

# Comfosystems

## Systems with heat recovery for a comfortable indoor climate

**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 units.

- 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



Most innovative brand  
in the category  
heating & climate

**zehnder**

always  
around you

#### 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 units



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





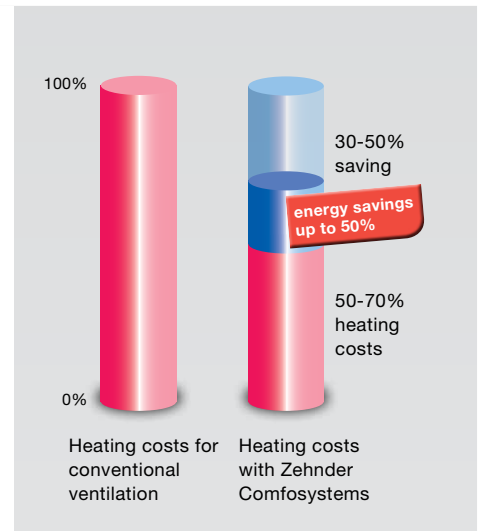
A constant supply of **fresh air** in the indoor spaces in which we spend more than 70% of our time is vital to our health. Zehnder Comfosystems comfort ventilation systems provide an assurance that equal amounts of used and fresh air will be exchanged. The Zehnder ComfoBox compact energy station for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

<b>Benefits</b>	<b>6</b>
<b>Functionality</b>	<b>8</b>
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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 to 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
- CO<sub>2</sub> 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 Aesthetics

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 unit 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

- Constant supply of 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
- Exhaust 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 unit.

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 unit 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 units and air distribution systems can be combined with all kinds of designer grilles.

Comfort

## Ventilation

## Ventilation units with heat recovery



Zehnder ComfoAir 350

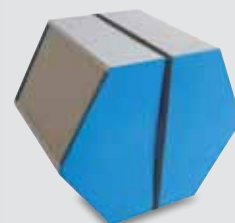
Comfort Plus

## Ventilation, pre-heating and pre-cooling

## Ventilation unit with heat recovery and geothermal heat exchanger



Ventilation unit Zehnder ComfoAir 550 with cooling unit Zehnder ComfoCool



Zehnder Enthalpy Exchanger for moisture recovery



Ventilation unit Zehnder ComfoAir 350 with geothermal heat exchanger Zehnder ComfoFond-L

### OnFloor air distribution

Flexible oval flat tube with Clinside smooth internal coating



Patented flat oval tube



### Designer grilles



Plastic grille



Supply valve



Extract valve

### InFloor air distribution

Flexible round tube with Clinside smooth internal coating



### Designer grilles



Zehnder Roma



Zehnder Torino



Zehnder Venezia

### OnFloor air distribution

Flexible oval flat tube with Clinside smooth internal coating



Patented flat oval tube

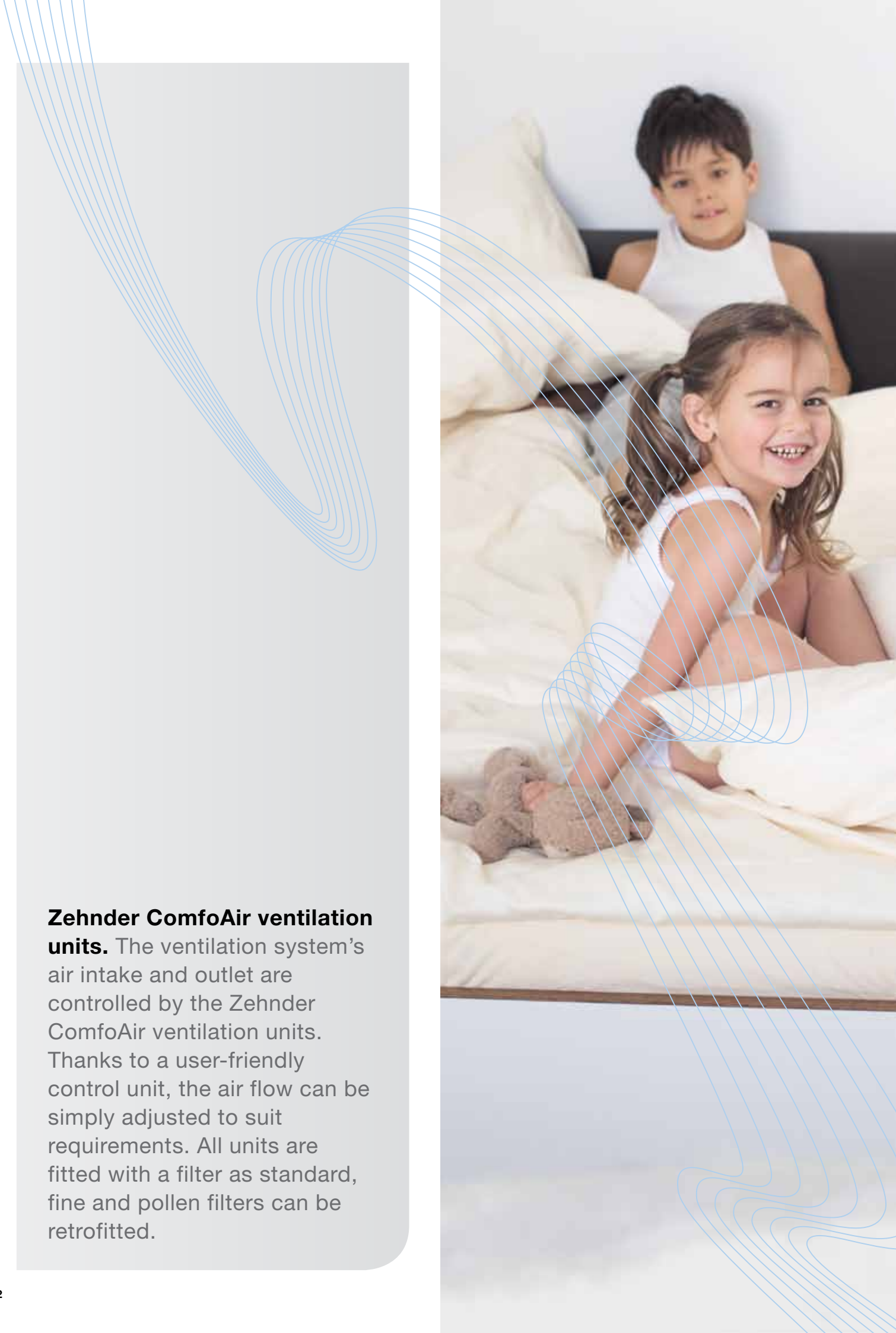


### InFloor air distribution

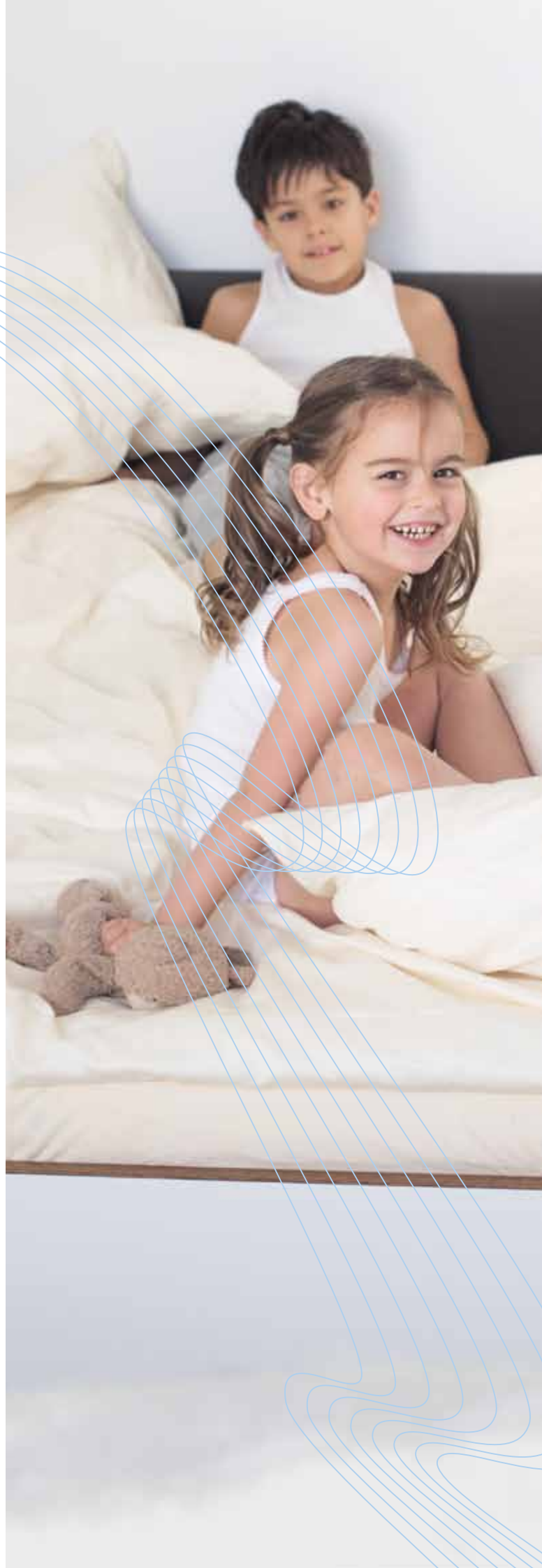
Flexible round tube with Clinside smooth internal coating





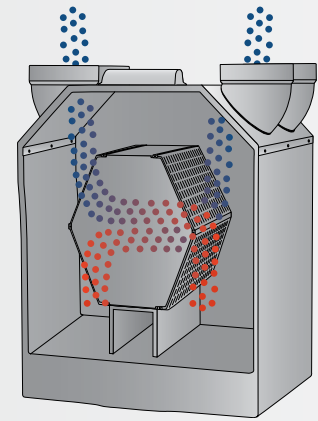
A series of thin, light blue wavy lines that originate from the top left, curve across the page, and extend towards the bottom right, creating a sense of movement and flow.

**Zehnder ComfoAir ventilation units.** The ventilation system's air intake and outlet are controlled by the Zehnder ComfoAir ventilation units. Thanks to a user-friendly control unit, the air flow can be simply adjusted to suit requirements. All units are fitted with a filter as standard, fine and pollen filters can be retrofitted.



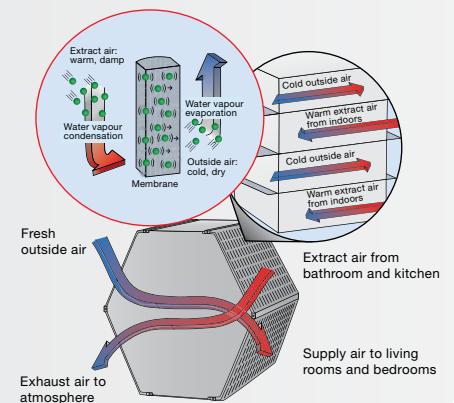
## Heat recovery

Equipped with counter flow heat exchangers as standard, Zehnder ventilation units can transfer the heat energy of the stale extract air to the fresh air. This heat transfer takes place via thin plastic plates using the counter flow principle. Heat recovery of up to 95% is possible, representing an energy saving of up to 50%.



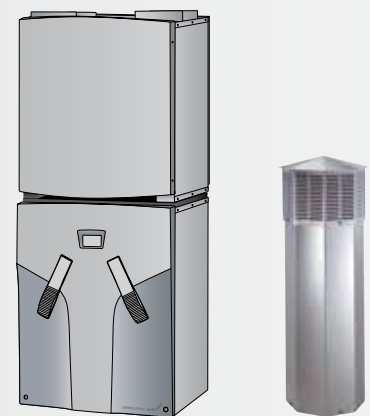
## Moisture recovery

The relative humidity in the building is optimised via the enthalpy exchanger, ideal for excessively dry air in winter. Water vapour is condensed out of the moist extract air and is absorbed by a membrane. The moisture and heat recovered are transferred to the fresh supply air, with no transfer of odour or microbes.



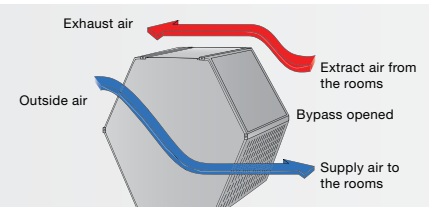
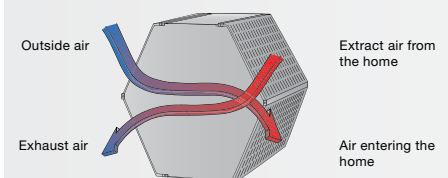
## Cooling

Pre-cooled outside air is perceived as particularly pleasant, especially on hot and humid summer days. Zehnder offers two alternatives: the ComfoFond and ComfoFond-L geothermal heat exchangers, which utilise the temperature of the ground to temper the air, and the ComfoCool cooling unit, where the air is actively cooled and dehumidified by means of a heat pump.



## Summer bypass

Most Zehnder ventilation units are equipped with a 100% summer bypass which has the task of bypassing the extract air at the heat exchanger. This prevents the supply air that has been pre-cooled by the geothermal heat exchanger in summer from being heated by the warm extract air. A function that can also be used on cooler summer nights.



## Products and systems full of advantages

More than 40 years of Zehnder's experience in the development and production of ventilation units are the basis for well-conceived products and systems with numerous positive aspects: energy-efficient, comfortable, healthy, user-friendly, and with individual components that are perfectly coordinated to each other. From planning to maintenance: Zehnder Comfosystems – always the right decision.



### 1 Planning

Zehnder supports tradesmen in the planning of ventilation systems. The air volumes required for the building are determined on the basis of the latest energy-saving ordinances and DIN regulations and the right units recommended. Geothermal heat exchangers, pre-heaters, moisture recovery and source or mixed ventilation are also taken into consideration, depending on requirements. This provides the building owner with a tailor-made offer for a complete ventilation system.

- Planning support for the installer
- Training of partners
- Compliance with rules and regulations (DIN 1946-6)
- Individual offers tailored to customer requirements

### 2 Installation

Coordinated, simple-to-use system components enable quick installation. The Zehnder InFloor and OnFloor air distribution systems can be installed easily without the need for special tools. Saving you time and money. Zehnder also instructs installers on the use and installation of individual components. Prompt technical advice is available from our advisers during commissioning and servicing.

- Coordinated system components
- Simple, fast and economical installation
- Support for installers thanks to technical instruction
- Commissioning of ventilation systems





Zehnder ComfoControl Luxe



Zehnder ComfoControl Ease



Three-stage switch



## 3 Operation

All Zehnder controls are noted for user-friendliness: The stored ventilation data can be easily activated using the three-stage switch. A control unit with programme timer and status messages is also available and can be integrated into a switch box. The ComfoControl Luxe is available for more advanced requirements.

- Simple use
- Air exchange setting to meet requirements
- Stage switch
- Control unit with status messages and timer

## 4 Cleaning

The ventilation pipes can be cleaned as required, although no dirt generally settles on the smooth internal coating. The unit filters and dust filters in the exhaust vents protect against soiling. Pollen filters can be optionally installed in the unit. However, these are only effective in the long term if they are regularly replaced. The heat exchanger should also be regularly cleaned to comply with all hygienic requirements.

- Smooth internal coating prevents dirt from settling
- Simple replacement of filters in the unit and the air vents
- Simple heat exchanger cleaning

## 5 Maintenance

Zehnder ventilation units require very little maintenance. They should nevertheless be regularly checked by a skilled tradesman, similar to all electronic and mechanical products. In addition, the units should be examined for contamination and the heat exchanger cleaned. This inspection is mainly intended to keep the units operating and to ensure the long-term effectiveness and efficiency of the system.

- Low-maintenance units
- Long-lasting effectiveness and efficiency
- Inspections/servicing by specialists



### **Zehnder ComfoFond geothermal heat exchanger.**

Energy efficiency can be guaranteed even in frosty weather with the Zehnder ComfoFond air-geothermal heat exchanger. The ground, with its relatively constant annual temperature, is utilised as a passive store. The warm ground releases energy to the outside air and the heated air flows into the ventilation unit. In summer, the ground is cooler than the ambient air temperature. Now the effect can be utilised in the opposite direction: The outside air is cooled before reaching the house.



# 1

## Comfort

- Constant fresh air supply
- Pre-heated outside air in winter, cooled outside air in summer
- Frost-free permanent operation, even at external temperatures of less than  $-5^{\circ}\text{C}$



Zehnder  
ComfoFond

# 2

## Flexibility

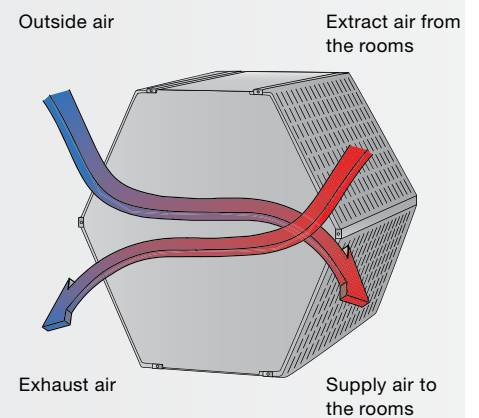
- Space-saving, adaptable system
- Short pipe trenches thanks to parallel pipe installation
- Ideal for use in high-water table




# 3

## Energy efficiency

- Utilisation of renewable energy from the ground
- Frost-free heat exchanger maintains heat output



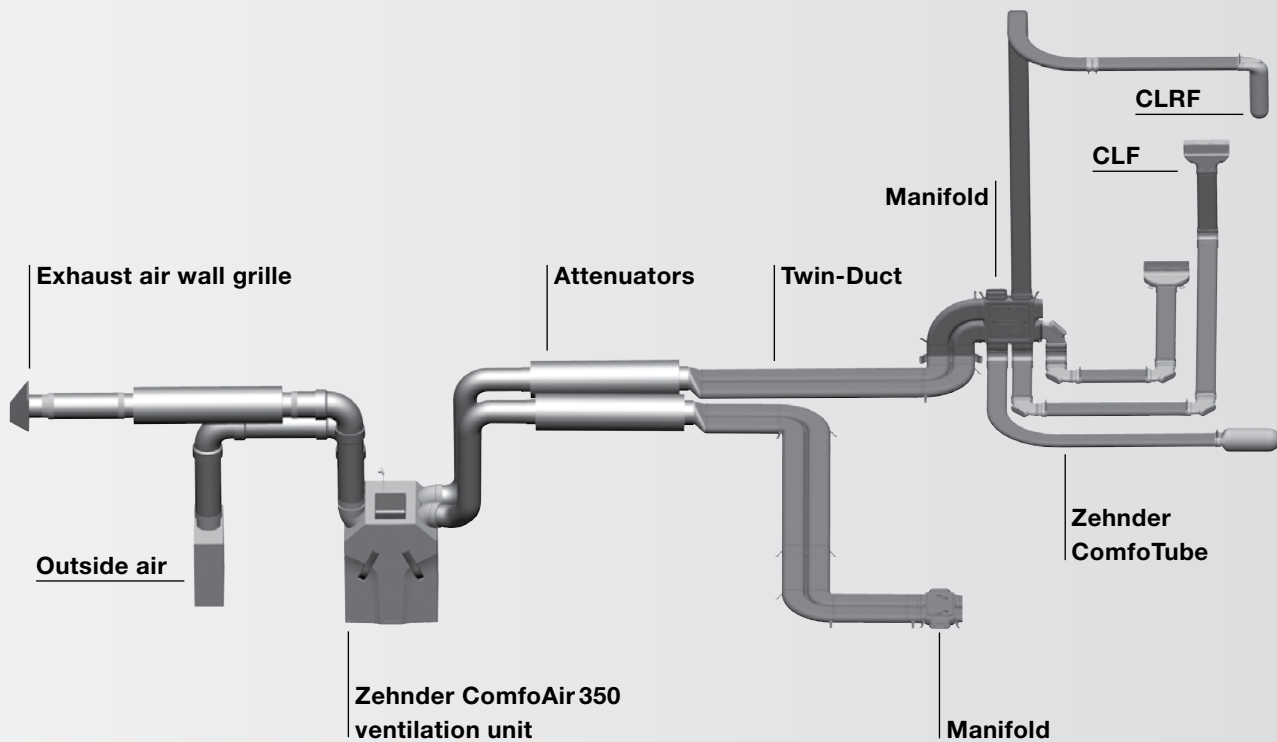




### **Zehnder ComfoFresh air distribution system.**

The Zehnder ComfoFresh air distribution system brings fresh air to all rooms and simultaneously removes extracted, moist or contaminated air and odours. Air is exchanged without draughts and bothersome noises, at the highest possible efficiency, thanks to cross-ventilating. The air quantity can be individually adjusted. Zehnder ComfoFresh comes in two installation models, Zehnder OnFloor (on the unfinished floor) and Zehnder InFloor (in the unfinished floor).





Zehnder OnFloor air distribution system installation example

## System

The air distribution system ensures that the fresh air reaches the individual rooms and the extract air is simultaneously transported away. This is done by means of ventilation ducts that can be controlled separately. The only visible elements of the system are the designer grilles, which hide the supply and extract air outlets.

## Supply and extract air

Supply and extract air rooms are differentiated when ventilating homes. Rooms such as living rooms, bedrooms and children's rooms are known as supply air rooms. Extract air rooms are rooms from which water vapour and odours are removed, such as the kitchen, bathroom and WC.

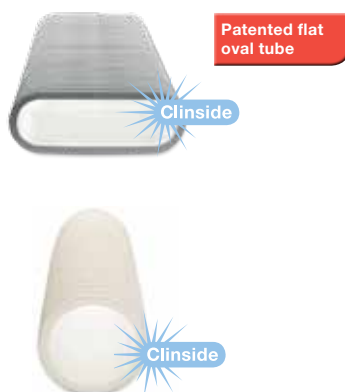
## Sound insulation

Supply and extract air ducts are fitted with attenuators to keep air distribution as quiet as possible. Because each air vent is individually connected to the manifold, noise transmission from room to room is not possible. This guarantees almost noiseless air distribution to the separate rooms.

## Zehnder OnFloor and InFloor – effective and hygienic

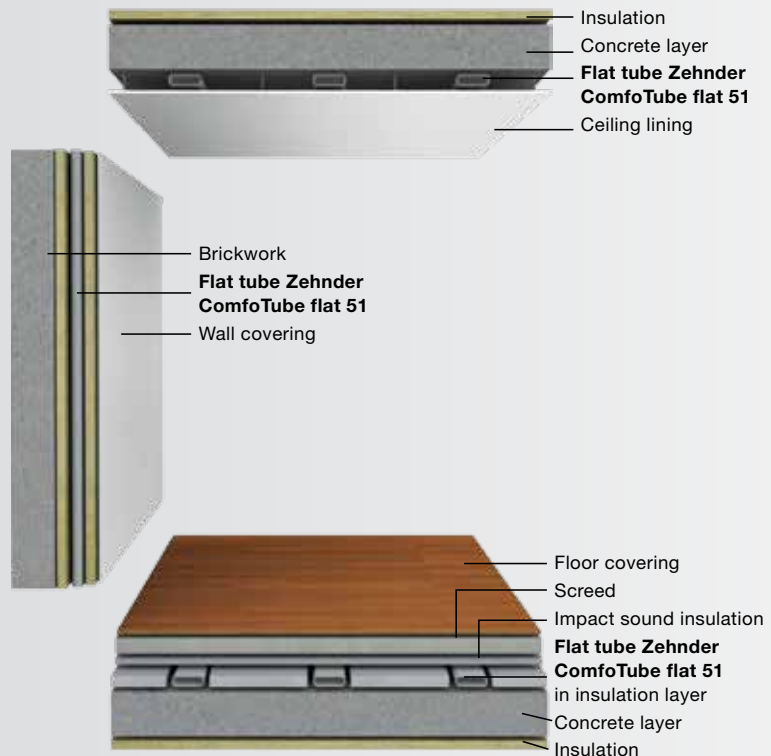
There are two versions of air distribution systems available. In both cases, the volume of air is regulated as required. They are characterized by the ease with which they can be integrated into the building and their rapid installation. In the case of Zehnder OnFloor, fresh air flows through patented flat oval ducts which feature an internal Clinside coating and 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, wall or ceiling.

- Easy to install, flexible tubes
- High-quality food-grade plastic (HDPE)
- Centrally and locally adjustable air volumes
- Low pressure losses
- Clinside smooth internal coating for clean tubes
- Easy to clean
- SKZ-certified

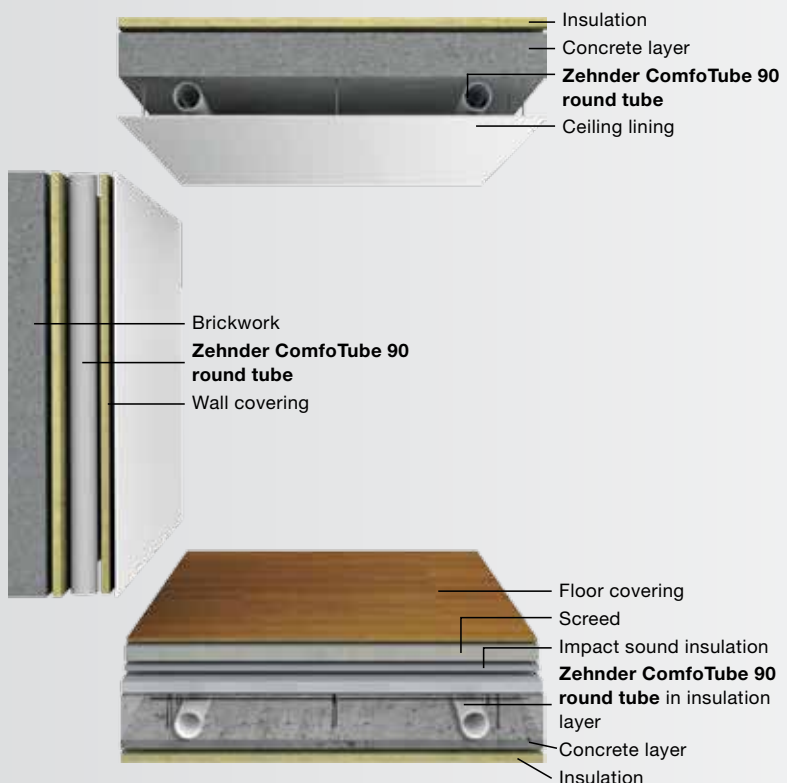


**Clean thanks to Clinside:** The smooth internal coating prevents dust from building up. This makes for easy cleaning.

### Zehnder OnFloor air distribution system



### Zehnder InFloor air distribution system





## Simple cleaning and installation of the air distribution system

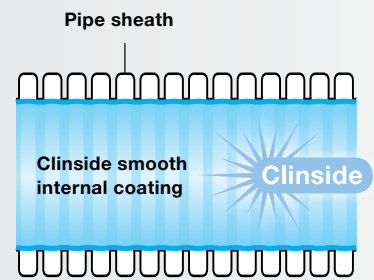
The Zehnder ComfoFresh air distribution system supplies indoor spaces with fresh air – Clinside ensures this is done cleanly and hygienically. Clinside, the smooth internal coating in Zehnder ventilation pipes and filters not only reduces the build-up of dust, but also guarantees easy cleaning. Certification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



Certificates issued by a recognised hygiene institute.

### 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.



## Zehnder ComfoFresh components

Developed in close cooperation with our customers, the Zehnder ComfoFresh air distribution system consists of only a few, optimally coordinated components, making the system particularly flexible, efficient and cost-effective.



## Zehnder OnFloor

1



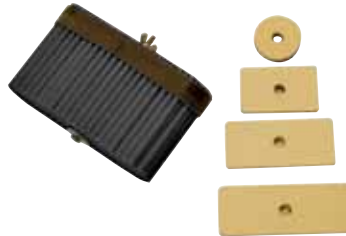
4



2



5



3



6



**1 Flat 51 tube** Ribbed outside, robust, flat-oval ventilation tube with smooth internal coating, for installation on concrete floors. Supplied on a roll.

**2 Click sleeve** For coupling two Zehnder ComfoTube Flat 51s. Sealed by means of the o-rings and locking slides.

**3 CLF vent** For wall and floor installation and for fitting the designer grilles.

**4 Flat 51 6 manifold** The distribution element is used as an air distribution or collection element for the air distribution pipes.

**5 Zehnder ComfoSet** For manual air volume control in the individual air distribution pipes.

**6 CLFR vent** For use in combination with Zehnder Venezia round or Zehnder disc valves.

## Zehnder InFloor

1



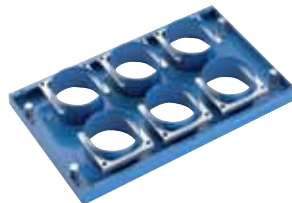
2



3



4



5



6



**1 Zehnder ComfoTube** Ribbed outside, robust, round ventilation pipe with smooth internal coating, for installation in concrete floors. Supplied on a roll.

**2 Click sleeve** For air-tight connection of two Zehnder ComfoTubes. The flow cross-section is kept constant.

**3 CLD vent** Incl. installation bracket, identical for all cover grilles. Allows connection to the Zehnder ComfoTubes by means of locking slide.

**4 Manifold box** Additionally acts as a sound attenuator and prevents noise transmission from room to room.

**5 Mounting plate** Is nailed to the formwork. Zehnder ComfoTube is connected using locking slides.

**6 Zehnder ComfoDuct** Sound attenuating crossover element for air connection between supply and extract air rooms.



## Great air quality that even looks good

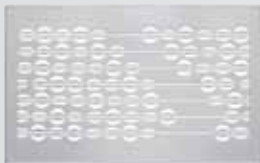
The only visible components in living areas are the openings for supply and extract air. The Zehnder designer grilles are as elegant as they are discreet and match up perfectly with your living style.



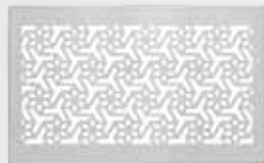


## Award-winning

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



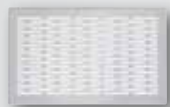
Zehnder Torino



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 in new builds

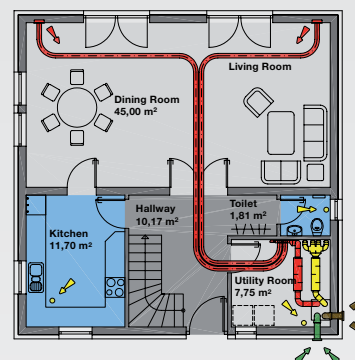
Regardless of whether a flat in a multi-storey block, single- or two-family house, detached, terrace or semi-detached, single-floor or multi-storey, solid or prefabricated: With the right ventilation system, OnFloor on the unfinished floor or InFloor in the unfinished floor, Zehnder Comfosystems ensures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

And because fresh air is needed not only where we live, but also where we work, Zehnder Comfosystems also provides solutions in the public and commercial field, e.g. in offices, hotels, schools, nurseries and old peoples homes.



### Single-family house

- Single-family house compliant to German energy saving regulations (EnEV)
- Built in 2009
- Floors: 2
- No. of living units: 1
- Area of living unit: approx. 140 m<sup>2</sup>



#### Key

- Extract air duct
- Supply air duct
- Extract air vent
- Supply air vent
- Incoming outside air
- Exhaust air
- Refrigerant pipe
- Heating pipe

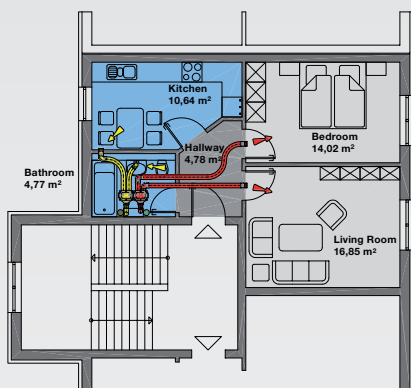


Zehnder ComfoAir 350



## Flats and Apartments

- Flats and apartments
- Built in 2008
- Floors: cellar, 3 floors
- No. of living units: 5
- Area per living unit: approx. 50 m<sup>2</sup>

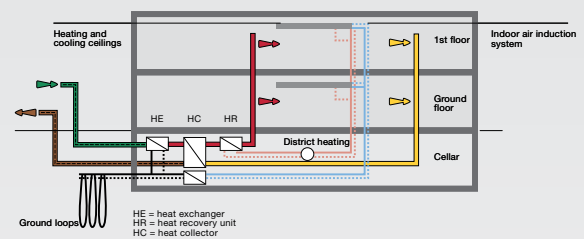


Zehnder ComfoAir 160



## Public and commercial field

- Retirement complex
- Built in 2004
- Floors: cellar, 3 floors
- No. of living units: 36, communal areas, etc.
- Area per living unit: approx. 40 m<sup>2</sup>



Zehnder ComfoAir 3000

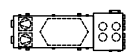
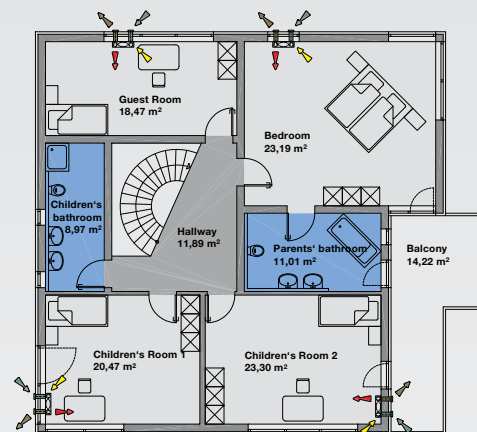
# Zehnder Comfosystems for building refurbishment

The reason for refurbishment is often the desire for energy and cost savings, e.g. by implementing insulating measures. The consequences for the indoor climate are often ignored. In increasingly air-tight building envelopes, a continuous supply of fresh air must be provided regardless of user habits. Zehnder Comfosystems can meet these requirements with perfectly coordinated components.



## Single-family house

- Single-family house
- Built in 2002
- Retrofitting of ventilation system 2008
- Floors: 2
- No. of living units: 1
- Area of living unit: approx. 140 m<sup>2</sup>



### Key

Ventilation unit and distributor with integrated attenuator



Extract air duct



Supply air duct



Extract air vent



Supply air vent



Incoming outside air



Exhaust air



Refrigerant pipe



Heating pipe



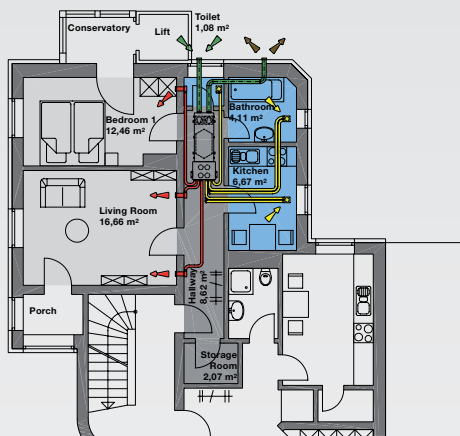
Zehnder ComfoAir 100





## Flats and Apartments

- Flats and apartments
- Built in 1916
- Energy-efficient modernisation 2008
- Floors: cellar, 4 floors
- No. of living units: 9
- Area per living unit: approx. 60 m<sup>2</sup>

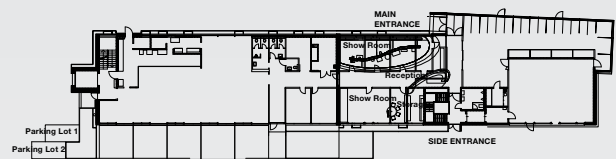


Zehnder ComfoAir flat 150





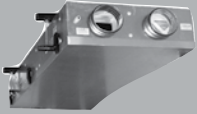




## Public and commercial field

- Office building
- Built in 2007
- Floors: cellar, 4 floors
- Area: 1,060 m<sup>2</sup>



Zehnder ComfoAir 3000

## Comfort ventilation units, summary matrix of small units between 100 and 550 m<sup>3</sup>/h




Criteria		Air volume in m <sup>3</sup> /h										TS no.	Applications						Assembly	
Model		100 m <sup>3</sup> /h	150 m <sup>3</sup> /h	200 m <sup>3</sup> /h	250 m <sup>3</sup> /h	300 m <sup>3</sup> /h	350 m <sup>3</sup> /h	400 m <sup>3</sup> /h	450 m <sup>3</sup> /h	500 m <sup>3</sup> /h	550 m <sup>3</sup> /h		Flat	SFH	MFH	Office/commercial	Indoor	Outdoor	Floor installation	Wall installation
ComfoAir 100		100*										TS122	•	•	•		•			•
ComfoAir 150		150*										TS120	•		•		•			•
ComfoAir Flat 150		150*										TS121	•		•		•			
ComfoAir 160		160										TS123	•		•		•			•
ComfoAir 200		200*										TS106	•		•		•			•
ComfoAir 350		350*										TS105		•	•		•		•	•
ComfoAir 550												TS108		•	•	•	•		•	•

\*Maximum unit air volume/recommended air volume approx. 60%

		Connection					Connection size	Filter class		Thermal efficiency	Enthalpy	Frost protection	Bypass summer cassette	Open and closed loop controls										Unit dimensions in mm/kg				
Ceiling installation	With base	Left	Right	Top	Bottom	Side	Dia. in mm	Supply air	Extract air	In %				Stage switch	Comfort control	CO2 sensor	Moisture function	Constant pressure	Constant volume	Pre-heating	Re-heating	Re-cooling	Filter signalling	Fire function	Length	Height	Depth	Weight from
							125	G4/ F8	G4	~80%		•		•									•		685	585	175	22
•		•	•	•	•		125	G4/ F8	G4	~90%		•		•									•		1400	328	320	35
•		•	•			•	125	G4/ F8	G4	~90%		•		•									•		1525	202	604	45
•		•	•	•	•		125	G4/ F7	G4	>90%	•	•	•	•	•	•	•		•	optional			•		770	670	268	30
•		•	•	•	•		125 150 160	G4/ F7	G4	~90%		•	•	•	•	•	•		•				•		1200	324	544	30
	•	•	•	•			160	G4/ F7	G4	>90%	•	•	•	•	•	•	•		•	•	•	•			702	845	572	35
	•	•	•	•			180	G4/ F7	G4	>90%	•	•	•	•	•	•	•		•	•	•	•			725	800	563	47

• See unit specifications for detailed technical data

## Comfort ventilation units, summary matrix of commercial units inbetween 800 and 7,000 m³/h

Criteria		Air volume in m³/h											Applications						Assembly	
Model		500 m³/h	1000 m³/h	1500 m³/h	2000 m³/h	2500 m³/h	3000 m³/h	3500 m³/h	4000 m³/h	5000 m³/h	6000 m³/h	7000 m³/h	Flat	SFH	MFH	Office/commercial	Indoor	Outdoor	Floor installation	Wall installation
ComfoAir 800		800*														•	•	•	•	•
ComfoAir 1500		1500*														•	•	•	•	•
ComfoAir 2200		2200*														•	•	•	•	•
ComfoAir 3000		3000*														•	•	•	•	•
ComfoAir 4000		4000														•	•	•	•	•
ComfoAir 7000		7000*														•	•	•	•	•

\*Maximum unit air volume/recommended air volume approx. 60%



		Connection					Connection size	Filter class		Thermal efficiency	Enthalpy	Frost protection	Bypass summer cassette	Regulation										Unit dimensions in mm/kg				
Ceiling installation	With base	Left	Right	Top	Bottom	Side	Dia. in mm	Supply air	Extract air	In %				Stage switch	Comfort control	CO2 sensor	Moisture function	Constant pressure	Constant volume	Pre-heating	Re-heating	Re-cooling	Filter signalling	Fire function	Length	Height	Depth	Weight from
		•	•		•	•		F7	G4	~86%		•	•	•	•	•	•	•	•	•	•	•	•	•	1050	820	1050	170
		•	•		•	•		F7	G4	~86%		•	•	•	•	•	•	•	•	•	•	•	•	•	1400	1170	1400	350
		•	•		•	•		F7	G4	~86%		•	•	•	•	•	•	•	•	•	•	•	•	•	1400	1520	1400	440
		•	•		•	•		F7	G4	~86%		•	•	•	•	•	•	•	•	•	•	•	•	•	1750	1520	1400	530
		•	•		•	•		F7	G4	~86%		•	•	•	•	•	•	•	•	•	•	•	•	•	1750	1520	1750	650
		•	•		•	•		F7	G4	~86%		•	•	•	•	•	•	•	•	•	•	•	•	•	2450	1520	1750	780

• See unit specifications for detailed technical data

## 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 the 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 unit. 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 unit. 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.



