

Ductless Air Exchanger

A ductless air exchanger, often referred to as a decentralised MVHR (Mechanical Ventilation with Heat Recovery) system, is a ventilation device designed to supply fresh air and extract stale air from individual rooms or small spaces without requiring ductwork. It operates by alternating airflow streams through a single wall-mounted unit, recovering heat from the extracted air and transferring it to the incoming air. This process typically achieves heat recovery efficiencies of 80-90%.

Key Features

1. **Ductless Design:** Eliminates the need for complex ducting, making it ideal for retrofitting older UK homes where installing traditional ducted systems may be impractical or costly.
2. **Single-Room Application:** Often used in kitchens, bathrooms, or extensions, providing localised ventilation and heat recovery.
3. **Energy Efficiency:** Reduces heating demand by recovering waste heat, aligning with UK Building Regulations Part L (Conservation of Fuel and Power).

Practical Examples

- **Retrofit Projects:** In UK terraced houses, units like the **FLUXO 100** or **AUREN 160** are installed through external walls to improve indoor air quality without structural modifications.
- **Compliance:** Helps meet Part F (Ventilation) requirements in renovations, particularly in airtight homes post-insulation upgrades.

Real-World Applications

- A 1930s semi-detached house in London retrofitted with decentralised MVHR units in wet rooms to combat condensation while preserving historic features.
- Small-scale new builds (e.g., garden offices) using ductless systems to achieve near-passivehaus performance with minimal space requirements