

# What is WTW (Warmteterugwinning)?

**WTW, or Warmteterugwinning, is a Dutch term for heat recovery ventilation (HRV), a system that recovers heat from outgoing stale air and uses it to warm incoming fresh air. In the UK, these systems are often referred to as mechanical ventilation with heat recovery (MVHR). They are highly efficient, reducing energy consumption while maintaining indoor air quality and comfort.**

## **Understanding WTW (Warmteterugwinning) in the UK**

WTW, or Warmteterugwinning, is a concept that has gained significant traction in the UK as homeowners and builders seek energy-efficient solutions for maintaining indoor air quality. This section delves into the mechanics, benefits, and applications of WTW systems, with a focus on the UK context.

### **How WTW Systems Work**

WTW systems, also known as MVHR (Mechanical Ventilation with Heat Recovery), operate by extracting stale air from inside a building and passing it through a heat exchanger. Here, the heat from the outgoing air is transferred to the incoming fresh air, which is then distributed throughout the property. This process ensures that:

- **Heat is retained**, reducing the need for additional heating.
- **Fresh air is supplied**, improving indoor air quality.
- **Energy efficiency is maximised**, lowering utility bills and carbon emissions.

For example, in a typical UK home, a WTW system can recover up to 90% of the heat that would otherwise be lost through ventilation.

### **Benefits of WTW Systems in the UK**

1. **Energy Efficiency:** By recovering heat, WTW systems reduce the demand for central heating, which is particularly beneficial in the UK's colder climate.
2. **Improved Air Quality:** These systems filter incoming air, removing pollutants, allergens, and particulate matter.
3. **Cost Savings:** Reduced energy consumption translates to lower utility bills over time.
4. **Compliance with Regulations:** WTW systems help meet the UK's stringent building regulations, particularly Part F (Ventilation) and Part L (Conservation of Fuel and Power).

### **Applications of WTW Systems**

WTW systems are versatile and can be installed in various settings:

- **New Builds:** Centralised systems like RESPIRO are ideal for new constructions, offering whole-house ventilation.
- **Retrofits:** Decentralised systems such as FLUXO and AUREN are perfect for refurbishments, as they require minimal structural changes.
- **Wet Rooms:** Systems like ARIA provide continuous extract ventilation in areas prone to moisture, such as kitchens and bathrooms.

## Challenges and Considerations

While WTW systems offer numerous benefits, there are factors to consider:

- **Initial Cost:** The upfront investment can be higher compared to traditional ventilation systems.
- **Maintenance:** Regular cleaning of filters and heat exchangers is essential for optimal performance.
- **Installation:** Professional installation is crucial to ensure efficiency and compliance with regulations.

## The Future of WTW in the UK

As the UK continues to prioritise energy efficiency and sustainability, WTW systems are expected to play a pivotal role in the future of building design. Innovations in technology, coupled with government incentives, are likely to drive adoption across residential and commercial properties.

**Upgrade your home's ventilation with a WTW system to enjoy cleaner air, lower energy bills, and a more sustainable lifestyle.**