A 100% AIR-EXCHANGE RATE WITH CLOSED WINDOWS, REDUCED ENERGY CONSUMPTION, COST SAVINGS

LOCAL VENTILATION SYSTEM WITH HEAT RECUPERATION

MIKrovent®

Heat recuperation/heat preservation at a 95% to 100% air exchange rate

IMPROVE YOUR QUALITY OF LIVING

An innovative local ventilation system with heat recuperation, MIKrovent® is the result of Slovenian knowledge and own R&D by MIK Celje, door and window manufacturer. While **constantly bringing fresh air** into your living premises with a 100% air exchange rate when windows are closed, MIKrovent® **preserves up to 95% of indoor warmth**. Your room will not get colder in the winter or warmer in the summer in spite of air being constantly exchanged. This way the buyer can enjoy higher cost savings in heating or cooling.

mikrovent.io

mikrovent
Let's preserve energy
Let's save

MARK OF QUALITY IN CONSTRUCTION 2018
MIKrovent 30 / 60 / 120

MIK® CELJE

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WHY DO WE NEED TO AIR OUR ROOMS?

Fresh air is key to **healthy living**. The MIKrovent® ventilation system guarantees a controlled, **optimised flow of fresh air** into the room while windows are closed.

Maintaining the **correct temperature** and **indoor air quality** while windows are closed is crucial to our quality of living and well-being.

WERE YOU AWARE THAT:

- We spend **90% of our time indoors?**
- The stale indoor air has been **depriving you of a good night’s sleep?**
- The air indoors can in fact be **five times more polluted** than the outdoor air?
- We need to **exchange the indoor air every 2 hours** to be able to work and live productively?
- You have been **losing vast amounts of energy** and letting various **allergens** and **harmful solid particles** into your home by opening your windows?
- You have been **spending up to 50% of your heating** bill **on airing** alone if you are doing it by opening windows?

In the past, and especially in older buildings a lack of fresh air was not an issue because the construction techniques and building material properties allowed for the building envelope to let the air through while the building was kept warm by high fuel consumption. **Modern buildings however have become rather airtight in the drive to increase energy efficiency.** In addition to reducing thermal losses, the improved airtightness of buildings has brought some negative effects in its wake, like the lingering of stale air and humidity indoors (condensation on windows and growth of house mould). **When rooms are not aired enough, the air becomes stale and detrimental to your health, activity levels and overall quality of living.**

Well-made modern windows have a **much better sealing** and **thermal insulation properties** than their older counterparts but this however **prevent the air** and **humidity from crossing through cracks** and **crevices**. The result of airtight windows is a dramatically changed indoor climate because the **concentration of harmful gases, humidity** and **CO_2 can no longer be evened out with the lower outdoor concentrations.**

Optimal indoor conditions

Indoor **temperatures between 20˚C and 22˚C or between 71.6 ˚F and 68 ˚F with a 40-60% relative humidity** provide for an optimal living environment. Excessive relative humidity is unpleasant and can lead to water condensing on cool wall and glass surfaces. However, **a low relative humidity** is conducive to dust rising into the air which dries out our mucous membranes and **gives us an unpleasant sensation of dry air**.

To avoid this, choose MIKrovent®, our local ventilation system with heat recuperation and an enthalpy heat exchanger that maintains a healthy level of relative humidity in your residential premises.

Optimal indoor conditions

Temperature		Relative humidity
in °C	in °F	
22	71.6	60 %
20	68	40 %

THE NEW GENERATION

of enhanced local ventilation with heat recuperation

MIKrovent® 30 can be installed as per individual residential requirements. Possibility of horizontal/vertical installation or incorporation into windows.

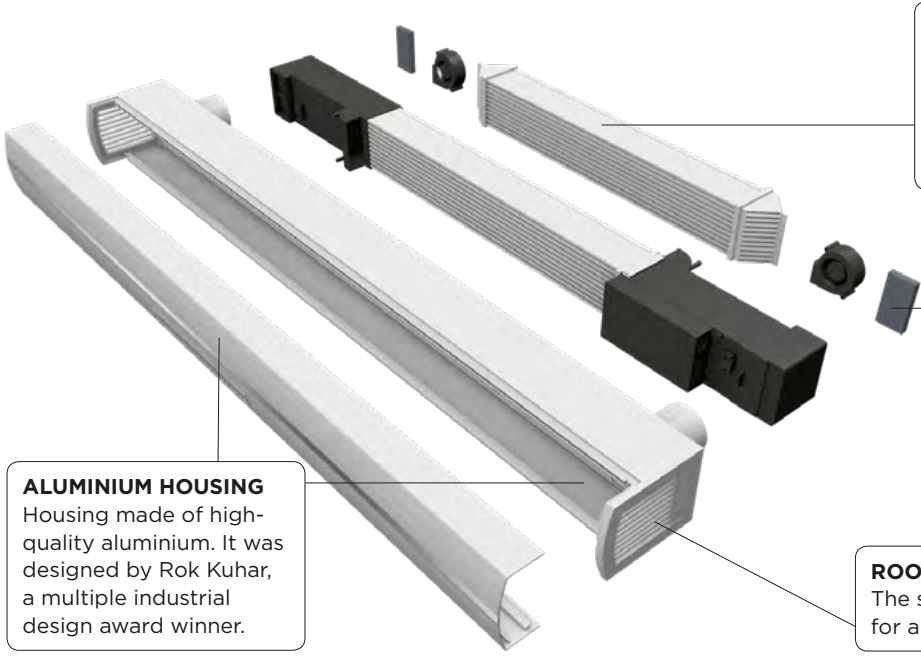
For children's rooms, bedrooms of up to 30m² or up to 323ft²

MIKrovent® 30

With its beneficial effect on sleep quality, MIKrovent® 30 is an excellent solution for airing individual rooms in your home, such as children's rooms and bedrooms from 25m² to 30m² or from 269ft² to 323ft². It is also recommended for installation in problem areas with high humidity levels which, in combination with properly airtight windows, are conducive to the formation of mould and mildew, especially during winter. Mould and mildew are detrimental to quality of living and present an unnecessary strain on your health. Providing an air flow rate of up to 30 m³/h or up to 17.65cfm and heat recuperation of up to 87%, MIKrovent® 30 is the perfect choice for airing individual rooms. MIKrovent® 30 can be installed in any residential room in your home; discreetly above the window frame or vertically/horizontally on outer walls. **Quiet running without light emissions; the unit was designed with your residential needs in mind. Its very quiet and unobtrusive operation makes it suitable for installation in bedrooms too.**

Air flow [m³/h] [cfm]	10-30m³/h or 5.89-17.65cfm
Heat recuperation* [%]	up to 87
Supply voltage [V]	230/12 & 110/12
Power required [W]	up to 20
Noise level*** [dB]	up to 35
Dimensions [mm][inch]	1180 / 160 / 130mm or 46.46 / 6.3 / 5.12inch
Filters	PM 2.5 (50%) (F7), PM 10 (G4)
Outdoor temperature operational range [°C][°F]	from -25 to 50 °C or from -13 to 122 °F
Controls	Remote control / WiFi / ModBus
Air pre-heating** [W]	300
Sensors	Temperature, Humidity, CO_2**, VOC**, Radon**

* According to ISO 16890 (EN 308)
** Per request.
*** At 8 dB noise room absorption.



HEAT EXCHANGER WITH ANTIBACTERIAL PROTECTION
A specially-designed heat exchanger constructed of polypropylene which prevents the formation and growth of mould and bacteria.

EASY-TO-REPLACE AIR FILTERS
High-quality PM 2.5 (50%) (F7) filters that capture most allergens, bacteria and viruses make the lives of people with allergies easier, prevent insects from entering and provide an flow of clean fresh air into the room. They are quick and inexpensive to replace.

ALUMINIUM HOUSING
Housing made of high-quality aluminium. It was designed by Rok Kuhar, a multiple industrial design award winner.

ROOM-FACING AIR-OUTFLOW GRILLE
The special design of the air outflow grille provides for a better circulation of air in the room.

THE NEW GENERATION

OF LOCAL VENTILATION WITH HE

MIKrovent® 60

For hotel rooms, offices from 30m² to 60m² or from 323ft² to 646ft²

MIKrovent® 60 is suitable for maintaining a sufficient air exchange rate in hotel rooms and offices from 30m² to 60m² or from 323ft² to 646ft², and larger multi-purpose rooms that are common in modern interior design and used to bring together most social and residential functions, from cooking and dining to spending leisure time together.

A single MIKrovent® 60 unit provides an air flow rate of up to 60m³/h or up to 35cfm and air heat recuperation of up to 95%. **MIKrovent® is also suitable for smaller apartments** of up 60m² or 646ft² with fewer walls or rooms that are connected without significant barriers to air flow. It can be installed in any room, on an outside wall, either vertically or horizontally.

MIKrovent® 60 is an excellent solution for ventilation of your whole home or only the most frequented multi-purpose areas.

Air flow [m³/h] [cfm]	20-60m³/h or 12-35cfm
Heat recuperation* [%]	up to 95
Energy recuperation** [%]	up to 70
Supply voltage [V]	230/24 & 110/24
Power required [W]	up to 50
Noise level*** [dB]	up to 35
Dimensions [mm][inch]	1510 / 300 / 230mm 23.4 / 11.81 / 9.05inch
Filters	PM 2,5 (50%) (F7), PM 10 (G4)
Outdoor temperature operational range [°C][°F]	from -25 to 50 °C or from -13 to 122 °F
Controls	Remote control / WiFi / ModBus
Air pre-heating** [W]	600
Sensors	Temperature, Humidity, CO_2**, VOC**, Radon**

* With maximum air flow with a PM 2.5 filter (50%) (F7) according to ISO 16890 (EN 308)
** On demand
*** At 8 dB indoor sound dampening

MIKrovent® 120

For schools, day-care centres, halls from 60m² or from 646ft²

MIKrovent® 120 is well-suited for larger rooms of more than 60m² or more than 646ft² and rooms used by many people at the same time, like those found in schools and day-care centres, or dining halls, conference rooms, doctor's waiting rooms and similar. A single MIKrovent® 120 unit provides an air flow rate of up to 120m³/h or up to 75cfm and air heat recuperation of up to 90%. In public areas, ventilation must be provided as dictated by the conditions of work, which means a fresh air inflow rate between 20m³/h and 30m³/h or between 12cfm and 17.66cfm during operating hours. Similar to offices, large shared rooms are often used only about 20% of the time and full ventilation is required only then. When such rooms are not in use, it makes sense to ventilate them with the minimum amount of air required to remove harmful substances like those emitted by furniture and construction material. The unit can be installed on the outside walls of such rooms, either vertically or horizontally.

MIKrovent® 120 is an excellent solution for ventilation of your whole business premises or public areas used by many people at the same time.

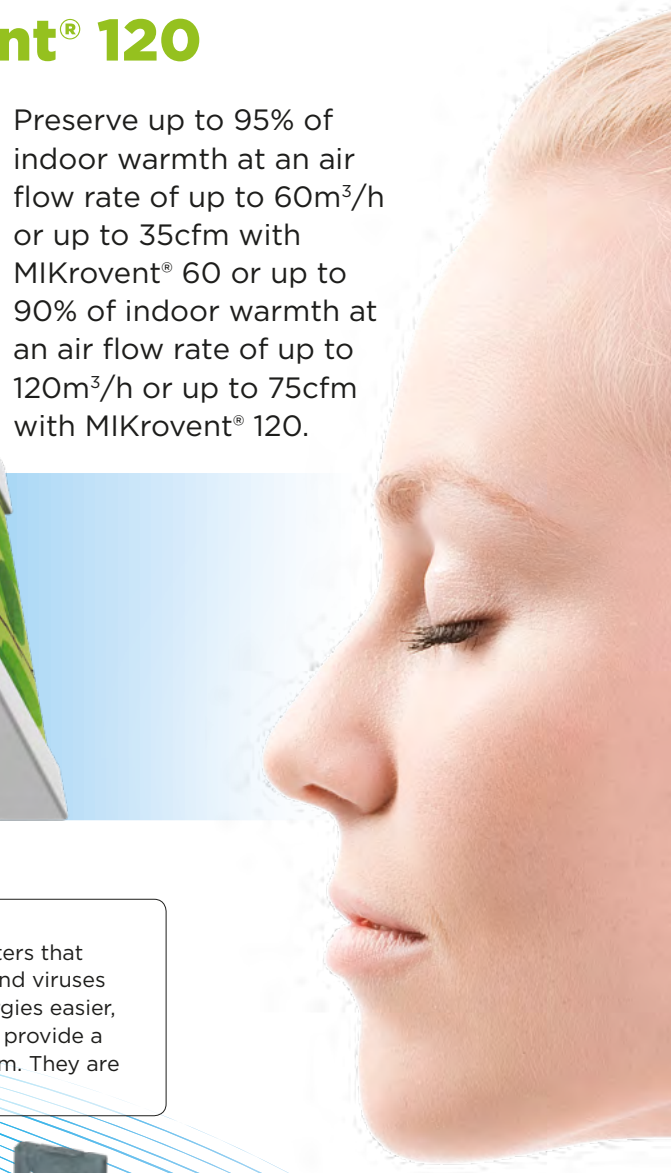
Air flow [m³/h] [cfm]	60-120m³/h or 35-75cfm
Heat recuperation* [%]	up to 90
Energy recuperation** [%]	up to 70
Supply voltage [V]	230/24 & 110/24
Power required [W]	up to 75
Noise level*** [dB]	up to 40
Dimensions [mm][inch]	1510 / 300 / 230mm 23.4 / 11.81 / 9.05inch
Filters	PM 2,5 (50%) (F7), PM 10 (G4)
Outdoor temperature operational range [°C][°F]	from -25 to 50 °C or from -13 to 122 °F
Controls	Remote control / WiFi / ModBus
Air pre-heating** [W]	1200
Sensors	Temperature, Humidity, CO_2**, VOC**, Radon**

* With maximum air flow with a PM 2.5 filter (50%) (F7) according to ISO 16890 (EN 308)
** On demand
*** At 8 dB indoor sound dampening

MIKrovent® 60 and MIKrovent® 120

AT RECUPERATION

Preserve up to 95% of indoor warmth at an air flow rate of up to 60m³/h or up to 35cfm with MIKrovent® 60 or up to 90% of indoor warmth at an air flow rate of up to 120m³/h or up to 75cfm with MIKrovent® 120.



360°AIR-DIRECTION VENTS
The innovative design enables the user to control 20 fine-adjustable air vents to provide optimal distribution of air.

EASY-TO-REPLACE AIR FILTERS
High-quality PM 2.5 (50%) (F7) filters that capture most allergens, bacteria and viruses make the lives of people with allergies easier, prevent insects from entering and provide a flow of clean fresh air into the room. They are quick and inexpensive to replace.

READY-TO-USE MOUNTING PLATE
For quick and simple wall installation.

HIGH-CAPACITY QUIET-RUNNING FANS
Compact, quiet, high-capacity and energy-efficient fans are an intelligent fit for the device concept and provide for an excellent user experience.

THE OPTION TO CREATE YOUR OWN DESIGN
The graphical design of the housing can be tailored to individual preferences. Now you can showcase your favourite moments on the housing; chose the housing colour and enjoy the look you want.

SOUND INSULATION HOUSING
A special sound-insulation design reduces the noise level for up to 20%.

CHOOSE BETWEEN AN ENTHALPY OR REGULAR HEAT EXCHANGER
The choice between a regular or an enthalpy heat exchanger depends on the indoor relative humidity; enthalpy exchangers can be used for rooms with a low relative humidity while regular heat exchangers are suitable for high-humidity areas.

INNOVATIVE OUTER GRILLE DESIGN
The outer grille with air-flow separation function prevents the outgoing and ingoing air from mixing. Its design allows for the grille to be installed either above or under the outer layer of the building.

Choose MIKrovent to create a better living environment:

- Removes excess indoor humidity and prevents mould growth.
- Purifies air and provides for healthy living and well-being.
- With its inbuilt heat recuperator, it provides a 100% air-exchange rate and up to 95% of indoor heat preservation along with great savings on heating costs.
- Prevents draft and stops insects, viruses, solid particles and allergens from entering.
- Prevents outdoor noise intrusion.
- Simple to install.
- MIKrovent meets the ECO subsidy requirements.

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