



TECHNOLOGY BROCHURE

# Mechanical ventilation systems **VITOVENT**

## **Mechanical ventilation systems**

Tailor-made solutions  
for new build and  
modernisation projects



sustainable  
environmentally  
responsible  
renewable  
valuable  
individual



Controlled mechanical ventilation ensures a comfortable indoor environment and protects the fabric of the building.

Controlled mechanical ventilation (CMV) ensures a regular exchange of air and constantly high air quality in a house or apartment. This is necessary because consumed air does not contain much oxygen, but does carry substances such as carbon dioxide and water vapour.

Oxygen is vital for the human body, however. In addition, high air quality aids our physical and mental abilities, and ensures we experience a noticeable feeling of wellbeing.

Air purity is also an indicator of quality of life and should always be as high as possible for this reason.





6



8



10



14



30



38

## 6 SAVE ENERGY AND PROTECT THE CLIMATE

Controlled mechanical ventilation ensures a healthy indoor environment and protects the fabric of the building

## 8 CENTRAL VENTILATION IN NEW BUILD

The installation of mechanical ventilation systems in new detached houses is already standard, especially in low energy and passive houses.

## 10 DECENTRALISED VENTILATION FOR EXISTING BUILDINGS AND MODERNISATION PROJECTS

Decentralised ventilation units can be installed in specific individual rooms.

## 14 CENTRAL MECHANICAL VENTILATION UNITS

## 30 DECENTRALISED MECHANICAL VENTILATION UNITS

## 38 ENGINEERING, SERVICING AND MAINTENANCE

Durable in use – easy to maintain.



Controlled mechanical ventilation ensures a comfortable indoor environment and protects the fabric of the building.

In recent years, more stringent building regulations have led to sustainable energy savings, particularly in the construction of new houses and apartments. For example, in existing housing, the annual heat demand for a detached house is approx. 200 kWh/m<sup>2</sup>. For a comparable new house, built in line with the new 2014 Energy Saving

Ordinance (EnEV [Germany]), this annual heat demand is only around a quarter of that figure.

Use of new building and insulating materials results in an airtight construction that no longer provides the necessary minimum air change rate in the interior.

### **Controlled mechanical ventilation for consistent room air quality**

An adequate air change rate is essential for health and wellbeing, as well as for protecting the fabric of the building.

The way to achieve this is with a mechanical ventilation system. It provides the air change rate required and regulates humidity levels in the interior. Such a system prevents mould growth and ensures the controlled replacement of stale indoor air with fresh, filtered outdoor air, thereby providing a comfortable indoor environment for residents and protection for the fabric of the building.

Controlled mechanical ventilation continuously extracts stale air, for example from bathrooms, kitchens and toilets, and replaces it with fresh air in living areas, playrooms and bedrooms. This ensures consistently high air quality.

In an average detached house, up to 15 litres of humidity are transferred to the indoor air every day. An amount accounted for in less than a minute when showering. In older buildings, this humidity condenses at cold points on the walls, resulting in a risk of mould growth.

In the past, this problem was contained by natural ventilation through draughty door and window frames. However, such draughts no longer arise in energy efficient new buildings and existing buildings modernised in line with EnEV specifications.

Moisture damage needs to be prevented by means of controlled ventilation.

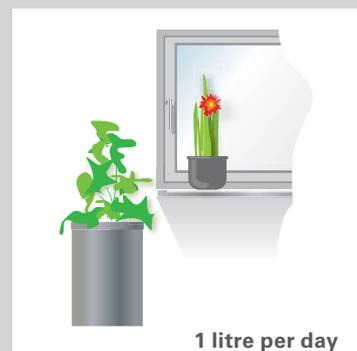
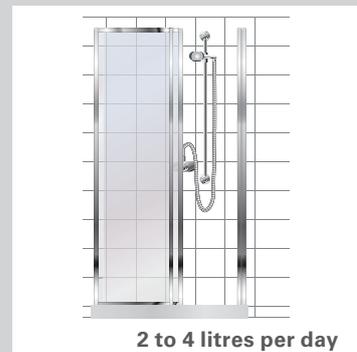
### **Legal requirements stipulate a minimum air change rate**

EnEV specifications go so far as compelling building owners to guarantee an adequate minimum air change rate in their buildings. Residents are usually out of the house during the day, which means that the necessary ventilation does not take place.

A mechanical ventilation system operates continuously, thereby preventing adverse effects for residents as well as damage to the building.

### **Allergy sufferers can breathe more easily**

Allergy sufferers really appreciate mechanical ventilation systems – fitted with effective pollen filters, they reduce the pollution level so that those affected suffer less from allergic reactions, while still being able to breathe fresh air.



Where humidity occurs: up to 15 litres a day in a 4-person household.



# Central ventilation in new build

Many modern buildings are built with mechanical ventilation systems already installed. On the one hand, this requires a high level of energy insulation in order to regulate indoor air humidity as effectively and reliably as possible. On the other, it is regarded as a comfort feature for well equipped apartments and buildings.

## **Mechanical ventilation in detached houses**

The installation of mechanical ventilation systems in new detached houses is already standard, especially in low energy and passive houses.

Consequently, no heat is lost through accidental ventilation in the colder months and the continuous air change ensures a consistently high level of indoor air quality.

## **Heat recovery from extract air**

Advanced mechanical ventilation systems are particularly energy efficient: a powerful heat exchanger recovers up to 98 percent of the latent heat in the extract air and uses it to heat the incoming fresh air. This reduces household expenditure perceptibly thanks to a significantly lower energy demand. Furthermore, CO<sub>2</sub> emissions are reduced.

Every new building equipped with mechanical ventilation has a central unit that supplies all rooms with fresh air via a duct system. In most cases, the duct system is concealed in the floor or integrated into the walls. Air vents are all that remain visible. The air change rate is regulated automatically by the central ventilation unit.

## **Quiet operation**

A further benefit of central mechanical ventilation relates to its operation. A central mechanical ventilation unit with air distribution system generates very little noise, as the individual system components are matched to each other. Get the sizing and configuration right, and there is no air noise. It is quiet in operation and protects against external noise. Silencers can be installed in individual air lines for especially sensitive rooms.



Vitocal 343-G heat pump with Vitovent 300-F: a central mechanical ventilation system is now standard in new build.



# Decentralised ventilation for existing buildings and modernisation projects

The modernisation of energy systems in existing buildings is constantly being driven by rising energy costs in the housing sector. Old housing stock is being modernised comprehensively and now offers its residents comforts such as new, energy efficient windows and doors, wall insulation or a new heating system with convenient domestic hot water provision.

## **Risks associated with modernisation**

Modernisation also results in older apartments being so airtight that no adequate fresh air change can take place. This results in high humidity levels in the interior, which can lead to mould growth, especially in buildings with insulated exterior walls. Areas that are particularly at risk are the corners of rooms next to exterior walls, as this is where humidity condenses.

A central ventilation system can be ruled out in most existing buildings, since there is frequently insufficient space to install ventilation ducts in the interior. A decentralised system with heat recovery is the most suitable solution in this case.

## **Ventilating rooms individually**

Decentralised ventilation units can be installed in specific individual rooms. All that is required for a straightforward installation is a wall outlet or a hole through the exterior wall of the respective room and a power supply. No ventilation ducts need to be installed for this system.

Residential units can be equipped with several ventilation units that operate independently of each other. These are ideal for providing a comfortable indoor environment with the required minimum air change rate. These units feature a heat recovery level of up to 91 percent.



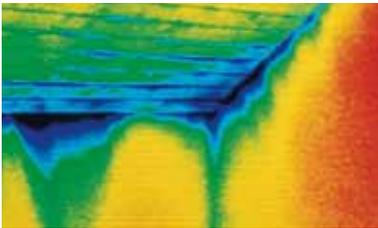
Unobtrusive appearance due to installation of the Vitovent 100-D in the window reveal

## Reliable, durable technology – it's essential

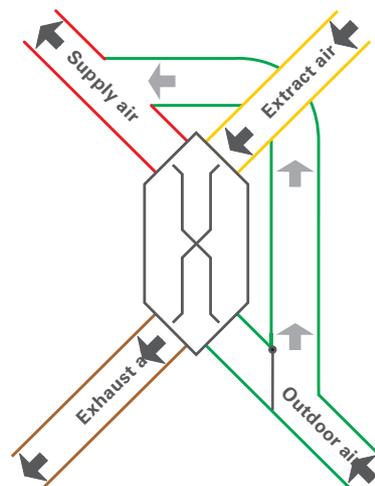
Viessmann mechanical ventilation systems are characterised by their innovative technology. They are durable, reliable and operate particularly quietly. With different equipment levels, they can be employed flexibly in the widest range of applications imaginable, no matter whether in a new building or the modernisation of an existing building.

### Overview of technology and functions: CO<sub>2</sub> and humidity control

Air is considered to be fresh when the CO<sub>2</sub> concentration is below 0.1 percent by volume and it is as free as possible from odours. Vitovent systems change the air continuously to create a pleasant and healthy indoor environment. They remove odours and noxious substances, replacing more or less air depending on the prevailing humidity levels, thereby removing humidity (subject to outdoor air humidity and weather conditions).



Temperature pattern in the corner of a room – this is where condensate can form



Function of the integral bypass damper: Fresh outdoor air (green) is routed past the cross-counter-current heat exchanger.

### Bypass function for cooling in summer

During the warmer months of the year and depending on outside and room temperatures, the fresh night air can be used for cooling the interior. Heat recovery is temporarily deactivated for this purpose. All versions of the Vitovent unit come with this function.

### Heat exchanger for heat recovery

Up to 98 percent of the heat in the extract air is used for supply air heating thanks to the integral heat exchanger. This saves on heating energy and helps to protect the environment.

### Heating passive houses with warm air

In a passive house, a combination of a Vitovent 300-F and a Viessmann compact heat pump can be used for space heating. A hydraulic reheating coil for temperate heating with up to 1.5 kW output is available from the range of accessories. In addition, an optional heating water buffer cylinder with a capacity of 25 litres is integrated into the Vitovent 300-F.

### Air flow rate for a constant air change

Contaminated filters present greater air resistance. Central ventilation systems make automatic readjustments to ensure that the necessary air volume for comfort and hygiene is still supplied and extracted at all times.



The filters and countercurrent heat exchanger in the Vitovent 300-W can be easily reached.

#### **Automatic filter monitoring**

The integral filters comply with strict requirements. They must filter dust and pollen reliably from the fresh air. Pollen filters with filter category ISO ePM1 70 percent (previously F7) are available for all ventilation units.

Regular filter changes are required to ensure that everything runs smoothly. The active monitoring system indicates the need for replacement in good time.



Dust and pollen are filtered reliably.



# Central mechanical ventilation units



## **VITOVENT 300-W**

Wall mounted mechanical ventilation system with heat recovery

Max. air flow rate: 300 or 400 m<sup>3</sup>/h

Up to 93 % heat recovery

Page 16



## **VITOVENT 300-C**

Ceiling or wall mounted mechanical ventilation system with heat recovery

Max. air flow rate: 150 m<sup>3</sup>/h

Up to 89 % heat recovery

Page 18



## **VITOVENT 200-C**

Ceiling mounted mechanical ventilation system with heat recovery

Max. air flow rate: 200 m<sup>3</sup>/h

Up to 95 % heat recovery

Page 20



## **VITOVENT 300-F**

Floorstanding mechanical ventilation system with heat recovery

Max. air flow rate: 280 m<sup>3</sup>/h

Up to 98 % heat recovery

In conjunction with compact heat pumps

Page 22



## **Air distribution systems for Vitovent mechanical ventilation units**

For distributing supply air and extract air in the building

Page 26

## Viessmann supplies the Vitovent 300-W mechanical ventilation system for a healthy indoor environment

Enclosed spaces need to be ventilated regularly by opening windows. However, ventilation is not particularly reliable in most cases: excessive ventilation results in the loss of expensive heating energy; too little, and humidity is not removed adequately, making indoor air unpleasant.

The Vitovent 300-W mechanical ventilation system changes the air continuously for a pleasant and healthy indoor environment, removing odours and noxious substances.

### Prevent mould, protect the building fabric

One of the main causes of mould growth is humid indoor air. Mould can harm the health of residents and cause permanent damage to the fabric of the building. Investing in a mechanical ventilation system is cheaper than remedying building damage caused by fungal growth and mould.

### Allergy sufferers can breathe more easily

The Vitovent 300-W allows allergy sufferers to enjoy fresh air too. A filtration system, featuring an effective optional pollen filter, cleans the supply air of allergens and harmful substances. This significantly reduces the growth and spread of mites and mildew, thereby creating an irritant-free indoor environment.

### Enjoy peace and security

Thanks to continuous air changes provided by the Vitovent 300-W, windows only ever need to be opened for cleaning. Not only does this improve security against burglary, it also keeps road noise out.

### Ventilating virtually without energy loss

The Vitovent 300-W ventilation system is extremely energy efficient. During colder months, the powerful heat exchanger utilises up to 93 percent of the latent heat in the extract air to preheat the inrushing fresh air. An

optional enthalpy heat exchanger can be integrated in order to recover not only heat but also humidity in the winter months.

### Natural cooling

During the warmer seasons, the heat exchanger of the Vitovent 300-W can be bypassed completely via the integral, automatic bypass damper. This temperature controlled circuit allows cool outdoor air to enter the interior at night, thereby ensuring a pleasantly fresh environment.

### High operating convenience

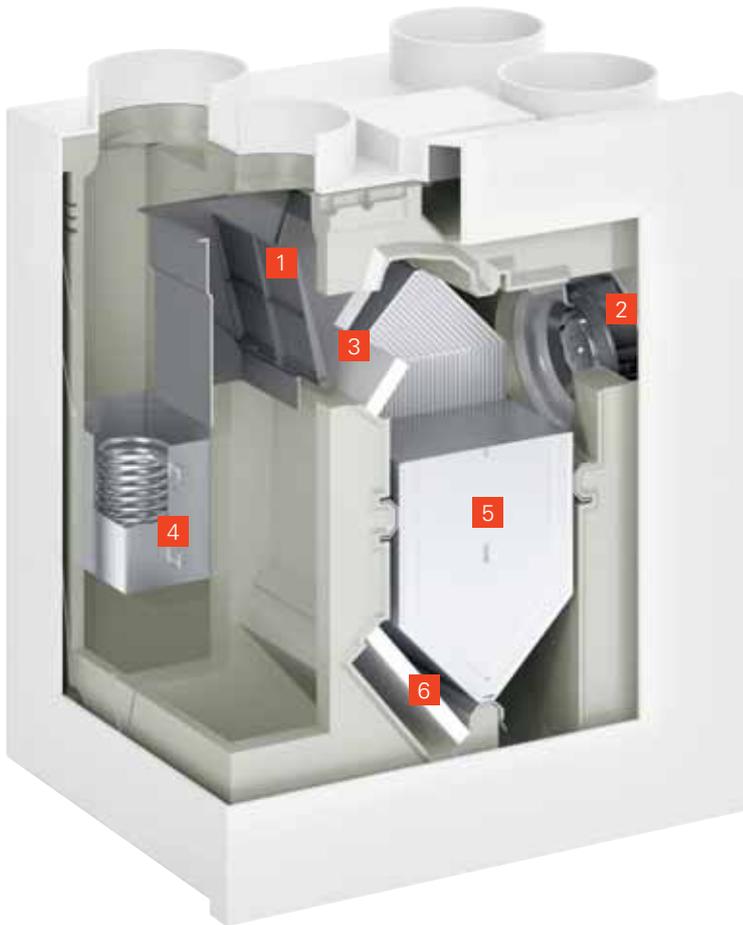
The Vitovent 300-W ventilation unit can be connected directly with the control unit of the heat generator.

### THE UNIT CAN BE OPERATED BY THE FOLLOWING:

- Vitotronic 200 heat pump control unit, type WO1C
- Ventilation programming unit, type LB1 (convenient with graphic display)



Operating the Vitovent 300-W via the Vitotronic 200 heat pump control unit, type WO1C



**VITOVENT 300-W**

- 1** Bypass damper
- 2** DC fans with impeller vanes bent backwards
- 3** Extract air filter
- 4** Preheating coil
- 5** Countercurrent heat exchanger
- 6** Outdoor air filter



Ventilation programming unit, type LB1

**TAKE ADVANTAGE OF THESE BENEFITS**

- + Mechanical ventilation system up to 300 m<sup>3</sup>/h or up to 400 m<sup>3</sup>/h
- + Thermal comfort and a healthy indoor environment
- + Reduced odours
- + Balanced humidity management prevents mould growth and damage to the building
- + More protection against burglary and noise due to closed windows
- + Filtration of the outdoor air – important for allergy sufferers
- + Constant flow rate and balance control keep the air flow rate constant, regardless of the static pressure, and allow quick and easy adjustment of flow rates via the remote control unit
- + Economical DC motors with constant flow rate and balance control for continuous air change
- + A very high heat recovery level minimises ventilation heat losses and lowers heating bills
- + Convenient regulation via the heat pump and ventilation programming unit

For specification, see page 40

## Space saving ceiling mounted or wall mounted mechanical ventilation system with heat recovery for modernisation

With the Vitovent 300-C mechanical ventilation unit, Viessmann offers a solution that is particularly suitable for the controlled ventilation of apartments on several floors. Especially after implementing energy saving measures in a building and insulating exterior walls, the shell of the old building becomes more airtight and requires adequate ventilation to protect the building fabric. Otherwise, there is a risk of mould growth due to excessive humidity in the interior.

### Fits easily in recesses

The Vitovent 300-C impresses with its compact, slimline design. It can be concealed quite easily in suspended ceilings. For example in a hallway, where the ventilation ducts to the rooms on either side can also be installed. Vertical installation in a wall is equally possible, for example in a storeroom.

### Ideal for most apartments

The unit's maximum air delivery of 150 m<sup>3</sup>/h is sufficient for ventilating

interiors of between 65 and 90 m<sup>2</sup> quite comfortably.

### Heat recovery and summer bypass

The Vitovent 300-C mechanical ventilation unit utilises up to 89 percent of the latent heat in extract air, warming the cool outdoor air with the assistance of a cross-counter-current heat exchanger. This saves energy and reduces heating costs all year round.

An automatic bypass circuit for the warmer months of the year is integrated as standard. Fresh, cool supply air can then be routed past the heat exchanger and directly into the interior, thereby achieving a passive cooling effect.

### Additional sound insulation on request

Although this compact unit already operates very quietly, additional insulation measures can be implemented depending on the intended installation site. Matching

system accessories include a silenced distributor for integration into the unit as well as outdoor and exhaust air silencers.

### Allergy sufferers can breathe more easily

The Vitovent 300-C mechanical ventilation system also allows allergy sufferers to breathe more easily. A filtration system, featuring an effective optional pollen filter, cleans the supply air of allergens and harmful substances, thereby creating an irritant-free indoor environment.

### High operating convenience

The Vitovent 300-C ventilation unit can be connected directly with the control unit of the heat generator.

### THE UNIT CAN BE OPERATED BY THE FOLLOWING:

- Vitotronic 200 heat pump control unit, type WO1C
- Ventilation programming unit, type LB1 (convenient with graphic display)



Operating the Vitovent 300-C via the Vitotronic 200 heat pump control unit, type WO1C



**VITOVENT 300-C**

- 1** Bypass
- 2** Radial DC fans
- 3** Cross-counter-current heat exchanger
- 4** Electric preheating coil
- 5** Condensate drain
- 6** Outdoor air filter
- 7** Sensor and remote control connection, accessible from the outside
- 8** Outdoor air
- 9** Exhaust air
- 10** Extract air filter
- 11** Extract air
- 12** Supply air



Ventilation programming unit, type LB1

**TAKE ADVANTAGE OF THESE BENEFITS**

- + Mechanical ventilation system up to 150 m<sup>3</sup>/h
- + Ventilated interior up to approx. 90 m<sup>2</sup>
- + Low installed height of only 19.8 cm
- + Compact design for ceiling or wall mounted installation – ideal for smaller houses and apartments on several floors
- + High heat recovery rate of up to 89 % reduces heat losses in the building
- + Protection of the building substance and high air quality thanks to adapted air change rate
- + Filtration of the outdoor air
- + Constant flow rate and balance control keep the air flow rate constant, regardless of the static pressure, and allow quick and easy adjustment of flow rates via the remote control unit
- + Integral preheating coil for frost protection and efficient heat recovery all year round
- + Passive cooling via automatic summer bypass

For specification, see page 41

# Central, ceiling mounted mechanical ventilation system for modernisation projects

The Vitovent 200-C is a compact and affordable mechanical ventilation unit for flats in apartment buildings, separate annexes and existing buildings.

The unit has a maximum air flow rate of 200 m<sup>3</sup>/h and is capable of ventilating living areas of up to 120 m<sup>2</sup> quite comfortably.



Operating the Vitovent 200-C via the Vitotronic 200 heat pump control unit, type WO1C

## Fits in any suspended ceiling

The installed height of the Vitovent 200-C is only 30 centimetres. The fully wired unit is easily concealed in a suspended ceiling. A hallway is an ideal location for the unit. From there, compact supply and extract air ducts that have been specially tailored to this system can be routed unobtrusively to the rooms leading off the hallway. A cupboard in the bathroom or in the kitchen is also a suitable alternative if the unit is installed vertically. With a specific weight of just 18 kg and integral fixing rails, the Vitovent 200-C is quick to install.

## Heat recovery and summer bypass

The Vitovent 200-C mechanical ventilation unit utilises up to 95 percent of the latent heat in the extract air, warming the cool outdoor air with the assistance of a cross-counter-current heat exchanger. This saves energy and reduces heating costs all year round. An optional enthalpy heat exchanger can be integrated in order to recover not only heat but also humidity in the winter months.

## Efficient frost protection strategy

The Vitovent 200-C has a smart frost detector to prevent so much ice forming on the heat exchanger that it can no longer function. To minimise energy consumption, the Vitovent 200-C continually monitors ice formation on the heat exchanger and delays defrosting for as long as possible. This reduces the defrost intervals, especially during spring and autumn, saving energy and money. A bypass circuit for the warmer months of the year is integrated as standard. With this circuit, fresh, cool supply air bypasses the heat exchanger and is routed directly into the interior.

## Straightforward operation

There are three different options for operating the Vitovent 200-C:

- Ventilation programming unit, type LB1 (convenient with graphic display)
- Step switch (simple, minimalistic, unobtrusive)
- Vitotronic 200 heat pump control unit, type WO1C

## Integral fault and service signalling

A readable fault signal contact is included on every unit as standard for centralised operation monitoring.

## Consistently high air quality

Even with increasing filter contamination, adequate ventilation is ensured. To achieve this, the ventilation unit continuously regulates the flow rate to maintain a consistently high volume of air. An automatic indication shows when a filter change is necessary; this can be carried out by system users themselves.

## Additional sound insulation on request

Although this compact unit already operates very quietly, additional insulation measures can be implemented depending on the intended installation site. Matching system accessories include a silenced distributor for integration into the unit as well as outdoor and exhaust air silencers.

## Allergy sufferers can breathe more easily

The Vitovent 200-C mechanical ventilation system also allows allergy sufferers to breathe more easily. A filtration system, featuring an optional pollen filter, cleans the supply air of allergens and noxious substances, thereby creating an irritant-free indoor environment.



**VITOVENT 200-C**

- 1 Outdoor air
- 2 Centrifugal DC fan, extract air
- 3 Condensate pan and drain
- 4 Outdoor air filter
- 5 Exhaust air
- 6 Slot for preheating coil (accessories)
- 7 Supply air
- 8 Radial DC fan – supply air
- 9 Countercurrent heat exchanger
- 10 Bypass
- 11 Extract air filter (with cover)
- 12 Extract air
- 13 Connection area
- 14 Integral fixing rails



Ventilation programming unit, type LB1



Step switch for easy operation

**TAKE ADVANTAGE OF THESE BENEFITS**

- + Mechanical ventilation system up to 200 m<sup>3</sup>/h
- + Cost savings thanks to heat recovery of up to 95 %
- + Ventilated interior: approx. 60 to 120 m<sup>2</sup>
- + Low installed height of only 30 cm
- + Compact ventilation unit for wall or ceiling mounting in recesses or suspended ceilings
- + Constant flow rate and balance control keep the air flow rate constant, regardless of the static pressure, and allow quick and easy adjustment of flow rates via the programming unit
- + Economical DC motors with constant flow rate and balance control for continuous air change
- + Passive cooling function via integral summer bypass
- + Moisture protection and high quality of indoor air
- + Unit helps to meet requirements specified by national building efficiency guidelines
- + Filtered air means low levels of dust
- + Optional pollen filtration – beneficial for allergy sufferers

For specification, see page 42

# Mechanical ventilation unit plus heat pump – the perfect system combination for new build

Together with an air source or brine/water heat pump, the Vitovent 300-F mechanical ventilation unit combines the benefits of an integral appliance with the flexibility of Viessmann heat pumps. The heat pumps that can be combined with this ventilation system offer a heating output of between 3.0 and 10.6 kW. The system can be used for interiors with up to approx. 210 m<sup>2</sup>.

## **All functions delivered from the smallest of footprints**

This system combination is particularly suitable for new build, since all functions, such as ventilation, heating/cooling and domestic hot water heating, can be implemented in the smallest of spaces. The Vitovent 300-F can be installed directly to the right or left of the heat pump, forming a harmonious unit on a small footprint.

## **High operating convenience**

The Vitovent 300-F ventilation module is connected directly to the heat pump. All settings can be made from either the Vitotronic 200 heat pump control unit (type WO1C), a common remote control unit or the Vitotrol app. At the same time, heat pump operation and ventilation are automatically matched to each other.

## **Up to 98 percent heat recovery**

The Vitovent 300-F recovers up to 98 percent of the latent heat in the extract air, using it to preheat the inrushing outdoor air. An optional enthalpy heat exchanger can be integrated in order to recover not only heat but also humidity in the winter months.

## **Air tempering in passive houses**

The combination of a Vitovent 300-F and heat pump can be used very effectively in passive houses for air tempering. By and large it makes a hydraulic distribution system superfluous. A reheating coil with an output of up to 2.0 kW is integrated for this purpose. In addition, an optional heating water buffer cylinder with a capacity of 25 litres is integrated into the Vitovent 300-F.

## **Additional utilisation of solar energy**

Solar collectors for domestic hot water heating can be connected directly if a Vitocal 242-S heat pump is used. Energy costs can be slashed thanks to the integral solar function for solar DHW heating. Lastly, utilisation of power generated on site by a photovoltaic system contributes to further energy savings.



**VITOVENT 300-F**

Mechanical ventilation system  
with heat recovery

- 1 Fan
- 2 Extract air filter
- 3 Supply air filter
- 4 Heat exchanger
- 5 Active filter monitoring
- 6 Buffer cylinder  
(optional for passive house air tempering)
- 7 Reheating coil  
(optional for passive house air tempering)



Vitovent 300-F mechanical ventilation unit with Vitocal 200-A air source heat pump

**TAKE ADVANTAGE OF THESE BENEFITS**

- + Combination with an air source or brine/water heat pump
- + Matching integrated system with modest space requirements
- + Flexible mechanical ventilation for low energy and passive houses
- + Up to 98 % heat recovery from stale air
- + Convenient control via the Vitotronic 200 heat pump control unit, type WO1C
- + Optional reheating coil for air tempering in passive houses
- + Frost protection function by means of electric preheating coil provided
- + Economical DC motors with constant flow rate and balance control for continuous air change
- + Effective pollen filters with filter category ISO ePM1 70 percent (previously F7) – beneficial for allergy sufferers
- + Modular design for easy handling
- + The Vitovent 300-F is available in white and Vitosilver
- + Convenient operation via the heat pump control unit and utilisation of common accessories, such as the Vitotrol app

For specification, see page 43

## One control unit for heat generator and mechanical ventilation unit

The Vitovent 300-W, 300-F, 300-C and 200-C central ventilation units are especially easy to operate with Viessmann systems. These can be connected directly to the Vitocal heat pumps or Vitocaldens hybrid appliance. This creates a compact and futureproof central building services system.

The heat pumps are equipped with the Vitotronic 200 control unit (type WO1C) with graphic display and plain text.

Users thus benefit from the intuitive and standardised Viessmann control philosophy. The operation of the heating and ventilation systems is perfectly matched, and the cost of an additional programming unit is saved.

### Universal control unit for wall mounting

Independently of the ventilation control via the integral Vitotronic in the heat generator, all central mechanical ventilation systems can also be controlled using the LB1 universal programming unit. This is easily fitted to the wall and connected to the Vitovent system using the cable provided.

Its benefits include:

- Large backlit graphic display with multi line plain text view
- High contrast, black & white depiction
- Context-sensitive help via the "?" button
- Storable presettings for individual day and seven-day programs
- 4-way step switch
- Program selection
- Filter change indicator
- Connecting cable (6 m) included in the standard delivery

A simple step switch is also available for the Vitovent 200-C.

### TAKE ADVANTAGE OF THESE BENEFITS

- + Standardised operation of all Vitocal heat pumps and central Vitovent ventilation units
- + Matched heating and ventilation operation
- + Cost savings from the use of only one control unit for two components
- + Common use of system accessories
- + Attractive appearance
- + High operating convenience

## OPERATION OVERVIEW

### (standalone operation)



Ventilation programming unit type LB1



**VITOVENT 300-W**



**VITOVENT 300-C**



Step switch for easy operation



**VITOVENT 200-C**

### (integrated operation)



**VITOTRONIC 200**  
type WO1C

Ventilation unit controlled using the Vitotronic 200 (type WO1C) in the heat generator



**VITOCAL**



**VITOCAL 200-A**  
**VITOVENT 300-F**



**VITOTRONIC 200**  
type WO1C

Ventilation unit controlled using the Vitotronic 200 (type WO1C) in the heat generator



# Reliable air distribution for Vitovent mechanical ventilation units for distributing supply and extract air in buildings

The LVS air distribution system is the universal solution for all central Vitovent mechanical ventilation units. The system comprises just 19 multifunctional core components that can be flexibly combined.

## **Straightforward engineering and routing**

The flat duct system, which stands at a height of just five centimetres, can be routed directly on an unfinished floor. All parts are pushed together until they click permanently into place, without the need for tools. Round ductwork is available for routing the system in reinforced floors and in suspended ceilings. Adaptors ensure smooth transitions from flat to round ducts and back again.

This makes for quick routing of ductwork on the floor/ceiling after the initial construction of the building.

Round ductwork should be designed before initial construction begins. Regardless of whether flat or round ductwork is used, the flexible plastic distribution system can be routed universally in concrete.

## **Attractive design – available in white or stainless steel finish**

When deciding on inconspicuous covers for air vents, users have a choice of neutral white or a stainless steel finish.

## **Smooth surfaces prevent deposits**

Smooth inner and outer surfaces prevent contamination of the duct system, as well as the inlet and outlet vents. The air distribution system is totally hygienic. If required, the system can be easily cleaned via integral inspection ports.



Outdoor and exhaust air outlet (external view)



Exhaust air roof outlet

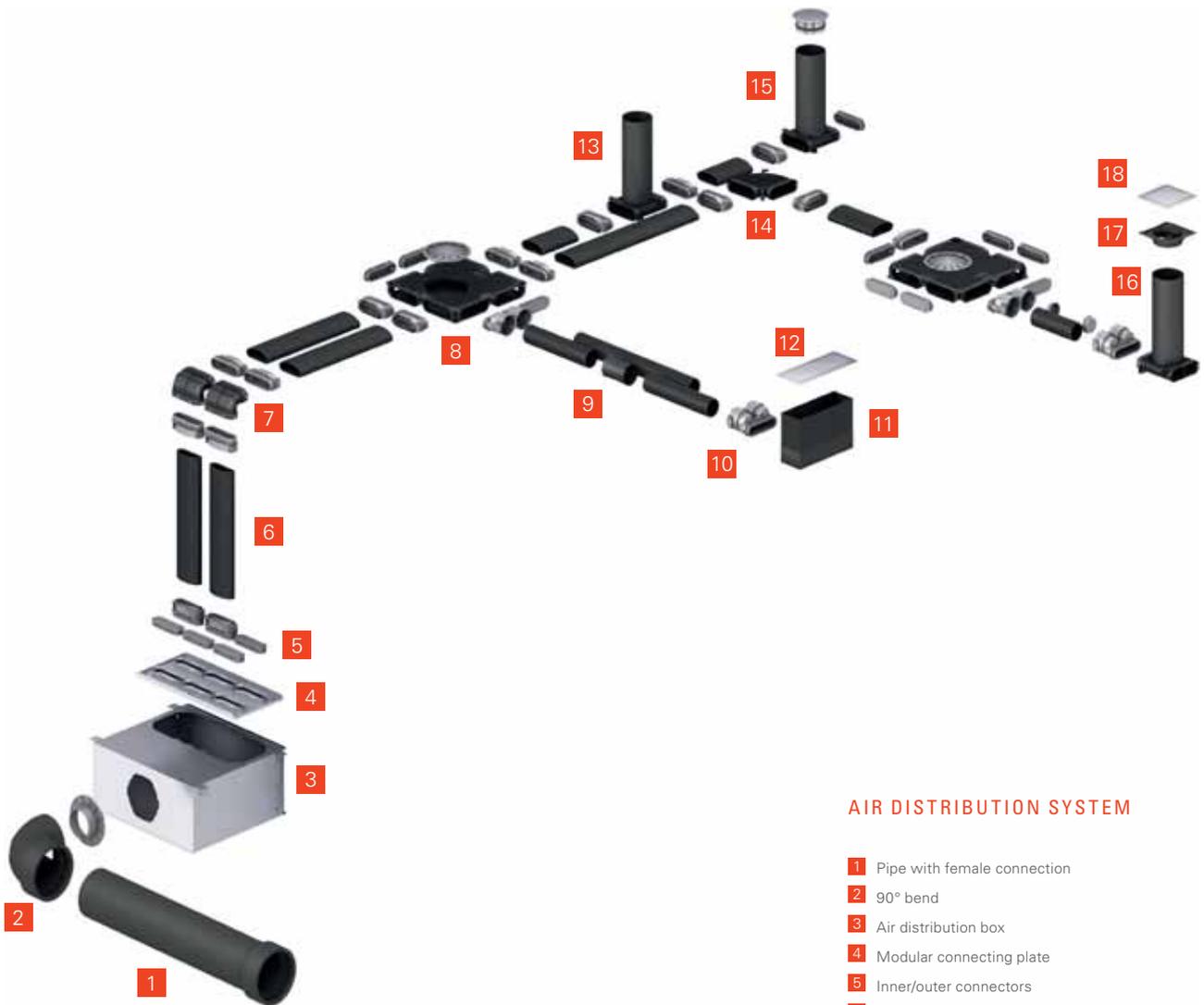
## **COMPLETE SERVICE FROM VIESSMANN**

On request, Viessmann can provide a wide range of engineering services for the Vitovent systems:

- Calculation of air flow rates
- Calculation of the restrictors for presetting the individual air flow rates
- Layout for the flat duct system
- Precise routing instructions
- Commissioning
- Adjustment

## **TAKE ADVANTAGE OF THESE BENEFITS**

- + Clean, filtered air in the living space
- + Attractive air outlets in white and stainless steel finish
- + Hygienic air distribution
- + Duct system can be cleaned if required
- + Low pressure drop in the flat ductwork saves energy
- + Compact components save space in the living area (in terms of ceiling height or wall thickness)
- + Comprehensive system accessories for virtually any application



## AIR DISTRIBUTION SYSTEM

- 1** Pipe with female connection
- 2** 90° bend
- 3** Air distribution box
- 4** Modular connecting plate
- 5** Inner/outer connectors
- 6** Flat duct
- 7** 90° bend, broad side
- 8** 8-way air distributor, final level
- 9** Round duct
- 10** Round duct connector
- 11** Floor/wall outlet
- 12** Grille for wall outlet
- 13** Straight-through diverter
- 14** 90° bend, narrow side
- 15** Inspection port
- 16** Diverter, closed on one side
- 17** Wall/ceiling air vent
- 18** Supply/extract air restrictor

**BENEFITS OF CENTRALISED DISTRIBUTION**

- + Distributors can be installed on a wall or ceiling
- + Modular air distribution boxes do not require any additional silencers
- + Low susceptibility to faults as there are fewer interfaces
- + Can be extended with a sub-distribution board

**Typical installation:**

- Flat duct in a floor structure
- Round duct in a concrete ceiling (shown)



**BENEFITS OF DECENTRALISED DISTRIBUTION**

- + Space saving installation in the installation room
- + Distributor can be extended using a central riser to include further floors
- + Attractively priced

**Typical installation:**

- Flat duct in a floor structure (shown)
- Round duct in a concrete ceiling



**BENEFITS OF CENTRALISED DISTRIBUTION IN A SUSPENDED CEILING**

- + Distribution box and Vitovent flat unit are installed in the suspended ceiling
- + Compact distribution box for supply and extract air
- + Ideal for modernisation and multi storey buildings

**Typical installation:**

- Flat duct in a suspended ceiling
- Round duct in a suspended ceiling (shown)





# Decentralised mechanical ventilation units



## **VITOVENT 200-D**

Controlled ventilation of individual rooms with heat recovery

Max. air flow rate: 55 m<sup>3</sup>/h

Up to 90 % heat recovery

[Page 32](#)



## **VITOVENT 100-D**

Decentralised ventilation with heat recovery

Max. air flow rate: 46 m<sup>3</sup>/h

Up to 91 % heat recovery

[Page 34](#)



## **VITOVENT 050-D**

Decentralised ventilation with heat recovery

Max. air flow rate: 43 m<sup>3</sup>/h

Up to 90 % heat recovery

[Page 36](#)

## Vitovent 200-D decentralised mechanical ventilation unit – perfect for modernisation and new build

The compact Vitovent 200-D mechanical ventilation unit has been designed for the controlled ventilation of individual rooms. The incoming air is filtered and heated via the cross-counter-current heat exchanger with the heat extracted from the indoor air. Up to 90 percent of the heat latent in the extract air is recovered. Up to 55 m<sup>3</sup> of air is replaced per hour. Complete ventilation concepts can be achieved by utilising several units.

The installation of the ventilation unit requires only one opening in the exterior wall. No additional air ducts need to be installed – only one power supply (230 V) is required. A choice is available between angular and rounded casing designs for high flexibility plus quick and easy installation. The Vitovent 200-D mechanical ventilation unit is very well suited, for example, to combatting problems with damp as part of a modernisation project, or for

conveniently maintaining a comfortable indoor environment. At the same time, heat recovery saves energy when compared, for example, to essential window ventilation. That reduces heating bills.

The supply air function provides additional comfort in summer: at night, the heat exchanger can be bypassed and cool night air fed into the interior.

### High air quality

With the optional electric preheating coil, the Vitovent 200-D ensures balanced operation and thus provides high air quality in energy efficient buildings, even when temperatures outside are low.

### Straightforward operation and maintenance

The programming unit is integrated into the internal wall cover. Supply and outdoor air filters can be replaced and central components cleaned and

inspected quite comfortably from the inside.

The wireless operating switch (accessories) with no batteries allows convenient changing of the operating mode of one or more appliances simultaneously. Technology based on the piezo-electrical effect means that no cable connection or battery changes are required, so the switch can be positioned without incursion into the building fabric.

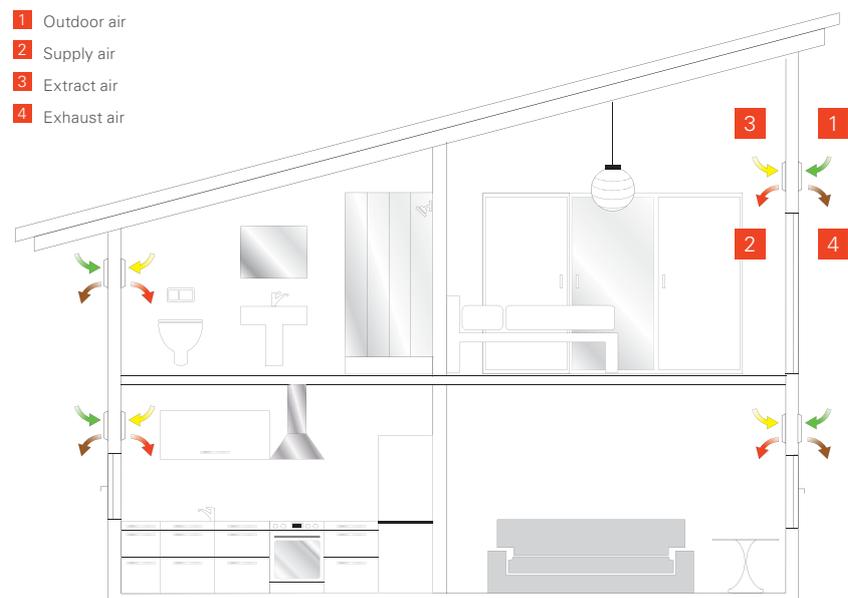
The quiet, energy efficient fans in the Vitovent 200-D are continuously regulated in line with the air quality by means of the air quality sensor (option) to provide control subject to local demand. In automatic mode, the fan speed is only as high as that required for a healthy and thermally comfortable indoor environment.



Round wall sleeve with exterior wall cover

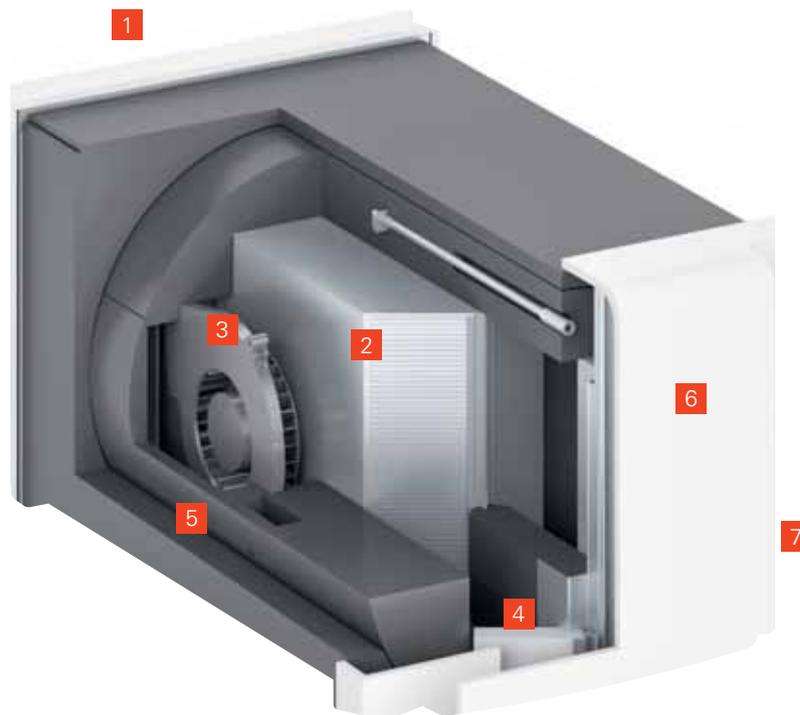


Square wall sleeve with exterior wall cover



Vitovent 200-D installation options

**VITOVENT 200-D**  
Air flow rate up to 55 m<sup>3</sup>/h



**VITOVENT 200-D**

- 1 Exterior wall cover
- 2 Cross-counter-current heat exchanger
- 3 DC fan (outdoor/supply air)
- 4 Extract air filter
- 5 Casing made from expanded polypropylene (EPP)
- 6 Internal wall cover
- 7 Programming unit (on the right-hand side)

**TAKE ADVANTAGE OF THESE BENEFITS**

- + Continuous operation ensures comfortable indoor environment
- + Reduced heat losses in fresh air supply thanks to high level of heat recovery from extract air, which helps to lower heating bills
- + Quiet, energy efficient fans
- + Balanced humidity management prevents building damage
- + Straightforward installation in the exterior wall with no air ducts – recommended for both modernisation and new build
- + Kit for unfinished walls simplifies subsequent ventilation unit installation
- + Ideal for allergy sufferers, thanks to filtered outdoor air with pollen filter as standard
- + Supply air function also ensures pleasantly cool temperatures in summer (type HRM)
- + Programming unit for straightforward control
- + Closed windows improve security against burglary and keep road noise out

For specification, see page 44

## The decentralised Vitovent 100-D mechanical ventilation unit operates as quietly as a whisper

### Changeover operation with two appliances

The Vitovent 100-D is a decentralised ventilation system which is installed with core drilling in the exterior wall. This makes it ideal for modernisation and use in apartment buildings.

The continuous operation of the ventilation system guarantees a constant replacement of stale air by fresh air in the interior, at the same time regulating the relative humidity. At least two Vitovent 100-D operate in alternating mode. One appliance is required to draw fresh air into the room, while the other removes the stale air to the outside. The heat latent in the stale air heats up the integral ceramic thermal store. Around 70 seconds later, the rotational direction of both fans changes and the waste heat that has been stored is transferred to the fresh supply air.

While operating in alternating mode, individual rooms or even adjacent rooms can be ventilated.



Controller with touchscreen

### Large selection of exterior wall covers

Besides the standard exterior wall cover in white, the Vitovent 100-D can also be installed with stainless steel covers. Alternatively, the window reveal version is a particularly unobtrusive installation option. Besides its discreet look, it is also characterised by particularly high sound insulation against outside noise (e.g. traffic).

### Up to 91 percent heat recovery

The integral heat recovery and humidity control in the Vitovent 100-D reaches a value of up to 91 percent, resulting in a noticeable reduction of heating bills. Heat recovery can be disabled in summer. During this season, cool night air can be drawn into the interior.

### Touchscreen for remote control

A programming unit with touchscreen is installed in the living space to act as a central controller for the Vitovent 100-D. This can be used to

divide the residential unit into up to three zones for individual control. These zones can be controlled fully automatically and according to requirements, using the optional humidity and temperature sensor.

The following can be set with a tap on the screen, for example:

- Control of the ventilation levels
- Sleep mode with fans turned off for short periods
- Airing mode to cool the interior at night
- Holiday mode with lowest possible power consumption

Alternatively, an additional, very easy to use LED programming unit is available to handle basic functions.

A wide variety of accessories, including Vitovent extract air fans, is available for easy installation and system extension.

The Vitovent 100-D can be easily maintained from the living space without the need for tools.

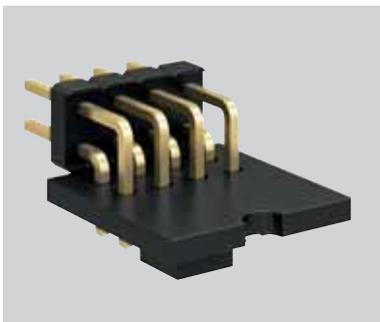
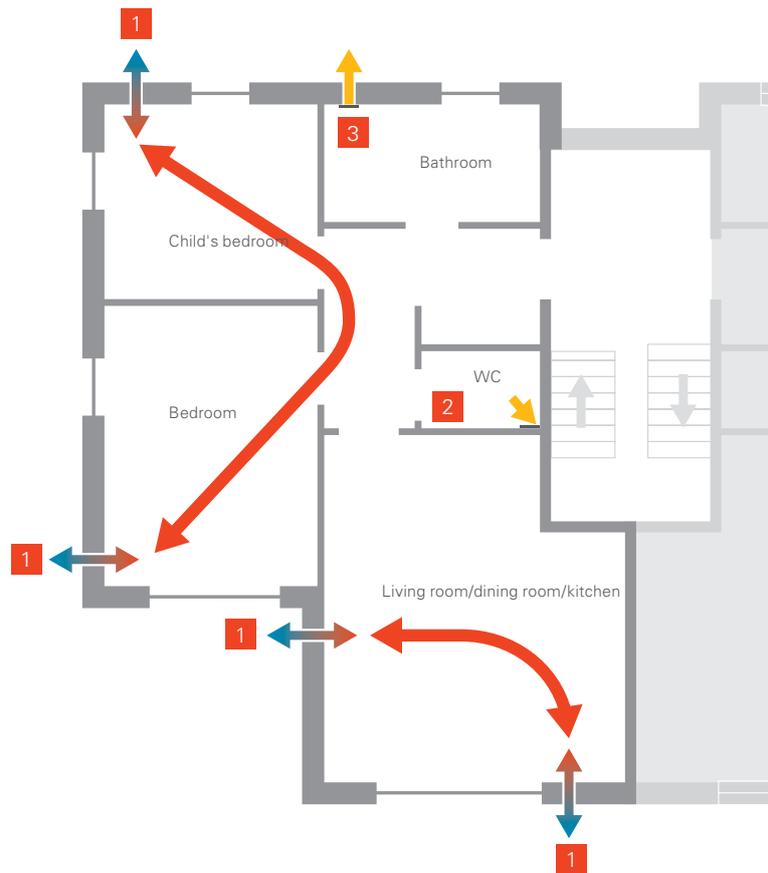


### VITOVENT 100-D

- 1 Flow and sound-optimised internal wall cover (multi-layer silencer)
- 2 Reversible fan
- 3 Thermal store
- 4 Exterior wall cover

**VITOVENT 100-D**

- 1** Vitovent 100-D H00E
- 2** Vitovent 100-D E300 extract air fan for interior rooms
- 3** Vitovent 100-D E200 extract air fan for rooms with exterior walls



Humidity and temperature sensor for installation in the internal wall cover



Window reveal



Stainless steel designer exterior wall cover (other exterior covers available)

**TAKE ADVANTAGE OF THESE BENEFITS**

- + Energy cost savings through heat recovery
- + Reliable moisture protection without having to frequently open windows
- + Easy operation via touchscreen or LED programming unit
- + Individual control of the air change by room or in ventilation zones
- + Airing mode for cooling during summer nights
- + High sound insulation against outside noise (e.g. traffic)
- + Installation in two steps with sets for unfinished walls and completion
- + Straightforward installation with core drilling and circular cabling
- + Encoded connectors with no risk of being mixed up
- + Automatic operation possible with optional humidity and temperature sensor

For specification, see page 45

## Vitovent 050-D – equally suitable for modernisation and new build

### Changeover operation with two appliances

The Vitovent 050-D is a decentralised ventilation system which is installed with core drilling in the exterior wall. This makes it ideal for modernisation and use in apartment buildings. The continuous operation of the ventilation system guarantees a constant replacement of stale air by fresh air in the interior, at the same time regulating the relative humidity. At least two Vitovent 050-D operate in alternating mode. One appliance is required to draw fresh air into the room, while the other removes the stale air to the outside. The heat latent in the stale air heats up the integral ceramic thermal store. Around 70 seconds later, the rotational direction of both fans reverses and the waste heat that has been stored is transferred to the fresh supply air. While operating in alternating mode, individual rooms or even adjacent rooms can be ventilated.

### Large selection of exterior wall covers

Besides the standard exterior wall cover in white, the Vitovent 050-D can also be installed with stainless steel covers. Alternatively, the window reveal

version is a particularly unobtrusive installation option. Besides its discreet look, it is also characterised by particularly high sound insulation against outside noise (e.g. traffic).

### Up to 90 percent heat recovery

The integral heat recovery in the Vitovent 050-D reaches a value of up to 90 percent, resulting in a noticeable reduction in heating bills. Heat recovery can be disabled in summer. During this season, cool night air can be drawn into the interior.

### Control via programming unit with large buttons

A maximum of six ventilation units can be combined with each other per programming unit to ventilate entire residential units. A programming unit with large buttons is installed in the living space to act as a central controller for the Vitovent 050-D. This can be used to adjust the air change rate for the entire residential unit. A total of five different operating modes are possible:

- Control of the ventilation levels
- Eco mode (standard mode) with heat recovery

- Sleep mode with fans turned off for short periods
- Airing mode with one continuous ventilation direction
- Automatic mode for controlling humidity using the humidity sensor integrated into the programming unit

Alternatively, an easy to use rotary controller is available to handle basic functions. The air flow rate between the individual ventilation levels can be continuously regulated using the rotary controller.

The programming unit with large buttons and the rotary controller have a filter change indicator. A wide variety of accessories, including Vitovent extract air fans, is available for easy installation and system extension.

The Vitovent 050-D can be easily maintained from the living space without the need for tools.



Control via programming unit with large buttons

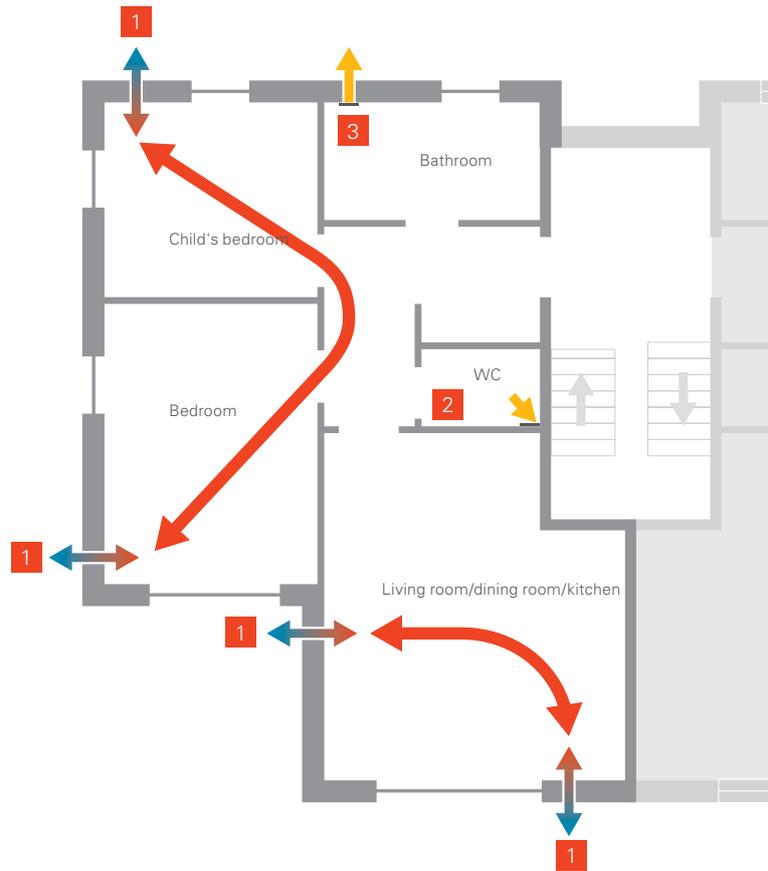


### VITOVENT 050-D

- 1 Internal wall cover
- 2 Filter
- 3 Reversible fan
- 4 Ceramic thermal store
- 5 Exterior wall cover

**VITOVENT 050-D**

- 1 Vitovent 050-D H00E
- 2 Vitovent 050-D E300 extract air fan for interior rooms
- 3 Vitovent 050-D E200 extract air fan for rooms with exterior walls



Window reveal



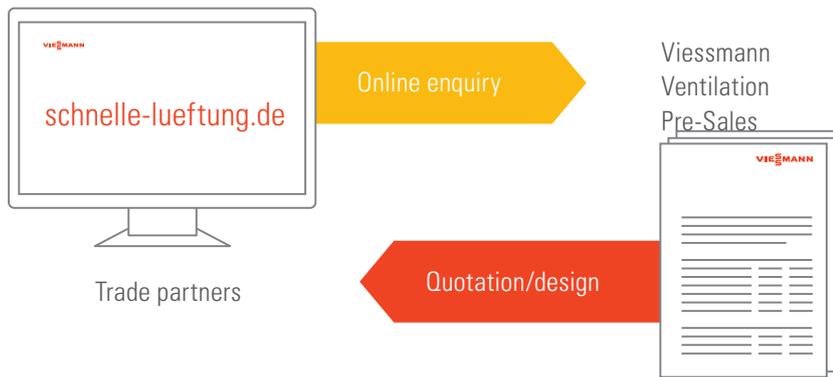
Stainless steel exterior wall cover  
(other exterior covers available)

**TAKE ADVANTAGE OF THESE BENEFITS**

- + Energy cost savings through heat recovery
- + Reliable moisture protection without having to frequently open windows
- + Simple operation via programming unit with large buttons or rotary controller
- + Airing mode with one continuous ventilation direction – cooler outdoor air can be used to cool the interior on summer nights
- + Standard core drilling
- + Installation in two steps with set for unfinished walls and completion set
- + Unobtrusive appearance and high sound insulation against outside noise with window reveal installation set
- + Encoded connectors with no risk of being mixed up

For specification, see page 45

## The rapid route to quick design: [www.schnelle-lueftung.de](http://www.schnelle-lueftung.de)



Controlled mechanical ventilation is state of the art! Advanced ventilation systems ensure a comfortable indoor environment and protect the fabric of the building.

The market for mechanical ventilation systems is growing – not least due to developments in building services and legal requirements. But how are the systems designed? What needs to be observed? Which units are available?

The sheer volume of questions complicates the quotation process. And no quotation, no order.

### **Checklist – quick design – quotation**

But help is at hand! The digital checklist at [www.schnelle-lueftung.de](http://www.schnelle-lueftung.de) now provides a quick and simple way to generate a quotation for a mechanical ventilation system. All of the necessary information can be provided in just a few clicks and you can also upload sketches and floor plans. The Ventilation Pre-Sales department uses the information to quickly draw up a customised proposal, including quotation.

## Durable in use – easy to maintain

Although Vitovent mechanical ventilation systems operate discreetly and reliably, they still need to be serviced from time to time, just like any other technical appliance. Only regularly maintained systems ensure a consistently high quality of indoor air by filtering out dust and pollen.

### Servicing by the operator

Viessmann mechanical ventilation systems are designed in such a way that operators can carry out essential service work themselves quite easily. This includes:

- Cleaning and changing of filters as often as twice a year
- Resetting the status display for filter replacement
- Recognising fault messages on the control unit (such as the need for a filter change)

No additional accessories are required for this purpose. The service indicators can be controlled conveniently via the ventilation unit remote control.

### Servicing by a contractor

Scope and frequency depend ultimately on individual circumstances, such as location. In order to ensure consistent system quality, we recommend having the following steps taken every two years as part of an inspection by a qualified contractor:

- Filter changes at air outlets and vents
- Heat exchanger cleaning
- Visual inspection of all air outlets and vents



Straightforward servicing of the mechanical ventilation system (in this case the Vitovent 300-W): Visual inspection of the filters (top left) and filter replacement in the case of severe contamination. The heat exchanger can be cleaned with a brush, vacuum cleaner or jet spray.



## VITOVENT 300-W

Vitovent 300-W	Type	H32S B300	H32E B300	H32S B400	H32E B400
<b>Air flow rate up to approx.</b>	m <sup>3</sup> /h	300	300	400	400
<b>Interior up to approx.</b>	m <sup>2</sup>	230	230	370	370
<b>Dimensions</b>					
Length (depth)	mm	540	540	540	540
Width	mm	677	677	677	677
Height (control unit open)	mm	843	843	843	843
<b>Weight</b>	kg	39	39	39	39
<b>Energy efficiency class</b>					
in acc. with EU regulation no. 1254/2014					
- Manual control	Ⓜ	-	-	-	-
- Time control	Ⓢ	A	A	A	A
- Central demand-dependent control	Ⓢ	A	A	A	A
- Control according to local demand	Ⓢ	A <sup>+</sup>	A	A <sup>+</sup>	A
<b>Type of heat exchanger</b>					
- Cross-counter-current		■		■	
- Enthalpy cross-counter-current			■		■
<b>Type of filter (outdoor air/extract air)</b>					
- Scope of delivery		G4/G4	F7/M5	G4/G4	F7/M5
- Accessory		F7/G4	-	F7/G4	-
<b>Heat recovery</b>	%	up to 90	up to 91	up to 93	up to 91
<b>Humidity control</b>	%	-	up to 78	-	up to 77
<b>System operation with Vitocal heat pumps</b>					
		■	■	■	■
<b>Operation via</b>					
- Ventilation programming unit, type LB1		■	■	■	■
- Step switch		-	-	-	-
<b>Components certified by the Passive House Institute [Germany]</b>					
		■	-	■	-
<b>Application areas</b>					
- New build		■	■	■	■
- Detached house/two-family house		■	■	■	■

### Filter type note!

G4 = ISO Coarse 65 %

F7 = ISO ePM1 70 %

M5 = ISO ePM10 50 %



**VITOVENT 300-C**

<b>Vitovent 300-C</b>	Type	H32S B150
<b>Air flow rate up to approx.</b>	m <sup>3</sup> /h	150
<b>Interior up to approx.</b>	m <sup>2</sup>	90
<b>Dimensions</b>		
Length (depth) x width x height	mm	1000 x 660 x 198
<b>Weight</b>	kg	25
<b>Energy efficiency class</b>		
in acc. with EU regulation no. 1254/2014		
- Manual control	Ⓜ	-
- Time control	Ⓢ	A
- Central demand-dependent control	Ⓢ	A
- Control according to local demand	Ⓢ	A
<b>Type of heat exchanger</b>		
- Cross-counter-current		■
<b>Type of filter (outdoor air/extract air)</b>		
- Scope of delivery		G4/G4
- Accessory		F7/G4
<b>Heat recovery</b>	%	up to 90
<b>Humidity control</b>	%	-
<b>System operation with Vitocal heat pumps</b>		
		■
<b>Operation via</b>		
- Ventilation programming unit, type LB1		■
- Step switch		-
<b>Components certified by the Passive House Institute [Germany]</b>		
		■
<b>Application areas</b>		
- New build		■
- Modernisation		■
- Apartments on several floors		■

**Filter type note!**

G4 = ISO Coarse 65 %

F7 = ISO ePM1 70 %



## VITOVENT 200-C

<b>Vitovent 200-C</b>	Type	H11S A200 (R) / (L)	H11E A200 (R) / (L)
<b>Air flow rate up to approx.</b>	m <sup>3</sup> /h	200	200
<b>Interior up to approx.</b>	m <sup>2</sup>	120	120
<b>Dimensions</b>			
Length (depth) x width x height	mm	1000 x 650 x 300	
<b>Weight</b>	kg	18	20
<b>Connector layout</b>		right or left	right or left
<b>Energy efficiency class</b>			
in acc. with EU regulation no. 1254/2014			
– Manual control		A	B
– Time control		A	B
– Central demand-dependent control		A	A
<b>Type of heat exchanger</b>			
– Cross-counter-current		■	
– Enthalpy cross-counter-current			■
<b>Type of filter (supply air/extract air)</b>			
– Scope of delivery		G4/G4	F7/M5
– Accessory		F7/G4	–
<b>Heat recovery</b>	%	up to 95	up to 89
<b>Humidity control</b>	%	–	up to 80
<b>System operation with Vitocal heat pumps</b>		■	■
<b>Operation via</b>			
– Ventilation programming unit, type LB1		■	■
– Step switch		■	■
<b>Components certified by the Passive House Institute [Germany]</b>			
		–	–
<b>Application areas</b>			
– New build		Optional	Optional
– Modernisation		■	■
– Apartments on several floors		■	■

### Filter type note!

G4 = ISO Coarse 65 %

F7 = ISO ePM1 70 %

M5 = ISO ePM10 50 %



## VITOVENT 300-F

Vitovent 300-F	Type	H32S B280	H32E C280
<b>Air flow rate up to approx.</b>	m <sup>3</sup> /h	280	280
<b>Interior up to approx.</b>	m <sup>2</sup>	215	215
<b>Dimensions</b>			
Length (depth) x width x height	mm	680 x 400 x 1486	
<b>Weight</b>	kg	80	80
<b>Energy efficiency class</b>			
in acc. with EU regulation no. 1254/2014			
- Manual control	⊕	-	-
- Time control	⌚	A	B
- Central demand-dependent control	⊖	A	A
- Control according to local demand	⊖ ⊕	A+	A
<b>Type of heat exchanger</b>			
- Cross-counter-current		■	
- Enthalpy cross-counter-current			■
<b>Type of filter (supply air/extract air)</b>			
- Scope of delivery		F7/G4	F7/M5
- Accessory		-	-
<b>Heat recovery</b>	%	up to 98	up to 89
<b>Humidity control</b>	%	-	up to 81
<b>System operation with Vitocal heat pumps</b>			
		■	■
<b>Components certified by the Passive House Institute [Germany]</b>			
		■	-
<b>Application areas</b>			
- New build		■	■
- Detached house/two-family house		■	■

### Filter type note!

G4 = ISO Coarse 65 %

F7 = ISO ePM1 70 %

M5 = ISO ePM10 50 %



### VITOVENT 200-D

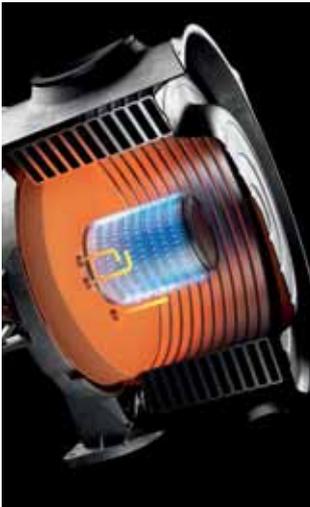
Vitovent 200-D	Type	HR B55	HRM B55	HRV B55
<b>Air flow rate up to</b>	m <sup>3</sup> /h	55	55	45
<b>Individual rooms up to approx.</b>	m <sup>2</sup>	25	25	25
<b>Dimensions</b>				
Width x height x depth	mm	340 x 340 x 70		
<b>Weight</b>	kg	4	4	4.3
<b>Energy efficiency class</b>				
in acc. with EU regulation no. 811/2013				
– Manual control	Ⓜ	B	B	B
– Time control	Ⓢ	–	–	–
– Central demand-dependent control	Ⓢ	–	–	–
– Control according to local demand	Ⓢ	–	A	A
<b>Filter classes to EN 779</b>				
– Outdoor air filter		F7	F7	F7
– Extract air filter		G4	G4	G4
<b>Heat recovery level</b>	%	up to 90	up to 90	up to 90
<b>Application areas</b>				
– New build		■	■	■
– Modernisation		■	■	■
– Apartments on several floors		■	■	■

**VITOVENT 100-D**

<b>Type</b>		H00E A45
<b>Air flow rate</b>		
– Level 1	m <sup>3</sup> /h	18
– Level 2	m <sup>3</sup> /h	28
– Level 3	m <sup>3</sup> /h	38
– Level 4	m <sup>3</sup> /h	46
<b>Dimensions</b>		
Width x height x depth (internal cover)	mm	200 x 200 x 45
Core drilling diameter	mm	162
Wall thickness	mm	325
<b>Energy efficiency class</b>		
in acc. with EU regulation no. 1254/2014		
– Manual control	⊕	A
– Time control	☾	A
– Central demand-dependent control	⊕	A
– Control according to local demand	⊕ ⊕	A+
<b>Heat recovery level</b>	%	up to 91
<b>Application areas</b>		
– New build		■
– Modernisation		■
– Apartments on several floors		■

**VITOVENT 050-D**

<b>Type</b>		H20E A43
<b>Air flow rate</b>		
– Level 1	m <sup>3</sup> /h	16
– Level 2	m <sup>3</sup> /h	22
– Level 3	m <sup>3</sup> /h	30
– Level 4	m <sup>3</sup> /h	43
<b>Dimensions</b>		
Width x height x depth (internal wall cover)	mm	190 x 214 x 40
Core drilling diameter	mm	From 162
Wall thickness	mm	From 305
<b>Energy efficiency class</b>		
in acc. with EU regulation no. 1254/2014		
– Manual control	⊕	A
– Time control	☾	–
– Central demand-dependent control	⊕	A
– Control according to local demand	⊕ ⊕	–
<b>Heat recovery level</b>	%	up to 90
<b>Application areas</b>		
– New build		■
– Modernisation		■
– Apartments on several floors		■



Matrix-Plus burner

#### Viessmann comprehensive range

- Boilers for oil or gas
- Combined heat and power generation
- Hybrid appliances
- Heat pumps
- Wood combustion technology
- Biogas production plants
- Biogas upgrading plants
- Solar thermal
- Photovoltaic
- Electric heating/DHW systems
- Refrigeration systems
- Accessories

#### Milestones of heating technology

As an environmental pioneer and technological trailblazer for the heating sector, Viessmann has been supplying exceptionally clean and efficient systems for heating, refrigeration and decentralised power generation for decades. Many of the company's developments are recognised as heating equipment milestones.

#### Sustainability in action

As a family business Viessmann takes the long view and places great value on acting responsibly; sustainability is firmly enshrined in the company's principles. For Viessmann, sustainability in action means striking a balance between economy, ecology and social responsibility throughout the company; meeting current needs without compromising the quality of life of future generations.

With its strategic sustainability project, Viessmann demonstrates at its own head office in Allendorf (Eder) that the energy and climate policy goals set by the German government for 2050 can in fact be achieved today with the help of commercially available technology.



We create living spaces  
for generations to come.



Number 1 Trade Partner for the 15th consecutive time

#### Practical partnership

As part of its comprehensive range, Viessmann also offers a wide selection of complementary services. These services include a comprehensive training and further development programme for trade partners at the well equipped training facilities of the Viessmann Academy.

With its new digital services, Viessmann offers innovative solutions such as the operation and monitoring of heating systems by smartphone. Users benefit from greater reassurance and convenience, whilst contractors can keep a constant eye on the systems for which they are responsible.



Viessmann is a leading international manufacturer of efficient energy systems.

#### VISSMANN GROUP IN FIGURES

1917

— Viessmann was founded

12,000

— employees

2.5

— Group turnover in billions of euros

54

— export share in percent

23

— production companies in

12

— countries

120

— sales offices worldwide

74

— countries with agents and sales companies



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