

Comfosystems
Zehnder enthalpy exchanger

zehnder

**The first washable counter flow
enthalpy exchanger**

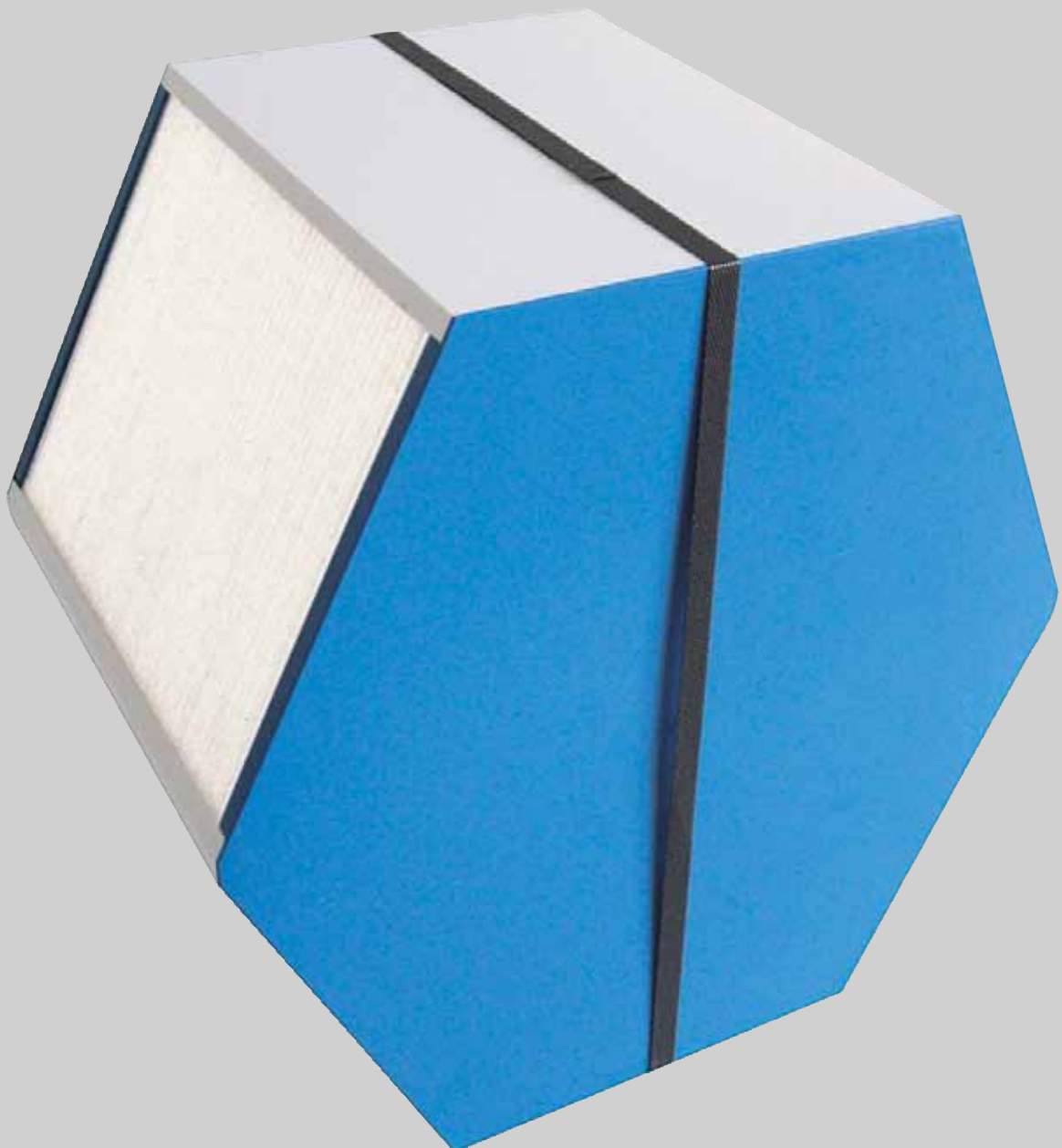
always
around you

Heating

Cooling

Fresh Air

Clean Air

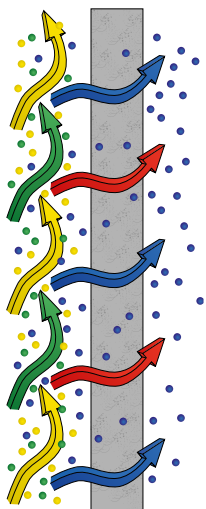


Zehnder enthalpy exchanger

Today's building requirements demand improved energy efficiency and air quality standards for residential ventilation systems. In addition, as new buildings become more airtight, there is an increased demand to improve the performance of ventilation systems. The Zehnder enthalpy exchanger is an essential component in a ventilation system as it improves the indoor air quality in several ways.

The Zehnder enthalpy exchanger recovers the energy (thermal and latent) from the stale extract air stream, which would normally be lost, and transfers the energy back into the incoming fresh air stream while preventing the cross-over of contaminants from the extract air. The Zehnder enthalpy exchanger has a thermal efficiency of around 78% and latent efficiency of around 65%.

The humidity is transferred as water vapour by diffusion from the high to the low partial vapor pressure side. Simultaneously, it prevents cross-over of gases, odours and contaminants. These features make the Zehnder enthalpy exchanger perfectly suitable in dry cold regions as well as in warm humid regions.



1 Comfort

- ~ Permanent supply of fresh air
- ~ Pre-heated fresh supply air in winter
- ~ Pre-cooled fresh supply air in summer (when active cooling available)
- ~ Prevents a dry indoor climate thanks to humidity recovery
- ~ In warm humid regions, 65% of the humidity stays outside
- ~ Balanced ventilation at temperatures far below 0°C

2 Energy efficiency

- ~ 78% of the thermal energy is recovered
- ~ 65% of the humidity is recovered
- ~ Less active cooling capacity required in summer time
- ~ Due to tolerance to freezing temperatures, no pre-heater required
- ~ Long life cycle with constant efficiency

3 Flexibility

- ~ No need for condensation drain
- ~ Zehnder enthalpy exchanger available as spare part for upgrade
- ~ Directly interchangeable with standard Zehnder heat exchanger
- ~ Easy to replace and service
- ~ Available for most Zehnder ComfoAir units

4 Hygienic

- ~ Water washable enthalpy exchanger
- ~ Membrane with built-in Microban® antimicrobial technology
- ~ Mould and bacteria resistant
- ~ No cross-contamination
- ~ Minimum air leakage thanks to well-sealed construction
- ~ Easy to clean

Hygienic and easy cleaning



1. Take the Zehnder enthalpy exchanger out of the Zehnder ComfoAir by using the strap.



2. Wash using water - liquid detergent can be used if desired. The exchanger can easily be washed in the bath using the shower attachment.



3. Rinse the Zehnder enthalpy exchanger in clean water.



4. Dry the cover of the Zehnder enthalpy exchanger and let it drip dry for one hour.



5. Place the Zehnder enthalpy exchanger back into the unit in the same way as you took it out (sticker on the top at the front).



When washing the Zehnder enthalpy exchanger, make sure the outside temperature is above 0°C .

Benefits

- High sensible & latent effectiveness thanks to advanced polymer membrane
- Water washable enthalpy exchanger
- No condensation drain needed
- Proprietary membrane blocks odours and contaminants from the extract air stream crossing over into the fresh air stream without inhibiting energy transfer
- Zehnder enthalpy exchanger has minimum air leakage thanks to a well-sealed construction
- Membrane with built-in Microban® antimicrobial technology for mould and bacteria resistance
- Optimized flow-field design with low pressure drop
- The freezing point of the Zehnder enthalpy exchanger is well below 0°C
- Membrane is freeze tolerant
- Long lifetime cycle with constant efficiency

Product description	Article number
Service number Zehnder enthalpy for Zehnder ComfoAir 160	400 400 037
Service number Zehnder enthalpy for Zehnder ComfoAir 350	400 400 013
Service number Zehnder enthalpy for Zehnder ComfoAir 550	400 400 014
Zehnder ComfoAir 160 ERV Units	Country specific
Zehnder ComfoAir 350 ERV Units	Country specific
Zehnder ComfoAir 550 ERV Units	Country specific

