey	5100-00017B	5200-00017B		
Basalt Grey	5100-00016B	5200-00016B		
Steel Blue				
Chartwell Green	5100-00015B	5200-00015B	5000-00015	5000-01015
Moss Green				
Dark Green				
Wine Red				
Dark Red				
Plain Irish Oak	5100-00011B	5200-00011B	5000-00011	5000-01011





## Part numbers – Link Vent Screw Fix 2500

LINK VENT SCREW FIX 2500	Internal	External	Full Vent	Colour and White vent
<b>Traditional Colours</b>				
White	2101-00000B	2201-00000B	2001-00000	N/A
Brown	2101-00001B	2201-00001B	2001-00001	
Black	2101-00002B	2201-00002B	2001-00002	
White (Cream Tint)				
White (Blue Tint)				
Oak Brown Tan 21	2101-00005B	2201-00005B	2001-00005	
Oak Brown			2001-00006	
Cream RAL 9001	2101-00007B			
Cream RAL 1015		2201-00014B	2001-00014	
Cream White				
<b>Woodgrain Patterns</b>				
Mahogany (Aqua)	2101-00500B	2201-00500B		
Rosewood (Aqua)	2101-00501B	2201-00501B		
Light Oak (Aqua)	2101-00502B	2201-00502B		
Irish Oak (Aqua)	2101-00503B	2201-00503B		
<b>Modern Colours</b>				
Grey 7001	2101-00022B	2201-00022B		
Grey 7015	2101-00009B	2201-00009B	2001-00009	
Grey 7016	2101-00010B	2201-00010B	2001-00010	2001-01010
Quartz Grey				
Agate Grey	2101-00017B	2201-00017B		
Basalt Grey	2101-00016B	2201-00016B		
Steel Blue	2101-00019B	2201-00019B		
Chartwell Green	2101-00015B	2201-00015B	2001-00015	2001-01015
Moss Green	2101-00020B	2201-00020B		
Dark Green	2101-00021B	2201-00021B		
Wine Red	2101-00018B	2201-00018B		
Dark Red	2101-00023B	2201-00023B		
Plain Irish Oak	2101-00011B	2201-00011B		



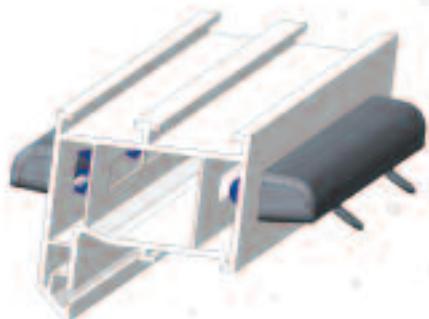
## Part numbers – Link Vent Screw Fix 5000

LINK VENT SCREW FIX 5000	Internal	External	Full Vent	Colour and White vent
<b>Traditional Colours</b>				
White	5101-00000B	5201-00000B	5001-00000	N/A
Brown	5101-00001B	5201-00001B	5001-00001	
Black	5101-00002B	5201-00002B	5001-00002	
White (Cream Tint)				
White (Blue Tint)				
Oak Brown Tan 21	5101-00005B	5201-00005B	5001-00005	
Oak Brown			5001-00006	
Cream RAL 9001				
Cream RAL 1015		5201-00014B		
Cream White				
<b>Woodgrain Patterns</b>				
Mahogany (Aqua)	5101-00500B	5201-00500B		
Rosewood (Aqua)	5101-00501B	5201-00501B		
Light Oak (Aqua)	5101-00502B	5201-00502B		
Irish Oak (Aqua)	5101-00503B	5201-00503B		
<b>Modern Colours</b>				
Grey 7001	5101-00022B	5201-00022B		
Grey 7015	5101-00009B	5201-00009B	5001-00009	
Grey 7016	5101-00010B	5201-00010B	5001-00010	
Quartz Grey				
Agate Grey				
Basalt Grey				
Steel Blue				
Chartwell Green	5101-00015B	5201-00015B		
Moss Green				
Dark Green				
Wine Red				
Dark Red				
Plain Irish Oak	5101-00011B	5201-00011B		





# Slimline Trickle Ventilator ("Clip Fit")



## Product Overview

The Slimline Ventilator will provide Trickle Ventilation in accordance with the Building Regulations 2000: Part F: Approved Document F1 October 2010 and Scottish Building Regulations October 2011 Standard 3.14.

The product is specifically designed for "Through Profile" PVC-U applications using a 10 mm routed slot, and is available in two sizes. All ventilators are "Clip" fixed with the advantage of rapid fitting to profiles.

### The products key features are as follows:

- Spring Clip fitting (No Screws) (Saves over 1 minute per window to install)
- Unique closure mechanism provides for adjustable ventilation with a positive action
- "BBA" Certification
- Sash window application - "Offset" clips are available

## Contents

- 1 Product Detail
- 2 Physical Data
- 3 Materials Of Construction
- 4 Performance Data
- 5 Acoustic Values
- 6 Installation Instructions
- 7 Slimline Vent Routing Detail
- 8 LABC and BBA Certification
- 9 Part numbers



## 1. Product Detail

The product consists of an internal ventilator with adjustable closures to regulate incoming air flow and an external canopy with integral fly screen. A flat exterior grille is also available for use on patio doors or overframe applications.

### Internal ventilator

This is injection moulded in PVC-U, with UV resistant Acetal spring clips that enable the ventilators to be firmly snapped into the routed slot in the profile. The installation of this vent provides time cost savings when compared with 'screw fitting' alternatives.

The closure plate has a positive action and multiple units in the 4000 version provide control of airflow.





A variety of custom fixing clips are available to offset the ventilator vertically relative to the 10mm slot for applications such as sash windows, where space is at a premium. These give offsets of +/- 2mm.

### External canopy

This is complimentary to the interior unit and features the same materials and fixing methods. The canopy has an integral fly screen. A flat grille is available see page 37.

## 2. Physical Data

### Dimensions & Weights

	Internal		External (Fly screen)	
	Dimension	Weight	Dimension	Weight
Slimline MK3 2000	18 mm x 242 mm Depth 20 mm	40g	18 mm x 242 mm Depth 20 mm	31g
Slimline MK3 4000	18 mm x 455 mm Depth 20 mm	74g	18 mm x 455 mm Depth 20 mm	55g

All dimensions are nominal

For colour options please see page 8 - 13.

## 3. Materials of Construction

Internal and external units are primarily moulded in UV stabilised PVC-U. The spring fixing clips are in UV stabilised Acetal. Suppliers data sheets for these polymers are available on request.

## 4. Performance Data

Vent Type	E.Q.A. (Equivalent Area)	Geometric Free Area
Slimline MK3 2000	1480 mm <sup>2</sup>	2000 mm <sup>2</sup>
Slimline MK3 4000	2590 mm <sup>2</sup>	4000 mm <sup>2</sup>

## 5. Acoustic Values

Vent Type	Values D.n.e.w.
Slimline MK 3 4000 Open	33dB
Slimline MK 3 4000 Closed	35dB
Slimline MK 3 2000 Open	37dB
Slimline MK 3 2000 Closed	40dB

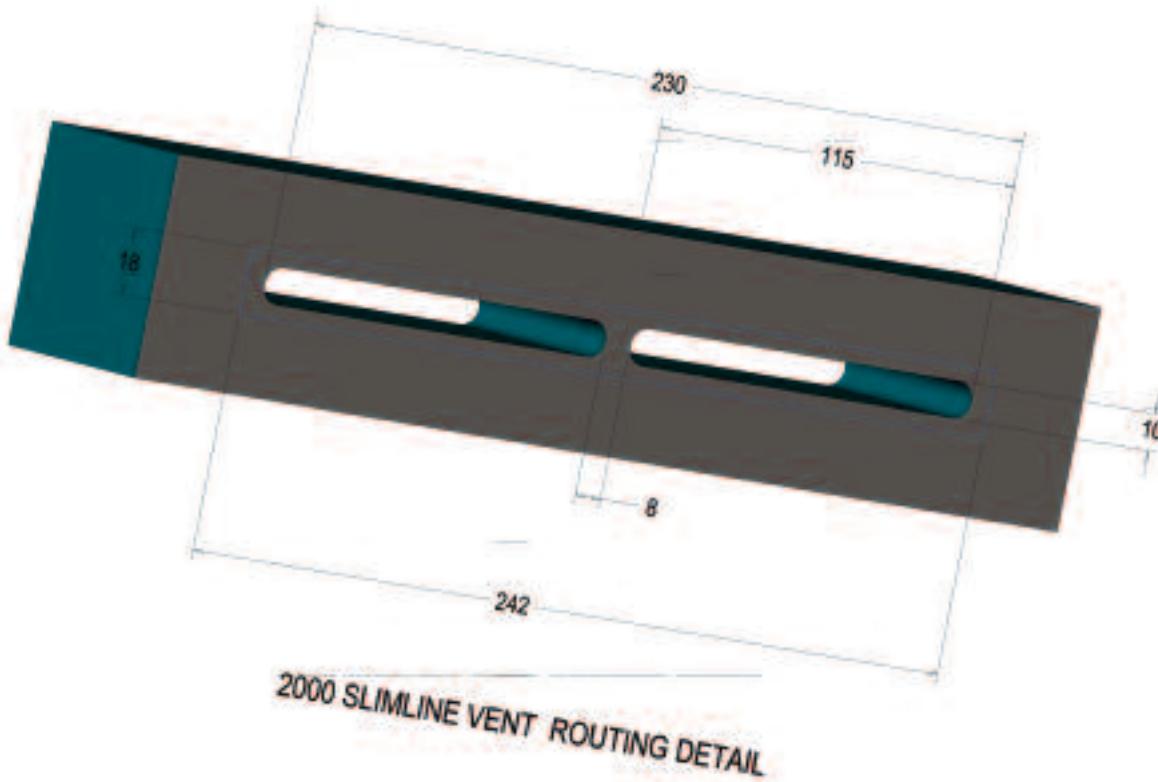


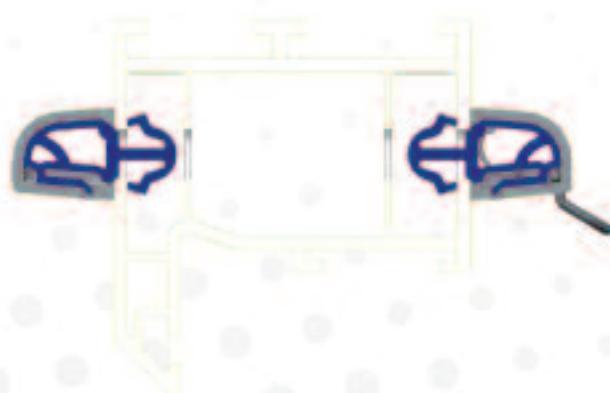


## 6. Installation Instructions

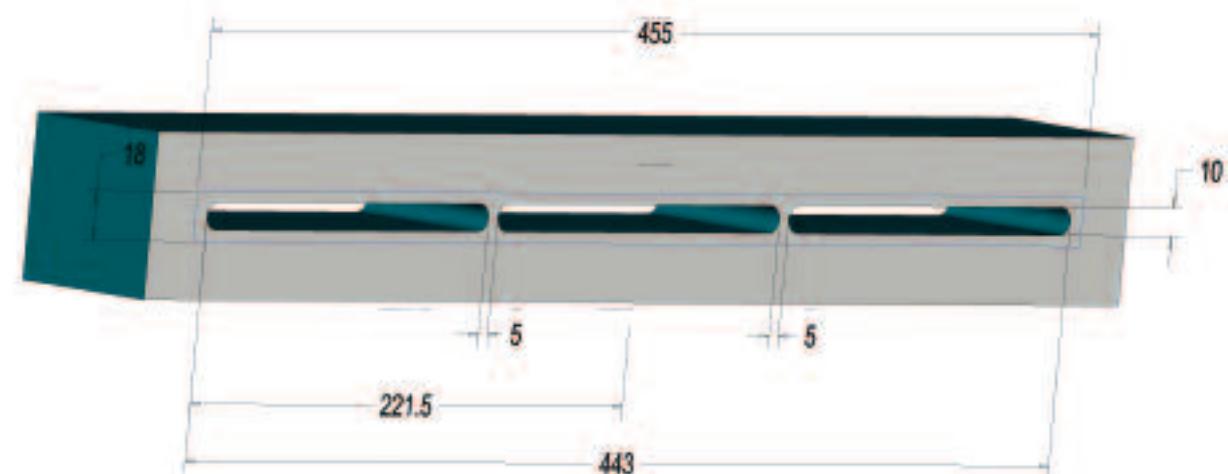
1. The ventilator is normally fitted in the head of the frame or sash in a section that does not contain a reinforcing member.
2. Rout a 10 mm slot as detailed in the below diagrams.
3. Units are fitted by locating the spring fixings into the routed slots and pressing firmly into place.

### Slim Vent 2000 Routing and Vent Footprint detail





### Slim Vent 4000 Routing and Vent Footprint detail



4000 SLIMLINE VENT ROUTING DETAIL





## 7. Part numbers – Slimline 2000

SLIMLINE 2000	Internal	External	Full Vent	Colour and White vent
<b>Traditional Colours</b>				
White	2300720B	2300710B	2300700	N/A
Brown	2300721B	2300711B	2300701	2300790
Black	2300722B	2300712B	2300702	2300792
White (Cream Tint)			2300703	
White (Blue Tint)			2300704	
Oak Brown Tan 21				
Oak Brown	2300726B	2300716B	2300706	2300974
Cream RAL 9001			2300705	V235-00108
Cream RAL 1015	2300729B	2300719B	2300709	
Cream White		V235-00142B		
<b>Woodgrain Patterns</b>				
Mahogany (Aqua)	V235-00041B	V235-00038B	V235-00051	V235-00102
Rosewood (Aqua)	V235-00042B	V235-00058B	V235-00050	V235-00103
Light Oak (Aqua)	V235-00043B	V235-00040B	V235-00052	V235-00104
Irish Oak (Aqua)	V235-00075B	V235-00074B	V235-00073	
<b>Modern Colours</b>				
Grey 7001		V235-00211B		
Grey 7015	V235-00063B	V235-00061B	V235-00076	V235-00100
Grey 7016	V235-00068B	V235-00065B	V235-00077	V235-00101
Quartz Grey				
Agate Grey				
Basalt Grey				
Steel Blue				
Chartwell Green	V235-00131B	V235-00132B	V235-00094	V235-00106
Moss Green				
Dark Green				
Wine Red				
Dark Red				
Plain Irish Oak			V235-00095	V235-00107

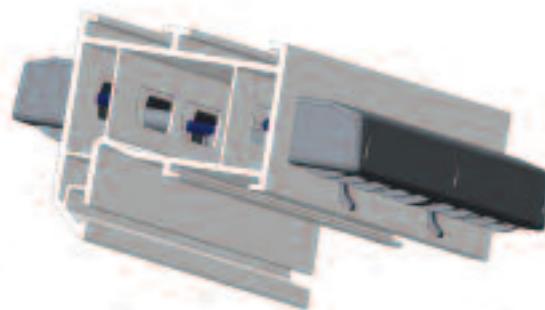
## Part numbers – Slimline 4000

SLIMLINE 4000	Internal	External	Full Vent	Colour and White vent
<b>Traditional Colours</b>				
White	4300720B	4300710B	4300700	N/A
Brown	4300721B	4300711B	4300701	4300790
Black	4300722B	4300712B	4300702	4300792
White (Cream Tint)			4300703	
White (Blue Tint)			4300704	
Oak Brown Tan 21				
Oak Brown	4300726B	4300716B	4300706	4300974
Cream RAL 9001			4300705	V435-00108
Cream RAL 1015	4300729B	4300719B	4300709	4300791
Cream White		V435-00142B		
<b>Woodgrain Patterns</b>				
Mahogany (Aqua)	V435-00034B	V435-00036B	V435-00051	V435-00102
Rosewood (Aqua)	V435-00043B	V435-00037B	V435-00050	V435-00103
Light Oak (Aqua)	V435-00033B	V435-00058B	V435-00052	V435-00104
Irish Oak (Aqua)	V435-00075B	V435-00074B	V435-00073	
<b>Modern Colours</b>				
Grey 7001		V435-00211B		
Grey 7015	V435-00063B	V435-00061B	V435-00076	V435-00100
Grey 7016	V435-00068B	V435-00065B	V435-00077	V435-00101
Quartz Grey				
Agate Grey				
Basalt Grey				
Steel Blue				
Chartwell Green	V435-00131B	V435-00132B	V435-00094	V435-00106
Moss Green				
Dark Green				
Wine Red				
Dark Red				
Plain Irish Oak			V435-00095	V435-00107





# Standard Ventilator ("Screw Fit")



## Product Overview

The Standard Ventilator will provide Trickle Ventilation in accordance with the Building Regulations 2000:Part F:Approved Document F1:October 2010 Scottish Building Regulations October 2011:Standard 3.14.

The product is specifically designed for "Through Profile" applications using a 12.5 mm routed slot, and is available in two sizes - for details of equivalent area see Section 4.

### The products key features are as follows:

- All PVC-U construction.
- Extremely rugged design
- "BBA" Certification on most versions

## Contents

- 1 Product Detail
- 2 Physical Data
- 3 Materials Of Construction
- 4 Performance Data
- 5 Acoustic Values
- 6 Installation Instructions
- 7 Standard Trickle Ventilator Routing
- 8 LABC and BBA Certification
- 9 Part numbers



## 1. Product Detail

The product consists of an internal ventilator with adjustable closures to regulate incoming air flow and an external canopy with an integral fly screen is available. A flat exterior grille is also available for use on patio doors or overframe applications. Units are screwed into position using self drilling fixings. Plastic screw covers are supplied.

### Internal ventilator

Air flow regulation is afforded by the use of adjustable tumblers.

### External canopy

This is complimentary to the interior unit and features the same materials and fixing methods. A flat grille available see page 37.



Glass and Glazing Federation

Trickle Ventilation: V1.2

Made in Britain





## Product Overview

The Standard Ventilator will provide Trickle Ventilation in accordance with the Building Regulations 2000:Part



	Internal		External Canopy		External (Fly screen)	
	Dimension	Weight	Dimension	Weight	Dimension	Weight
2000	26 mm x 230 mm Depth 24 mm	58g	26 mm x 230 mm Depth 24 mm	50g	25 mm x 230 mm Depth 24 mm	9g
4000	26 mm x 444 mm Depth 24 mm	103g	26 mm x 444 mm Depth 24 mm	86g	25 mm x 444 mm Depth 24 mm	18g

F:Approved Document F1:October 2010 Scottish Building Regulations October 2011:Standard 3.14.

The product is specifically designed for "Through Profile" applications using a 12.5 mm routed slot, and is available in two sizes - for details of equivalent area see Section 4.

### The products key features are as follows:

- All PVC-U construction.
- Extremely rugged design
- "BBA" Certification on most versions

### Contents

Vent Type	E.Q.A. (Equivalent Area)	Geometric Free Area
Standard 2000 + Hood	1380 mm <sup>2</sup>	2000 mm <sup>2</sup>
Standard 2000 + Grille	1360 mm <sup>2</sup>	2000 mm <sup>2</sup>
Standard 4000 + Hood	2580 mm <sup>2</sup>	4000 mm <sup>2</sup>
Standard 4000 + Grille	2700 mm <sup>2</sup>	4000 mm <sup>2</sup>

- 1 Product Detail
- 2 Physical Data
- 3 Materials Of Construction

Vent Type	Values D.n.e.w.
Standard 2000 Open	34dB
Standard 2000 Closed	39dB
Standard 4000 Open	31dB
Standard 4000 Closed	36dB





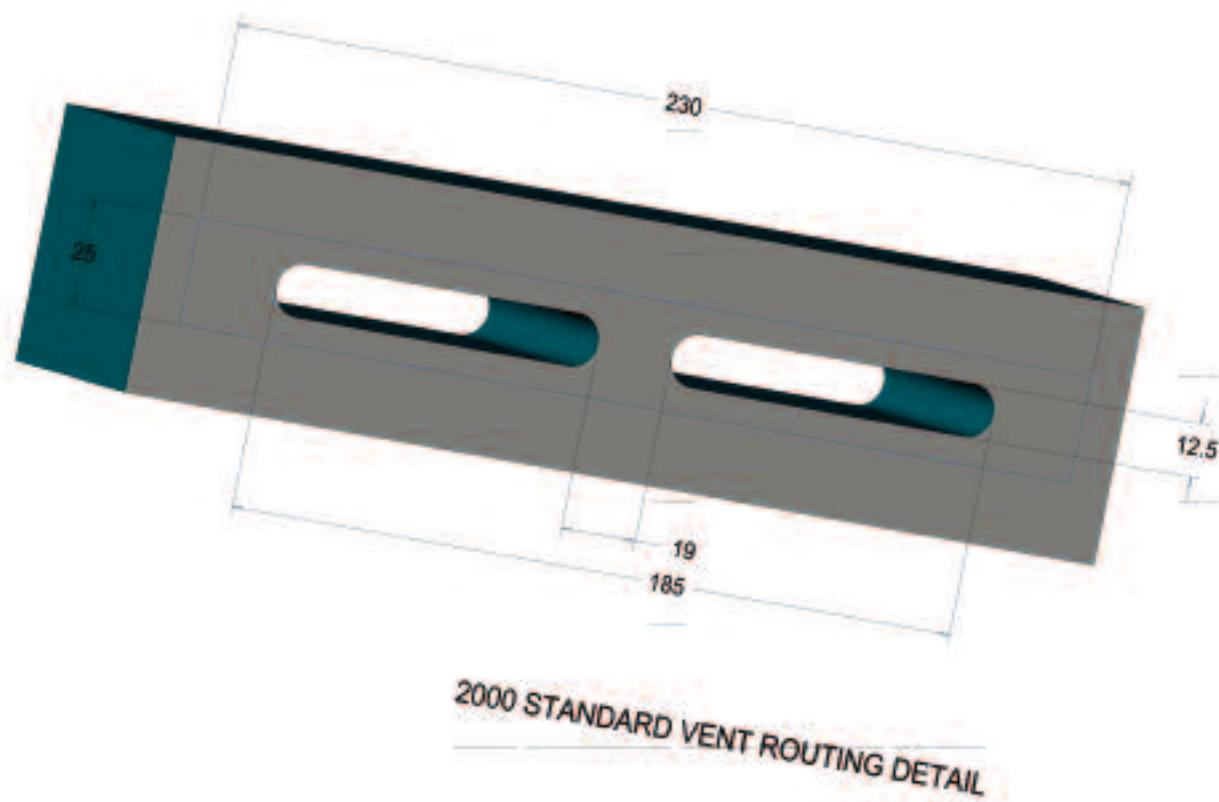
## Product Overview

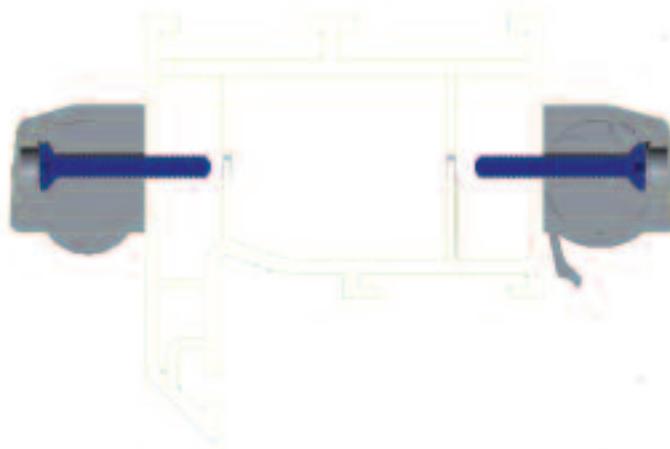
The Standard Ventilator will provide Trickle Ventilation in accordance with the Building Regulations 2000:Part F:Approved Document F1:October 2010 Scottish Building Regulations October 2011:Standard 3.14.

The product is specifically designed for "Through Profile" applications using a 12.5 mm routed slot, and is available in two sizes - for details of equivalent area see Section 4.

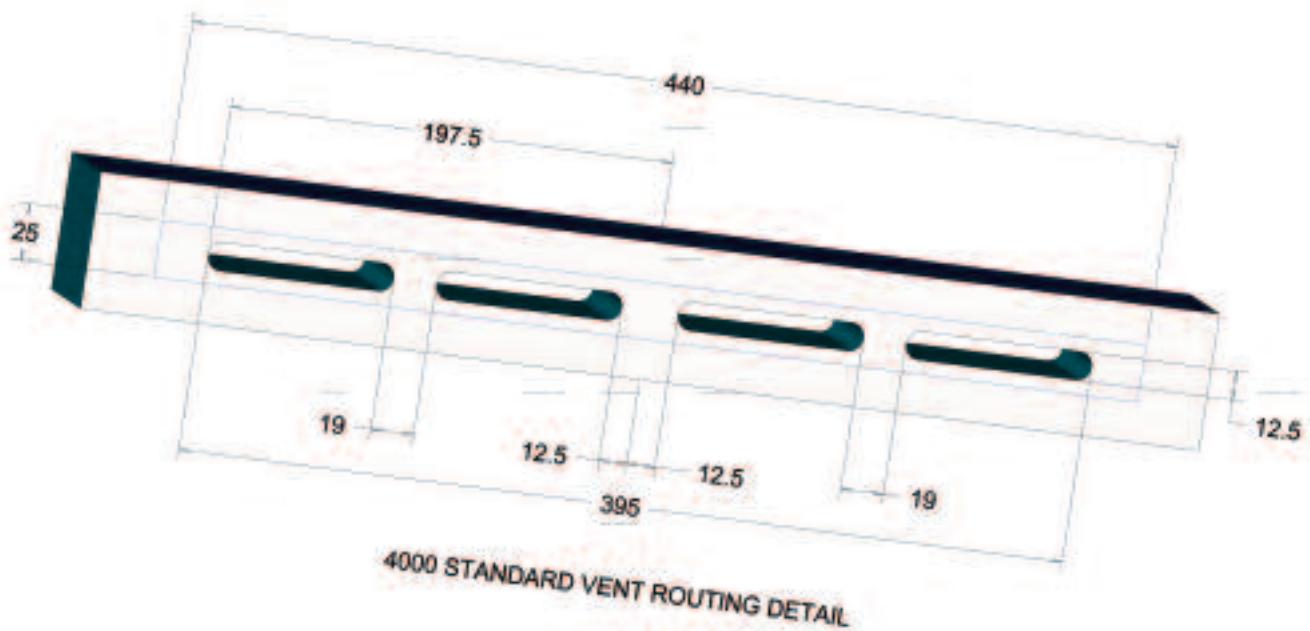
### The products key features are as follows:

- All PVC-U construction.





Standard 4000 Trickle Ventilator Routing and Footprint detail





## 7. Part numbers – Standard 2000

STANDARD 2000	Internal	External	Full Vent	Colour and White vent
<b>Traditional Colours</b>				
White	2000210B	V200-01100B	2000100	N/A
Brown	2000211B	V200-01101B	2000101	2000900
Black	2000212B	V200-01102B	2000102	2000902
White (Cream Tint)			2000103	
White (Blue Tint)			2000104	
Oak Brown Tan 21	2000215B	V200-01105B	2000105	2000906
Oak Brown				
Cream RAL 9001		V200-01107B	2000108	V200-00106
Cream RAL 1015			2000109	
Cream White				
<b>Woodgrain Patterns</b>				
Mahogany (Aqua)	V200-00011B	V200-00014B	V200-00002	V200-00102
Rosewood (Aqua)	V200-00012B	V200-00006B	V200-00003	V200-00103
Light Oak (Aqua)	V200-00010B	V200-00013B	V200-00001	V200-00104
Irish Oak (Aqua)	V200-00070B	V200-00071B	V200-00053	V200-00105
<b>Modern Colours</b>				
Grey 7001		V200-01122B		
Grey 7015	V200-00049B	V200-01109B	V200-00060	V200-00100
Grey 7016		V200-01110B	V200-00061	V200-00101
Quartz Grey				
Agate Grey				
Basalt Grey				
Steel Blue				
Chartwell Green		V200-00132B	V200-00130	V200-00107
Moss Green				
Dark Green				
Wine Red				
Dark Red				
Plain Irish Oak				



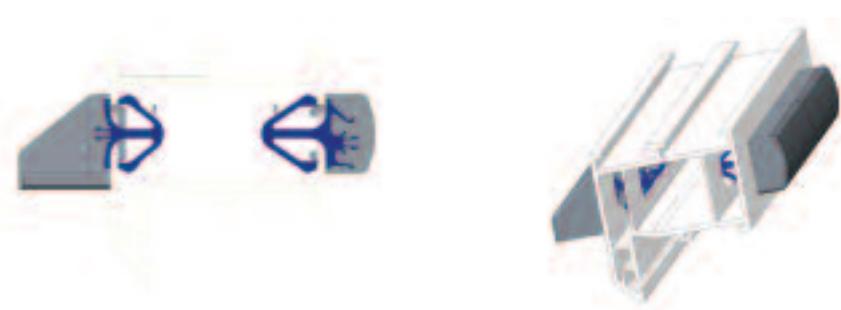
## Part numbers – Standard 4000

STANDARD 4000	Internal	External	Full Vent	Colour and White vent
<b>Traditional Colours</b>				
White	4000210B	V400-01100B	4000100	N/A
Brown	4000211B	V400-01101B	4000101	4000900
Black	4000212B	V400-01102B	4000102	4000902
White (Cream Tint)			4000103	
White (Blue Tint)			4000104	
Oak Brown Tan 21	4000215B	V400-01105B	4000105	4000906
Oak Brown				
Cream RAL 9001		V400-01107B	4000108	V400-00106
Cream RAL 1015			4000109	
Cream White				
<b>Woodgrain Patterns</b>				
Mahogany (Aqua)	V400-00011B	V400-01150B	V400-00002	V400-00102
Rosewood (Aqua)	V400-00012B	V400-01151B	V400-00003	V400-00103
Light Oak (Aqua)	V400-00010B	V400-01152B	V400-00001	V400-00104
Irish Oak (Aqua)	V400-00070B	V400-01153B	V400-00053	V400-00105
<b>Modern Colours</b>				
Grey 7001		V400-01122B		
Grey 7015		V400-01109B	V400-00060	V400-00100
Grey 7016		V400-01110B	V400-00061	V400-00101
Quartz Grey				
Agate Grey				
Basalt Grey				
Steel Blue				
Chartwell Green		V400-00132B	V400-00130	V400-00107
Moss Green				
Dark Green				
Wine Red				
Dark Red				
Plain Irish Oak			V400-00045	





# Modular Ventilator ("Clip Fit")



## Product Overview

The Modular Ventilator will provide Trickle Ventilation in accordance with the Building Regulations 2000:Part F:Approved Document F1:October 2010 Scottish Building Regulations October 2011:Standard 3.14

This product is better suited for use with frame extension or header profiles and as such should be considered an 'over the top vent'.

### The products key features are as follows:

- Modular design allows various equivalent area vents to be built from the standard base module. This reduces stockholdings. The Modular design is available assembled if required.
- BBA Certification
- Small footprint of only 138 mm x 26 mm for the base 2000 module. Spring clip fitting. (No screws)
- Unique closure mechanism provides for adjustable ventilation with a positive action.
- Optional modular grille or conventional canopy for exterior use.

## Contents

- 1 Product Detail
- 2 Physical Data
- 3 Materials Of Construction
- 4 Performance Data
- 5 Acoustic Values
- 6 Modular Trickle Ventilator Routing Detail
- 7 BBA Certification



## 1. Product Detail

The product consists of an internal unit with adjustable closures to regulate incoming air flow and a choice of external protective screens.

### Internal ventilator

The product is based on a modular concept. The base module carries a male and female dovetail on opposite ends. This allows them to be quickly joined to give the required equivalent area. Complimentary end caps are then fitted to complete the assembly. Product is of course available assembled to customers requirements.

The modules carry a moulded pair of spring clips that enable them to be firmly snapped into the routed slot in the profile. This has obvious cost savings when compared with "Screw Fitting" alternatives.





The unique patiented closure action, gives two intermediate opening positions as well as "Closed" and "Fully Open".

### External canopy

The modular and snap fitting features, as well as footprint, are common between internal and external units.

An alternative exterior units are available including a low height fly screen. Designed primarily for installation in patio door or overframe applications.

## 2. Physical Data

### Dimensions & Weights

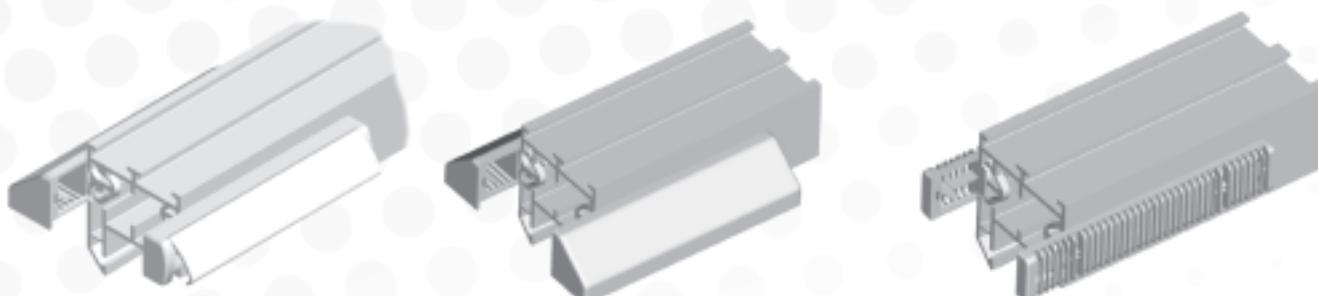
	Internal		External (Flat Grille)		External (Full Canopy)	
	Dimension	Weight	Dimension	Weight	Dimension	Weight
Modular 2000	26 mm x 145 mm Depth 16.5 mm	30g	26 mm x 145 mm Depth 16.5 mm	12g	26 mm x 145 mm Depth 16.5 mm	33g
Modular 4000	26 mm x 283 mm Depth 16.5 mm	57g	26 mm x 283 mm Depth 16.5 mm	23g	26 mm x 283 mm Depth 16.5 mm	64g
Modular 6000	26 mm x 421 mm Depth 16.5 mm	84g	26 mm x 421 mm Depth 16.5 mm	34g	26 mm x 421 mm Depth 16.5 mm	95g
Modular 8000	26 mm x 559 mm Depth 16.5 mm	111g	26 mm x 559 mm Depth 16.5 mm	45g	26 mm x 559 mm Depth 16.5 mm	126g

All dimensions are nominal

## 3. Materials of Construction

Both internal and external units are primarily moulded in UV stabilised PVC-U. The spring fixing clips are in UV stabilised Acetal.

Suppliers data sheets for these polymers are available on request.





## 4. Performance Data

Vent Type	E.Q.A. (Equivalent Area)	Geometric Free Area
Modular 2000 + Hood	1293 mm <sup>2</sup>	2000 mm <sup>2</sup>
Modular 2000 + Grille	1485 mm <sup>2</sup>	2000 mm <sup>2</sup>
Modular 4000 + Hood	2585 mm <sup>2</sup>	4000 mm <sup>2</sup>
Modular 4000 + Grille	2970 mm <sup>2</sup>	4000 mm <sup>2</sup>
Modular 6000 + Hood	3878 mm <sup>2</sup>	6000 mm <sup>2</sup>
Modular 6000 + Grille	4455 mm <sup>2</sup>	6000 mm <sup>2</sup>
Modular 8000 + Hood	5170 mm <sup>2</sup>	8000 mm <sup>2</sup>
Modular 8000 + Grille	5940 mm <sup>2</sup>	8000 mm <sup>2</sup>

## 5. Acoustic Values

Vent Type	Values D.n.e.w.
Modular 2000 Open	34dB
Modular 2000 Closed	40dB
Modular 4000 Open	31dB
Modular 4000 Closed	37dB
Modular 6000 Open	29dB
Modular 6000 Closed	35dB
Modular 8000 Open	28dB
Modular 8000 Closed	34dB

## 6. Installation Instructions

Installation simply requires the routing of a 19 mm (3/4 inch) slot through the profile. In order to preserve the maximum structural integrity of the profile the use of separate slots for each 2000 Module is recommended. i.e. Leave 6.5 mm bridging between modules.

Ensure that the ventilator is correctly positioned relative to the routed slots prior to snapping the ventilator into place; as the installation is permanent.

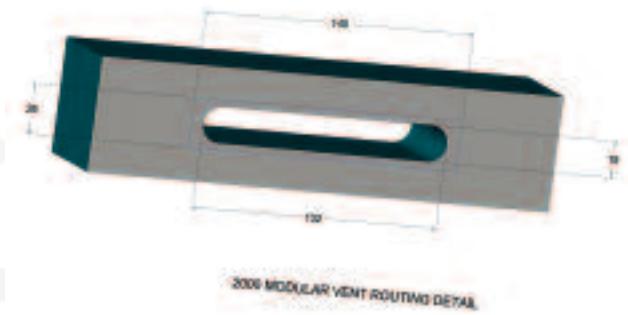




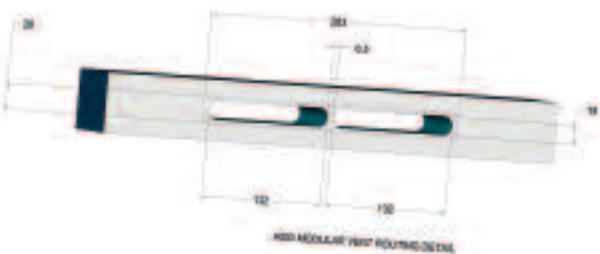
## 7. Modular Vent Routing Detail

2000 sq.mm

4000 sq.mm



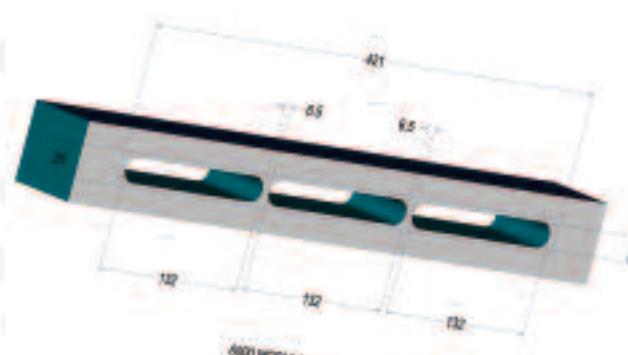
2000 MODULAR VENT ROUTING DETAIL



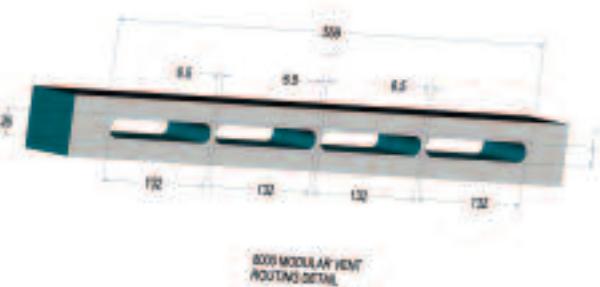
4000 MODULAR VENT ROUTING DETAIL

6000 sq.mm

8000 sq.mm

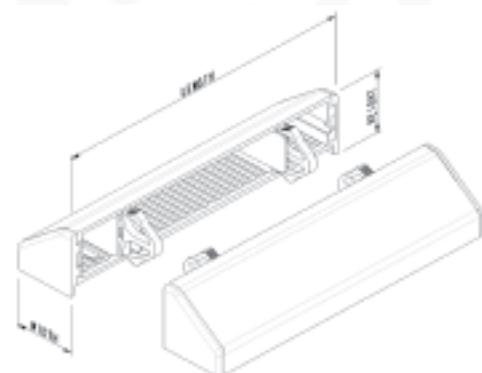
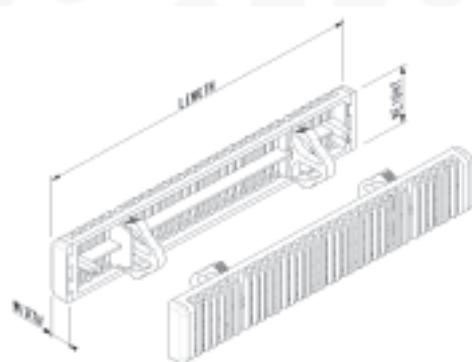


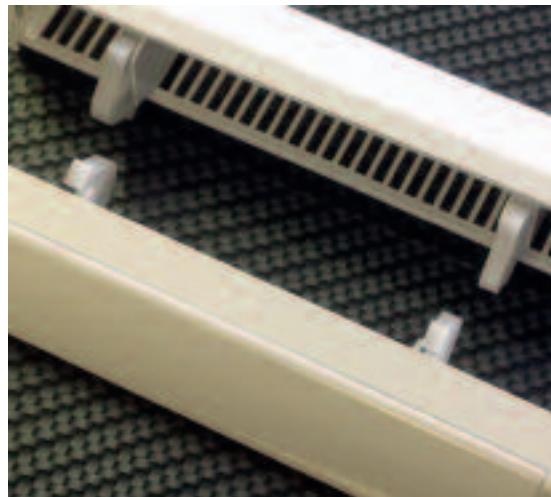
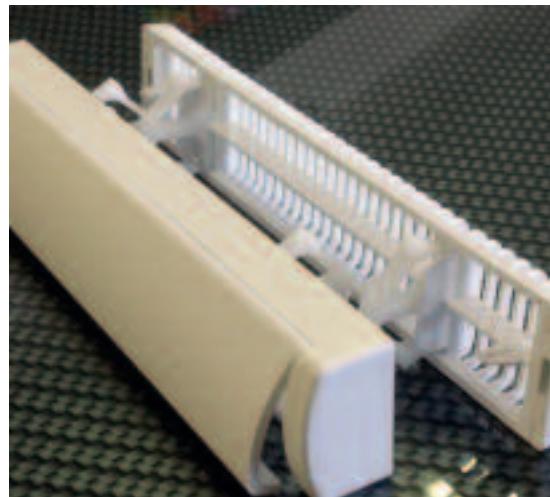
6000 MODULAR VENT ROUTING DETAIL



8000 MODULAR VENT ROUTING DETAIL

## Modular Vent Arrangements





## 8. Part numbers

Colour	Packing	Modular Vents		Combustion Air Vents		
		Vent with Grille	Vent with Canopy	Gas Vent with Canopy	Gas Vent with Grille	
<b>2000 Modular Vent</b>						
White		5002000	5202000	5302000	5102000	
Brown		5002001	5202001	5302001	5102001	
Black		5002002	5202002	5302002	5102002	
<b>4000 Modular Vent</b>						
White		5004000	5204000	5304000	5104000	
Brown		5004001	5204001	5304001	5104001	
Black		5004002	5204002	5304002	5104002	
Oak Brown			5204007			
<b>6000 Modular Vent</b>						
White		5006000	5206000	5306000	5106000	
Brown		5006001	5206001	5306001	5106001	
Black		5006002	5206002	5306002	5106002	
<b>8000 Modular Vent</b>						
White		5008000	5208000	530800	5108000	
Brown		5008001	5208001	5308001	5108001	
Black		5008002	5208002	5308002	5108002	
Oak Brown			5208007			
<b>Bulk packed components</b>						
White	Bulk packed sub components	Modular Vent (Internal)	Modular Grille (External)	Modular Canopy (External)	Size: 2000	
		5002170B	5002180B	5002200B		
		5002171B	5002181B	5002201B		
		5002172B	5002182B	5002202B		
Brown		5002176B	5002186B	5002206B		





# Special Applications

## Combustion air vents



Combustion air vents provide a permanent supply of combustion air to rooms containing fuel-burning appliances which are not room-sealed. Maybe used to meet gas safety regulations and the requirements of Building Regulations Approved Document J1.

### Requirements

All open-fluid fuel-burning appliances require an adequate supply of combustion air from the room so that:

- The appliance and its flue operate efficiently.
- Fuel is properly burnt, so harmful fumes are not produced.
- The appliance will not draw oxygen from the air in the room.
- Combustion products are properly vented through the flue to avoid any risk of build up inside the room.

The provision of an adequate air supply is a mandatory requirement of the Building Regulations J1. There is also a legal obligation when installing or servicing appliances to ensure that there is an adequate air supply.

This is particularly important when new windows or doors have been fitted, which are usually weather stripped, so cutting down the 'Infiltration' air supply.

To meet the requirement, a vent should be installed which must not be closeable, should prevent draughts, and must be large enough for the rating of the appliance.

### Capacity

Based on Approved Document J1/2/3, one pair of Combustion Air Vents is suitable for:

- Gas appliances up to 18kW (61 000Btu/h) input.
- Solid fuel closed appliances up to 14kW (47 000Btu/h) output.
- Solid fuel open appliances up to 10,000 mm<sup>2</sup> throat opening area.
- Oil burning appliances up to 14kW (47 000Btu/h) output.

### Part numbers

These can be found on page 20 as they are based on the modular vent.





## New Special Applications

### Overframe Installation



The use of tricklevents through the head of the window either through an additional head section / profile or a specially designed vent profile.

In this application an internal ventilator is fitted and you can chose from the whole of the Glazpart trickle vent range.

Externally a flat grille is used as a canopy may interfere with the operation of opening windows and the canopy would restrict airflow.

Glazpart have a range of flat grille options for each ventilator type, therefore all of the following products are available with a flat grille option.

- Link Vent
- Modular Vent
- Slimline Mk3
- Standard Vents

These vents can be available in any through moulded, sprayed or wood grain finish ventilator colour. The grilles cannot be vacuum foiled. The external grilles are fully tested and compliant to Building regulations as detailed at the end of this brochure.





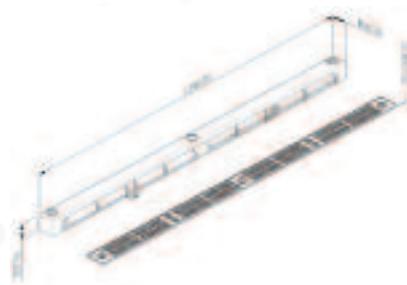
# Special Applications

## Bi-fold / Patio vent

Glazpart have led the market for special applications developing a flat fly screen (grille) to allow background ventilation to be supplied through operating bi-fold / patio door sets.



Bi-fold / Patio Door Vent 2000



Bi-fold / Patio Door Vent 4000

External Grilles & Fly Screens - EQA rating mm <sup>2</sup>					
External Grille	Fly screen	Free area mm <sup>2</sup>	Standard vent model		
			2000	4000	
Vent standard moulded colours	<b>2000</b>				
	White	2000140			
	Brown	2000141			
	Black	2000142			
	White	2000143			
	White	2000144			
	Oak Brown	2000145	2000	<b>1360 EQA</b>	
	Brown	2000149			
	Cream 1015	2000189			
	Blue	NO PART NUMBER AVAILABLE			
4000	Grey 7016	NO PART NUMBER AVAILABLE			
	<b>4000</b>				
	White	4000140			
	Brown	4000141			
	Black	4000142			
	White	4000143			
	White	4000144			
	Oak Brown	4000145	4000		<b>2700 EQA</b>
	Blue	4000147			
	Grey 7016	4000148			

All grilles can have a woodgrain effect finish (Page 10) or through moulded in any ventilator or canopy colour option offered. E.g. Anthracite grey (RAL 7016)

## Sash Windows

Specifically designed for sash windows using the slimline trickle ventilator. Glazpart developed an offset clip to allow for lower plaster lines the ventilator is moved vertically relative to the 10mm slot for applications such as sash windows, where space is at a premium. These give offsets of +/- 2mm.



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Trickle Ventilation: V1.2

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# Colour Options

## Coverage



Component		Ventilator type					
		Ventilators		Combustion Air	EQA vents		
Wood grain print	Slimline MK3	Standard	Modular	(Canopy type)	(Grille type)	(Clip in type)	(Screw fix type)
	External Grille (outer face)	✓	✓	✓	✓	✓	✓
	External Grille (fly screen stands)	✓	✓	✓	✓	✓	✓
	Internal Ventilator (Chassis)	✓	✓	✓	✓	✓	✓
	Internal Ventilator (Deflector)	✓	✗	✗	✗	✓	✓
	Matching colour clips (available)	✓	✗	✓	✓	✓	✗
	Matching colour screw covers	✗	✓	✗	✗	✗	✓

Component		Ventilator type					
		Ventilators		Combustion Air	EQA vents		
Vacuum Foil effect	Slimline MK3	Standard	Modular	(Canopy type)	(Grille type)	(Clip in type)	(Screw fix type)
	External Grille (outer face)	✓	✓	✓	✓	✗	✓
	External Grille (fly screen stands)	✗	✗	✗	✗	✗	✗
	Internal Ventilator (Chassis)	✓	✓	✓	✗	✓	✓
	Internal Ventilator (Deflector)	✓	✗	✗	✗	✓	✓
	Matching colour clips (available)	✓	✗	✓	✓	✓	✓
	Matching colour screw covers	✗	✓	✗	✗	✗	✓

Component		Ventilator type					
		Ventilators		Combustion Air	EQA vents		
Sprayed (Paint)	Slimline MK3	Standard	Modular	(Canopy type)	(Grille type)	(Clip in type)	(Screw fix type)
	External Grille (outer face)	✓	✓	✓	✓	✓	✓
	External Grille (fly screen stands)	✓	✓	✓	✓	✓	✓
	Internal Ventilator (Chassis)	✓	✓	✓	✗	✓	✓
	Internal Ventilator (Deflector)	✓	✗	✗	✗	✓	✓
	Matching colour clips (available)	✓	✗	✓	✓	✓	✗
	Matching colour screw covers	✗	✓	✗	✗	✗	✓

Component		Ventilator type					
		Ventilators		Combustion Air	EQA vents		
Through moulded colours	Slimline MK3	Standard	Modular	(Canopy type)	(Grille type)	(Clip in type)	(Screw fix type)
	External Grille (outer face)	✓	✓	✓	✓	✓	✓
	External Grille (fly screen stands)	✓	✓	✓	✓	✓	✓
	Internal Ventilator (Chassis)	✓	✓	✓	✓	✓	✓
	Internal Ventilator (Deflector)	✓	✓	✓	✓	✓	✓
	Matching colour clips (available)	✓	✗	✓	✓	✓	✗
	Matching colour screw covers	✗	✓	✗	✗	✗	✓





# Trickle Ventilation Comparison

Part Description	Physical Data							Performance Data		
	Internal			External			Canopy	Grille (Timber, Sliding door, Sash)	Assembly	
	Ventilator		Height	Canopy		Height			Depth	Length
Slimline MK3 2000	18.5mm	18.5mm	26 mm	26 mm	26 mm	18 mm	18 mm	18 mm	20 mm	242 mm
Slimline MK3 4000	454.5mm	236.5mm	559 mm	421 mm	283 mm	145 mm	440 mm	230 mm	455 mm	242 mm
Standard 2000	15 mm	15 mm	16.5 mm	16.5 mm	16.5 mm	24 mm	24 mm	20 mm	20 mm	242 mm
Standard 4000	59 g	28 g	111 g	84 g	57 g	30 g	103 g	58 g	74 g	40 g
Modular 2000	18 mm	18 mm	26 mm	18 mm	18 mm	18 mm				
Modular 4000	454.5mm	236.5mm	559 mm	421 mm	283 mm	145 mm	442 mm	230 mm	455 mm	242 mm
Modular 6000	37.5 mm	37.5 mm	16.5 mm	16.5 mm	16.5 mm	24 mm	24 mm	20 mm	20 mm	242 mm
Modular 8000	78g	39 g	126 g	95 g	64 g	33 g	86 g	50 g	55 g	31 g
Link-Vent 2500	26 mm	25 mm	25 mm	25 mm	25 mm	25 mm				
Link-Vent 5000	559 mm	421 mm	283 mm	145 mm	444 mm	230 mm	230 mm	230 mm	230 mm	230 mm
	8 mm	2 mm	2 mm	2 mm	2 mm	2 mm				
	45 g	34 g	23 g	12 g	18 g	9 g	9 g	9 g	9 g	9 g
Clip or Screw	Clip or Screw	Spring Clip	Spring Clip	Spring Clip	Screw in	Screw in	Spring Clip	Spring Clip	Attachment type	
13 mm	13 mm	19 mm	19 mm	19 mm	12.5 mm	12.5 mm	10 mm	10 mm	Rout height	
422mm	204mm	547.5 mm	409 mm	270.5 mm	132 mm	395 mm	445 mm	230 mm	Rout length	
14 mm	6.5 mm	6.5 mm	6.5 mm	na	19 mm	19 mm	5 mm	8 mm	Stand width	
5000 mm <sup>2</sup>	2500 mm <sup>2</sup>	5170 mm <sup>2</sup>	3878 mm <sup>2</sup>	2585 mm <sup>2</sup>	1293 mm <sup>2</sup>	2580 mm <sup>2</sup>	1380 mm <sup>2</sup>	2590 mm <sup>2</sup>	Canopy	
5000 mm <sup>2</sup>	2500 mm <sup>2</sup>	5940 mm <sup>2</sup>	4455 mm <sup>2</sup>	2970 mm <sup>2</sup>	1485 mm <sup>2</sup>	2700 mm <sup>2</sup>	1360 mm <sup>2</sup>		Grille	
5158 mm <sup>2</sup>	2574 mm <sup>2</sup>	8000 mm <sup>2</sup>	6000 mm <sup>2</sup>	4000 mm <sup>2</sup>	2000 mm <sup>2</sup>	4000 mm <sup>2</sup>	2000 mm <sup>2</sup>	4000 mm <sup>2</sup>	Cross sectional area	
36 dB	36 dB	28 dB	29 dB	31 dB	34 dB	31 dB	34 dB	33 dB	Acoustic value - Open	
40 dB	42 dB	34 dB	35 dB	37 dB	40 dB	36 dB	39 dB	35 dB	Acoustic value - Closed	

All dimensions are nominal



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# Building Regulations 2000: Part F: Approved Document F1: October 2010

## Meeting the F1 Building Regulations 2012 for Background Ventilation

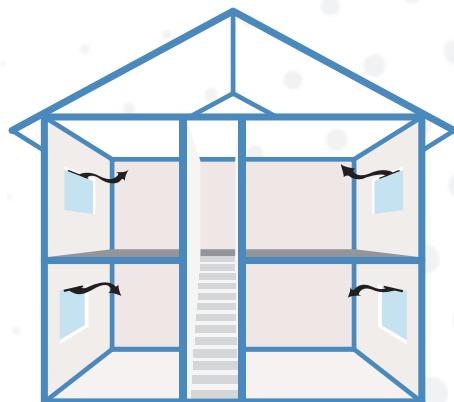
The Building Regulations in England and Wales require 'that there shall be adequate means for ventilation provided for people in the building. It however now differentiates between windows for residential installation in either a Replacement or New build application.

### Replacement windows

If the window being removed has trickle vents fitted, then the replacement window should also have them – **to the same level of performance.**

The ventilators fitted to the replacement window should therefore offer at least the same capacity as the ventilators fitted to the removed window.

Typically these ventilators will be either 4000mm<sup>2</sup> or 2000mm<sup>2</sup> in their geometric free area.



Where it is not possible to ascertain the capacity of the outgoing vents;

- **Habitable rooms should have a minimum of 5000 mm<sup>2</sup> EA\***
- **Wet rooms should have a minimum of 2500 mm<sup>2</sup> EA\***

\*Equivalent Area EA, figures will vary for Scotland, Northern Ireland and Eire.

If the window being removed did not have trickle vents fitted, **it is recommended to provide the background ventilation** in the replacement window, due to the health benefits.





## Additional Guidance for Replacement Windows within England and Wales

The Building Regulations Requirement F1 – Means of ventilation, states:

**There shall be adequate means of ventilation provided for people in the building.**

**When assessing a property for replacement windows the following should be considered regarding the use of trickle ventilators and other forms of ventilation within replacement windows:**

Trickle ventilators are not mandatory unless the existing windows have them, however it is always good practice to consider their use when replacing windows. Alternatively ventilators may be replaced by an air brick.

Replacement ventilators must be no smaller in geometric open area than the existing ventilators. If the geometric area is not known, habitable rooms should have trickle ventilator of 5000mm<sup>2</sup> equivalent area and wet rooms should have 2500mm<sup>2</sup> equivalent area.

Although not mandatory, increasing ventilation by the provision of new or additional ventilators to maintain good air quality should be considered between the supplier and the customer (ref: GGF publication "Advice to consumers regarding ventilation when replacing windows").

Two stage locking handles are an acceptable form of trickle ventilation, where security is not compromised and draughts will not create a problem. This would usually mean not on the ground floor.

The provision of permanent ventilators for combustion appliances is a different matter and compliance with Approved Document J is mandatory

### New Houses

Ventilation levels within a house or dwelling are dependant upon a number of factors. Guidance tables can be found within Approved document F – or alternatively ventilator manufacturers maybe able to assist.





# What are the building regulations? General Guidance Tables



## England and Wales\*

Basic requirement is 5,000 mm<sup>2</sup> EQA for a habitable room.

Overall calculations are by floor area.

Total equivalent ventilator area (mm<sup>2</sup>) for a new dwelling with any design air permeability (EQA)

Total floor area (m <sup>2</sup> )	Number of bedrooms b				
	1	2	3	4	5
< 50	35000	40000	50000	60000	65000
51 - 60	35000	40000	50000	60000	65000
61 - 70	45000	45000	50000	60000	65000
71 - 80	50000	50000	50000	60000	65000
81 - 90	55000	60000	60000	60000	65000
91 - 100	65000	65000	65000	65000	65000
> 100	Add 7000 mm <sup>2</sup> for every additional 10 m <sup>2</sup> floor area				

Total equivalent ventilator area (mm<sup>2</sup>) for a new dwelling with a designed air permeability leakier than (>) 5 m<sup>3</sup>/(h.m<sup>2</sup>) at 50 Pa (EQA)

Total floor area (m <sup>2</sup> )	Number of bedrooms b				
	1	2	3	4	5
< 50	25000	35000	45000	45000	55000
51 - 60	25000	30000	40000	45000	55000
61 - 70	30000	30000	30000	45000	55000
71 - 80	35000	35000	35000	45000	55000
81 - 90	40000	40000	40000	45000	55000
91 - 100	45000	45000	45000	45000	55000
> 100	Add 5000 mm <sup>2</sup> for every additional 10 m <sup>2</sup> floor area				

### Notes:

This is based on two occupants in the main bedroom and a single occupant in others. For a greater level of occupancy, assume a greater number of bedrooms. For more than five bedrooms, add 10000 mm<sup>2</sup> per bedroom.





## General Guidance Table for Background Ventilation Requirements

### Scotland\*

These tables are basic and should be read with the regulations as there are additional requirements and allowances.

	Trickle vent (Free Area)
<b>Apartment</b> A ventilator with an opening area of at least 1/30th of the floor area it serves	12,000 mm <sup>2</sup>
<b>Kitchen</b> either:	
a. mechanical extraction capable of at least 30 1/sec (intermittent) above a hob [3]; or	10,000 mm <sup>2</sup>
b. mechanical extraction capable of at least 60 1/sec (intermittent) if elsewhere [3]; or	
c. a passive stack ventilation system [4].	
<b>Utility room</b> either:	
a. mechanical extraction capable of at least 30 1/sec (intermittent) [3]; or	10,000 mm <sup>2</sup>
c. a passive stack ventilation system [4].	
<b>Bathroom or shower room</b> either:	
a. mechanical extraction capable of at least 15 1/sec (intermittent); or	10,000 mm <sup>2</sup>
b. a passive stack ventilation system [4].	
<b>Toilet</b> either:	
a. a ventilator with an opening area of at least 1/30th of the floor area it serves; or	10,000 mm <sup>2</sup>
b. mechanical extraction capable of at least 3 air changes per hour.	

\* These tables are based on data available at the time of print.

### Eire

Basic ventilation provision using background ventilators and extract and purge ventilation			
Room or Space	General ventilation	Extract ventilation	Purge ventilation
	Minimum equivalent area of background ventilator (mm <sup>2</sup> )	Extract fan – Minimum extract rate (l/s)	Opening window or external door – Minimum provision h
Habitable Room	5000	-	1/20th of room floor area
Kitchen	2500	60 l/s	Window opening section
Utility Room	2500	30 l/s	Window opening section
Bathroom	2500	15 l/s	Window opening section
Sanitary Accommodation (no bath or shower)	2500	6 l/s	Window opening section





## Northern Ireland

Ventilation of rooms direct to external air			
Room	Rapid ventilation opening(s) (minimum free area)	Background ventilation opening(s) (minimum free area)	Mechanical extract ventilation (nominal airflow rates)
Habitable Room	1/20th of floor area	8000 mm <sup>2</sup>	-
Kitchen	1/20th of floor area	4000 mm <sup>2</sup>	30 l/s adjacent to a hob or 60 l/s elsewhere
Utility Room	1/20th of floor area	4000 mm <sup>2</sup>	30 l/s
Bathroom	1/20th of floor area	4000 mm <sup>2</sup>	15 l/s
Sanitary Accommodation (separate from bathroom)	1/20th of floor area	4000 mm <sup>2</sup>	-

Ventilation of rooms direct to external air			
Room	Rapid ventilation opening(s) (minimum free area)	Background ventilation opening(s) (minimum free area)	Mechanical extract ventilation (nominal airflow rates)
Occupiable room	1/20th of floor area	for floor areas – (i) up to 10 m <sup>2</sup> - 4000 mm <sup>2</sup> (ii) greater than 10 m <sup>2</sup> - at the rate of 400 mm <sup>2</sup> /m <sup>2</sup> of floor area	-
Kitchen	1/20th of floor area	4000 mm <sup>2</sup>	30 l/s adjacent to a hob or 60 l/s elsewhere
Bathroom (inc. shower room)	1/20th of floor area	4000 mm <sup>2</sup>	30 l/s
Sanitary Accommodation (separate from bathroom)	1/20th of floor area	4000 mm <sup>2</sup>	15 l/s

### Useful links for building regulations

#### England & Wales

[www.planningportal.gov.uk/buildingregulations/approveddocuments/partf/](http://www.planningportal.gov.uk/buildingregulations/approveddocuments/partf/)

#### Scotland (Scottish Government)

[www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards/publications/pubtech](http://www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards/publications/pubtech)

#### Eire

[www.environ.ie/en/Publications/DevelopmentandHousing/BuildingStandards/](http://www.environ.ie/en/Publications/DevelopmentandHousing/BuildingStandards/)

#### Northern Ireland

[www.dfpni.gov.uk/index/buildings-energy-efficiency-buildings/building-regulations/br-technical-booklets/br-booklet-ventilation.htm](http://www.dfpni.gov.uk/index/buildings-energy-efficiency-buildings/building-regulations/br-technical-booklets/br-booklet-ventilation.htm)



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## GLOSSARY

1. The human ear responds to sound in an approximately logarithmic manner and the logarithmic decibel (dB) scale is used to measure and assess sound. The human ear does not respond equally to sounds at different frequencies. It is more sensitive at the mid-frequency range than it is at the lower and higher frequencies. Therefore, when measuring sound a weighting network, known as "A-weighting" is applied to the frequency spectrum to take account of this differing sensitivity. This unit is termed dB (A).
2. The  $L_{Aeq}$  equivalent continuous sound level, is the sound level of a steady sound having the same energy as a fluctuating sound over a specified measuring period. This may be as short as 1 second or as long as 24 hours when used to assess the noise level at a specified location.
3. The decibel scale is logarithmic rather than linear, and hence a 3 dB increase in sound level represents a doubling of the sound energy present. Judgement of sound is subjective, but as a general guide a 10 dB(A) increase can be taken to represent a doubling of loudness, whilst an increase in the order of 3 dB(A) is generally regarded as the minimum difference needed to perceive a change under normal listening conditions.
4. An indication of the range of sound levels commonly found in the environment is given in the following table.

**Table A - Typical sound levels found in the environment**

<b>Sound Level</b>	<b>Location</b>
0 dB(A)	Threshold of hearing
20 to 30 dB(A)	Quiet bedroom at night
30 to 40 dB(A)	Living room during the day
40 to 50 dB(A)	Typical office
50 to 60 dB(A)	Inside a car
60 to 70 dB(A)	Typical high street
70 to 90 dB(A)	Inside factory
100 to 110 dB(A)	Burglar alarm at 1m away
110 to 130 dB(A)	Jet aircraft on take off
140 dB(A)	Threshold of pain

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