

Comfosystems
Simply fresh air

zehnder

always
around you

Heating

Cooling

Fresh Air

Clean Air



Zehnder – everything you need to create a comfortable, healthy and energy-efficient indoor climate

Heating, cooling, fresh and clean air: at Zehnder, you will find everything you need to create a comfortable, healthy and energy-efficient indoor climate. Zehnder's wide and clearly structured portfolio can offer the right product for any project, be it private, public or commercial, new build or refurbishment. And where service is also concerned, you'll find that Zehnder is "always around you".

Heating

At Zehnder, **Heating** doesn't just come in the form of designer radiators. We offer solutions in all shapes and sizes, from radiant ceiling panels to heat pumps with integrated ventilation devices.

- Designer radiators
- Compact energy station with integrated heat pump
- Heating and cooling ceiling systems
- Comfortable indoor ventilation with heat recovery



Zehnder designer radiators

Cooling

Zehnder also offers sophisticated solutions for indoor **Cooling**. These range from cooling ceiling systems to comfortable indoor ventilation with a supply of pre-cooled fresh air.

- Heating and cooling ceiling systems
- Compact energy station with heat pump and brine pipe
- Comfortable indoor ventilation with geothermal heat exchanger for fresh air pre-cooling



Zehnder heating and cooling ceiling systems

Fresh Air

Fresh Air – a product range with a long tradition at Zehnder. Zehnder Comfosystems provides products and solutions for comfortable indoor ventilation with heat recovery for houses and apartments, for new builds and for renovation projects.

- Comfortable indoor ventilation
- Compact energy station with integrated ventilation device



Zehnder Comfosystems

Clean Air

Zehnder Clean Air Solutions provide **Clean Air** in buildings particularly prone to dust. In residential applications, the comfortable indoor ventilation provided by Zehnder Comfosystems filters external pollutants out of the air.

- Comfortable indoor ventilation with integrated fresh-air filter
- Compact energy station with integrated fresh-air filter
- Systems for clean air



Zehnder Clean Air Solutions



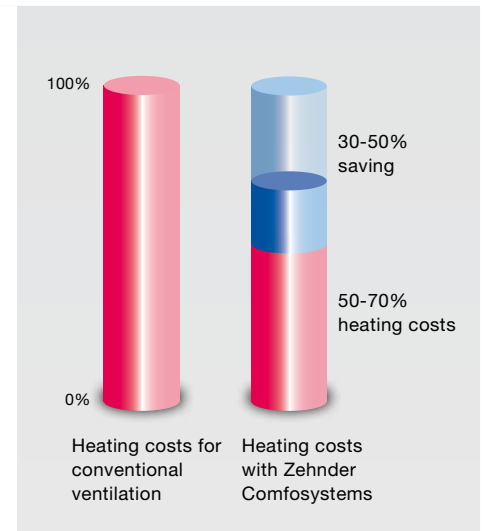
A constant supply of **fresh air** in the indoor spaces in which we spend more than 70% of our time is vital to our health. Zehnder Comfosystems comfort ventilation systems provide an assurance that equal amounts of used and fresh air will be exchanged. The Zehnder ComfoBox compact energy station for heating, cooling, ventilation and hot water production represents the ultimate configuration.

The ideal solution for buildings in which the windows often remain closed due to noise or dust particles – and a necessity caused by the increasingly air-tight design of modern buildings. Zehnder Comfosystems promotes a sense of well-being among the residents and helps retain the value of the property. And by means of heat recovery from the extract air, the system provides not only good quality air, but also pre-cooled or pre-heated air, depending on the season.

Zehnder products and systems can provide you with ideal solutions for a comfortable, healthy and energy-efficient indoor climate.

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Zehnder Comfosystems – healthy, energy- efficient and comfortable



1 Health

Fresh air promotes well-being, healthy sleep, concentration and productivity. Draught-free air helps prevent colds and is good for your health. Thanks to optional fine filters, which capture fine dust and pollen, even allergy sufferers can breathe easily. An enthalpy heat exchanger for moisture recovery prevents the air getting too dry in winter.

- Optimum oxygen supply and draught-free air promote well-being
- CO₂ content below max. 1000 ppm (Pettenkofer method)
- Hypoallergenic and reduces respiratory disorders. Prevents outdoor pollutants entering rooms thanks to fine filters and extraction of indoor pollutants
- Prevents mildew formation

2 Energy savings

The prescribed airtight building envelope only really makes sense – and is worth its while – in conjunction with Zehnder Comfosystems. Given continuously increasing energy costs, real cash can be saved thanks to approx. 95% heat recovery and the utilisation of renewable energy.

- Energy savings of up to 50%
- Heat recovery of approx. 95%
- Use of renewable energies for heating, cooling and hot water production



3 Comfort

Your home enjoys a permanent supply of fresh, clean air; simultaneously, moist air, kitchen odours or tobacco smoke are automatically vented to atmosphere. And Zehnder Comfosystems is child's play to operate – just enjoy the pleasant indoor climate.

- Permanent supply of fresh, clean air
- Damp air, kitchen odours and tobacco smoke are automatically exchanged for fresh air
- Optional pre-tempered air in winter and summer
- Operation is child's play



4 Retention of value

For home owners, Zehnder Comfosystems is an investment that pays off. Mildew formation caused by a lack of ventilation is prevented by reducing excessive humidity. Zehnder Comfosystems makes a vital contribution to retaining and increasing the value of your property: With a modern, balanced supply and extract air system with heat recovery the property is upgraded to tomorrow's standards, today.

- Protection against mildew
- Protection of the building against moisture damage caused by a lack of ventilation
- Comfort ventilation systems already meet the requirements of future building standards (energy performance certificate)



5 Appearance

Country house? Or PassivHaus? Zehnder Comfosystems suits any style. The only visible components are the supply and extract air inlets and outlets, and they are hidden discreetly by designer grilles.

- Designer grilles discreetly conceal the outlets for supply air and extract air
- Suits any style
- Various wall, ceiling and floor outlets

How ventilation works

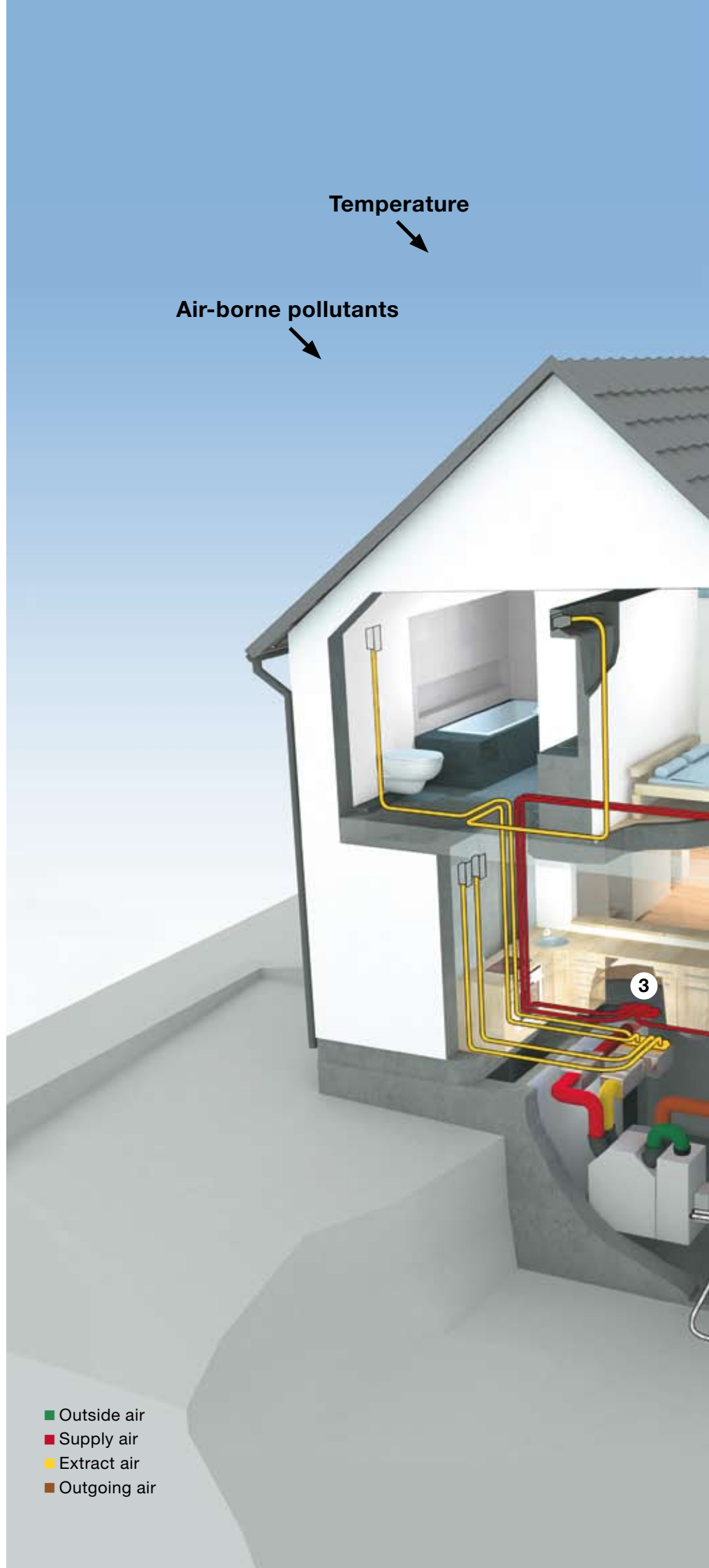
1. Fresh air is fed into the system via an external wall vent. Optional air/brine geothermal heat exchanger. Heat exchangers use geothermal energy to pre-temper outside air before it enters the system.

2. The Zehnder ComfoAir ventilation device recovers up to 95% of the energy from the extract air and returns it to the fresh air. This can be humidified, dehumidified, heated and cooled using optional components.

3. The Zehnder ComfoFresh air distribution system channels optimally tempered fresh air to individual rooms as needed and vents extract air to the outside. The air volume can be adjusted individually for each room.

Benefits

- Constantly fresh air
- Saves energy through heat recovery
- Retains property value by preventing mildew
- Promotes good health
- Protects against outside noise
- Government subsidised



- Outside air
- Supply air
- Extract air
- Outgoing air



How the optional Zehnder ComfoFond-L geothermal heat exchanger works

The Zehnder ComfoFond-L geothermal heat exchanger utilises the constant temperature of the ground for heat recovery and tempering the supply air by means of a brine pipe installed in a trench. Geothermal energy is collected by a brine-driven collector or a probe and used to pre-heat or cool the supply air. The energy it contains is transferred to the fresh supply air via a heat exchanger upstream of the ventilation device.

In the spring and autumn, when the outside air and ground are at similar temperatures, it is often more economical not to temper the outside air. The Zehnder ComfoAir ventilation device brine pumps are therefore only activated as required. Thanks to the easy installation of the ground collector, the Zehnder ComfoFond-L is the ideal alternative for single- and two-family houses or on properties with high water tables in particular.

The right system for every application

For houses and apartments, for private households and commercial premises, for new builds and renovation projects, for ventilation, pre-tempering or complete energy stations, Zehnder Comfosystems can offer the right solution for every project and every application with a wide and varied portfolio of products catering for any budget and any level of comfort. The system components are perfectly matched so that ventilation devices and air distribution systems can be combined with all kinds of designer grilles.

Comfort

Ventilation

Ventilation devices with heat recovery



Zehnder ComfoAir 350

Comfort Plus

Ventilation, pre-heating and pre-cooling

Ventilation devices with heat recovery and geothermal heat exchanger



Zehnder ComfoCool



Zehnder enthalpy exchanger for moisture recovery



Zehnder ComfoFond-L

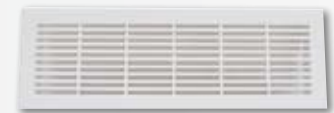
OnFloor air distribution

Flexible oval flat tube with Clinside smooth internal coating



Patented flat oval tube

Designer grille



Plastic grille



Intake valve



Extract valve

InFloor air distribution

Flexible round tube with Clinside smooth internal coating



OnFloor air distribution

Flexible oval flat tube with Clinside smooth internal coating



Patented flat oval tube

Designer grille



Zehnder Roma



Zehnder Torino



Zehnder Venezia

InFloor air distribution

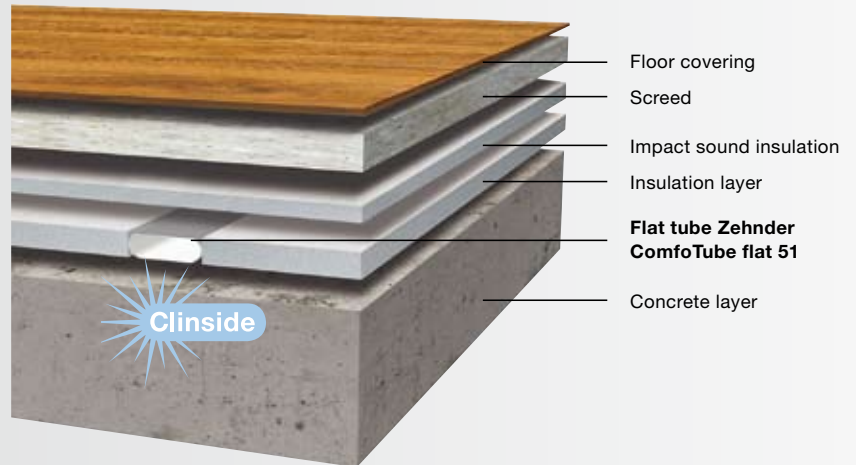
Flexible round tube with Clinside smooth internal coating



Zehnder OnFloor and InFloor – effective and hygienic

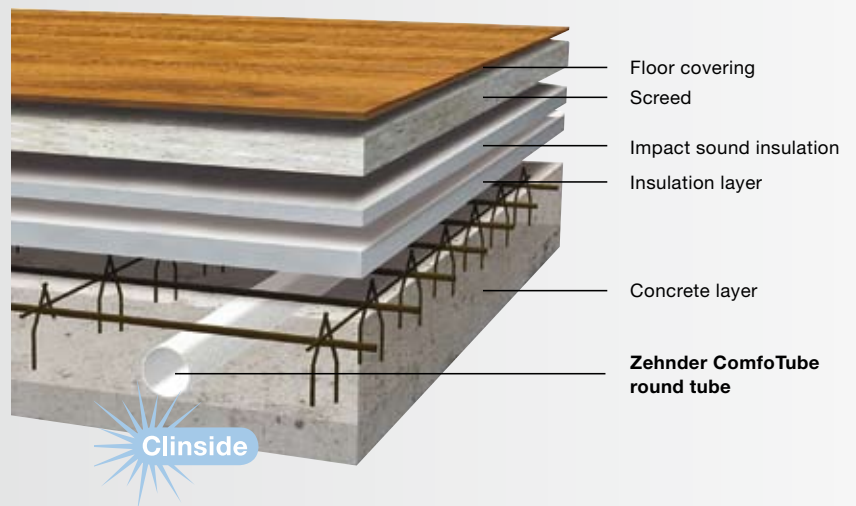
Two versions are available for air distribution. In both cases, the volume of air is regulated as required. They are noted for their hassle-free integration into the building and rapid installation. In the case of Zehnder OnFloor, fresh air flows through patented, flat, oval ducts with an internal coating, which are installed in the insulation layer of the unfinished floor. Zehnder InFloor functions on the same principle, only the round tubes are laid in the unfinished floor.

OnFloor air distribution (on the unfinished floor)

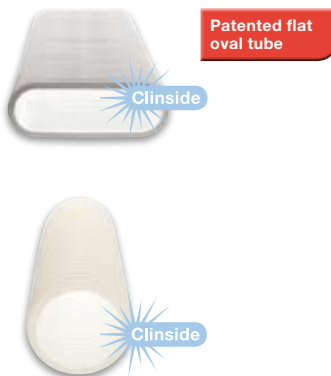


- Oval, flexible flat tube (51 mm) – easy to install
- High-quality food-grade plastic (HDPE)
- Clinside smooth internal coating
- Centrally and peripherally adjustable air volumes
- Low pressure drop
- Easy to clean

InFloor air distribution (in the unfinished floor)



- Flexible round tube – easy to install
- High-quality food-grade plastic (HDPE)
- Clinside smooth internal coating
- Centrally and peripherally adjustable air volumes
- Low pressure drop
- Easy to clean



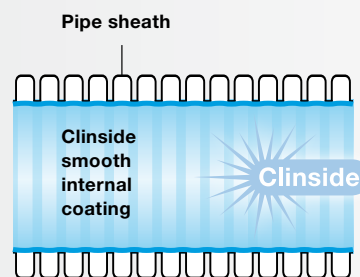
Clean thanks to Clinside: The smooth internal coating prevents dust from building up. Cleaning is simple.

Simple cleaning and installation of the air distribution system

The Zehnder ComfoFresh air distribution system supplies indoor spaces with fresh air – Clinside ensures this is done cleanly and hygienically. Clinside, the smooth internal coating in Zehnder ventilation pipes and filters not only reduces the build-up of dust, but also guarantees easy cleaning. Certification by a recognised hygiene institute confirms this.

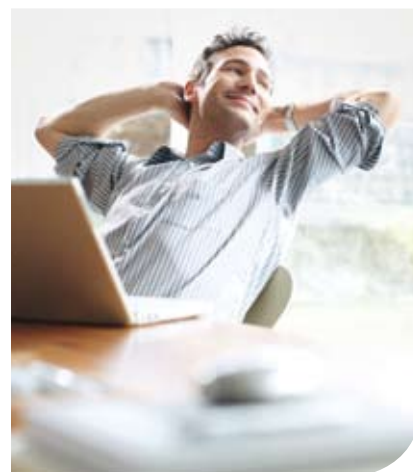
Cleanliness thanks to Clinside

The smooth Clinside internal coating makes it difficult for dust to settle inside the ventilation pipes and makes cleaning so much easier.



Health & well-being

It's good to know that the Clinside smooth internal coating prevents dust settling. Allergy sufferers can also breathe deep, thanks to appropriate filtering of the fresh air.



Easy to clean

The Clinside smooth internal coating and the accessibility of all ventilation components allow easy and thorough cleaning. Zehnder provides vacuum cleaners with rotating brushes specially for this purpose.



Easy to install

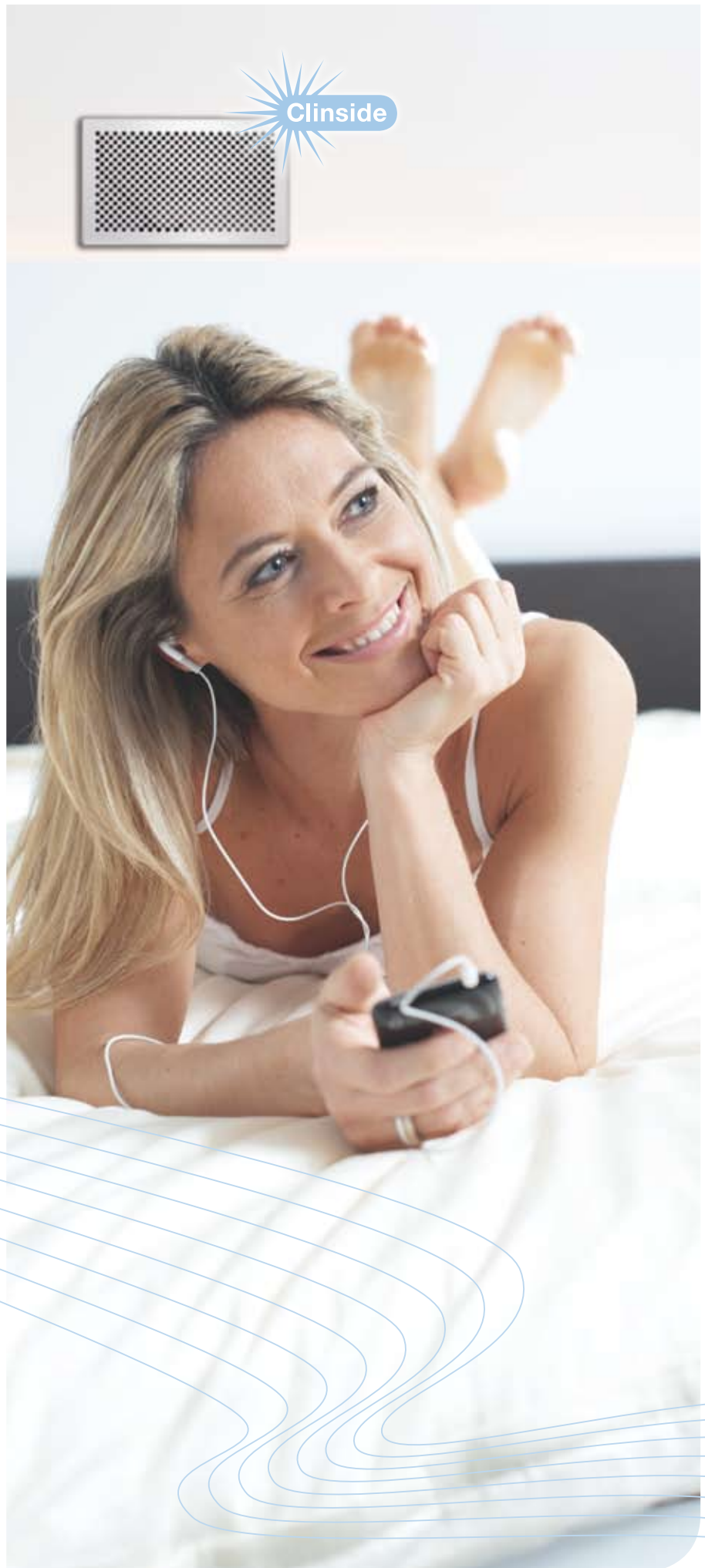
Thanks to the enormous flexibility and small bending diameters of the Zehnder ventilation pipes, they can be installed with a minimum space requirement and with only a few connectors, to suit the space situation.



Certificates issued by a recognised hygiene institute.

Great air quality that even looks good

The only visible components in living areas are the openings for supply and extract air. The Zehnder designer grilles are as elegant as they are discreet and match up perfectly with your living style.



Award-winning

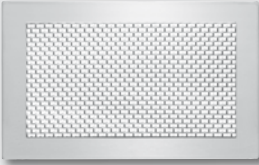
Unmatched elegant and functional design in stainless steel or in white – honoured with the iF Design Award.



Zehnder Abacus



Zehnder Engelberg



Zehnder Grid



Zehnder Sans Soucis

Designer grilles

All models are available in on-wall and in-wall design, in white or stainless steel. The grilles are particularly suitable for source ventilation.



Zehnder Roma



Zehnder Verona



Zehnder Pisa



Zehnder Torino



Zehnder Torino



Zehnder Torino



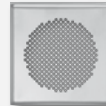
Zehnder Genua



Zehnder Venezia



Zehnder Venezia



Zehnder Venezia

Disc valves

The fresh air enters the rooms via the white plastic or metal disc valves, where it mixes with the room air. The extract air is exhausted through these valves.



Extract disc valve STB



Supply disc valve STH



Extract disc valve STC

Zehnder Comfosystems – at home anywhere



New build

Regardless of whether a flat in a multi-storey block, single- or two-family house, detached, terrace or semi-detached, single-floor or multi-storey, solid or timber: With the right ventilation system, OnFloor on the unfinished floor or InFloor in the unfinished floor, Zehnder Comfosystems ensures optimum indoor air quality in practically any building.

- The optimum fresh air system for any new build project



Zehnder ComfoAir 350



Refurbishment

Do you want to refurbish your house and also ensure the best possible air conditions? Zehnder Comfosystems has a solution; all it requires is dialogue between the customer and the planner.

- Individual planning, tailored to the specific object



Zehnder ComfoAir flat 150



Commercial objects

Fresh air is needed not only where we live, but also where we work. Concentration and performance also improve in line with the quality of the air. So Zehnder Comfosystems also provides solutions for the public and commercial field, e.g. offices, hotels, schools, nurseries and old people's homes.

- Increase in concentration of staff and pupils, etc. thanks to a fresh air supply



Zehnder ComfoAir 3000

Zehnder Comfosystems – Frequently asked questions

1. Why should I install a ventilation system at all?

A user-independent supply of fresh air is necessary as buildings become increasingly air-tight. Today's new builds and refurbishments demand ventilation concepts for protection against moisture, which prevents mildew formation and helps retain the value of the property. Advantages include energy savings of up to 50%, pollen-free air for allergy sufferers and general improved comfort.

2. May the windows be opened if I have a ventilation system?

You can open the windows at any time. This is not necessary for ventilating, however. A comfort ventilation system does this much more effectively. It ensures fresh air and optimum indoor air quality at any time of day or night, in all weathers and all seasons, without you needing to intervene.

3. Does a ventilation system increase energy consumption?

A ventilation system with heat recovery considerably reduces your energy consumption. The energy won from the extract air is approx. 15–20 times greater than the energy consumed by the highly efficient DC motors of the ventilation device. This is a hard cash saving.

4. Can the air in a ventilation system become too dry in winter?

When cold outside air is heated to room temperature its relative humidity drops and the air feels dry. The same applies to window ventilation. Zehnder has the enthalpy heat exchanger for this application. It provides heat recovery and recovers moisture from the extract air.

5. Can I hear noises from neighbouring rooms through my ventilation system?

Zehnder air distributors are designed such that there is no direct connection between rooms. All air ducts lead directly from the manifold to the respective rooms. Noise transmission via the air distribution network does not occur.

6. How can soiling in the air pipes be prevented?

Dirt particles in the outside air are removed by the filter in the ventilation device. In addition, extract air filters and the special, smooth internal coating in the air ducts prevent dirt deposits. The distribution system is designed to allow easy cleaning of the air ducts.



