

### User information on home ventilation

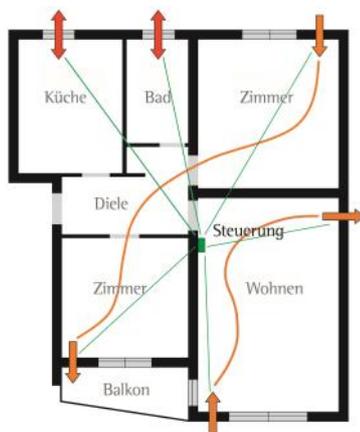
To ensure that you always feel comfortable, your home is equipped with a ventilation system that ensures a continuous exchange of air. So you always have fresh and clean air. You also save heating energy and protect the building from moisture damage and mould.

#### Where do pollutants and moisture come from?

Furniture, carpets and paints evaporate pollutants in minute quantities. Moisture is produced by the breathing air of the residents, showering, washing and drying clothes, cooking and also by the plants. In a household of 4 people, about 10 litres of water evaporate per day.



#### Where to put the humid, polluted indoor air?



Air can only absorb a limited amount of moisture. The amount depends on the temperature: warm air absorbs more than cold air. If the warm, moist air cools down, e.g. on a cold surface, condensation occurs: condensation water develops. You can see this every summer on your cool drink glass. Danger of mould growth: At the cooler places of the outer wall, e.g. in corners, the humidity can precipitate as condensate, an ideal environment for moulds. Protection against moisture damage through ventilation: The moisture contained in the room air can only be reduced through effective ventilation. With the humidity also the pollutants in the room air are removed at the same time. In the past, air exchange used to take place through numerous joints in the building envelope, e.g. at the window. Thus the humid and loaded room air could escape air. Here often a five-fold air exchange per hour adjusted itself in the apartment. Condensation only formed on the cold window panes, without any further consequences.

Today, the Energy Saving Ordinance (EnEV) applies to renovated and new residential buildings. The buildings must be almost airtight. This means that there is no need for joint ventilation and the user must actively ventilate the building. Due to the high energy costs, however, too little ventilation is being used. Moisture damage occurs, which affects the health of the occupants and the substance of the house.

Up to now, ventilation has only been used to ventilate rooms without windows. Interior bathrooms were ventilated when used in connection with a time lag. A post-flow of the outside air took place via the building leaks. In the rest of the apartment, ventilation was also ensured by the air flow through the building cover.

Today, ventilation devices in the bathroom, toilet or kitchen are permanently in a weak state to ventilate the entire apartment. If necessary, a higher level can be set or humidity control can automatically take over. The fresh air must now flow through outside wall diffusers (ALD). Due to the integrated wind pressure protection and the silencer, it remains silent and draught-free in the living area.

