

FEATURE AND BENEFITS

- High thermal and latent efficiency thanks to advanced polymer membrane
- Directly interchangeable with standard exchanger to be fitted retrospectively
- Easy to clean, replace and service
- Built-in mould and bacteria resistant Micro-ban antimicrobial technology
- Blocks odours and contaminants from the extract air crossing over into the fresh supply air
- The membrane is tolerant to below freezing temperatures
- Eliminates the need for condensate drainage

HOW THE ENTHALPY WORKS

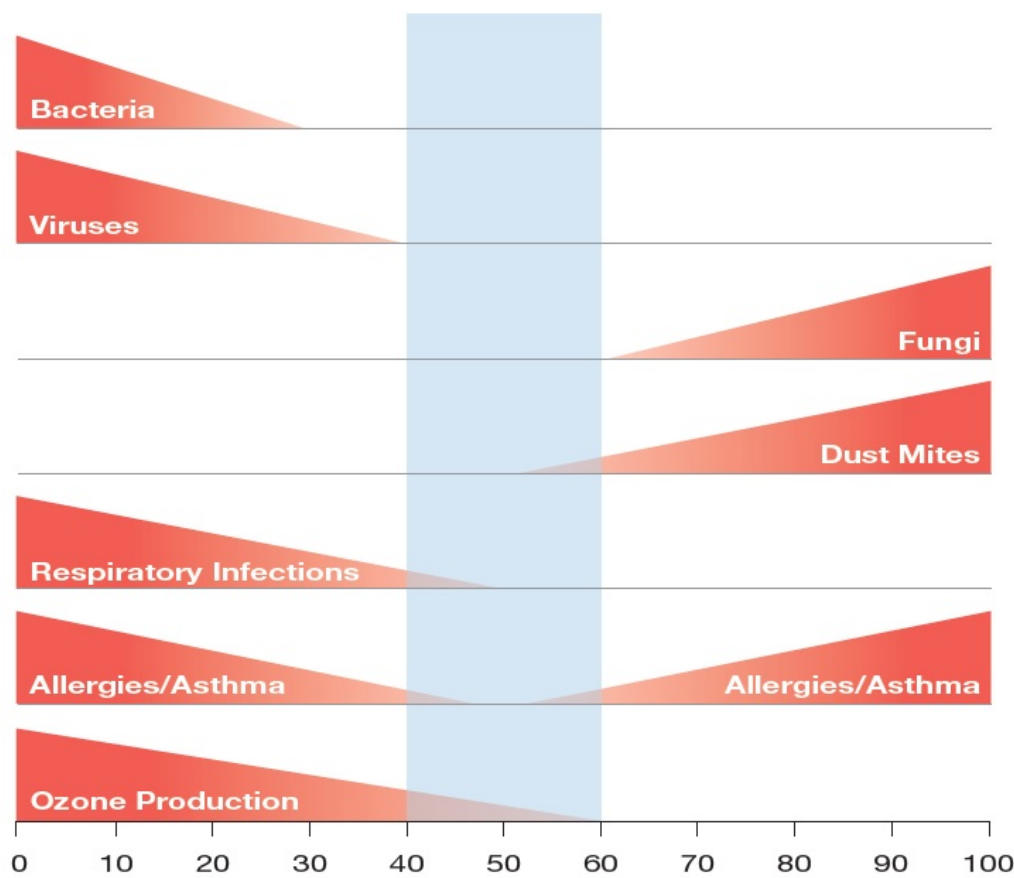
The Enthalpy Exchanger recovers both the thermal and the latent energy from the stale air extracted from wet rooms around the home. The additional energy, which would otherwise have been lost, is transferred into the incoming fresh air stream before being supplied to habitable rooms. Choosing the enthalpy exchanger, rather than the standard heat exchanger, means that the unit becomes an Energy Recovery Ventilation (ERV) system, as opposed to solely a Heat Recovery Ventilation (HRV) system.

The Enthalpy Exchanger is fitted with an innovative, proprietary polymer membrane which enables the crossover of moisture, as well as heat. As the humidity is transferred as water vapour, by diffusion, it means that it is perfectly suited to counteract both hot and humid indoor climates during the summer months as well as drier indoor environments through winter.

Performance	Average HRV efficiency	Average ERV efficiency
Thermal efficiency	89%	88%
Humidity efficiency	0%	65%

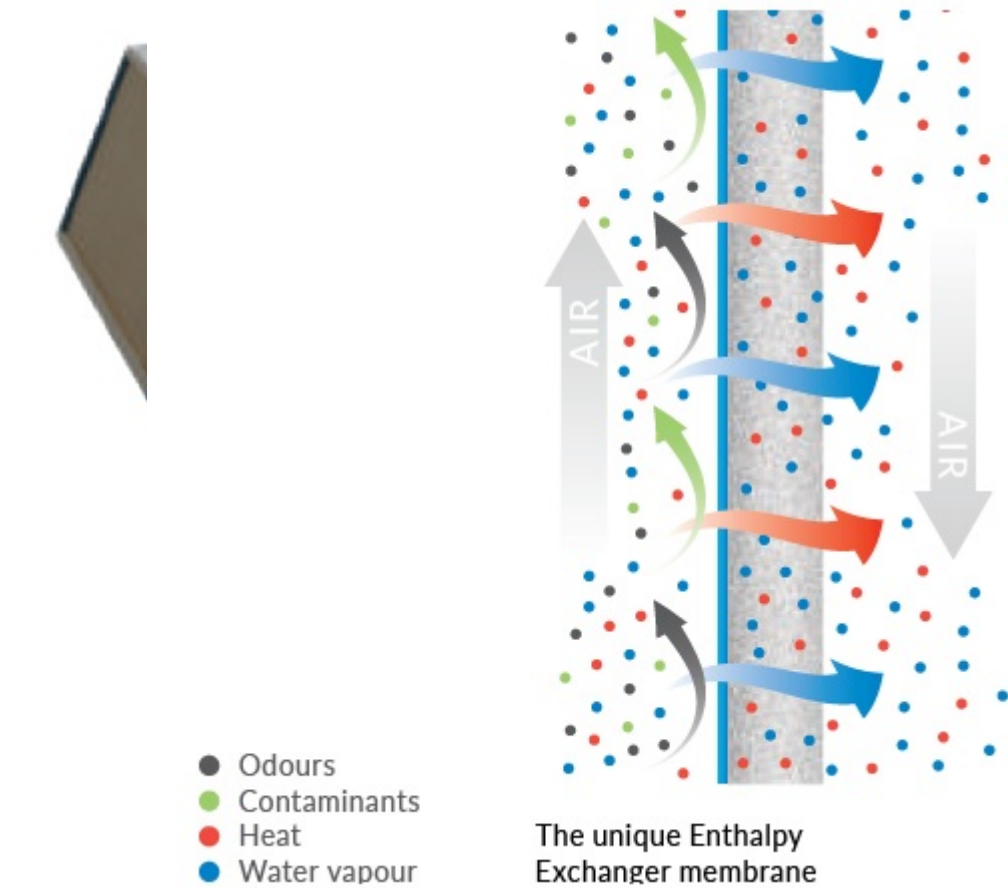
HEALTH & COMFORT

The graph below shows that by maintaining an optimal indoor RH of 40-60% the potential adverse effects for occupants, and the dwelling itself are at their lowest levels.

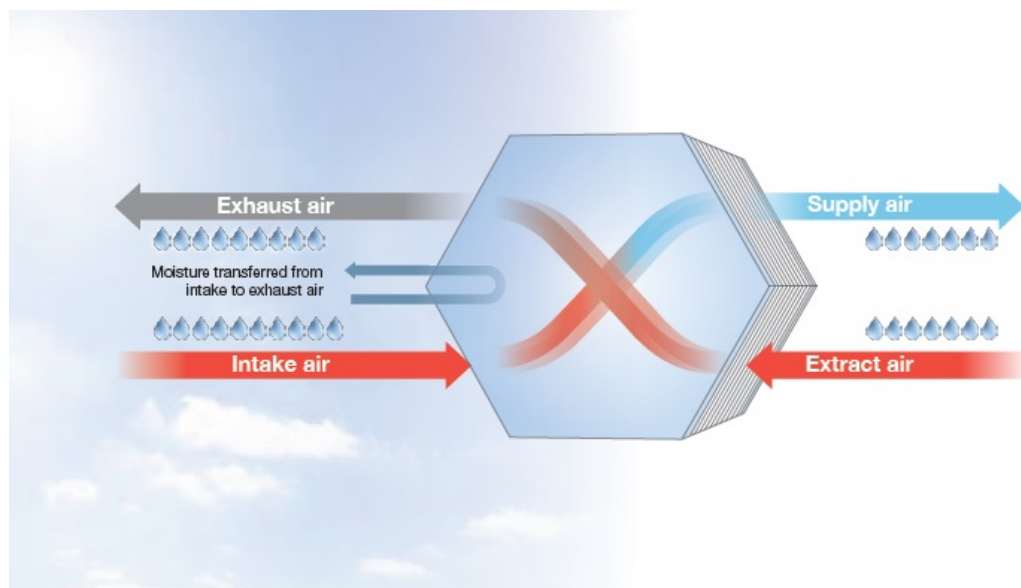


THE ENTHALPY MEMBRANE

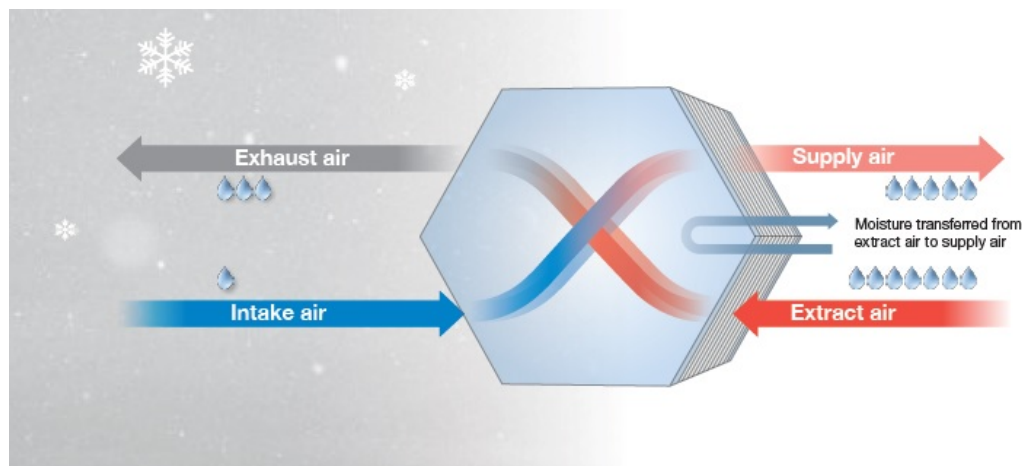
The membrane is so advanced that it blocks the transfer of any odour or contaminants without inhibiting the energy transfer. Furthermore, the membrane has built-in Micro-ban technology for mould and bacteria resistance, making the Enthalpy Exchanger ultra-hygienic.



Summer – If outside air at 25 deg C and 50% RH passes into a cooled room at 20 deg C the RH would set rise to over 80%. The Enthalpy Exchanger transfers up to 65% of the difference in the moisture levels into the exhaust air preventing this uncomfortable increase from happening.



Winter – If outside air at 00°C and 50% RH is drawn into the home and warmed to 20°C without the addition of any moisture, its RH level would drop to roughly 10%. The Enthalpy Exchanger retains some of the moisture from the extract air and transfers it into the supply air.



Comparison – Compare this to a standard heat exchanger during the winter and it is clear how the indoor climate could become dry and uncomfortable for occupants.

