

zehnder
always the
best climate

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Always the best climate for

RELIABLE SOLUTIONS

with Zehnder's overall system for comfortable indoor ventilation

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zehnder

Zehnder has everything you need for optimum indoor ventilation. For every project.

Comfortable indoor ventilation from Zehnder gives peace of mind. Because we provide our customers with a modular system which can be used to quickly and easily cater for all building conditions. All products are perfectly matched to one another and are always in line with the very latest energy efficiency requirements and innovations. Our wealth of practical knowledge is also available to assist you with everything from planning to maintenance to make you a real expert in this field.



Zehnder offers you these ADVANTAGES

PAGE 4-5

With the Zehnder COMPLETE SYSTEM everything fits together perfectly



PAGE 8-9

SERVICE to make your life easier

PAGE 26-27

VENTILATION UNITS suitable for every project



PAGE 12-19

The AIR DISTRIBUTION SYSTEM for any situation



PAGE 20-23

REFERENCES that demonstrate our versatility

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Zehnder – the brand that ensures all-round peace of mind with comfortable indoor ventilation

Are these situations familiar?

Ventilation systems are complex

Providing the right components for a ventilation system that always works requires a great deal of experience.

You benefit from a significant brand's decades of experience...

Time-consuming installation

Complicated units or accessories that do not fit together can cause a great deal of stress on site and make it difficult to keep to deadlines.

Due to simple and quick installation, you can enjoy peace of mind...

Growing challenges

A growing number of regulations, standards and more demanding requirements on performance and energy saving make it difficult to find suitable solutions or to stand out from the crowd.

Due to innovative solutions and training, you can rise to every challenge...

How Zehnder provides you with reliable solutions:

...and enjoy peace of mind at all times

- Zehnder has extensive experience in the development, production and distribution of ventilation systems, and is a pioneer on the market
- We also offer the best service to provide you with consistent support before, during and after a project

...and work efficiently at all times

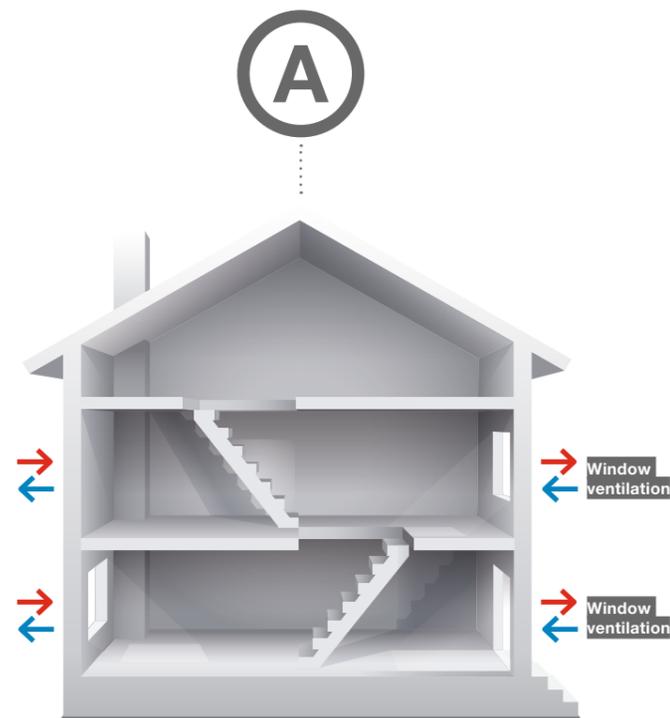
- Zehnder offers an overall system with components that are perfectly matched to one another and are easy and quick to install
- Our extensive services are always on hand to offer you support

...and have a clear competitive advantage

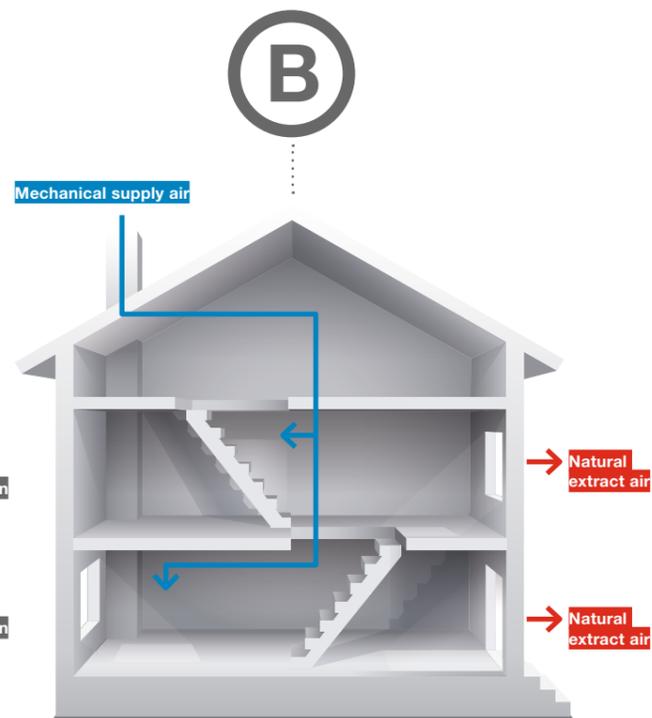
- Zehnder offers solutions for every challenge, no matter how big or small. It does this with highly innovative products that are at the forefront of technology and exceed the latest energy standards.
- Zehnder's extensive training portfolio allows you to become an expert in indoor ventilation

There are many types of fresh air supply, but which is the best?

From simply opening windows to mechanical supply and extract air – there are many ways of getting fresh air indoors. Here is a quick overview of the advantages and disadvantages of each.

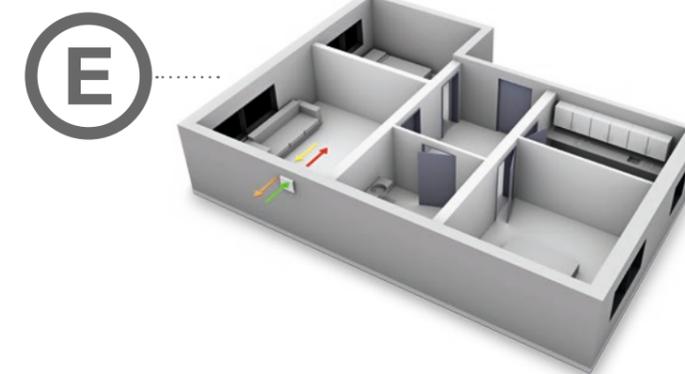


- Window ventilation**
- Air volume supply is not defined (depends on wind/outside temperature)
 - Either too much or too little fresh air supply
 - Manual operation needed
 - Risk of break-in, noise disturbance, allergy problems
 - Large amount of energy lost in winter; heating energy escapes through open windows



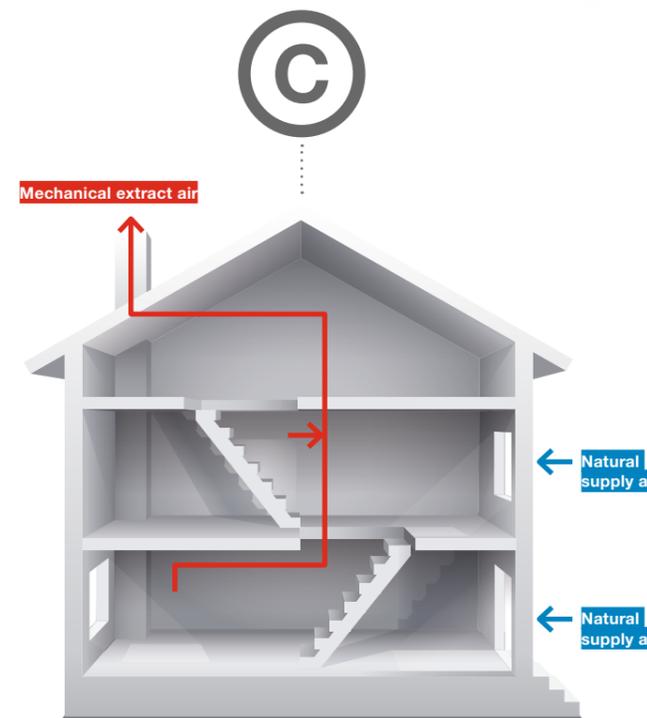
- Supply air system only**
- No humidity control
 - Fresh air is not distributed evenly
 - No practical experience in residential buildings, only in large projects

Supply and extract air system with heat recovery, decentralised

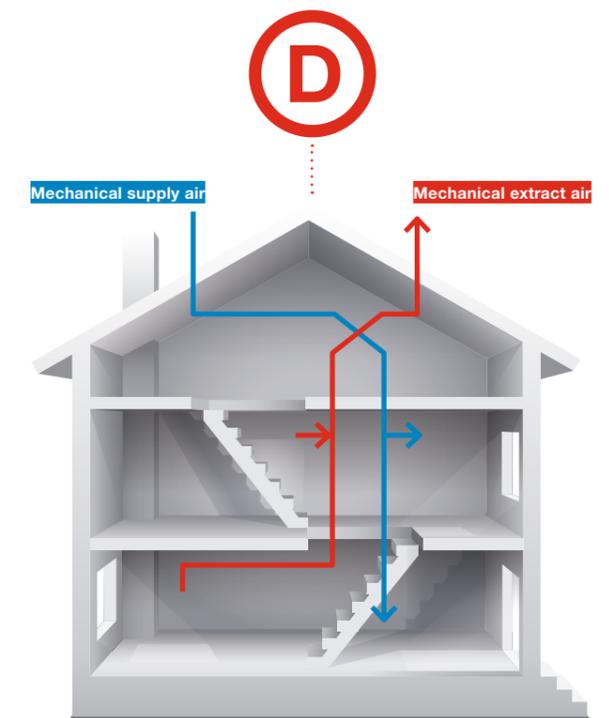


- + Great comfort from pre-heated air
- + Reduced energy consumption due to heat recovery
- + Fresh air supply is always clean due to filters in the supply air
- + Control of air volume
- + No air distribution
- Single room ventilation only

	E
Comfort	+
Energy efficiency	+
Health	++
Peace of mind	++



- Extract air system only**
- + Sufficient fresh air supply through outdoor air passages
 - + No humidity build-up
 - Ventilation heat loss too high
 - Thermal output too high close to the outdoor air passages (energy consumption too high)
 - Unfiltered fresh air supply



- Supply and extract air system with heat recovery**
- + Great comfort from pre-heated air
 - + No draughts
 - + Reduced energy consumption due to heat recovery
 - + Fresh air supply is always clean due to filters in the supply air
 - + Control of air volume in all rooms
 - Air distribution system needed

	A	B	C	D
Comfort	--	-	-	++
Energy efficiency	--	-	-	++
Health	--	-	+	++
Peace of mind	--	++	++	++

Compatible and easy to install: complete systems that are ideally suited

Convenient for everyone involved – the Zehnder complete system provides all components from one source. All projects and purposes can be covered by the comprehensive range of products. The perfectly matched components are easy to plan and install, maintain and clean. User-friendly handling ensures comfort when using on an everyday basis.

VENTILATION UNITS

Ventilation units with up to 95% heat recovery

Modern ventilation units from Zehnder – whether centralised, decentralised or designed for large projects – all meet the very highest energy efficiency requirements.

PAGE 12-19



SYSTEM EXPANSIONS

Sub-soil heat exchanger and cooling unit for pre-tempering and dehumidifying

The Zehnder ComfoFond-L Q sub-soil heat exchanger tempers the air in both winter and summer – contributing to better energy efficiency. The Zehnder ComfoCool Q cooling unit tempers and dehumidifies the supply air on warm days.

PAGE 12-19



COMPACT ENERGY UNITS

Highly efficient complete solutions for ventilation, heating and domestic hot water preparation

Compact energy units like the Zehnder ComfoBox combine every requirement – from heating and cooling to domestic hot water preparation – in a single solution.

PAGE xx-xx

Pls add if requested



EXTRACTOR FANS

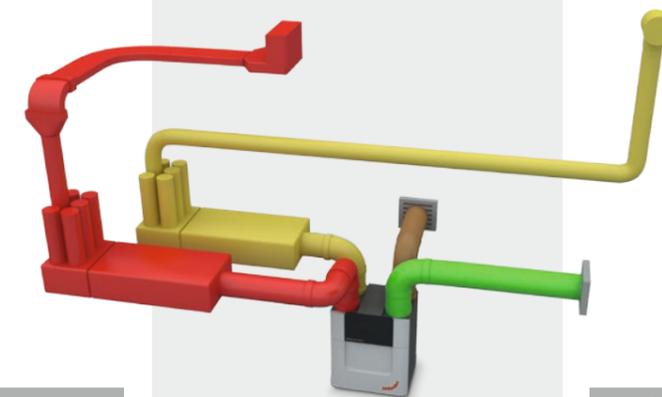
Mechanically controlled extract air systems

Extractor fans such as the Zehnder ComfoFan S and the Zehnder MX/VDX effectively direct stale indoor air outside.

PAGE 17



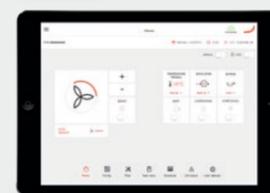
AIR DISTRIBUTION



CONTROL UNITS

Highly convenient operating options

The extensive range of operating solutions offers the right concept for every need – from the app, to a KNX interface, right through to the operating portal. The portfolio is supplemented by both sensor-controlled and classic control panels.



PAGE 12

Complete air management solutions for every building situation

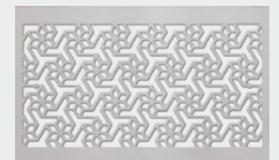
Zehnder's complete system of ventilation tubes, attenuators, distribution manifolds, as well as supply and extract air systems, deliver a superior solution for every building situation.

PAGE 20-23

AIR OUTLETS

Designer grilles for the perfect appearance

Our award-winning designer grilles are elegant and functional. They optimise the supply and extract air simultaneously.



PAGE 23

Alternative 1

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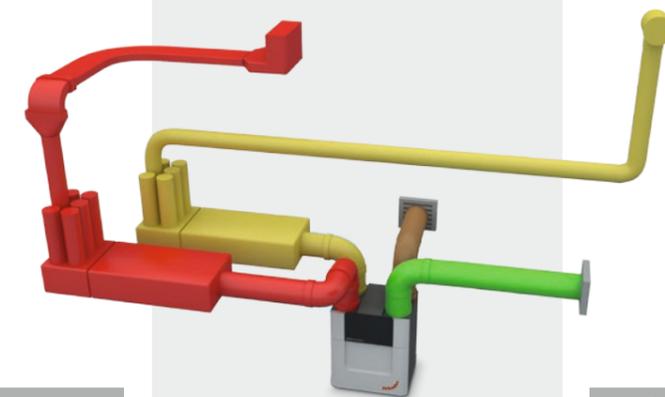
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@MBU: SPACE FOR YOUR LOCAL COUNTRY PORTFOLIO!

PAGE xx-xx

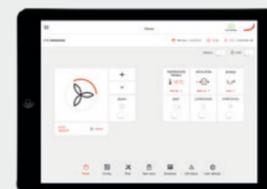
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VENTILATION UNITS

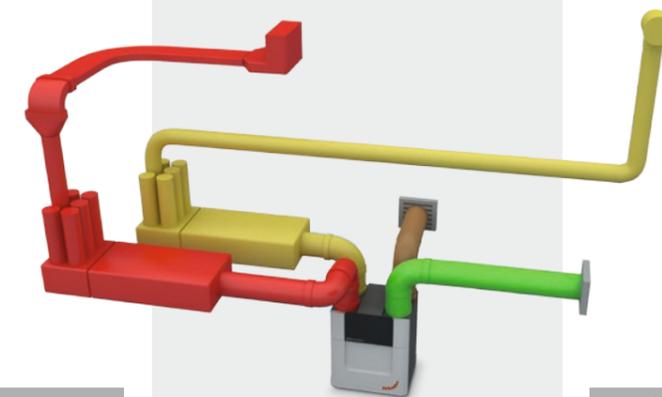
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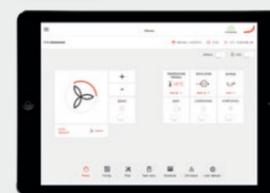
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PAGE 12-19



The perfect solution for any building situation

From Passive House new builds to renovations, from one-room apartments to large buildings, the extensive range of products for comfortable indoor ventilation from Zehnder offers the perfect solution for any build situation. We work with you to produce the right system – from the right output system layout of the ventilation unit to the ideal air distribution.



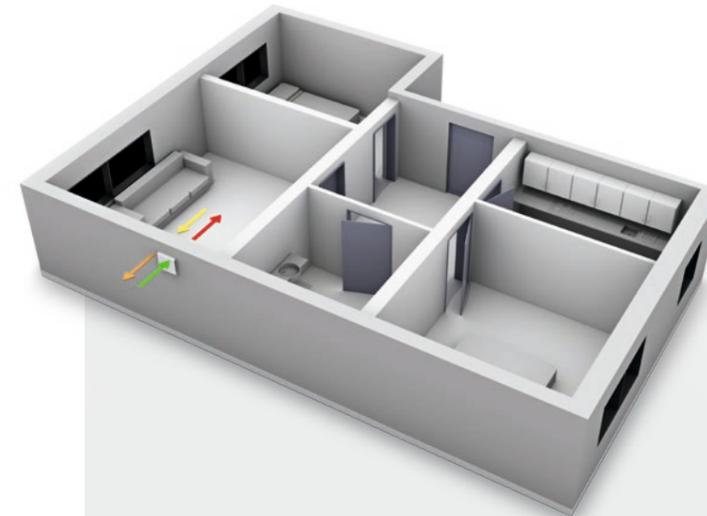
ZEHNDER +

- Zehnder ventilation systems make it possible to achieve the maximum potential for energy saving – so you are guaranteed to meet tomorrow's energy standards today
- Ventilation units and air distribution systems are easy to install due to self-explanatory components
- Indoor climate is even better due to sensor-controlled solutions
- One of the quietest comfort ventilation systems on the market due to complete systems that are designed to work together

Centralised

The functional principle of comfortable indoor ventilation, taking the example of a single-family home

- ① Fresh air enters the system via an external wall vent. The fresh outside air can optionally flow through the Zehnder ComfoFond-L Q sub-soil heat exchanger, which uses geothermal energy to pre-temper the outside air.
- ② The Zehnder ComfoAir Q 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 tempered using optional components.
- ③ The Zehnder ComfoFresh air distribution system supplies fresh air at the optimum temperature to the individual rooms as required. The extract air is discharged to the outside. The air volume can be individually adjusted for each room.



Decentralised

Renovation example

Here, an individual room is ventilated without a centralised air distribution system being used. In this case, you can also enjoy all the advantages of comfortable indoor ventilation (heat recovery, humidity recovery, optimum ventilation) and maximum energy efficiency due to the compact Zehnder ComfoSpot 50 or ComfoAir 70 ventilation units.

Easy to install

Both units have a washable enthalpy exchanger and can be installed easily and quickly. Intrusion into the living space is minimal – due to their compact dimensions, they can be integrated perfectly into the environment. High-quality fans and good insulation ensure they are very quiet to operate.

Large centralised project

Office building example

Light work can also be made of large projects with comfortable indoor ventilation by working with Zehnder.

These projects often involve low-energy houses with high levels of air density as well as high noise protection and ventilation standards. Moreover, if a large number of people are constantly in the building, stale air is usually inevitable.

In such difficult conditions, Zehnder ventilation units ensure maximum comfort with high output and, at the same time, high energy efficiency:

- Comfortable indoor ventilation with heat recovery – also possible with Zehnder commercial units for large projects
- Constantly fresh air despite buildings designed to be airtight
- Stale air is removed
- Noise protection level is adhered to
- Cellars are protected against summer humidity



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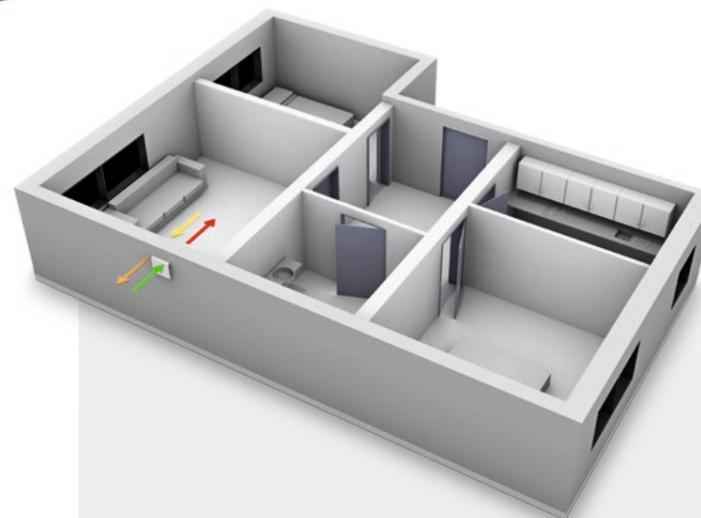
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Large centralised project

Multiple-family home example

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- Cellars are protected against summer humidity



Alternative 2

The perfect solution for any building situation

From passive house new builds to renovations, from one-room apartments to large buildings, the extensive range of products for comfortable indoor ventilation from Zehnder offers the perfect solution for any build situation. We work with you to produce the right system – from the right output system layout of the ventilation unit to the ideal air distribution.



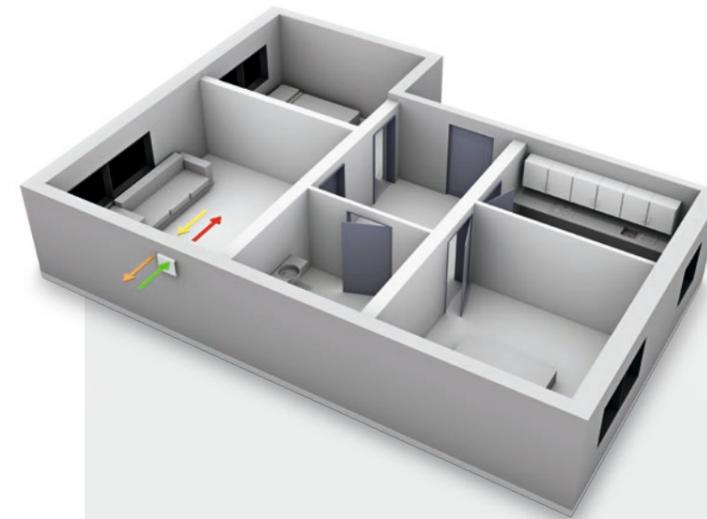
Centralised system D

The principle of comfortable indoor ventilation, taking the example of a single-family home

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ZEHNDER +

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- Ventilation units and air distribution systems are easy to install due to self-explanatory components
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Centralised system C

Simple and effective

In mechanically controlled ventilation systems, the stale room air is extracted with an extractor fan. The fresh air supply flows through openings in doors, windows or sliding doors. The extractor fan extracts stale air through ventilation tubes and air outlets from the kitchen, bathroom and WC and takes it outside. From single-family or multiple-family homes to office buildings – Zehnder has a large selection of extractor fans that are suitable for any project.



Innovative units that meet the highest energy standards

Zehnder ventilation units provide rooms with a permanent supply of fresh and healthy air. They operate quietly and, due to heat recovery, are so energy-efficient that they already meet the standards of the future today. Offering a diverse range of control options, they simply make the user's life more comfortable.



Zehnder comfort ventilation units have the very highest energy efficiency class, A+ (depending on the chosen control unit/sensor technology)



Sub-soil heat exchanger
Zehnder ComfoFond-L Q

System expansion (option)



Ventilation unit
Zehnder ComfoAir Q



Cooling unit
Zehnder ComfoCool Q

System expansion (option)

Centralised

Sub-soil heat exchanger
Zehnder ComfoFond-L Q

- Uses the constant ground temperature to pre-heat the outdoor air in winter and temper it in summer
- Geothermal energy is used sustainably, which saves the need to use a pre-heater in winter and delivers cool supply air in summer
- Works without extra energy
- Compact, quick installation directly adjacent to the ventilation unit
- Brine pump with energy efficiency class A
- Air exchange even with low outside temperatures



Various control options for Zehnder ComfoAir Q ventilation unit



ComfoSense C



ComfoSwitch C



KNX interface



Zehnder app

Ventilation unit
Zehnder ComfoAir Q

- Maximum energy efficiency due to efficient heat exchanger
- Up to 8 dB (A) quieter operation and up to 10% less energy consumption due to the very latest fan technology
- Maximum heat recovery with innovative air volume balancing
- Ideal supply air temperatures with modulating by-pass
- User-friendly operation: from switch to app, everything is possible
- Right-hand and left-hand configuration available in one unit for peace of mind during planning and installation

Cooling unit
Zehnder ComfoCool Q

- For active tempering and dehumidification of the outdoor air
- In combination with ComfoAir Q 600 ST
- Does not require an extra wall opening to the outside
- Just one unit for the entire apartment
- Fresh air and the right temperature in any season
- Pleasant tempering of the air on hot days

ZEHNDER +

- Easy installation and commissioning due to flexible connections, reliable plug-and-play installation and guided commissioning wizard
- Ease of use is optimised through an intuitive display, an app function and a remote monitoring option
- Simple maintenance: all components are easily accessible

■ Centralised



Ventilation unit
Zehnder ComfoAir 180

- Complete system with minimum dimensions and maximum output, ideal for the kitchen cabinet
- Compact, powerful and flexible to install
- Discreet design: can be integrated invisibly into the living space
- Efficient: 180 m³/h air output at 150 Pa, up to 95% heat recovery, for apartments up to 120 m²
- Convenient to install due to an air distribution system optimised for installation and variable connections
- Astoundingly quiet due to components that are perfectly designed to work together for practically silent operation



Ventilation units from Paul
Novus 300/450, Focus 200, Climos 200

- Compact premium class heat recovery units
- Maximum energy efficiency due to patented heat exchanger
- Available in variants with volume flow ranges of 45 m³ to 450 m³
- Extensive product range for the passive house sector



■ Decentralised



Ventilation unit
Zehnder ComfoSpot 50

- Decentralised comfort ventilation unit with heat and humidity recovery for venting individual rooms
- Ideal for renovation projects or new builds
- Up to 55 m³/h air output
- Simple and quick installation, minimal intrusion into the living space
- Enthalpy exchanger for especially good indoor climate and a high degree of energy efficiency
- Hygienically flawless due to washable enthalpy exchanger
- Particularly quiet operation due to high-quality fans and good insulation
- Synchronous supply and extract air operation for continuous heat and humidity recovery
- Free of condensate due to enthalpy exchanger for a clean façade



Discover the easy installation method and how it works at:
www.zehnder-systems.com/zehnder-comfospot-50



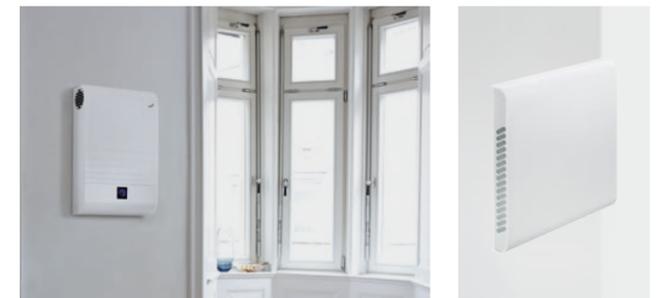
Ventilation unit
Zehnder ComfoAir 70

- Decentralised comfort ventilation unit with heat and humidity recovery for venting individual rooms, including twin-room connection
- Up to 70 m³/h air output
- Intuitive operation with capacitive button
- Enthalpy exchanger for especially good indoor climate and a high degree of energy efficiency
- No condensate to dispose of down the façade of the building and no condensate container



Left: schematic representation of installation

Right: beautiful design on the inside, discreet on the building wall



■ Centralised large projects



Zehnder ComfoAir XL (interior mounting)

Zehnder ComfoAir XL (exterior mounting)



Ventilation unit
Zehnder ComfoAir XL

- Heat recovery units with up to 90% heat recovery
- Plenty of control options for high levels of comfort
- 6 different capacities of between 800 and 6000 m³/h volume flow
- 2 unit variants for interior and exterior mounting
- Unique, air-tight housing
- Easily accessible connection PCB
- Unit easy to configure at specific operating point
- 100% by-pass possible
- For use in offices and multiple-family homes



All Zehnder ventilation units can be found in the overview on page 32–35 and at www.zehnder-systems.com

■ Centralised system C



Extractor fan
Zehnder ComfoFan S

In mechanically controlled ventilation systems, the stale room air is extracted with an extractor fan. The fresh air supply flows through openings in doors, windows or sliding doors. The extractor fan extracts stale air through ventilation tubes and air outlets from the kitchen, bathroom and WC and takes it outside.

The **Zehnder ComfoFan S** extractor fan features extremely quiet and energy-efficient operation, and is ideally suited to large projects:

- Significant EPC reduction
- Easy installation and maintenance
- Simple commissioning due to quick-start function
- Can be expanded with different sensors and control units
- Air volume output up to 350 m³/h



Roof extract fan
Zehnder MX

Zehnder offers a large selection of roof extract fans. This makes it possible to cover every building situation and each specific demand. Due to additional optional service programmes, it is also possible to offer extremely energy-efficient solutions.

With the **Zehnder MX** roof extract fan, the very highest energy savings can be achieved by using direct-current motors in combination with a specially developed control unit. A multitude of control options enables the use of various service programmes.

- Low power consumption due to highly efficient DC motors
- Optimum operating point can be set
- Control from 0 to 10 V
- High-quality, environmentally friendly plastic box

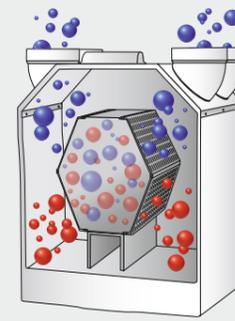
All Zehnder ventilation units can be found in the overview on page 32–35 and at www.zehnder-systems.com

Innovative technology that inspires confidence

Zehnder comfort ventilation systems offer innovative technology for heat and humidity recovery and are equipped with an automatic by-pass. They provide compelling functions that are easy to set and highly efficient. There is also the option of adding system expansions for tempering and dehumidifying.

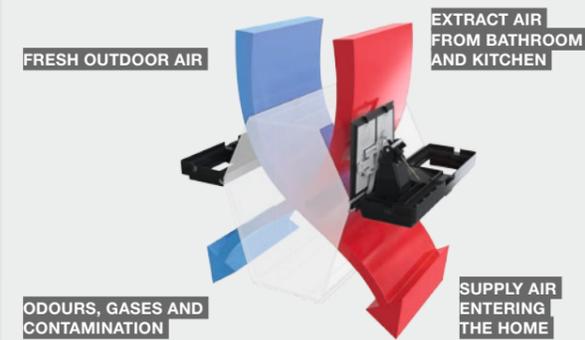


All Zehnder ComfoAir ventilation units have technology for heat recovery as standard and are fitted with a by-pass to keep the air at an ideal temperature even during the warm season.



Heat recovery

Energy savings of up to 50% due to heat recovery of up to 95%: Patented cross-counterflow heat exchangers in the Zehnder ventilation units transfer the thermal energy of the stale extract air to the fresh supply air.



Humidity recovery

Humidity and heat for the fresh supply air: Due to the enthalpy exchanger up to 65% of moisture in the extract air can be recovered. Steam diffuses through the open membrane. Humidity and heat are transferred to the fresh supply air – ideal if air is too dry in the winter.



By-pass

Prevents pre-heating in the summer: Zehnder ventilation units are equipped with an automatic 100% by-pass. The warm extract air passes by the heat exchanger so that the cooler outdoor air is not heated. When a sub-soil heat exchanger is connected (as an option), the by-pass also prevents the outdoor air that was pre-cooled by the sub-soil heat exchanger from being heated.

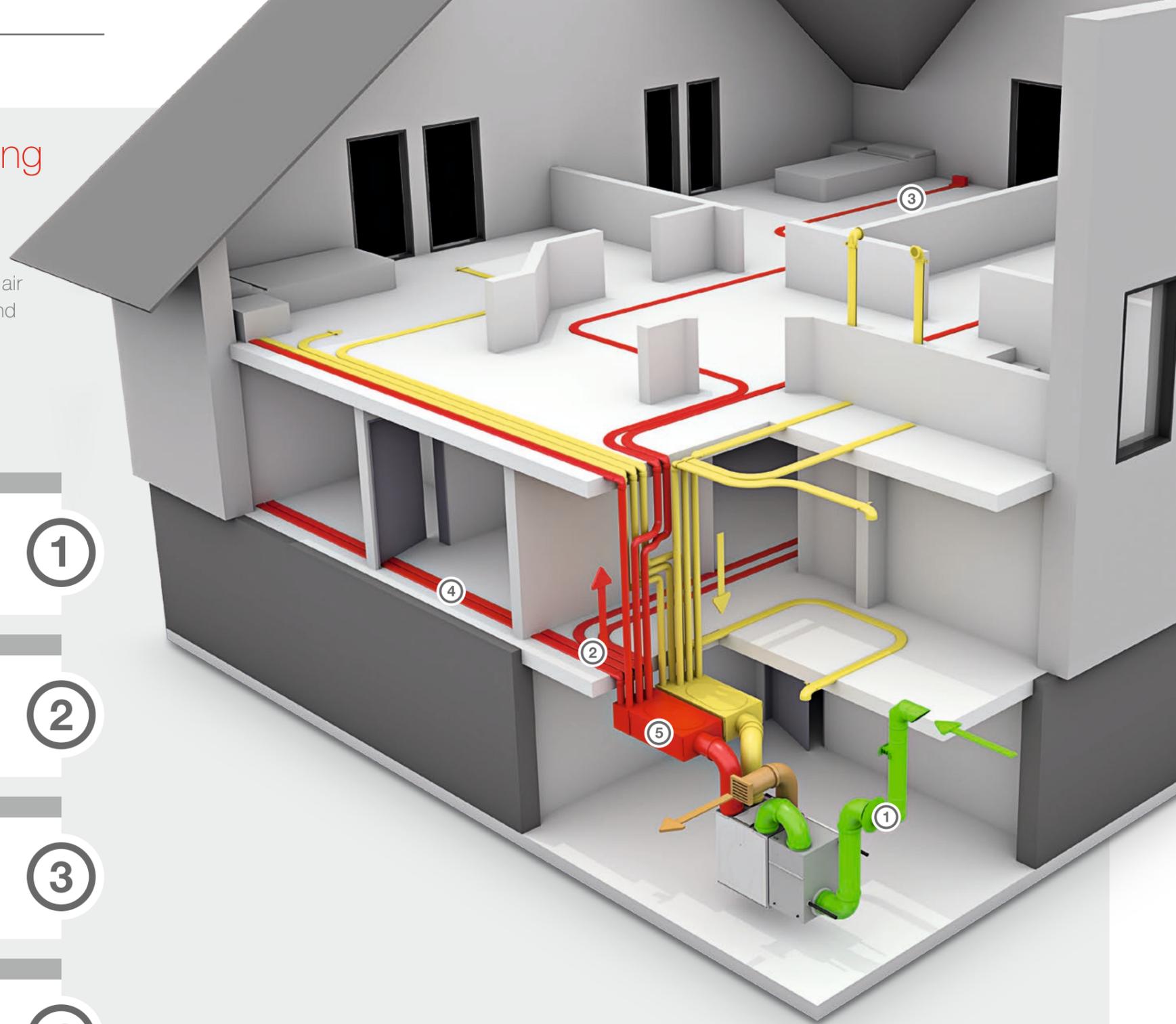


Tempering, dehumidification

Comfort on muggy summer days: Zehnder offers two alternatives for pleasantly tempering air: the Zehnder ComfoFond Q sub-soil heat exchanger, which uses the temperature of the soil (in winter the outdoor air is pre-heated), and the Zehnder ComfoCool Q cooling unit, in which the air is actively tempered and dehumidified using a heat pump.

The air distribution system that has everything covered

The perfect addition to the ventilation unit: This harmonised system supplies fresh air to all rooms and removes stale, moist, contaminated air and odours. It is simple and flexible to install, quiet and faultless to operate.



OUTDOOR AIR/EXHAUST AIR CONNECTIONS



Outdoor air/exhaust air connections
Zehnder ComfoPipe/ComfoPipe Plus

Outdoor and exhaust air connections with ideal insulation.



DISTRIBUTION MANIFOLDS



Distribution manifold
Zehnder flat 51*

For the supply air or extract air system.



GRILLE HOUSINGS



Grille housings
Zehnder CLF/CLRF

For wall, floor (CLF) or ceiling installation.



VENTILATION TUBES



Ventilation tubes
Zehnder ComfoTube

Available as flat and round tube.



ATTENUATORS



Attenuator
Zehnder ComfoWell

Modular system consisting of any combination of attenuators, filters and distribution manifolds, each available in three widths. The only attenuator on the market which can be cleaned.



ZEHNDER +

- Components available for all building situations
- Simple and time-saving installation due to self-explanatory air distribution components
- Air distribution possible in ceiling, wall and floor with round tube, flat tube or combination solutions
- Peace of mind due to certified guarantee and durable products

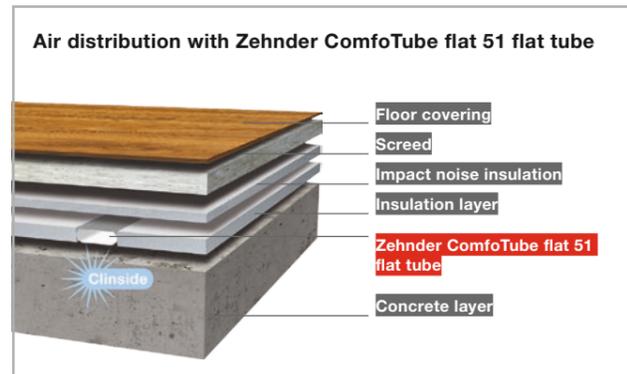
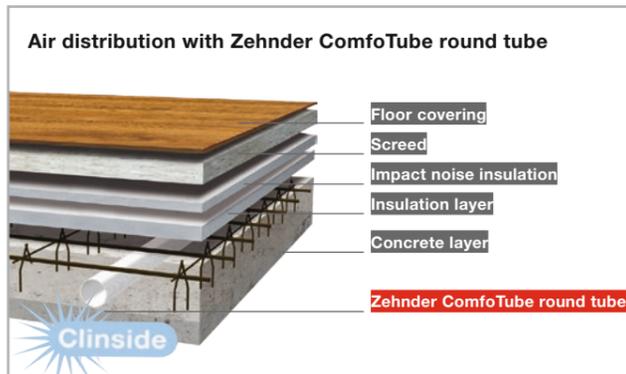
Take a look at our air distribution system that has everything covered and be convinced.

You can find its installation videos at XXX.

* Not shown in the house diagram.

Simple routing every time: air distribution variants

Variants with round or flat tubes are available for the air distribution. So you can be highly flexible when handling any build situation. Both can be integrated easily into the building and fitted with speed. Simply select the best variant for you – or combine the two if that makes more sense.



Clinside is the SKZ-tested, patented product for the smooth inner skin of the air distribution pipes on which no dust settles. Its hygiene is certified by the acknowledged Hygiene Institute for the Ruhrgebiet.



Versatile to ensure flexible laying: the round-to-flat adapter
This practical adapter allows you to be completely flexible when laying pipes so you can simply switch from round to flat tube, depending on the building situation.



Space-saving, quiet and quickly installed: Zehnder ComfoWell



The modular Zehnder ComfoWell system consists of any combination of attenuators, filters and distribution manifolds, each available in three widths. Even if things are really tight – the smallest variant of the attenuator and distribution manifold combination needs just 55 cm of space.

ZEHNDER +

- The only attenuator on the market which can be cleaned
- All air treatment functions available: attenuator, fine filter, active carbon filter, manifold box
- Components connected with sliding profiles for easy mounting
- Pipes easily connected by end pieces with connectors
- Maximum noise reduction through the option of connecting two attenuators in series

Good design coupled with functionality



The visible side of our indoor ventilation concept isn't just functional, it looks great too.

ZEHNDER +

- Huge choice of air outlets and designer grilles
- Optimum supply of fresh air without draughts
- A special flow pattern developed by Zehnder means that the wall and ceiling do not get dirty
- Pipe system is not contaminated by filter for extract air outlets – only Zehnder provides this

Fresh air – distributed very quietly

The supply air is silently mixed with the room air using the supply air and extract air valves. Suitable designer grilles complete the air distribution system.



The ventilation system that is advantageous for everyone

Comfortable indoor ventilation with Zehnder is optimised for the needs of installers, planners and architects just as much as users. Here you can see the benefits this brings you at a glance.



+ ADVANTAGES FOR USERS

With Zehnder, you can make the perfect choice for an ideal indoor climate every time. Comfortable indoor ventilation systems from Zehnder provide the highest level of living comfort. Come and see for yourself. At www.zehnder-systems.com and in the end customer brochure, you will find additional important information on the following topics:

- Improving health and well-being
- Comfort for the entire family
- Saving energy and money at the same time
- Retaining the value of your property

+ ADVANTAGES FOR INSTALLERS

Support from a big brand

- With decades of experience in the development, production and distribution of ventilation units, as well as air distribution and system components, Zehnder is a pioneer on the market
- Extensive know-how in every business area makes it possible for Zehnder to guarantee its customers a high level of certified quality
- The best service that provide you with support before, during and after a project

Competitive advantages due to innovative solutions and training

- Zehnder develops highly innovative products that are at the forefront of technology and exceed the latest energy standards

- Zehnder provides solutions for every requirement, no matter how individual
- Zehnder offers an extensive training portfolio – from layout and planning, to installation and commissioning, all the way through to maintenance

Comprehensive carefree package

- Zehnder relies on an overall system composed of perfectly matched components
- Easy and quick installation
- Zehnder offers extensive support before, during and after installation of a Zehnder ventilation system, including commissioning service and customer service offers



+ ADVANTAGES FOR PLANNERS AND ARCHITECTS

Peace of mind

- Zehnder provides peace of mind when planning: energy-efficient complete solutions, certified and guaranteed
- Less planning work due to competent advice and support in layout and output calculations

Meet current standards

- With Zehnder, you are always up to date with environmental certifications and intelligent control technology
- Consistent compliance with all standards due to quality-checked systems
- The ability to meet the most demanding of customer requirements due to innovative ventilation units, state-of-the-art methods and many options such as tempering/pre-heating options



MORE SUPPORT



Less stress at work – with a strong partner
by your side

CONSTANT SUPPORT BEFORE, DURING AND AFTER COMPLETION OF A PROJECT

Advice

We support installers in person during the process of planning ventilation systems – even within time frames of less than five days:

- Determination of air volumes
- Selection of suitable units
- Compliance with requirements and regulations
- Production of quotations
- Personal contact
- On-site support for the entire duration of the project

Using the online planning tool Comfoplan 2.0, which you can find at comfoplan.comfosystems.de, simply enter the building's details and get complete planning data in no time:

- Calculations of air volumes
- List of actions required
- Complete list of materials

Training

At the Zehnder ACADEMY, we train you and help you become an indoor ventilation expert:

- Regular seminars at Zehnder
- Qualified trainers
- Fully equipped training centres

Enrol now at:

www.zehnderacademy.com



Sales support

We use appealing and informative measures to help ensure your success:

- Extensive range of documentation material to help you maintain a professional appearance
- Consistently keeping you informed about the latest topics, such as the energy efficiency label

Zehnder also provides valuable online support:

- See a quick and simple explanation of the advantages of comfortable indoor ventilation with Zehnder's explanatory videos
- The latest installation videos provide simple installation explanations or advice

Service

When it comes to service too, we provide all the ingredients required to ensure a good partnership:

- Help with commissioning, maintenance and general service issues
- Customer service hotline provides direct access to our qualified service staff
- Simply order filters online



Three buildings, three challenges, three comfortable indoor ventilation solutions

Zehnder solutions for indoor ventilation provide relaxed solutions to every building challenge. From large projects to small units – from apartments to commercial buildings.

01 A SIMPLE SOLUTION FOR VENTILATING A NUMBER OF ROOMS



LOCATION
PROJECT TYPE

Almere, Netherlands
Residential complex, renovation of 171 apartments



Challenge

Renovating 171 apartments that are approximately 20 years old. Bathroom and kitchen renovation plus replacement of domestic fans in a very tight space in the engineering rooms.

Solution

The existing installation for ventilation was replaced with the Zehnder ComfoFan S domestic fans. The compact housing and the high energy output were the key factors as far as the developers were concerned. Now all the inhabitants benefit from permanent air exchange and do not need to fear health problems arising from the formation of mildew.

Products used

- 171 ComfoFan S units

You will find more references at:
www.zehnder-systems.com

02 PROTECTING A PASSIVE HOUSE FROM HUMIDITY



LOCATION
PROJECT TYPE

France
Passive house new build, single-family home



Challenge

Air exchange in a passive house new build (165 m²) while at the same time guaranteeing the inhabitants' comfort.

Solution

A Zehnder ComfoAir 350 comfort ventilation unit and an additional Zehnder ComfoFond-L sub-soil heat exchanger formed the ventilation system for this project. This excellent solution provides permanent air exchange and all the advantages of comfortable indoor ventilation. At the same time, it also makes it possible to pleasantly pre-temper the supply air in winter as well as in summer.

Products used

- Zehnder ComfoAir 350 comfort ventilation unit
- Zehnder ComfoFond-L sub-soil heat exchanger

You will find more references at:
www.zehnder-systems.com

03 CONNECTING SMALL ROOMS TO A CENTRALISED SYSTEM QUICKLY



LOCATION
PROJECT TYPE

Neuried, Germany
Office and residential building



Challenge

Renovating an office building with many different room sizes and floors – which require decentralised ventilation.

Solution

During the course of an extension, ventilation was added in the form of Zehnder ComfoAir 180. The ventilation unit was fitted in a wall cupboard, the EPP twin duct within the ceiling void. The ventilation tubes were insulated in between the battens in the ceiling.

Products used

- Zehnder ComfoAir 180
- Zehnder ComfoTube
- Zehnder air outlets



You will find more references at:
www.zehnder-systems.com

FAQ

on comfortable indoor ventilation from Zehnder



What do I need to consider when planning and ordering?

Our ventilation units, accessories and air distribution systems are perfectly matched to one another. Everything is compatible – which makes the entire process much simpler.

Our service department, sales advisers and planning department are there to help at any time.

Aren't such innovative products hard to install?

Simple installation, simple start-up, simple operation, simple maintenance: Zehnder develops its products with maximum comfort for both installers and end users in mind.

How can I gain an insight into the units' functions, etc.?

Zehnder provides a very varied range of training courses covering numerous topics in its training centres: from the ventilation unit and unit control to planning and layout.

Do Zehnder ventilation systems comply with statutory requirements?

Hardly any manufacturers have been awarded as many certificates and design awards as Zehnder. So you can be sure that you always have the very latest technology and that all statutory requirements are met.

How good are Zehnder solutions in terms of noise and hygiene?

All Zehnder solutions for indoor ventilation are very quiet and ensure excellent acoustic performance. And Zehnder is unbeatable when it comes to hygiene. The Zehnder ComfoWell attenuator can be cleaned and has a fully enclosed grille housing for clean installation – the filter caps above the air outlets prevent any dust from spreading.

The renowned Hygiene Institute of the Ruhrgebiet found our ventilation tubes with their smooth inner skin particularly good at removing dust – and the Kunststoffzentrum SKZ agrees.

How energy-efficient are Zehnder ventilation units?

Zehnder comfort ventilation units such as Zehnder ComfoAir Q not only meet the current European standards with regard to their properties in the three areas of power consumption, level of efficiency and control – they even go above and beyond the requirements for 2018. All of this helps you to plan buildings with maximum comfort and energy efficiency in a future-proof way.



Overview of comfort ventilation units



	ComfoSpot 50	ComfoAir 70	ComfoAir 160	ComfoAir 180	ComfoAir 200	ComfoAir 350	ComfoAir 550	ComfoAir Q 350 TR	ComfoAir Q 450 TR	ComfoAir Q 600 ST	ComfoAir XL 800-6000
Dimensions/weight											
Length (mm)	380	440	670	558	544	630	725	725	725	725	
Height (mm)	376	660	864	680	1200	860	800	810	810	810	Depends on unit variant
Depth (mm)	50	145	268	299	324	580	569	570	570	570	
Weight from (kg)	8	24	30	22	30	35	47	50	50	50	
Type of installation											
Wall	■	■	■	■	■	■	■	■	■	■	
Ceiling			■		■						
Floor (lying)											
Floor with base						■	■	■	■	■	
Floor											■
Energy efficiency class for:											
Demand control (depending on the sensor technology chosen)	-	-	A*	-	A*	A*	A	A*	A*	A*	-
Time control (depending on the control unit chosen)	-	-	A	A	A	A	B	A	A	A	-
Manual control	B**	B**	-	-	-	A	B	A	A	A	-
Air volume											
Maximum air volume range (m³/h)	15-55	15-65	32-160	30-180	50-200	40-350	50-550	40-350	50-450	60-600	800-6000
Recommended air volume range (m³/h)*	-	-	32-110	30-120	50-135	40-235	50-370	40-245	50-300	60-420	Depends on unit variant
Energy efficiency											
Heat recovery (according to PHI)	-	85% (PHI)	89% (PHI)	82% (PHI)	92% (PHI)	84% (PHI)	84% (PHI)	90% (PHI)	88% (PHI)	87% (PHI)	Depends on unit variant
Specific electrical power consumption [W h/m³] (according to PHI)	-	0.24	0.36	0.27	0.42	0.29	0.31				Depends on unit variant
Enthalpy exchanger for humidity recovery	Integrated	Integrated	Integrated	Optional	Depends on unit variant						
By-pass	Yes	Yes (modulating)	Yes (modulating)	Yes	Yes						
Accessories											
Filters (supply/extract air)	G4 / G4 (optional supply air F7)	F7 / G4									

* For nominal ventilation according to DIN 1946-6.

** Control unit is integrated in the unit.

You will find all technical data in our technical data sheets or on www.zehnder-systems.com.

Overview of comfort ventilation units



	Climos 200	Focus 200	Novus 300	Novus 450
Dimensions/weight				
Length (mm)	594	651	792	792
Height (mm)	1019	565	952	952
Depth (mm)	250	355	591	591
Weight from (kg)	25	25	50	50
Type of installation				
Wall	■	■	■	■
Ceiling	■			
Floor (lying)	■			
Floor with base		■	■	■
Floor				
Energy efficiency class for:				
Demand control (depending on the sensor technology chosen)	A	A	A	A
Time control (depending on the control unit chosen)	B	A	A	A
Manual control	B	A	A	A
Air volume				
Maximum air volume range (m³/h)	50–200	45–200	45–300	50–450
Recommended air volume range (m³/h)*	50–135	45–135	45–200	50–300
Energy efficiency				
Heat recovery (according to PHI)	84% (PHI)	91% (PHI)	93% (PHI)	89% (PHI)
Specific electrical power consumption [W h/m³] (according to PHI)	0.40	0.31	0.24	0.29
Enthalpy exchanger for humidity recovery	Integrated	Optional	Optional	Optional
By-pass	Yes	Yes	Yes (optional)	Yes
Accessories				
Filters (supply/extract air)	M5 / M5 (optional supply air F7)	G4 / G4 (optional supply air F7)	G4 / G4 (optional supply air F7)	G4 / G4 (optional supply air F7)

You will find all technical data in our technical data sheets or on www.zehnder-systems.com.

Overview of comfort ventilation units



	ComfoFan S P	ComfoFan S R + RFZ	ComfoFan S R Chrono	ComfoFan S CO ₂ incl. CO ₂ main sensor	ComfoFan S CO ₂ , available with additional sensors, timer RF and hygro presence sensor	KPMe/RPMe/VPMe	MX / VDX 110 MX / VDX 210 MX / VDX 310 MX / VDX 320
Dimensions/weight							
Length (mm)	38.9	38.9	38.9	38.9	38.9	34	Variable
Height (mm)	38.9	38.9	38.9	38.9	38.9	42.8	Variable
Depth (mm)	28.1	28.1	28.1	28.1	28.1	34	Variable
Energy efficiency class (depending on the control unit/ sensor technology chosen)	E	E	E	E	B	B	Not applicable
Maximum air volume (m³/h)	350	350	350	350	350	350	1375 m³/h 2750 m³/h 4065 m³/h 5100 m³/h
Permanent operation	150 m³/h At 50 Pa	150 m³/h At 50 Pa	150 m³/h At 50 Pa	960 m³/h 1925 m³/h 2850 m³/h 3570 m³/h			
Extract air sound power at nominal air volume	47 dB(A)	47 dB(A)	47 dB(A)	47 dB(A)	47 dB(A)	54 dB(A)	63 dB(A) 66 dB(A) 64 dB(A) 77 dB(A)
Electrical power consumption at nominal air volume	8 watts	8 watts	8 watts	8 watts	8 watts	9 watts	82 watts 54 watts 198 watts 497 watts

You will find all technical data in our technical data sheets or on www.zehnder-systems.com.

The brand with the best indoor climate solutions

FOUR AREAS THAT COMPLEMENT ONE ANOTHER PERFECTLY

The broad and clearly structured portfolio from the Zehnder Group is split into four product lines. Consequently, we can provide the right product, the perfect system and the matching service for all types of projects – from new builds to renovations, single- or multiple-family homes, as well as commercial projects. This variety ensures that our wealth of experience is continuously expanding, providing tangible added value to our customers on a daily basis.



Decorative radiators

Our individual decorative radiators for bath- and living rooms make a home not only warmer but also more attractive. Created by renowned designers, they impress with excellent functionality.



Comfortable indoor ventilation

Our comfortable indoor ventilation with heat recovery is energy-efficient and provides a healthy indoor climate. It promotes the well-being of the occupants and increases the value of the property.



Heating and cooling ceiling systems

Zehnder heating and cooling ceiling systems are convenient and energy-efficient for heating and cooling. They are perfectly attuned to the relevant environment.



Clean air solutions

Clean air solutions from Zehnder reduce the level of dust in the air, create a healthier indoor climate and reduce the amount of cleaning required.

NUMBERS THAT SPEAK FOR THEMSELVES

MANUFACTURER OF THE WORLD'S

1st

STEEL RADIATOR

121

YEARS OF INNOVATIVE TRADITION

1,800,000

TONNES OF CO₂ SAVED SINCE 2005

REPRESENTED IN

20

COUNTRIES

OWNER-MANAGED FOR GENERATIONS

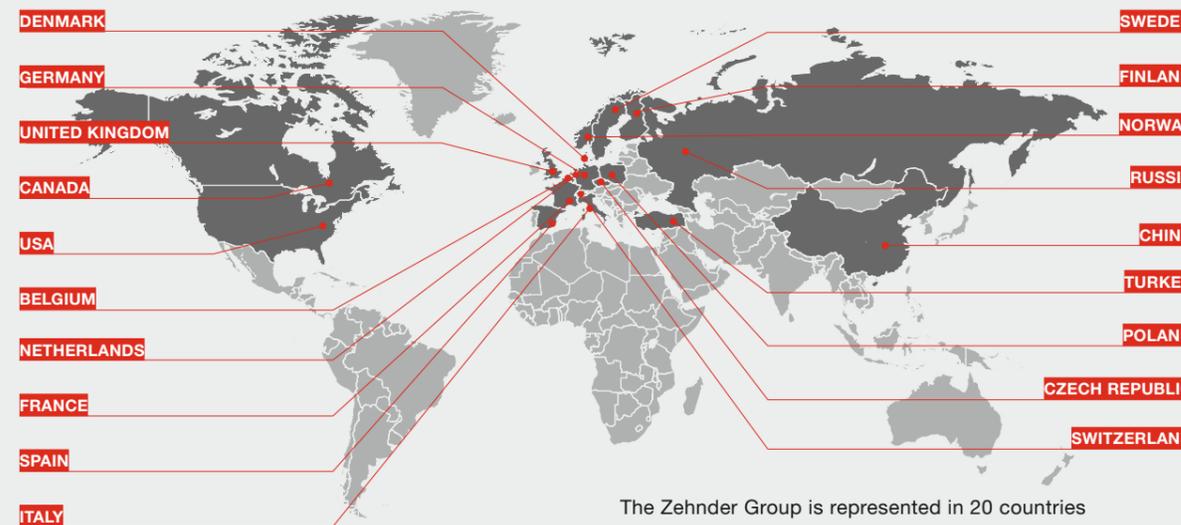
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AROUND 3,000 EMPLOYEES

1895

FOUNDING YEAR

BEST CLIMATE IN THE WORLD



The Zehnder Group is represented in 20 countries and its products are available in over 70 countries.

BRANDS THAT OFFER VARIETY



The Zehnder brand offers excellent indoor climate solutions within the product lines of decorative radiators, comfortable indoor ventilation, heating and cooling ceiling systems, and clean air solutions.



The Runtal brand develops and manufactures exclusive radiators combining innovative technologies with unique designs.

PLACE-HOLDER

Platz für lokale Adaption, lokale Marken wie z.B. Acova oder lokale Serviceangebote.

CERTIFICATES

Zehnder Group products are frequently awarded prizes for design and innovative technology.

