

Heat Recovery Unit

A Heat Recovery Unit (HRU) is a device designed to reclaim and recycle heat from exhaust air within a building. It utilises thermo-conductive materials to transfer heat from the outgoing stale air to the incoming fresh air, thereby improving energy efficiency and maintaining indoor air quality.

HRUs are integral components of Mechanical Ventilation with Heat Recovery (MVHR) systems. They work by extracting heat from warm, stale air that is being expelled from the building and using that heat to warm up the incoming fresh air from outside. This process significantly reduces the energy required to heat the home, leading to lower heating costs and enhanced sustainability.

In a typical UK home equipped with an HRU, the system might operate on a continuous cycle. For instance, during winter months, as the indoor air is heated by the heating system, it is expelled through the HRU. The HRU captures around 82% of the heat from this outgoing air, transferring it to the incoming cold air. This pre-warming of incoming air reduces the load on the heating system, resulting in energy savings and improved comfort levels.