# Obligatory Ventilation Control in Sweden (abbreviated OVK)

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## Ventilation inspectors

OVK in **Sweden** since 1991, has about 1861 OVK inspectors.

**Åland** has OVK since 2018, has 10 OVK inspectors.

# Background to OVK

OVK started **1991** because problems appeared in people in the form of **allergies** and other **hypersensitivity** symptoms. Sick building syndrome.

Among the factors that were assumed to contribute to ill health in the users were **three** factors in focus: the building's **ventilation system**, the **buildingmaterial** and **moisture** in the building.

The role of the regulation is to **control the ventilation** in buildings.

The control is done **before** the ventilation system is taken in operation and after that on **regular intervals** (except for single and two-family houses).

**The purpose of the OVK** is to **secure that the indoor climate** is good and that the **ventilation system** is functioning.

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# Which buildings and ventilation systems are subject to OVK requirements?

The starting point is that **most buildings must be inspected**. For one- and two-family buildings, a recurring inspection is not required, but only an initial inspection.

**Some buildings and ventilation systems are completely exempt** from the requirement for OVK:

**One- and two-family buildings** with **natural or fan controlled** exhaust ventilation

**Farm** buildings

**Industrial** buildings

**Military** buildings that are of a secret nature.

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# OVK Interval

1. Function of the building.
2. Type of ventilation-system.

| Buildings and type of ventilation system | Interval |
|---|---|
| Preschools, schools, care facilities and other similar buildings. Regardless of the type of ventilation system. | 3 years |
| Apartment buildings, office buildings and staff rooms and offices in industrial buildings and the like. FT, FTX ventilation | 3 years |
| Apartment buildings, office buildings and staff rooms and offices in industrial buildings and the like. S, F, FX ventilation | 6 years |
| One- and two-dwelling buildings with FX, FT, FTX ventilation. | Only an initial installation inspection before the system is put into use. No recurring inspection. |

**S-ventilation** = natural ventilation.
**F-ventilation** = fan ventilation where the exhaust air flows are fan controlled.
**FT ventilation** = fan ventilation where both the exhaust and supply air flows are fan controlled.
**FX ventilation** = F-ventilation with heat recovery.
**FTX ventilation** = FT ventilation with heat recovery.

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# How should the function check be done?

- At each OVK, it must be checked that:
- 1. the ventilation system does not contain **contaminants** that can spread throughout the building
- 2. **Instructions** and care instructions are readily available
- 3. The ventilation system otherwise **works as intended**.

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## In addition, the first inspection must check that:

- 1. The function and characteristics of the ventilation system comply with **current regulations**.



## In the case of periodic inspections, the functional inspector shall:

- 1. check that the function and characteristics of the ventilation system are **essentially in accordance** with the **regulations** in force when the system was put into use
- 2. investigate what measures can be taken to improve **energy conservation** in the ventilation system and that do not result in a deteriorating indoor climate.
- It is the **owner of the building** who then decides whether the proposals for energy efficiency measures should be implemented

## Fix errors and shortcomings as soon as possible

- The owner of the building must ensure that errors and deficiencies discovered at OVK are rectified **as soon as possible**.
- The **owner is responsible**, even between inspections, for taking the necessary measures to ensure that the requirements for the ventilation system are met and for them to be maintained so that their essential technical characteristics are preserved.

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## The municipality is responsible for control and supervision

It is the **municipality's building committee** that will monitor that the building's owner takes care of their obligations to OVK.

If **the owner of the building** does not carry out the OVK, the building committee can order the owner to carry it out.

If it appears from a protocol that the requirements for functional inspection are not met, the building committee can order the owner to **investigate and rectify** the deficiencies. The order may be combined with a fine.

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## Exemption for inspection intervals

If there are **valid reasons** why the inspection cannot be carried out within the interval or that it does not provide any intended protective function, you can **apply for an exemption** from the regular inspection interval.

For example, it may be that **the building is not in use** or that there is a **major change** in direct connection with the regular intervals and that it is therefore **better to wait** for a new first inspection.

It may also be because **it is not possible to gain access** for inspection for reasons that the property owner cannot influence. For example, as it was in housing during the **COVID pandemic**.

It is **the building committee** that assesses the possibility of exemption in the individual case.

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## Certified ventilation inspectors

The inspection must be carried out by a **certified inspector**.

It is an expert functional inspector, who is certified by an accredited certification body, who will carry out the inspection.

An OVK protocol must be submitted by the inspector to the **building´s owner** and to the municipality's **building committee**. A certificate must also be posted in a clearly visible place in the building.

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FUNKIS
Funktionskontrollanterna i Sverige

Most OVK inspectors are members of Funkis.

The Functional Controllers in Sweden were formed in June 1993.

The membership is personal and can be acquired by anyone who has the authority to **perform OVK** or is a **municipal administrator** of OVK as well as **Certified ventilation adjusters**.

FunkiS is a non-profit association.

The activities are financed through members' fees and symposium fees.

The work is focused on interpreting the OVK-regulations and informing the members about administrative, technical, ethical and legal aspects, as well as giving the concrete instructions that the interpretation entails.

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# Experiences from OVK in Sweden, ”Modernized OVK 2017” review

This report presents results on how the OVK works, both in theory and in practice and identified suggestions for development of the OVK.

To get a broad picture of how the OVK works, interviews were carried out with persons related to the OVK;
building owners,
OVK controllers,
administrators at the municipality,
legislators,
organizations etc.
Based on this, suggestions were made for how the OVK could develop to better suit its purpose.

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# Experiences from OVK in Sweden, ”Modernized OVK 2017” review

The interviews show several results. First, an approved OVK is not a guarantee that the indoor environment is satisfactory since the current use of the premises isn’t always taken into account.

The study also shows that the follow up of the OVK from the municipality often are inadequate. Moreover, energy-saving measures that should be included in the OVK are handled very differently and the level varies considerably.

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# Possible improvements of OVK-regulations from “Modernized OVK 2017” review:

***DEVELOPMENT PROPOSALS***

*Top priority*

- Include the indoor environment and the use of the premises in the OVK in a better way.

*Intermediate priority*

- Fee for processing OVK cases.
- Uniform, preferably electronic protocol.
- Training and skills enhancement for OVK inspectors and OVK administrators.
- Requirement that the same/e OVK inspector performs both OVK inspection and post-inspection.

*Lowest priority*

- Minimum requirements for energy saving measures.

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## Swedish ventilation organisation review 2024:

The most common **remarks** that appear at OVK in **schools:**

1. Flow-affecting dirt in ductwork
2. Too low air flows in relation to the activity for which the ventilation is adapted
3. Lack of service and maintenance
4. A larger number of pupils or children than the premises are intended for
5. New changed operations, i.e. the ventilation is no longer adapted to the activities in each room
6. Demand-controlled ventilation that does not work as intended



## Improvements suggested by Swedish ventilation 2024

1. OVK should take greater account of the operation by, for example, including the number of people.
2. Introduce uniform digital OVK protocols and a national register.
3. Enable municipalities to charge a fee for the supervision of OVK.