Why Don't Trickle Vents Work & What is the Alternative?



Trickle vents are a minimum standard compliance pathway, not the only solution for modern, airtight homes. Their passive, intermittent nature is functionally inadequate for controlling moisture and noise, often leading to condensation, mould, and unnecessary heat loss. VENTI offers the superior Part F-compliant mechanical MVHR pathway (decentralised MVHR). This solution secures optimal Indoor Air Quality (IAQ) and protects your home's aesthetic and energy efficiency, offering a high-performance alternative to the plastic-box compromise.

(Source: Gov.uk Approved Document F (2021) Section 3.2)

Why Don't Trickle Vents Work? The Problem with Compliance, Not Solution

The core misunderstanding in the UK fenestration market is that if you are replacing your windows, you **must** fit trickle vents. This is inaccurate.

Trickle Vents are one of several compliance pathways to achieve adequate ventilation per **Approved Document F**. They represent the lowest common denominator for background ventilation.

The issue is that a low standard of compliance is a high standard for problems.

The "1% Sewage" Principle: Why Out of Sight is No Longer Out of Mind

You wouldn't drink a glass of water that was 99% pure if you knew the remaining 1% was sewage. The air you breathe in your home operates on the same principle.

In modern, airtight homes (built since 2007 or recently refurbished), the **interstitial condensation** and contaminants (volatile organic compounds, CO2) are trapped. Passive trickle vents offer minimal, inconsistent air exchange, forcing you to choose between comfort (keeping the vent shut) and air quality (opening the vent and losing expensive heat).

Trickle Vent Risk The Hidden Cost

Aesthetic Anxiety Ruins the look of slimline, heritage, or sash windows.

Energy Loss Acts as an unrecoverable thermal bridge, costing you heat.

Inconsistent Airflow Fails to manage moisture, leading to the return of mould and damp.

Noise Intrusion Zero acoustic control, defeating the purpose of high-grade double glazing.

THE OLD WAY

THE RIGHT WAY

Through the wall ... Continuous ... Mechanical ... Ventilator





The Regulator's Truth: Part F Compliance is About Airflow, Not Plastic Boxes

Under the latest **Part F (2021) revisions**, the minimum equivalent area (EA) required for background vents essentially **doubled**. This change was a regulatory nudge away from passive systems.

For many **high-end windows**, especially in refurbishment projects, the required vent size is physically incompatible with the frame's structural or aesthetic constraints, forcing an ugly, over-frame solution. The only way to **Secure Your Compliance & Home Value** without compromise is to choose the mechanical ventilation route.

What are Trickle Vents?

For those not in the industry a trickle vent is the opening above the window that allows air to come in to the property. Our goal at VENTI is to give the manufacturer and the homeowner the options to not install trickle vents. Whilst still ensuring that your designs can pass Approved Document F (Part F) and you can breathe freely. We are dedicated to our belief that everyone should have access to clean and healthy air. The state-of-the-art ventilation systems are designed to ensure optimal air circulation, removing impurities and maintaining a comfortable atmosphere. With our innovative technology, you can enjoy the benefits of improved air quality, reducing allergens, odours, and mould.

The Legal, Aesthetic, and Energy-Saving Alternative: Decentralised MVHR

The superior compliance pathway (Method 2) is through a **mechanical whole-house system** like a **Decentralised Mechanical Ventilation with Heat Recovery (dMVHR)**. This completely detaches the ventilation requirement from the window structure itself.

MVHR vs. The Passive Approach:

- Passive Trickle Vent: Air enters and leaves haphazardly, taking heat with it. Efficiency is 0%.
- VENTI dMVHR System: Counterflow principle ensures air is constantly refreshed, with 90%+ of heat recovered and re-introduced. It's a proactive, filtered, silent system.



Why an MVHR is Better

When comparing Trickle Vents and Mechanical Ventilation with Heat Recovery (MVHR) it is important to note that they serve different purposes in terms of ventilation, and whether trickle vents should be replaced with MVHR depends on various factors, including the goals for indoor air quality, energy efficiency, and comfort.

It's worth mentioning at this point that there are two type of MVHR system: <u>centralised (whole house)</u> or <u>decentralised (single room)</u> systems

Here are some reasons why one might consider replacing trickle vents with MVHR:

- 1. **Enhanced Air Quality**: A decentralised MVHR system like the <u>FLUXO</u> provides controlled, continuous ventilation with the ability to filter incoming air. This allows for better removal of pollutants, allergens, and particulate matter from the indoor air, contributing to improved air quality compared to trickle vents.
- 2. **Energy Efficiency**: MVHR systems recover heat from the outgoing stale air and use it to preheat the incoming fresh air. This heat recovery process can significantly reduce energy consumption for heating, leading to increased energy efficiency and potential cost savings compared to the passive ventilation provided by trickle vents.
- 3. **Temperature Control**: MVHR systems allow for precise control over the temperature of the incoming air, providing a more comfortable indoor environment. Trickle vents, on the other hand, rely on natural airflow and may lead to temperature fluctuations, especially in extreme weather conditions.
- 4. **Reduced Noise**: Trickle vents, when open, can allow outdoor noise to enter the building. MVHR systems, with their controlled and filtered ventilation, can contribute to a quieter

indoor environment.

- 5. **Condensation Control**: MVHR systems help manage indoor humidity levels, reducing the risk of condensation on windows and other surfaces. This is particularly important in preventing mould growth and maintaining the longevity of building materials.
- 6. **Compliance with Building Standards**: With <u>Part F</u> building regulations and standards being adopted there are far more stringent guidelines regarding energy efficiency and indoor air quality. MVHR systems may help buildings meet or exceed these standards.



7. **Increased Control and Automation**: MVHR systems can be equipped with smart controls, allowing for automated adjustments based on occupancy, outdoor conditions, and indoor air quality. This level of control is not achievable with trickle vents.

It's important to note that the decision to replace trickle vents with MVHR depends on the specific needs of the building, the budget, and the overall ventilation strategy. Consulting with a ventilation expert at VENTI can provide tailored advice based on the unique characteristics of the space in question.

The VENTI Edge: Quiet Confidence and Property Preservation

Our dMVHR systems are built on principles of acoustic control and property preservation.

1. **Aesthetic Escape:** The unit is installed through the wall, not the window frame. It has a tiny

- external grille and an ultra-quiet internal face, leaving your **slimline windows** and **heritage sightlines** untouched.
- 2. **Energy Sovereignty:** The system continuously manages **relative humidity** and CO2 levels, eliminating the risk of **interstitial condensation** while recovering the heat you paid for. (Source: Academic Study on IAQ and Cognitive Performance Hack 31)
- 3. **Future-Proofing:** MVHR is the definitive route to achieving compliance for **PAS 2035** and aligning with future green home grants, protecting your home as a prudent investment.

☐ Stop Here: Your 3-Step Decision Filter

Before taking action, use this quick filter to determine your next step and avoid unnecessary cost:

Indicator		Yes No Next Step		
1. Is the mould/condensation issue confined to just one or two rooms?			Simple Unit Fix: Proceed to product page for immediate purchase.	
2. Are you planning a full-house renovation, extension, or new build?			Strategy Required: Book a Consultation.	
3. Are you about to replace <i>all</i> your windows/doors?			Strategy Required: Book a Consultation.	