

**zehnder**

always the  
best climate



**Always the best climate for**

#ventilation  
#covid-19  
**Special  
FAQ guide  
inside**

# IMPROVED COMFORT AT HOME

How good indoor air quality improves your comfort at home  
all year round and especially during **#stayathome**

The indoor climate has an essential impact on our comfort and well-being, especially during #stayathome period where we spend even more time indoors.

For your personal well-being, one important fact is to ensure high indoor air quality. An easy way to do this is with a comfortable indoor ventilation system.

## But how to use ventilation systems during COVID-19?

With this guide we summarize the current recommendations of present industry and health knowledge regarding the right use of ventilation systems during COVID-19.

### Can I continue to use my ventilation system as usual?

Yes! Viruses are transmitted by airborne droplet infection over distances up till 1.5 metres. The transmission via ventilation systems can almost be ruled out according to current knowledge <sup>[1]</sup>.

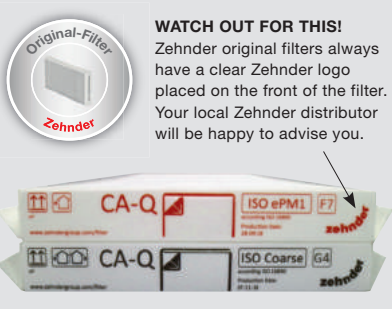
- Continue ventilating!
- A nominal or high fan position is recommended for a high volume of fresh outdoor air to dilute possible indoor viral particles.
- Maximum flow rate is not recommended to avoid resuspension of particles on surfaces (i.e. floors and furniture).
- Reduce recirculation, if present or increase fresh air volume flow.

### Do I need to install special filters?

No, viral particles are too small for even the best HEPA (high efficiency particulate absorbing) filters used in clinical environments (i.e. hospitals, laboratories, etc.).

Nevertheless, fine outdoor air filters (ISO ePM1) provide a reasonable protection, as SARS-CoV-2 (Covid-19) particles also aggregate with larger particles which are already within the capture area of these filters<sup>[2]</sup>.

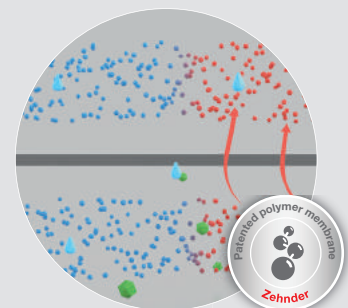
- We recommend to use Original quality filters from Zehnder as they guarantee longer lifecycle, less maintenance and more efficient operation.



### What about indoor humidity?

Indoor humidity could play a role in the lifetime of a viral particle and the infection risk. It is known that the infection risk of influenza viruses is at its lowest when the humidity of the room air is between 40% and 60%. Whether this also plays a role in corona viruses is not known.

- The room air humidity is best kept within the range of the normal comfort levels of 40% to 60%.
- We recommend to use enthalpy recovery ventilation to dampen the extremes in the indoor relative humidity.



#### Sources:

The recommendations are based on present industry and health knowledge on the date of 23<sup>rd</sup> April 2020 and are subject to modification upon further notice.

[1] Robert Koch Institute (RKI) / CCI: Should ventilation systems be switched off as a precaution against the transmission of COVID-19 ("corona viruses")?



### What about heat or energy recovery ventilation systems?

Ventilation systems with heat or energy recovery systems recover the energy of the exhaust air and transfer it to the supply air. Not the air itself.

Zehnder exchangers with their patented polymer membrane allow a complete separation of air-streams and no supply air can interface with surfaces exposed to exhaust air.

### Which kind of ventilation system is best?

Use balanced ventilation rather than exhaust ventilation (where fresh air enters via grilles without filtering) to avoid pollutants entering the house.

### Can I open the windows to increase ventilation?

Yes, you can open the windows for a while even though the ventilation system is running. This dilutes the air in this particular room even more. However, we don't recommend this in densely populated or polluted areas to avoid pollutants (i.e. dust, dirt, NOx, etc.) entering indoors.

Good to know:

**Enthalpy recovery can flexibly be retrofitted at any time.**

If you are already benefiting from comfortable indoor ventilation from Zehnder, you have the option of adding humidity recovery at a later stage.

The Zehnder enthalpy exchanger can be integrated into your Zehnder ventilation system at any time.



The RKI replied: "Since COVID-19 is an infection primarily spread via droplets (and not primarily transmitted via air), it cannot be assumed, based on the current state of knowledge, that SARS-CoV-2 (COVID-19) will be further spread via operated ventilation systems (for example in public buildings, hotels).

[2] EN ISO 16890-1:2016, Air filters for general ventilation - Part 1: Technical specifications, requirements and classification system. based upon particulate matter efficiency (ePM).

# With Zehnder, you make the perfect choice for an ideal indoor climate every time

Create your personal feel-good climate for your home and enjoy a whole range of benefits

## Improved comfort through high indoor air quality

A constant high indoor air quality provides you with improved comfort at home through continuous fresh air supply and reduction of CO<sub>2</sub> in parallel. This results in:

- better concentration i.e. during home office work or with your childrens' homework
- better sleep at night and
- enhanced overall well-being.

## Good for your health

The filtration of pollutants (i.e. dirt, dust, pollens) and the avoidance of mould through constant air exchange contributes to a healthy indoor climate and is particularly good in case you suffer from asthma or other lung diseases.

## Additional summer comfort

In hot summer months, the heat is prevented from entering the building although fresh air is still supplied to all rooms. This means that you can benefit from additional comfort and reduced risk of your house overheating in the summer.

## Reduced energy cost

Through heat recovery and optional humidity recovery included in your ventilation systems you can benefit from reduced energy costs.

## Ready to find out more?

An ideal indoor climate offers a lot of benefits including enhanced well-being and more comfort at home. Zehnder's ventilation systems ensure this by creating the perfect indoor comfort in every season.

Come and see for yourself. At [www.zehnder-systems.com](http://www.zehnder-systems.com), you can find further important information. Zehnder - always the best climate.