EC-Box Fans

Unobox (UNO...G) / Unobox-ME (UNO-ME...G)

Rosenberg Ventilatoren GmbH · Maybachstraße 1 · 74653 Künzelsau-Gaisbach
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UNO...G – EC-Unoboxes

Supply air or extract air fans

- Installation possible in every position
- casing with two chambers aluminum profile
- discharge in any direction possible
- one side open (as standard)
- energy saving with EC-motors

Description:

The Rosenberg EC-Unoboxes are designed to handle air volumes from 800 m³/h to 19.000 m³/h. Typical applications are in apartments, shops, supermarkets, repair shops, warehouses, garages etc. and other areas of slight air contamination.

Application areas:

Casing:

The housing supporting frames are double chamber aluminum profiles with corners made of plastic and double skinned (20mm) galvanized steel panels insulated with non-inflammable, noise and temperature insulating fiberglass mats. One side of the casing is open as standard.

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Impellers:

The impellers are balanced dynamically together with the external rotor motors at two levels according to quality level G2.5/G6.3 DIN ISO 21940-11.

Up to size 560:
Backward curved centrifugal impellers made of plastic with galvanized steel support plates.

From size 630:
High efficiency backward curved centrifugal impellers made of aluminum

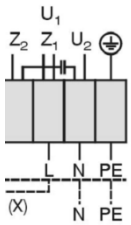
Motor and Motor Protection:

EC external rotor motors according to DIN EN 60034-5 are used, ball bearing mounted and with integrated thermal contact for motor protection.

The sleeplessly controllable EC motors are characterized by a very high degree of efficiency, even in the partial load range, as well as good control and regulation behavior. They are easy to connect, individually preconfigured, compact in design and demonstrate a high power density. The implementation of additional functions (e.g. volume flow and pressure control) is possible. All motors can be speed controlled in the range 0-100 %.

The motor protection is integrated. All necessary parameters such as temperature, blocked rotor, over- and undervoltage and power are continuously checked and monitored via intelligent fault management.

Electrical Connection:



Size 50:
The electrical connection is on the lead out of the terminal box outside the EC-Unobox.

From Size 67:
The electrical connection is made directly to the motor terminal box inside the EC-Unobox, cable management and implementation is provided accordingly.

Installation:

Direction of rotation:
Direction of rotation is clockwise, viewed from the inlet side.

WARNING: Counter-clockwise operation will cause overload damage to the motor!

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Air Volume Control:

For more information see accessories!

Open-loop control
For example with a potentiometer 0-10V signal

Closed-loop control
For example with a temperature controller 0-10V

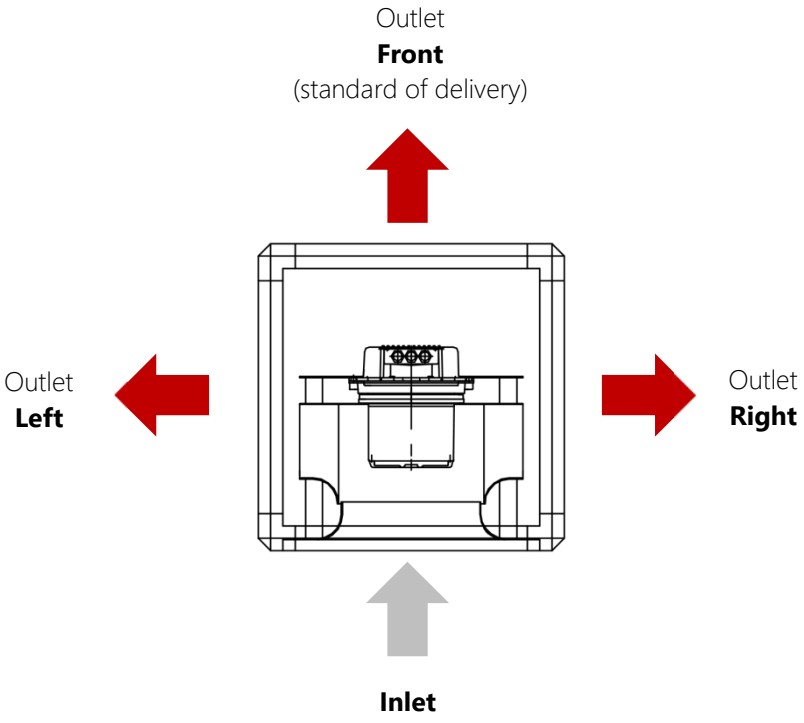
Scope of Delivery:

- EC-Unobox (Uno...G)
- Documentation

Air Outlet side:

The Rosenberg Unobox can be supplied in different variants. The outlet direction can be changed as follows.

These variants are possible:



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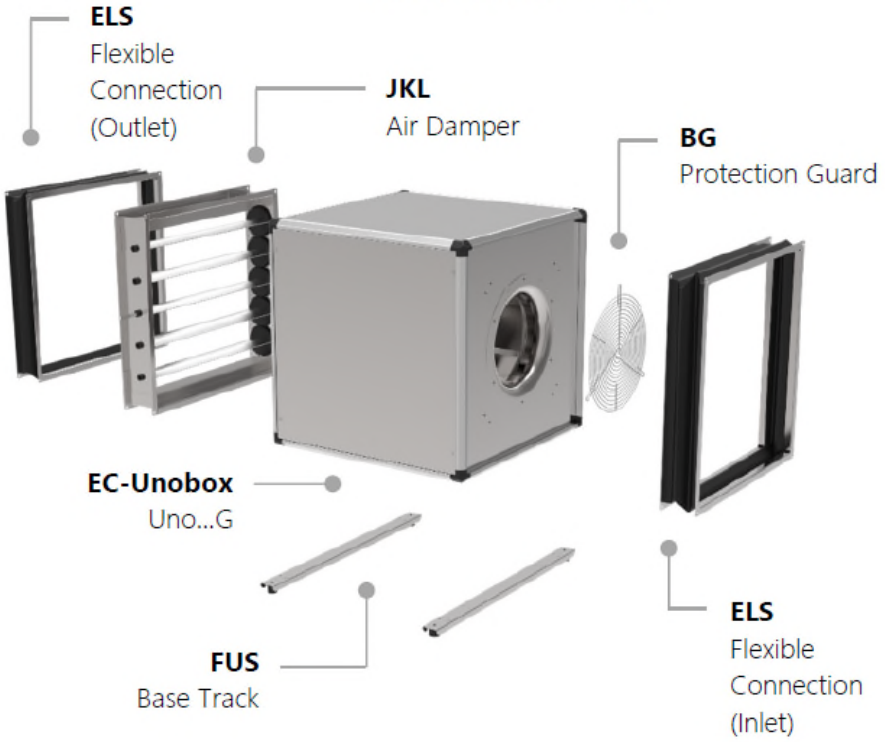
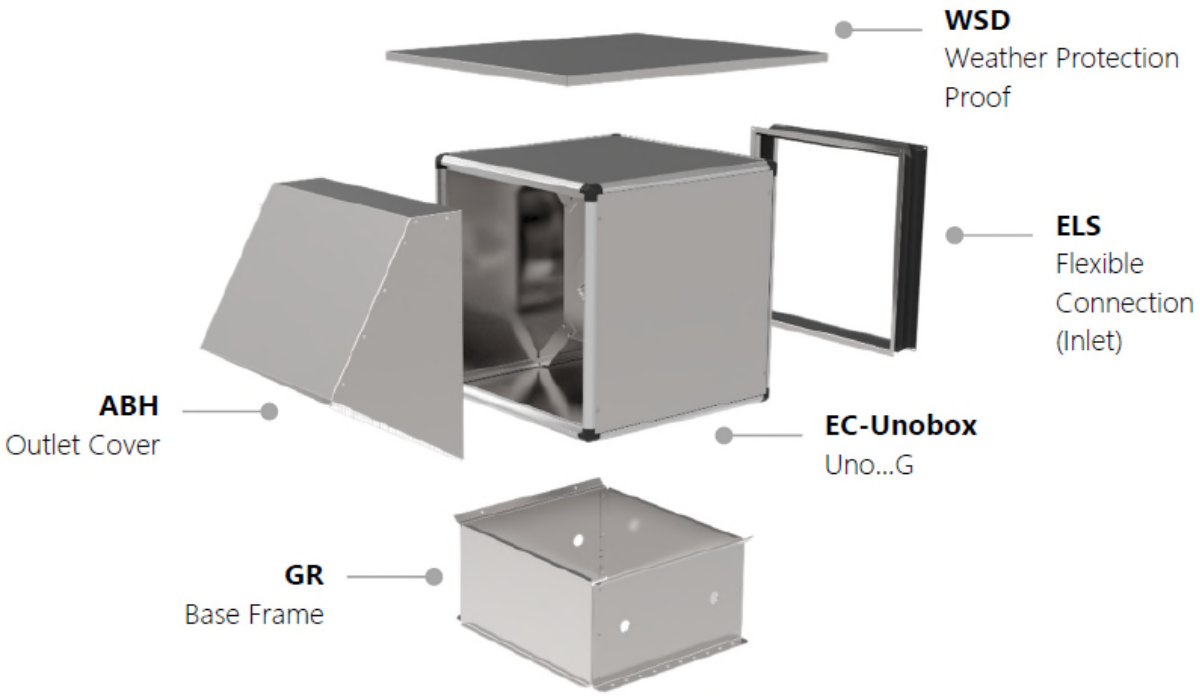
Construction Scheme - Accessories:

Indoor installation:



Outdoor installation:



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UNO-ME...G – EC Unobox with motor out of the air stream

Exhaust fans for higher operating temperatures

- EC Motor outside the air stream
- high air stream temperatures possible
- with integrated emergency switch
- Motor protection by thermal contacts
- integrated drip pan
- condensation drain is scope of delivery (supplied loose)

Description:

The Rosenberg EC-Unoboxes-ME are designed to handle air volumes with higher temperatures. Typical applications are to exhaust kitchens, production shops and other areas where polluted air has to be exhausted.

NOTE for use in kitchen exhaust:

The Unobox-ME is suitable for use in kitchen exhaust according to VDI 2052. A removable door maintenance, an integrated drip pan with condensate drain connection and the special sealing lips are also part of the delivery standards such as the outside of the air stream arranged engine.

Application areas:

Casing:

The housing supporting frames are double chamber aluminum profiles with corners made of plastic and double skinned (20mm) galvanized steel panels insulated with non-inflammable, noise and temperature insulating fibreglass mats. Outlet and side panel can be changed. A drip tray is included as standard in base and connections provided with blind plugs. The matching condensate drain connection is KAS.1 (supplied loose) included and can be easily mounted to the mounting holes if necessary.

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Impellers:

The impellers together with the hubs are balanced dynamically at two levels according to quality levels G6.3 DIN ISO 21940-11.

The fans are equipped with high efficiency backward curved centrifugal impellers made of aluminum. The complete motor-impeller assembly can be removed.

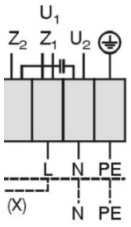
Motor and Motor Protection:

EC internal rotor motors, ball bearings and with built-in electronic temperature monitoring are used.

The used EC motors are characterized by a very high degree of efficiency, even in partial load ranges, as well as good controlling and regulation behavior. They are easy to connect, individually preconfigured, compact in design and show a high power density. The implementation of additional functions (e.g. air flow and pressure control) is possible. All motors are speed controllable in the range 0-100 %.

The motor protection is integrated. All necessary parameters such as temperature, blocked rotor, over- and undervoltage and power are continuously checked and monitored via intelligent fault management.

Electrical Connection:



Standard variant:
By default pre-mounted on the front side of the housing repair switch.
The supply of power is thus made to the isolator.

Installation:

Direction of rotation:
Direction of rotation is clockwise, viewed from the inlet side.

WARNING: Counter-clockwise operation will cause overload damage to the motor!

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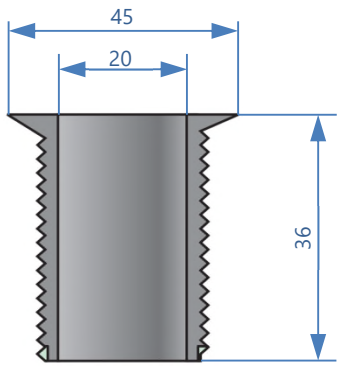
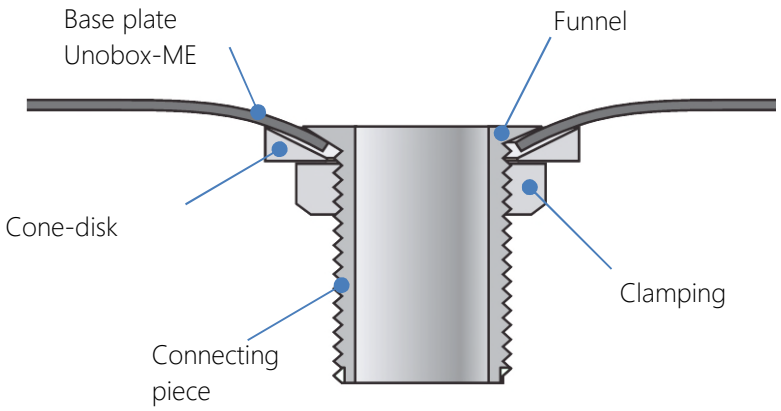
Dimensions/Installation Condensate drain:

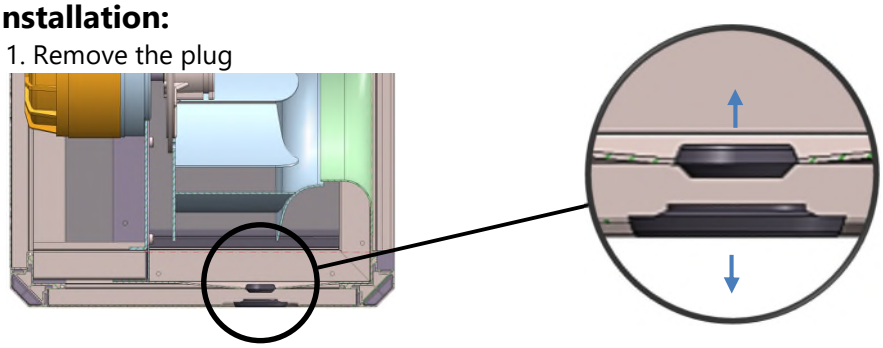




NOTE:
The base plate is drawn into a funnel shaped. Not overtighten the cone disk as it could possibly break. As a rule no sealant is required. However to achieve a leak for liquid we recommend sealing with mastic or the use of a PTFE sealing ring between port and base plate.

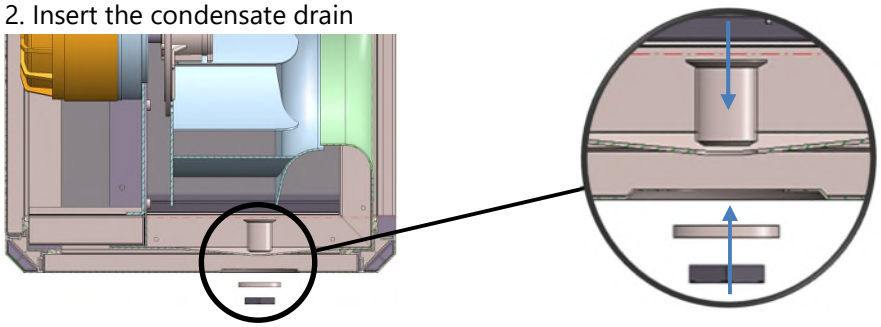
Installation:

1. Remove the plug



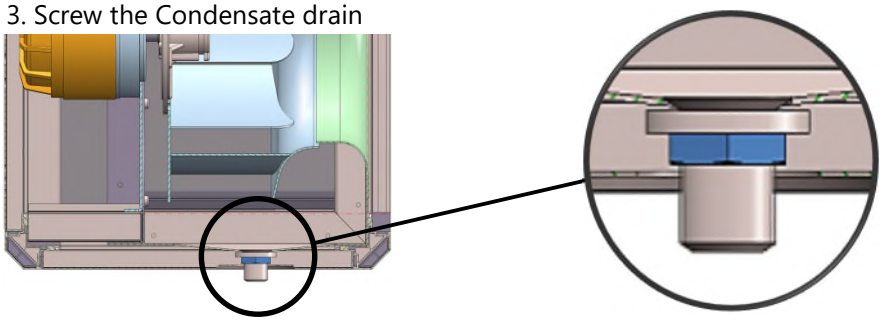
Remove the inner and outer plug the Unobox-ME.

2. Insert the condensate drain



Insert the condensate drain form the inside out.

3. Screw the Condensate drain



Tightening the cone and clamping nut from the outside.

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Air Volume Control:

For more information see accessories!

Multilevel control (open-loop control):
with a 3 step potentiometer 0-10V signal, Type POT3 (Step1= V, Step2= V, Step3=10V)

Stepless control (open-loop control)
With a stepless potentiometer 0-10V signal; Type POT1 or the Multicontrol, Type MTC

Scope of Delivery:

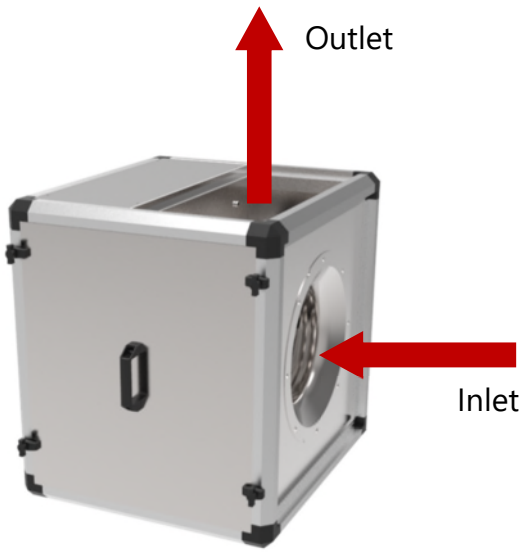
- EC-Unobox-ME (Uno-ME...G)
- Condensate drain supplied loose (KAS.1)
- ON/OFF switch mounted (GS)
- Documentation

Air Direction:

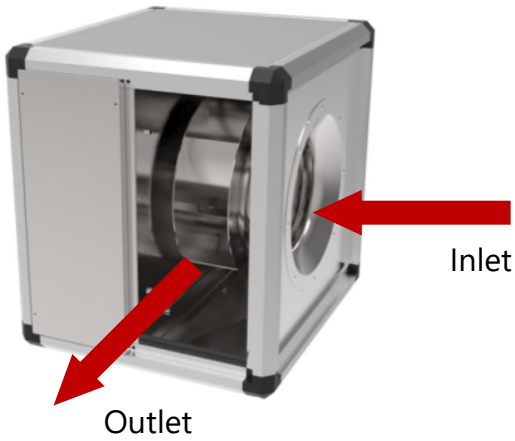
The Rosenberg Unobox-ME can be supplied in different variants. The outlet direction can be changed as follows.

These variants are possible:

Outlet above



Outlet side



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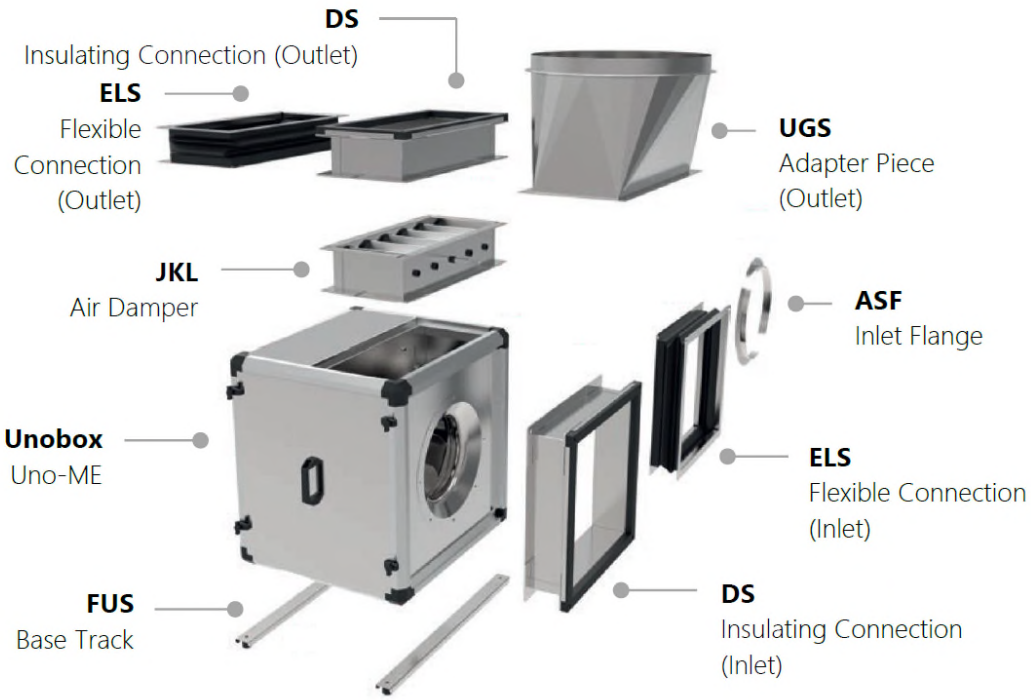
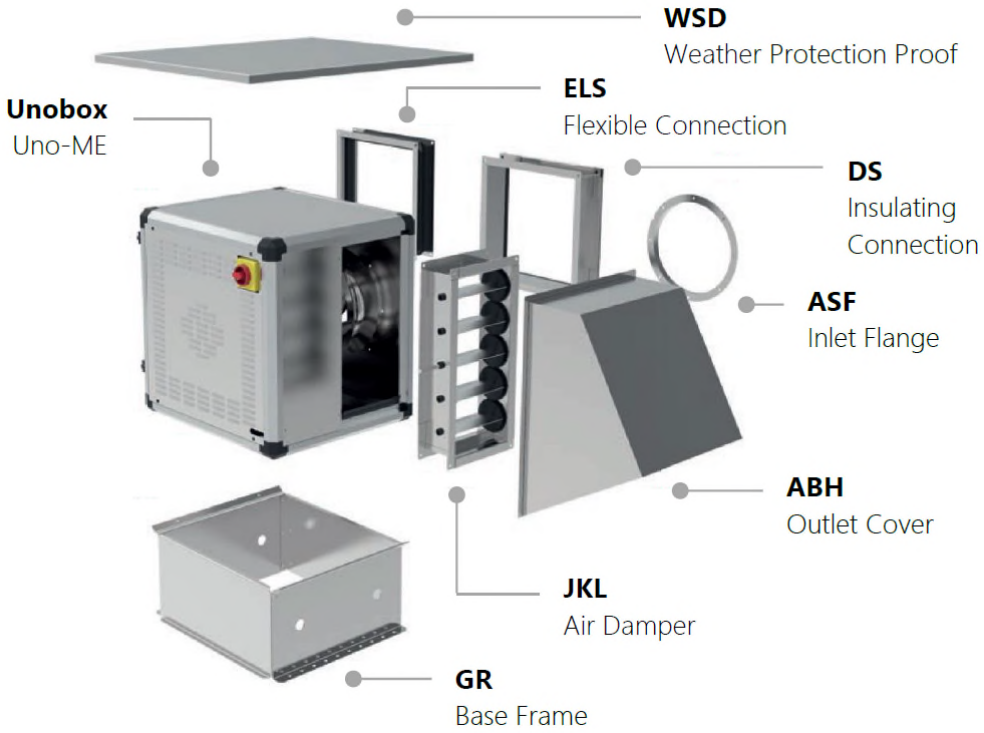


Outdoor installation:



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