

Box Fans

UNO / UNO-ME



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UNOBOX – Box Fans

Supply air or extract air fans

- installation in any position possible
- casing with two chambers aluminum profile
- discharge in any direction possible
- one side open (as standard)



Description:

The Rosenberg 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.

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:

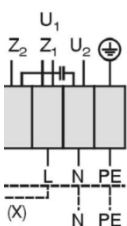
All Rosenberg fans are equipped with direct driven external rotor motors. All our fans have motor protection through thermal contacts in the motor windings as standard. The motors apply to protection class IP44/IP54.



The drive has due to an external rotor motor a space saving, compact and attractive design. The motor is fitted within the impeller, which enables the best possible cooling. For this reason, a 100% variable speed control can be guaranteed. V-belts, additional tension bars and motor mounting devices are not necessary. Only well-dimensions ball-bearings fitted on both sides and life time greased are used. Both ball-bearing seats are ground to high precision in one work process to eliminate any vibrations.

External rotor motors have an extremely low starting current. The windings comply to isolation class F. In addition, the windings have a standard moisture impregnation.

Electrical Connection:



The terminal box is affixed to the motor housing and can be supplied with flying leads on request.

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!

Air Volume Control:

For more information see accessories!

ERP-Reference (only in the EU):

Please note the directives 1253/2014/EU (Lot 6) applying from 01.01.2016 for the ventilation units (ventilation fans).
 Keyword: „Multi-stage drive" (at least 3 fixed speeds, as well as speed 0 („off"). Suitable control and regulation devices are available as accessories.



5-speed Control:

UNO...E: 230 Volt = RTE

UNO...D: 400 Volt = RTD

Infinitely variable Control Unit:

UNO...D (FU): 400 Volt = via Frequency converter

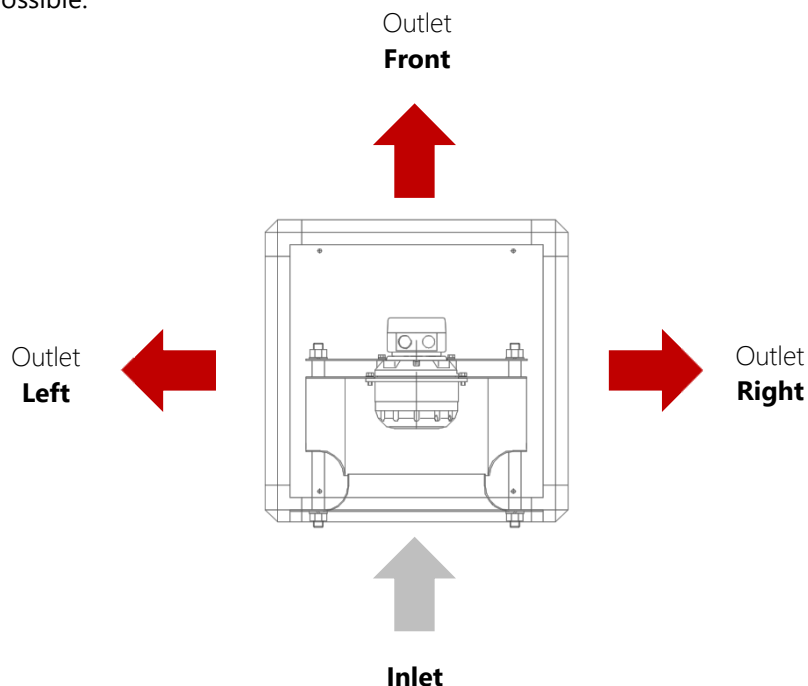
Scope of Delivery:

- Unobox (Uno)
- Documentation

Air Outlet Side:

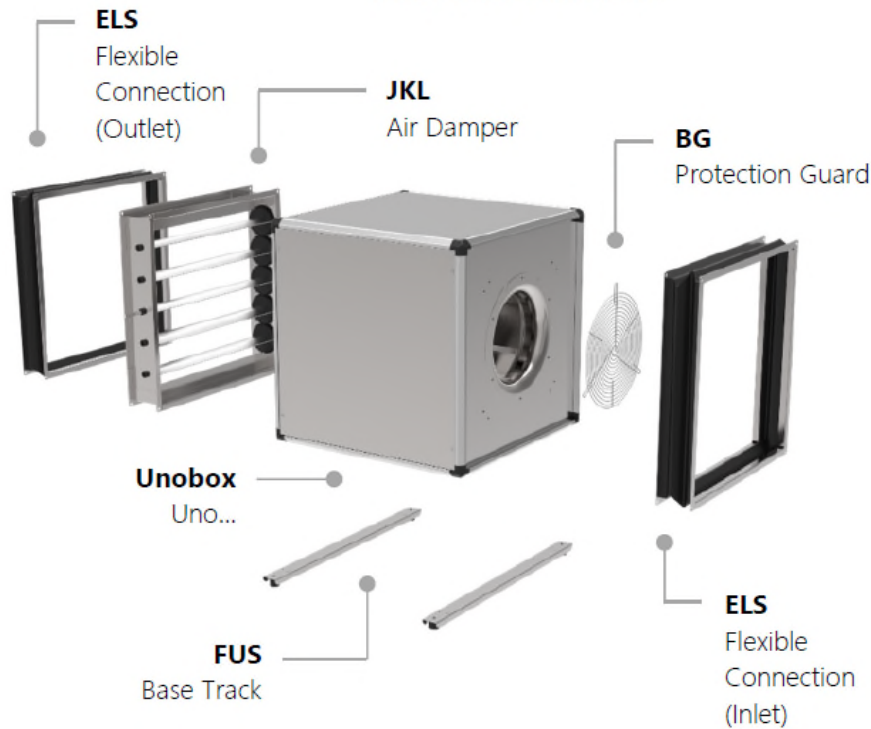
The Rosenberg Unobox can be supplied in different variants. The outlet direction can be changed as follows.

These variants are possible:

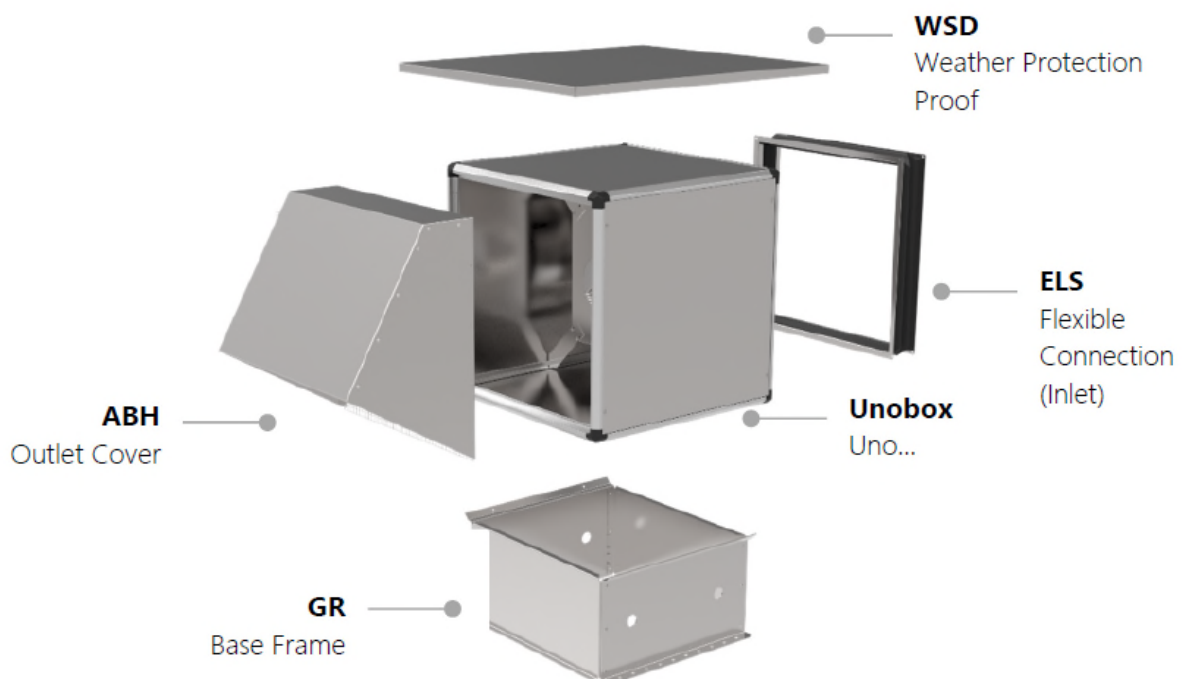


Construction Scheme - Accessories:

Indoor installation:



Outdoor installation:



UNOBOX-ME – Box Fans with Motor out of the Air Stream

Exhaust fans for higher operating temperatures

- Motor outside the air stream
- high air stream temperatures possible
- integrated drip pan
- condensation drain is scope of delivery (supplied loose)



Description:

The Rosenberg 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.

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:

External rotor motors or IEC standard motors in protection class IP44/54/55 according to DIN EN 60034-5 with moisture protection, ball bearings and integrated thermal contact for motor protection are used.

External Rotor Motor:



up to UNO-ME 500: The motor is arranged outside the air flow and drives the impeller via a shaft.

UL-approval:

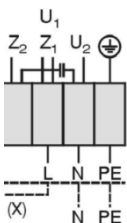
For 60Hz types (possible on request)

Standard Rotor:



From UNO-ME 560: A 1-stage standard motor is used, which can be steplessly controlled via a frequency converter,

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:

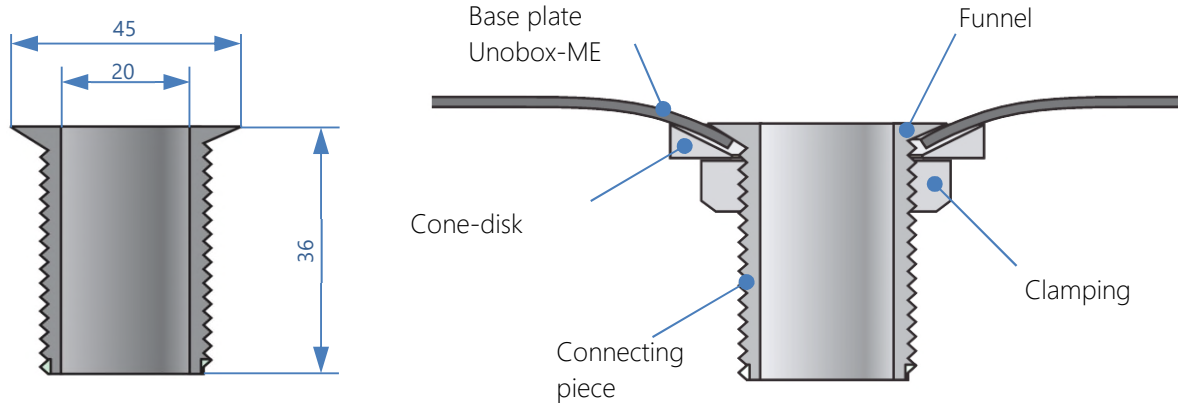


Direction of Rotation:

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

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

Dimensions/Installation Condensate drain:

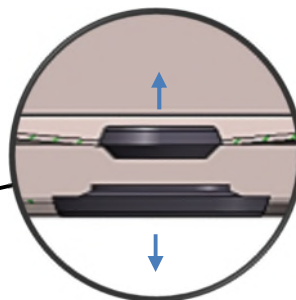
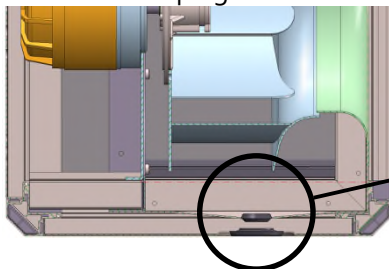


NOTE:

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.

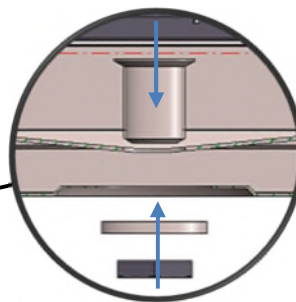
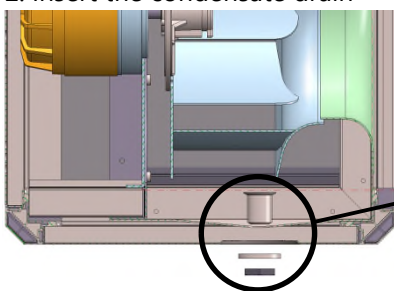
Installation:

1. Remove the plug



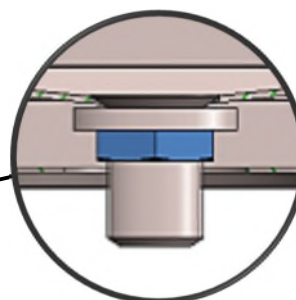
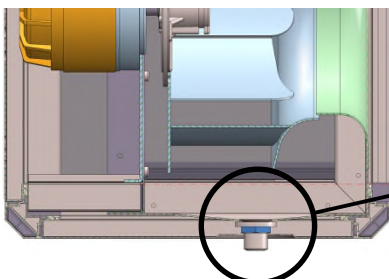
Remove the inner and outer plug the Unobox-ME.

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.

Air Volume Control:

For more information see accessories!

ERP-Reference (only in the EU):

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5-speed control up to size 500

UNO-ME ...E:

230 Volt = RTE

UNO-ME ...D:

400 Volt = RTD

Infinitely variable contro from size 560

UNO-ME ...D FU:

400 Volt = via Frequency converter

WARNING: Corner frequency must correspond to the nominal frequency

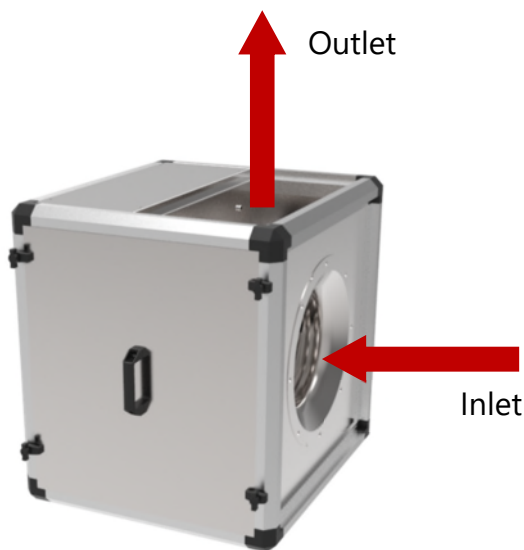
Scope of Delivery:

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

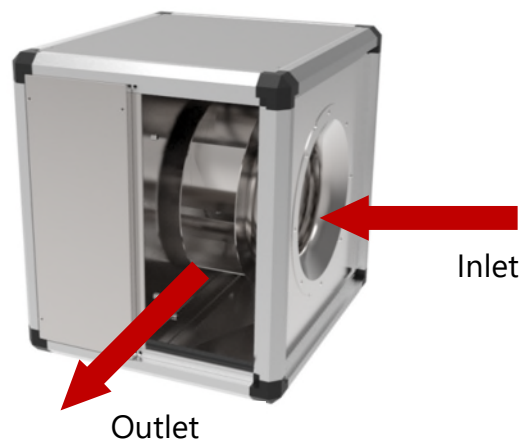
Air Direction:

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

Outlet above

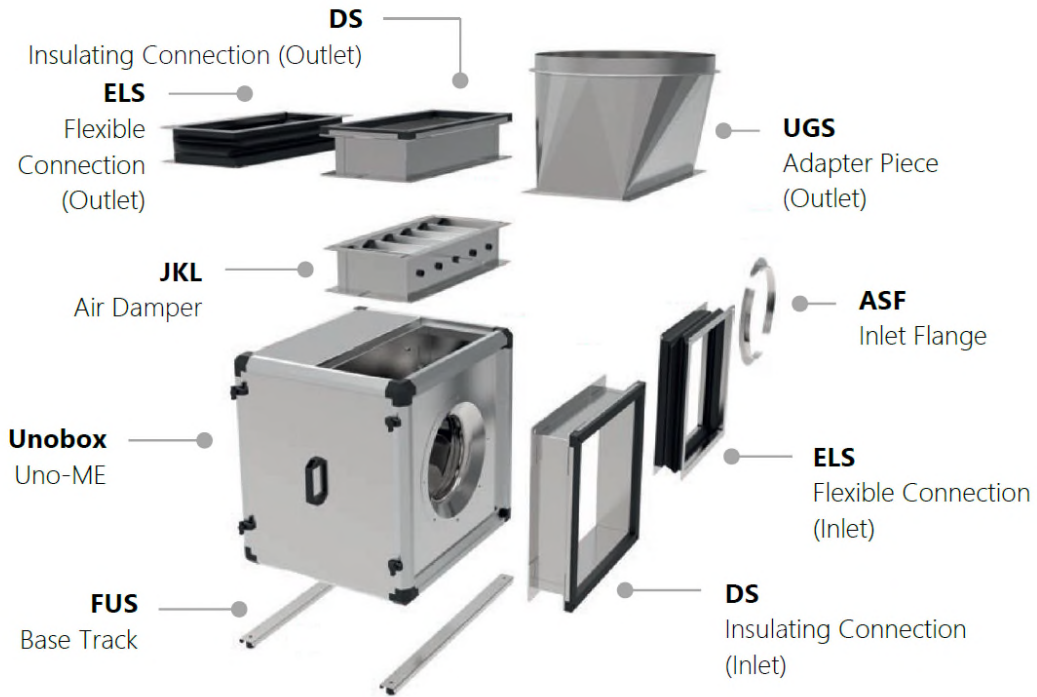


Outlet side



Construction Scheme - Accessories:

Indoor installation:



Outdoor installation:

