

SYNOPSIS - EXISTING BUILDINGS ONLY

Document L - Conservation of Fuel and Power - Updates from 15/06/22

Replacement Windows & Doors in dwellings:

Any replacement windows and doors installed from 15th June 2022 will require U-values to be reduced by 0.2 W/m².K on windows and 0.4 W/m².K on doors from the current regulations. The new regulations specify the following requirements:-

Windows - U Value required is 1.4 W/m².K or Window Energy Rating B or better*

Doors with 60% or more internal face glazing - U Value required is 1.4 W/m².K or Doorset Energy Rating 'C'

All other Doors - U Value required is 1.4 W/m².K or Doorset Energy Rating 'B'

*You can purchase energy rated windows from us glazed, or you can sign up to the BFRC Energy Rating Scheme to become an Authorised Partner enabling you to buy your energy rated frames from us, but purchase your glass elsewhere. Please note Climatec Group do not have energy rating certification for **doors** therefore our route of compliance will be U Value based.

Replacement Windows & Doors on existing buildings other than dwellings:

(Dwellings are self-contained units. Rooms for residential purposes and buildings that contain only rooms for residential purposes are not dwellings and are covered by Approved Document F, Volume 2: Buildings other than dwellings.)

Windows 1.6 W/m².K or Window Energy Rating 'B' and **Doors** 1.6 W/m².K

For more information on building regulations and the changes required from 15th June 2022, please see pages below.

Document F - Ventilation - Updates from 15/06/22

It has been recognised that by replacing older windows with new, energy efficient windows, is likely to increase the airtightness of the dwelling. By increasing the airtightness of the building you reduce the ventilation of the property so it is necessary to ensure that the ventilation provision in the dwelling is no worse than before (this must be proven).

If ventilation is not provided via a mechanical ventilation with heat recovery system, the new requirements for building regulations, document F means that new windows going into existing dwellings (homes) will require background ventilation; trickle vents, following the guidance below.

Replacing an existing window that currently has ventilators - the new window must not provide any less ventilation. The size of the vents must not be smaller than those installed in the previous windows (but does not have to meet the new regulations). **It is worth remembering to take before and after photos as proof of this.**

Replacing a window that doesn't currently have ventilators - the requirement for background ventilation will be 8000mm² EA per habitable room and kitchens, and 4000mm² EA for bathrooms.

Replacing less than 30% of the windows and doors in the property - no trickle vents are required, provided that no more than one other minor energy efficiency measure has been completed at the property, such as cavity wall insulations. **NOTE: The Climatec Group would not recommend this course of action.**

Please also note that background ventilators should be at least 1700mm above floor level and windows should be well fitted and draught proof.

For more information on building regulations and the changes required from 15th June 2022, please see pages below.

For further assistance, call 01702 613733

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With the promise of new homes producing nearly a third less carbon, the Government finally published their revised Approved Documents for Building Regulations in England, which will come into effect on 15th June 2022. The changes announced are deemed as an important step for our industry ahead of the implementation of the Future Homes and Buildings Standard in 2025.

The information contained in this document focuses on Existing Buildings and the requirements for replacement windows and doors to conform with Approved Document L, Conservation of Fuel and Power and Approved Document F, Ventilation.

Document L - Conservation of Fuel and Power

<https://www.gov.uk/government/publications/conservation-of-fuel-and-power-approved-document-l>

Replacement Windows & Doors in dwellings:

Any replacement windows and doors installed from 15th June 2022 will require U-values to be reduced by 0.2 W/m².K on windows and 0.4 W/m².K on doors from the current regulations. The new regulations specify the following requirements:-



Table 4.2 Limiting U-values for new fabric elements in existing dwellings

Element type	Maximum U-value ⁽¹⁾ W/(m ² .K)
Roof ⁽²⁾	0.15
Wall ⁽²⁾⁽³⁾	0.18
Floor ⁽⁴⁾⁽⁵⁾	0.18
Swimming pool basin ⁽⁶⁾	0.25
Window ⁽⁷⁾⁽⁸⁾⁽⁹⁾	1.4 or Window Energy Rating ⁽¹⁰⁾ Band B minimum
Rooflight ⁽¹¹⁾⁽¹²⁾	2.2
Doors with >60% of internal face glazed ⁽¹³⁾	1.4 or Doorset Energy Rating ⁽¹⁰⁾ Band C minimum
Other doors ⁽¹³⁾⁽¹⁴⁾	1.4 or Doorset Energy Rating ⁽¹⁰⁾ Band B minimum

Window Energy Ratings: You can purchase energy rated windows from us glazed, or you can sign up to the BFRC Energy Rating Scheme to become an Authorised Partner enabling you to buy your energy rated frames from us, but purchase your glass elsewhere.

*Please note Climatec Group do not have energy rating certification for **doors** therefore our route of compliance will be U Value based.*

The following uPVC products from Climatec Windows will currently comply with U Value of 1.4 W/m².K

WINDOWS

Glazing: Double Glazed, Soft Coat with centre pane U value of 1.2, Warm Edge Spacer and Argon Gas.

- 1) Rehau Total70 - Sculptured/Chamfered Casement and Tilt & Turn windows
- 2) Rehau Rio Flush Windows
- 3) Rehau Vertical Sliders - **Slimline Only**
- 4) Residence Flush Windows
- 5) Calibre Windows

EXCEPTIONS

The following items will need to upgrade their softcoat glass to one with a centre pane U value of 1.1. Please speak to the processing team if you are not sure which glass to use.

- Small single or double doors with reinforcement

DOORS

Glazing: Double Glazed, Soft Coat with centre pane U value of 1.2, Warm Edge Spacer and Argon Gas.

- 1) Rehau Total70 Single & Double Doors
- 2) Rehau Rio Single Doors
- 3) Residence Doors
- 4) Calibre Single & Double Doors
- 5) Solidor Composite Doors
- 6) Deceunick Slider24

- Vertical Sliders with Intermediate/Large Sash

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Document F - Ventilation

<https://www.gov.uk/government/publications/ventilation-approved-document-f>

Replacement Windows & Doors in dwellings:

Any replacement windows and doors installed from 15th June 2022 will be subject to new background ventilation requirements. To summarise, compliance to the new regulation will mean that all new windows and doors are to have the following free area of ventilation: Habitable rooms (lounge, dining, bedroom and kitchens) minimum of 8000m² EA (Equivalent Free Area), Bathrooms to have minimum of 4000m² EA.

If the window is close to an area of sustained and loud noise (eg. a main road), then a noise attenuating background ventilator should be fitted.

Table 1.7 Minimum equivalent area of background ventilators for natural ventilation⁽¹⁾

Room	Minimum equivalent area of background ventilators for dwellings with multiple floors	Minimum equivalent area of background ventilators for single-storey dwellings
Habitable rooms ⁽²⁾⁽³⁾	8000mm ²	10,000mm ²
Kitchen ⁽²⁾⁽³⁾	8000mm ²	10,000mm ²
Utility room	No minimum	No minimum
Bathroom ⁽⁴⁾	4000mm ²	4000mm ²
Sanitary accommodation	No minimum	No minimum

NOTES:

- The use of this table is not appropriate in any of the following situations and expert advice should be sought.
 - If the dwelling has only one exposed façade.
 - If the dwelling has at least 70% of its openings on the same façade.
 - If a kitchen has no windows or external façade through which a ventilator can be installed.
- Where a kitchen and living room accommodation are not separate rooms (i.e. open plan), no fewer than three ventilators of the same equivalent area as for other habitable rooms should be provided within the open-plan space.
- The total number of ventilators installed in a dwelling's habitable rooms and kitchens should be no fewer than five, except in one-bedroom properties, where there should be no fewer than four.
- If a bathroom has no window or external façade through which a ventilator can be installed, the minimum equivalent area specified should be added to the ventilator sizes specified in other rooms.

Note: A window with a night latch position is not adequate for background ventilation, due to the following.

- The risk of draughts.
- Security issues.
- The difficulty of measuring the equivalent area.

The following trickle vents from The Climatec Group will currently comply with these new requirements.

Glazpart Link Vent MkII: 2500EA, 4000EA and 5000EA - A spec sheet for these can be found in the hardware section of our website.

Multi-Floor Properties:

For 8000m² Minimum Equivalent Free Area = 2 x 4000EA Glazpart Link Vent Mk II

For 4000m² Minimum Equivalent Free Area = 1 x 4000 EA or 2 x 2500EA Glazpart Link Vent MKII

Single-Floor Properties:

For 10000m² Minimum Equivalent Free Area = 2 x 5000EA Glazpart Link Vent Mk II

For 4000m² Minimum Equivalent Free Area = 1 x 4000 EA or 2 x 2500EA Glazpart Link Vent MKII

Acoustic Properties:-

2500mm² EA Acoustic Dn,e,w (+/-) - Vent Open - 38 (0;1) Vent Closed - 51 (-1; -2)

4000mm² EA Acoustic Dn,e,w (+/-) - Vent Open - 33 (0;-1) Vent Closed - 42 (0;0)

5000mm² EA Acoustic Dn,e,w (+/-) - Vent Open - 35 (0;1) Vent Closed - 43 (0;0)

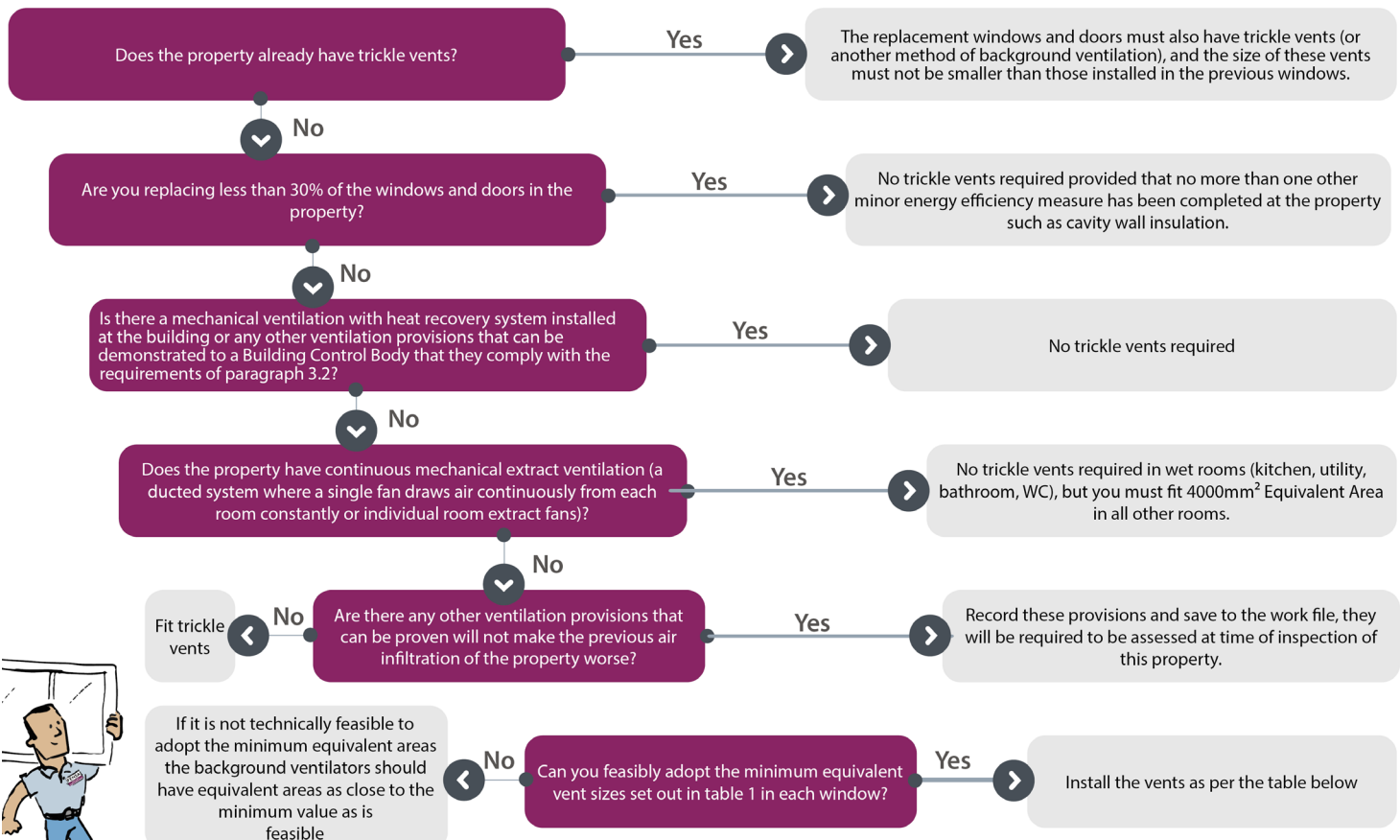
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See below flow chart issued by FENSA with questions that should be considered at every sale and/or site survey:

Trickle Vents Installation Requirements Guide



What Size Trickle Vents Should I Specify And Fit?

Room	Minimum equivalent area of background ventilators for dwellings with multiple floors
Habitable rooms	8000mm ²
Kitchen	8000mm ²
Bathroom	4000mm ²

There is a FENSA Guide to Approved Document F - Ventilation in the Technical Section of our Website for your use.

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ADDITIONAL INFORMATION (Taken from Approved Document F1, Volume 1)

Background ventilators

- 1.52 All rooms with external walls should have background ventilators. If a habitable room has no external walls, paragraphs 1.42 to 1.44 should be followed.
- 1.53 If the dwelling has more than one exposed façade, the area of background ventilators on each façade should be similar, to allow cross-ventilation.
- 1.54 If an exposed façade is close to an area of sustained and loud noise (e.g. a main road), then a noise attenuating background ventilator should be fitted.
- 1.55 If fans and background ventilators are fitted in the same room, they should be at **least 500mm apart.**
- 1.56 The minimum total area of background ventilators in each room should follow the guidance in Table 1.7.
- 1.57 The total number of ventilators installed in the dwelling's habitable rooms and kitchens should be at least the following.
- a. Four ventilators if the dwelling has one bedroom.**
 - b. Five ventilators if the dwelling has more than one bedroom.**
- 1.58 If the dwelling has a kitchen and living room which are not separate rooms, at least three ventilators of the same area as for other habitable rooms in Table 1.7 should be provided in the open-plan space.

Existing windows with background ventilators

- 3.14 If the existing windows have background ventilators, the replacement windows should include background ventilators. The new background ventilators should comply with both of the following conditions.
- a. Not be smaller than the background ventilators in the original window.**
 - b. Be controllable either automatically or by the occupant.**

If the size of the background ventilators in the existing window is not known, the ventilator sizes in paragraph 3.15 may be applied.

Existing windows without background ventilators

- 3.15 Replacing the windows is likely to increase the airtightness of the dwelling. If ventilation is not provided via a mechanical ventilation with heat recovery system, then increasing the airtightness of the building may reduce beneficial ventilation in the building. In these circumstances, it is necessary to ensure that the ventilation provision in the dwelling is no worse than it was before the work was carried out. This may be demonstrated in any of the following ways
- a. Incorporating background ventilators in the replacement windows equivalent to the following.
 - i. Habitable rooms – minimum 8000mm² equivalent area.
 - ii. Kitchen – minimum 8000mm² equivalent area.
 - iii. Bathroom (with or without a toilet) – minimum 4000mm² equivalent area.
 - b. If the dwelling will have continuous mechanical extract ventilation, installing background ventilators in any replacement windows which are not in wet rooms, with a minimum equivalent area of 4000mm² in each habitable room.
 - c. other ventilation provisions, if it can be demonstrated to a building control body that they comply with the requirements of paragraph 3.2.

Note: If it is not technically feasible to adopt the minimum equivalent areas set out in paragraph 3.15 the background ventilators should have equivalent areas as close to the minimum value as is feasible.

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Why provide background ventilation?

In the Secretary of State's view, requirement F1(1) is met if the dwelling has a means of ventilation that achieves all of the following.

- a. Extracts water vapour and indoor air pollutants from areas where they are produced in significant quantities (e.g. kitchens, utility rooms and bathrooms) before they spread through the building, following the guidance on extract ventilation in paragraphs 1.17 to 1.22.
- b. Supplies a minimum level of outdoor air for occupants' health, following the guidance for whole dwelling ventilation in paragraphs 1.23 to 1.25.
- c. Rapidly dilutes indoor air pollutants, and disperses water vapour when necessary in habitable rooms, following the guidance for purge ventilation in paragraphs 1.26 to 1.31.
- d. Minimises the entry of external air pollutants, following the guidance in Section 2.
- e. Achieves all of the following, as far as is reasonably practicable.
 - i. Produces low levels of noise, following the guidance in paragraphs 1.5 to 1.7.
 - ii. Offers easy access for maintenance, following the guidance in paragraph 1.8.
 - iii. Provides protection from cold draughts.

General Requirements

General requirements for background ventilators (trickle ventilators) as outlined in the Approved Document F – 2010 including 2021 revision

- 1.15 The size of background ventilators (including trickle ventilators) is given in this approved document as an equivalent area in mm², not as a free area.
- 1.16 Background ventilators should have the equivalent area marked where it will be easy to see from inside the dwelling when installed.
- 1.33 Ventilation should be controllable. Controls either manual or automatic.
- 1.34 Background ventilators should be at least 1700mm above floor level.

Note: Background ventilators are intended to normally be left open

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Reference Links

Planning portal: Approved documents

https://www.planningportal.co.uk/info/200135/approved_documents

Planning portal: Approved document F

https://www.planningportal.co.uk/info/200135/approved_documents/68/part_f_-_ventilation

Planning portal: Approved document L

https://www.planningportal.co.uk/info/200135/approved_documents/74/part_l_-_conservation_of_fuel_and_power

Planning portal: Regulation 7

https://www.planningportal.co.uk/info/200135/approved_documents/84/regulation_7_-_materials_and_workmanship

Guidance Building Regulations and Approved Documents index;

An enhanced Manual to the Building Regulations designed to be clear and useful for a range of audiences, and a fully searchable PDF of all Approved Documents

<https://www.gov.uk/guidance/building-regulations-and-approved-documents-index#manual-to-the-building-regulations>

Consultation outcome; The Future Buildings Standard

<https://www.gov.uk/government/consultations/the-future-buildings-standard>

Consultation outcome: The Future Buildings Standard

https://www.gov.uk/government/consultations/the-future-buildings-standard?utm_medium=email&utm_campaign=govuk-notifications&utm_source=15eb301f-0ec6-4935-ba99-789a3fc5cc4e&utm_content=daily

Guidance: Home user guide template and ventilation guide

https://www.gov.uk/government/publications/home-user-guide-template?utm_medium=email&utm_campaign=govuk-notifications&utm_source=5915bfbc-9b52-4306-a89f-abd7b6119288&utm_content=daily

Impact assessment: 2021 uplift to energy efficiency standards, improved ventilation and new overheating requirement

https://www.gov.uk/government/publications/2021-uplift-to-energy-efficiency-standards-improved-ventilation-and-new-overheating-requirement?utm_medium=email&utm_campaign=govuk-notifications&utm_source=daa3c5f3-e3fb-47f3-9605-483bffc5b9c4&utm_content=daily

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