

Decentralised Mechanical Ventilation (DMV)

Decentralised Mechanical Ventilation (DMV) refers to a ventilation system in which individual units are installed in each room of a building, as opposed to a centralised system that relies on a single unit to manage airflow throughout the entire structure. DMV systems consist of multiple independent units that supply fresh air and extract stale air from individual rooms, allowing for tailored ventilation solutions that can be adjusted based on the specific needs of each space.

DMV systems are particularly advantageous in retrofit projects where existing ductwork may be limited or impractical to install. Each unit operates independently, enabling precise control over air quality and circulation in different areas of the home. This flexibility helps to optimise energy efficiency and can lead to improved indoor air quality. In a typical retrofit project, a homeowner may opt to install DMV units in each bedroom and living area. For instance, a family living in a Victorian terrace house could choose to place a DMV unit in the master bedroom to ensure adequate ventilation during sleep while installing another unit in the living room to manage airflow during family gatherings. This approach enhances air quality without the need for extensive ductwork, which can be disruptive and costly.

In recent years, many homeowners in the UK have turned to DMV systems as a solution for improving indoor air quality, particularly in energy-efficient retrofits. By installing these systems, they can effectively remove moisture and pollutants, significantly reducing the risk of mould growth and enhancing overall comfort. Additionally, DMV systems can be integrated with heat recovery technologies, further increasing energy efficiency by pre-conditioning incoming air using the heat from outgoing stale air.