

# VENTILATION UNIT

## KUBEN 1000M3E

Kuben 1000M3E is a room-placed ventilation unit for offices, conference rooms, offices, schools, preschools etc.





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# BENEFITS OF KUBEN 1000M3E



**Energy-efficient** Thanks to energy-saving fans and a counter-current heat exchanger with high heat recovery, the unit ventilates the premises with the least possible energy consumption.



**Fresh air** Good ventilation at school or in the office is key to feeling well. The slightly under-tempered supply air "floats" out over the floor and supplies the entire room with fresh air before it rises slowly towards the ceiling due to the heating and is sucked out as extract air in the upper part of the unit, the so-called low-impulse method.



**Low noise level** Thanks to a low internal pressure drop, good aerodynamics and technically developed sound insulation, the unit maintains an extremely low noise level. The Kuben 1000M3E is the market's quietest room unit, both in terms of dB(A) and dB(C).



**Stylish design** Tasteful and compact unit that is designed to fit neatly into most premises and environments.



**High quality** We manufacture aggregates in our factory in Dalarna with components from some of the world's leading suppliers. The high-quality filters in the unit ensure that the house is supplied with fresh and filtered air.



**User-friendly** The unit's compact dimensions and unique design make it very easy to install. The built-in controller means that it is only necessary to connect the power to start the unit.

High up on both sides of the unit, there is the possibility to connect Ø 160 supply air and extract air ducts. In this way, you can easily ventilate additional nearby offices, group rooms, WC, kitchenette, etc.

## KUBEN 1000M3E IS SUITABLE FOR, AMONG OTHER THINGS:

The unit is intended to ventilate offices, conference rooms, schools, etc.



OFFICE



SCHOOL



INDUSTRY





Kuben 1000M3E placed in classrooms

# DUCT CONNECTION & ASSEMBLY



Kuben 1000M3E is extremely quiet in relation to its large airflow. No special fan room is needed, the unit can be placed directly in the room to be ventilated.

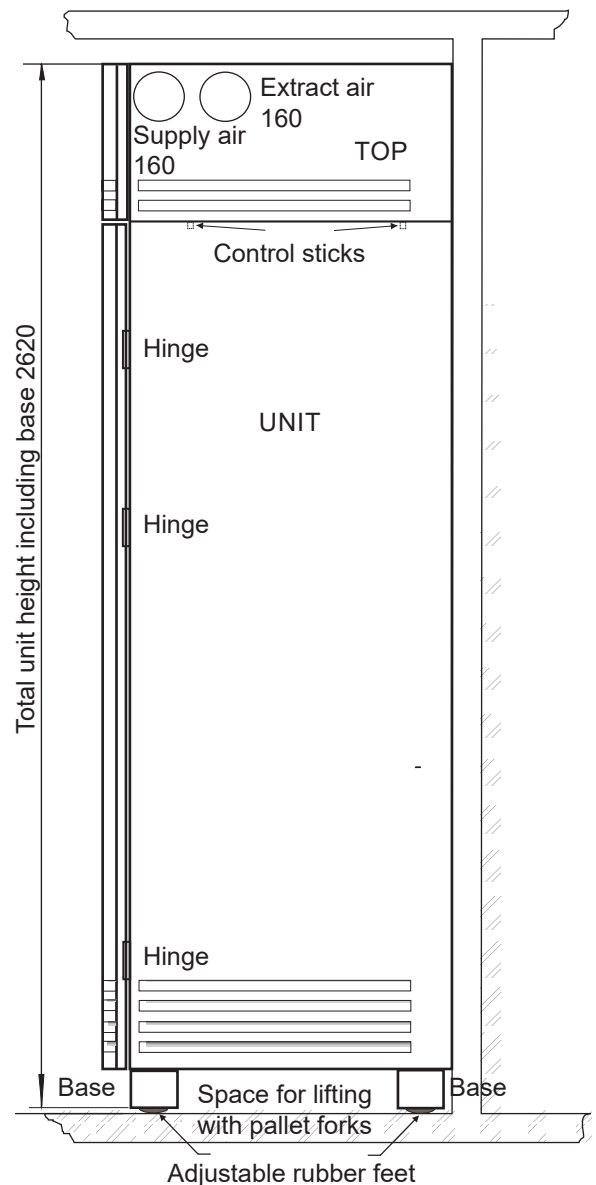
## SIMPLE ASSEMBLY OF AGGREGATES AND CHANNELS

In order to be able to connect the outside air and the exhaust air in a flexible way without excessively long ducts and thus higher pressure drops, it is advantageous to mount the unit against the outer wall with part of the unit through a hole in the outer wall as large as the side view of the unit.

The unit is intended for duct connection on the supply and extract air side and with outside air and exhaust air directly through an outer wall grille on the side of the unit.

- The supply air duct is connected to supply air devices placed in the residence zone's "clean" rooms, office rooms, conference rooms, meeting rooms, etc. Both "remixing ventilation" with, for example, ceiling-mounted supply air devices or nozzle channels and "displacing ventilation" with, for example, low-impulse devices at the floor can be selected.
- The extract air can, for example, be connected to bef. extract air system from toilets and the like. Thanks to the tight counter-flow heat exchanger, there is no odor transfer to the supply air.

The operation of the integrated heat pump and the cooling machine is completely automatic and the only thing that needs to be determined in normal mode is the supply air temperature or the desired room temperature.



# ASSEMBLY INSTRUCTIONS

## TRANSPORT

The unit is transported without a pallet standing on its own bases. This is to facilitate handling because the aggregate is high (2.62 m). The unit is wrapped in plastic from the factory but should not be stored outdoors before assembly.

## DELIVERY RECEPTION

Inspect the shipment upon delivery and check for shipping damage.

### Leveransen omfattar följande delar:

1 st assembly part on base stand.

1 st aggregate upper part (with 4 pcs. 160 and 2 pcs. 250 duct connections) is delivered mounted on top of the aggregate part.

3 st cover plates for the base, delivered inside the doors on the floor.

2 st muff 250 for exhaust air/outdoor air, delivered inside the doors.

1 st control panel for external placement, delivered inside the door to the control center.

## FUNCTION

The unit supplies the room with filtered and tempered fresh air through low-impulse blowing in the lower part of the unit and possibly connected ducts at the top of the unit.

The unfresh used air is sucked out on the top of the unit and/or with duct-connected extract devices from adjacent rooms. In this way, the premises are effectively ventilated without either noise or draft problems.

## INVESTMENT

With the doors and upper part dismantled, the unit can be transported using a pallet lift through normal doorways to the place where it is to be assembled. Placement by an external wall is recommended from a sound point of view. The unit is best placed close to the wall.

## ASSEMBLY IN GENERAL

The unit is intended to be placed directly in the room to be ventilated. Placement against an external wall is preferable and crucial for the very low sound values to be contained.

Units can be moved during delivery and deployment using a pallet lift or loader. Consider the height and the high center of gravity.

The doors and upper part often do not fit through the door hole and are detached during transport as below.

The unit, the upper part and the doors are very heavy to handle and several people are necessary to assemble the unit without risk of damage. Use good quality suction cup handles for manual handling. Two handles on each side.



# TECHNICAL DATA



- Extremely low noise level thanks to low internal pressure drops, good aerodynamics and technically developed sound insulation.
- Highly efficient heat recovery > 80%.
- Very compact unit which, thanks to the low noise level, can be placed directly in the room.
- Simple and quick assembly.
- Turnkey with built-in steering. Just connect the power.
- Equipped with need-based regulation (CO<sub>2</sub>) and presence sensor.
- Control and regulation via the phone or computer where operating modes and temperatures can be monitored, as well as system status and the set schedule for operation.
- Large optional equipment options.

## OPTIONAL

- Several different control options, e.g. extract air temperature control.
- Extra heat 1 kW, water reheat, 7.8 kW, 55/40°C.
- Duct connection in the lower part of the unit.
- Optional regulator make (standard Regin).
- Channel set. Complete kit with insulated ducts, bendable pipes and details for a complete assembly.
- Extract air silencer and supply air silencer.
- Units and accessories in any colour.

Air volumes Normal speed: Forcing Flow:	265 l/s (954 m <sup>3</sup> /h) 60 Pa 330 l/s (1188 m <sup>3</sup> /h) 60 Pa
Additional heat Preheating: Reheat:	1 kW 3 kW
Electricity data Connection: Supply air fan: Extract fan:	3-phase, 400V, 10 A EC 680 W, 230 V, 4.0 A EC 680 W, 230 V, 4.0 A
Heat recovery:	Countercurrent heat exchanger Recovery > 80%
Sound level:	30 dB(A) at max. 265 l/s (60 Pa) 35 dB(A) at max. 330 l/s (60 Pa)
Duct connection:	Spiro channel Ø 250 on the exhaust air and outdoor air connection
Color:	Vit pulverlack
Mått:  Door (easily removable during transport): Unit without door: Base:	Height: 2621 mm including base Width: 1300 mm Depth: 837 mm including door  Depth: 78 mm Depth: 760 mm Height: 90 mm

## STANDARD EQUIPMENT

- Directly driven, energy-efficient EC fans.
- Countercurrent heat exchanger.  
Temperature efficiency >80%.
- Completely sealed without transfer between supply and extract air.
- Filter ISO ePM1 70%; / ISO ePM10 55%;.
- Cassette filter with very good filter economy.
- Additional heating, electricity or water.
- Built-in electrical and control center.
- Prepared for the "Kuben Cloud".
- Automatic defrost function.
- Individual stepless speed regulation with forcing.
- Supply air temperature control/extract air temperature control.
- Automatic bypass function.
- Several time channels with automatic summer time function.
- Built-in CO<sub>2</sub> sensor for stepless airflow regulation.
- Built-in presence sensor for start or forcing.
- Control via phone/computer.
- Programmable alarm list.

# TECHNICAL DATA

## ADDITIONAL HEAT

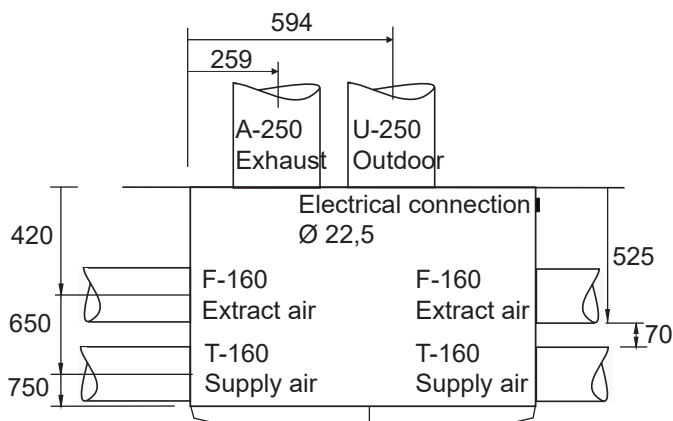
Pre-heating battery 1 kW and after-heating battery 3 kW. Temperature regulation with pulse control. Overheating protection on the electric batteries. Supply air temperature control. Can be changed to another control type. Water reheating (optional): Power 7.8 kW, 55/40°C. Temperature regulation with electronic heat regulator. Built-in regulating freeze protection. PI regulation.

## FUNCTION

Kuben 1000M3E is intended to almost silently ventilate a larger room, a school hall, a conference room or the like.

The unit, which is very energy-efficient, with counter-flow heat exchangers with high efficiency and energy-saving EC fans, is most suitable placed directly against the outer wall. Two holes are made in the outer wall for outside air and exhaust air. The supply air is supplied slightly below temperature in the lower part of the unit and the air "flows out" over the floor and reaches far into the room. The extract air is sucked in at the top of the unit and you can also connect ducts with two 160 mm ducts on each side. This is to be able to ventilate a WC, a kitchenette or similar spaces. The supply air can also be connected with two 160 mm supply air ducts at the top, and you can thus also ventilate some nearby smaller rooms.

## DUCT CONNECTION



## ALTERNATIVE UNIT HEIGHTS

It is possible to get the unit at a slightly lower height with a lower ceiling height by ordering a lower base.

## CONNECTION OPTIONS

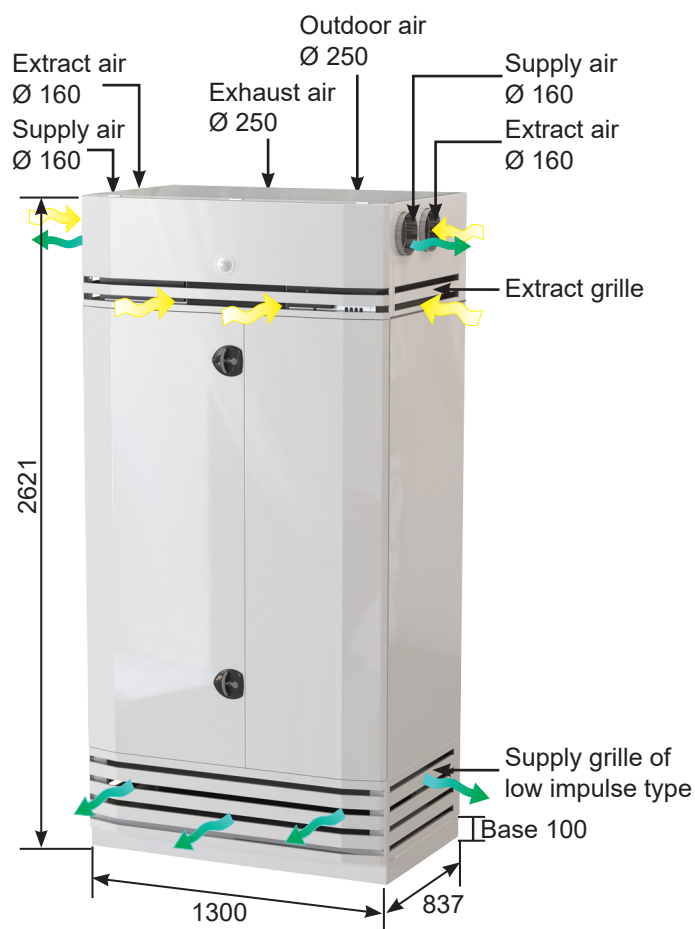
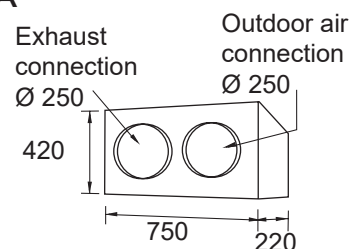
As standard, the Kuben 1000M3E has an exhaust air and outdoor air connection on the back as shown in the sketch. If necessary, exhaust air and outside air can be moved with connections 250 on the top of the unit.

The extract air is evacuated at the top of the unit but can also be duct connected on each side with size 160 or as an option with a larger dimension.

The supply air is supplied to the room through the low impulse device in the lower part of the unit. If desired, supply air to other rooms can also be connected high up on each side with size 160 or as an option with a larger dimension.

## MEASUREMENT DATA

KOMBIDON for outer wall  
Standard colour: White





# GUARANTEE

## PRODUCT WARRANTY - VALID FOR 2 YEARS

The warranty covers all defects in the above products, which can be attributed to manufacturing. The guarantee only applies to products, thus not damage that any incorrect product may have caused. The warranty does not cover damage caused by incorrect or careless handling, by unauthorized intervention or by accident.

The guarantee means that the product is repaired at no cost to the buyer. The product must be sent to us or, where applicable, the point of sale under warranty. Any shipping costs are paid by the customer.

The customer must also bear the costs for dismantling the defective part and installation of a new or repaired part when these measures can be carried out without special expertise, ie when a visit by an installer is not necessary. If the seller's fitters are called in this situation, the costs of the unnecessary fitter visit will have to be borne by the customer. The cost is also charged if the fitter is called in without an error having occurred.

In the event that the product needs to be repaired on site at the customer for logistical or cost reasons, Kuben must be contacted to receive a form for reporting the error and after returning it a confirmation of how the warranty work will be performed. Kuben Ventilation solves the guarantee measures with its own service personnel in appropriate cases, but may in certain circumstances agree with the customer that he will take care of the guarantee work against compensation from Kuben Ventilation AB. The fault report must then be filled in and the customer must have received a service order from Kuben before the warranty work begins. Warranty work performed by the customer without the customer contacting Kuben Ventilation AB for order number as above is not reimbursed.

## FUNCTIONAL WARRANTY - VALID FOR 5 YEARS

The warranty covers malfunctions occurring on the specified drawing / drawing part, which can be attributed to drawing errors, design errors or adjustment / commissioning errors at the factory. The guarantee applies even if the standards in force at the time of construction have not been taken into account.

The guarantee does not apply to applicable parts that have been subjected to injury, damage or careless treatment or through unauthorized intervention. The guarantee does not apply to necessary re-adjustments of factory settings for air flow, temperatures etc. The guarantee does not apply if the unit is rebuilt or parts are replaced and presupposes that service, filter changes, cleaning etc. takes place according to the prescribed service interval.

The guarantee means that the plant is redesigned, adjusted and repaired, at no cost to the customer, in order to regain the correct function according to agreement, practice or standards in force at the time of construction.

In the event that the product needs to be repaired on site at the customer for logistical or cost reasons, Kuben must be contacted to obtain a form for reporting a fault and then a confirmation of how the warranty work will be performed. Kuben Ventilation solves the guarantee measures with its own service personnel in appropriate cases, but may in certain circumstances agree with the customer that he will take care of the guarantee work against compensation from Kuben Ventilation AB. The fault report must then be filled in and a service order for the warranty work from Kuben must have reached the customer before the service work begins. Warranty work performed by the customer without the customer contacting Kuben Ventilation AB for order number as above is not reimbursed.

Should a dispute about the applicability of the guarantee arise and this not be resolved by the parties themselves, the matter can be referred to the General Complaints Board.

# CONTACT



Do you want a quote on the Kuben 1000M3E?

Email to [offert@kubenventilation.se](mailto:offert@kubenventilation.se) and feel free to attach a floor plan of the house you need ventilation for, and we will get back to you as soon as we can with a quote.

Names, direct numbers and emails to the people who are responsible for each area can be found on the Kubens website [www.kubenventilation.se/personal](http://www.kubenventilation.se/personal). Otherwise contact switch:

Telephone exchange: 0243-223115  
[info@kubenventilation.se](mailto:info@kubenventilation.se)

## IN THE HEART OF DALARNA IN SWEDEN

Our production takes place in Vassbo, between Falun and Borlänge, in the heart of Dalarna, right next to the lovely lake Lilla Aspan.

Our designers design, draw and produce new ventilation units in the office, which are then manufactured to order in the factory in the house next door.



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