

SEWT kit



The ground-to-brine heat exchanger SEWT significantly increases the efficiency of ventilation units with heat recovery! SEWT saves even more energy and minimises heating costs. The optimal addition for ventilation units with heat recovery.

Advantages

- Additional preheating and prevention of icing during the cold season.
- Pleasant "natural cooling" on hot days.
- Complete kit with coordinated components.

Functional principle

The ground-to-brine heat exchanger SEWT utilises the ground temperature which is relatively constant throughout the year. The ground collector pipe is installed and laid in the ground at a depth of approx. 1.2 m. The hydraulic unit ensures the circulation of the brine depending on the outdoor temperature. The brine serves as a heat transfer medium and releases the heat to the supply air through the heat exchanger module.

This results in the following:

- During the cold season
The preheating of cold intake air of up to 14 K. Thus, the intake air is normally at a temperature above 0 °C when it reaches the ventilation unit with heat recovery (anti-icing operation). This results in a higher supply air temperature and a positive effect on the total energy balance. Post-heating is only necessary in case of very low outdoor temperatures.

On hot summer days

The ground-to-brine heat exchanger reduces the intake air temperature.

During the transitional period

The brine is circulated depending on the outdoor temperature measured via the thermostats. The intake air is always energetically optimised when it reaches the ventilation unit, which additionally saves energy – the indoor climate is always comfortable.

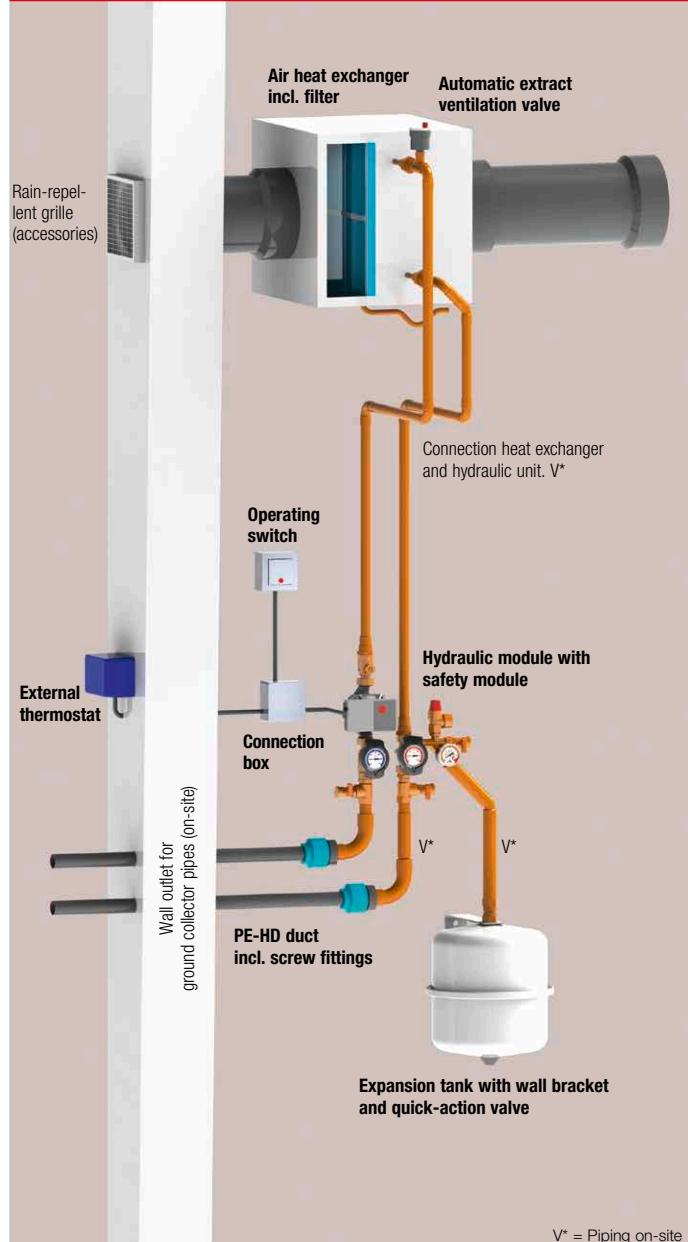
Planning information

- In order to maximise the heat transfer, the ground collector pipe should be laid at a depth of at least 1.2 m, since the temperature there is constantly approx. 8–12 °C throughout the year. The ground temperature increases and stabilises with installation depth.
- In order to increase the heat transfer, the pipe should be laid directly in the ground in a sand bed. Furthermore, if ground collector pipes are laid in parallel, the distance should not be less than 0.5 m (from pipe to pipe).
- There is also the option of probe drilling as an alternative to surface laying.

Delivery

- The ground-to-brine heat exchanger SEWT is delivered as a kit corresponding to the course of processing on-site and for optimised transportation. The complete set guarantees the absolute precision fit and functional reliability, because all individual components are matched to each other. The kit consists of three sets, which are described on the adjacent page.

Schematic diagram



SEWT kit Ref. no. 02564

Pictorial schematic

The pre-insulated duct system IsoPipe should be used to prevent condensation. Alternative: Spiral duct with additional insulation.