

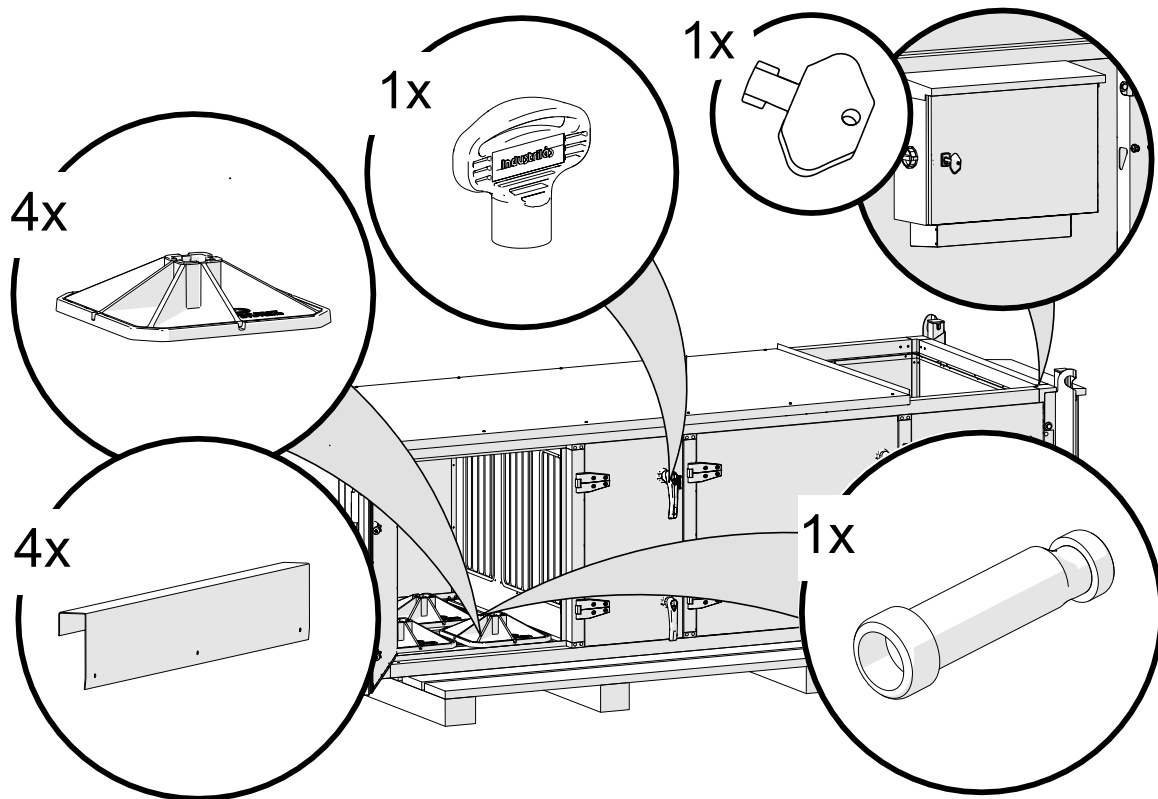
RECAIR E-series

Installation and Maintenance Manual

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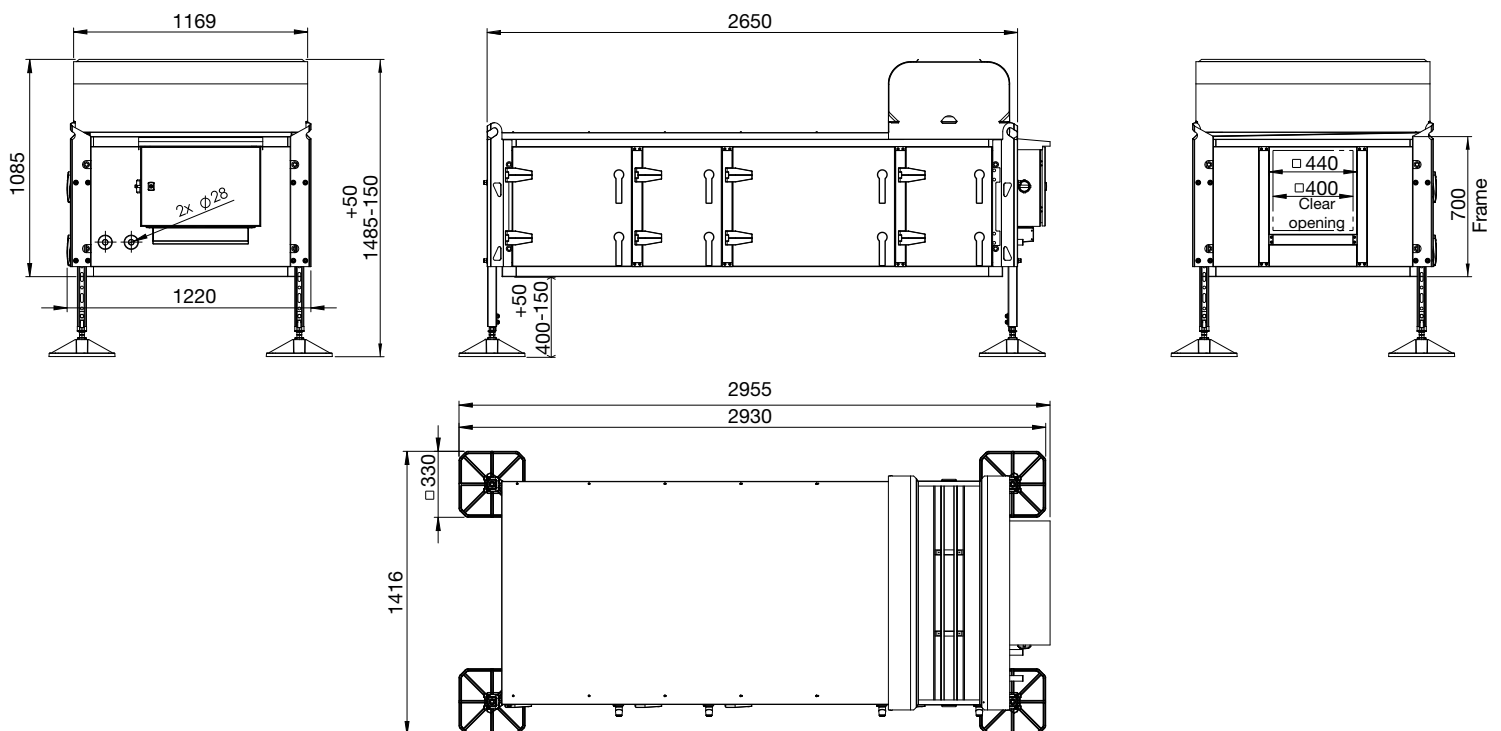
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1. Overview

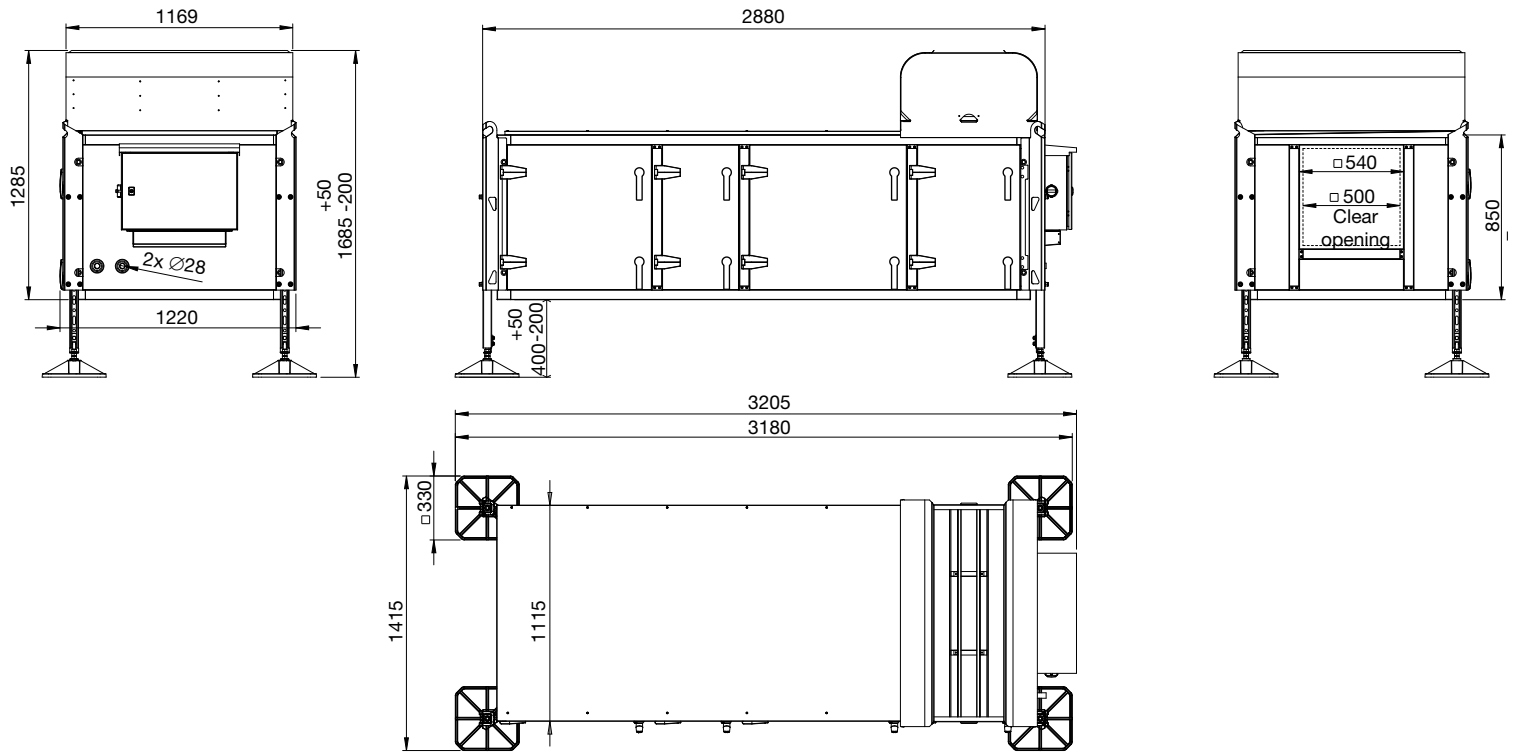


2. Dimensions

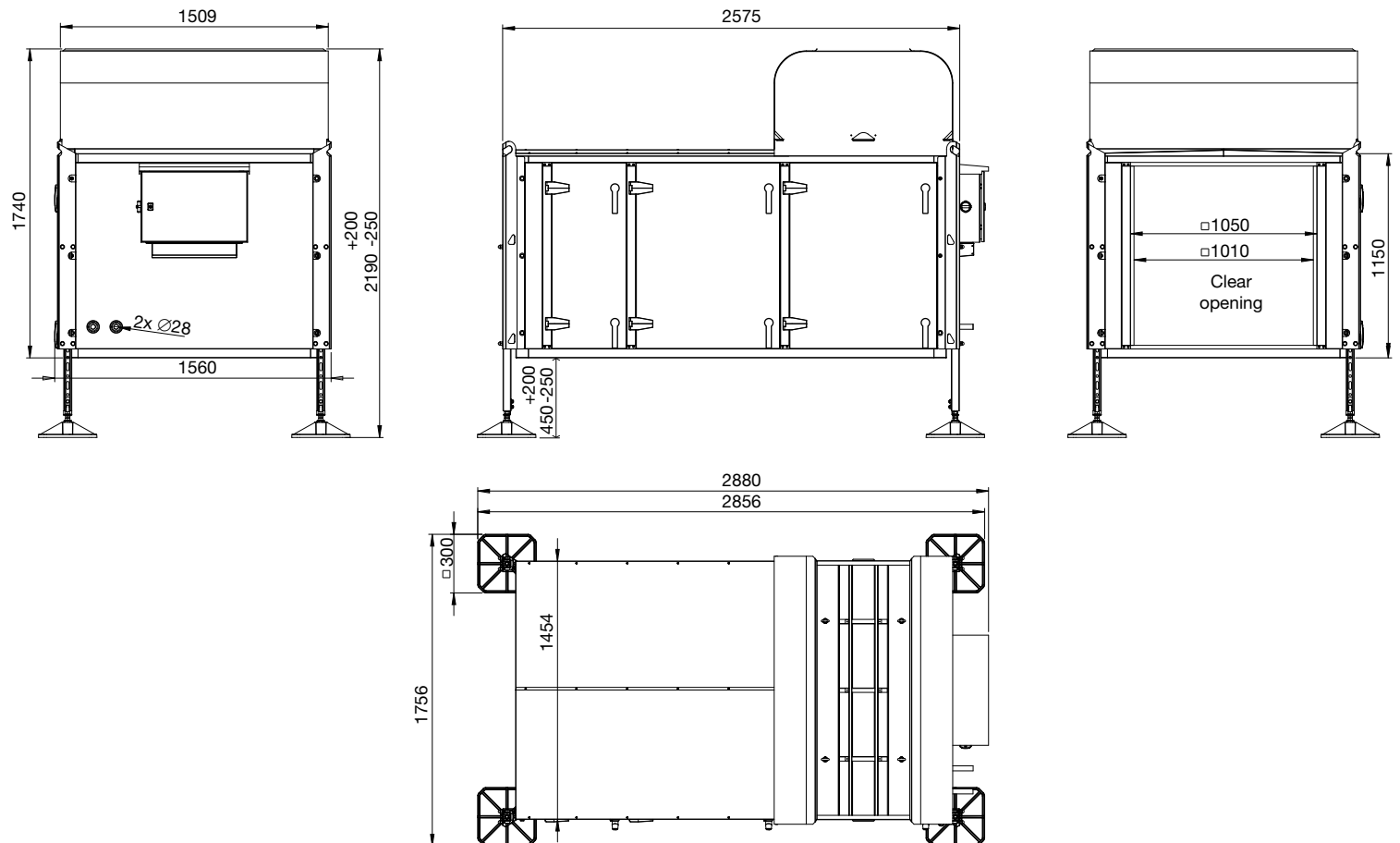
E2B



E3B



E4C



3. Safety



Installation may be carried out by qualified personnel.

- To avoid injury, read all documentation before using the unit.
- The unit must not be used to ventilate flammable and combustible gases, if not stated otherwise.
- All electrical connections must be carried out by a qualified electrician.
- It is the installer's responsibility to carry out a full safety assessment of the installed ventilation unit.
- All electrical and mechanical safety devices must be installed before turning on the ventilation unit.
- The electrical power of the unit must be disconnected before service and maintenance.
- Do not open the unit doors or hatches when the ventilation unit is operational.

4. Disclaimer

The manufacturer may not be held liable for any damage done to property or people caused by improper installation, start-up, use of the unit or failure to implement the procedures and instructions included in this manual.

5. Warranty

The delivered goods have a 2-year warranty, unless otherwise agreed. If a defect is found in the product during the warranty period, the seller's liability is limited to repairing the defective product or replacing the defective product with a faultless one, as selected by the seller.

The seller is only responsible for repairs to the product itself or the delivery of a new product, not for other costs related to repairing the defect or replacing the goods. The warranty does not cover equipment and/or parts thereof, which are considered to be so-called wearing parts. Such parts include e.g. but are not limited to filters, belts, bearings.

The warranty also does not cover defects caused by incorrect storage, incorrect installation, defective or incorrect maintenance or any other cause beyond the seller's control. After the warranty period, the seller is free from liability for damages.



Warranty claim: a warranty claim must be submitted to the seller immediately after this is known by the buyer. If the buyer fails to notify the seller immediately, then the buyer loses his right to claims. The seller will not reimburse the buyer for the removal, installation, transportation, suspension, or other (not limited to) costs of goods delivered under the warranty, or direct or indirect costs to the buyer's customer or others.

6. Intended use

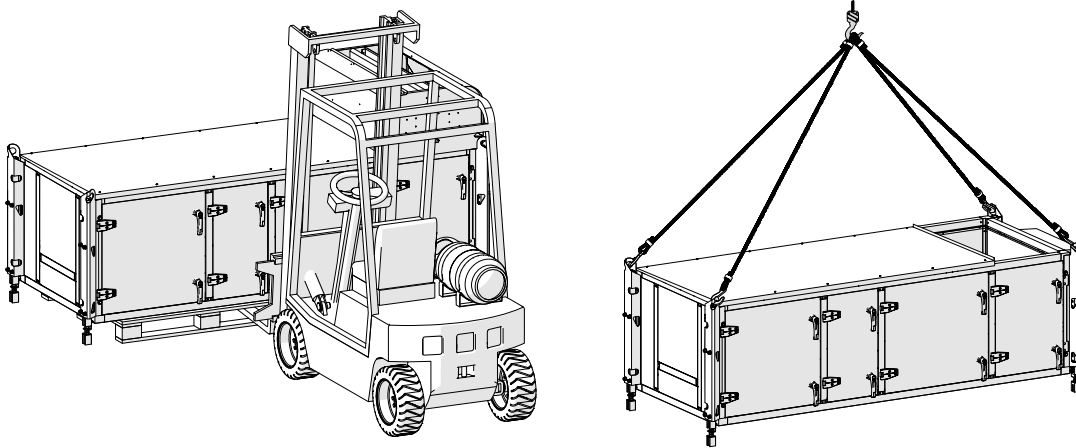
ETS NORD Recair E-series air handling units are designed to be used in almost any air handling unit applications to provide sufficient and healthy ventilation to the people and secure the good condition of the building structures.

7. Transport

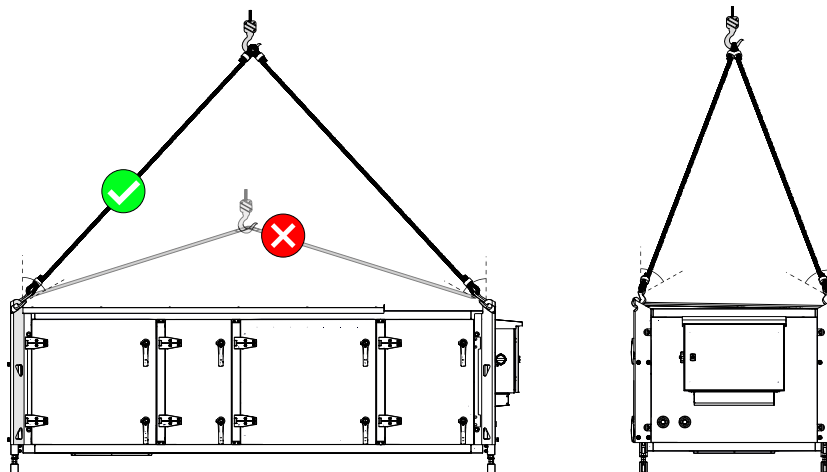
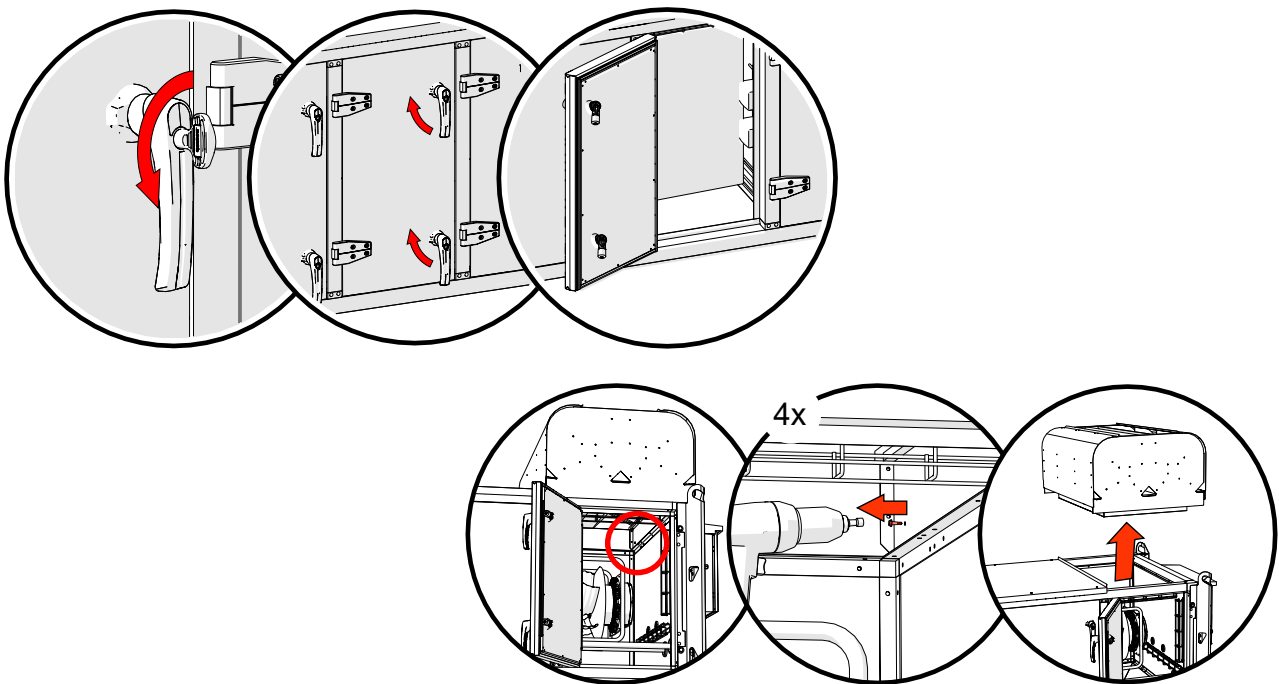


The center of gravity might not be in the center of the package.

Unit can be lifted with a forklift or crane.



* The roof hood must be removed when lifting the unit with the crane.



8. Installation

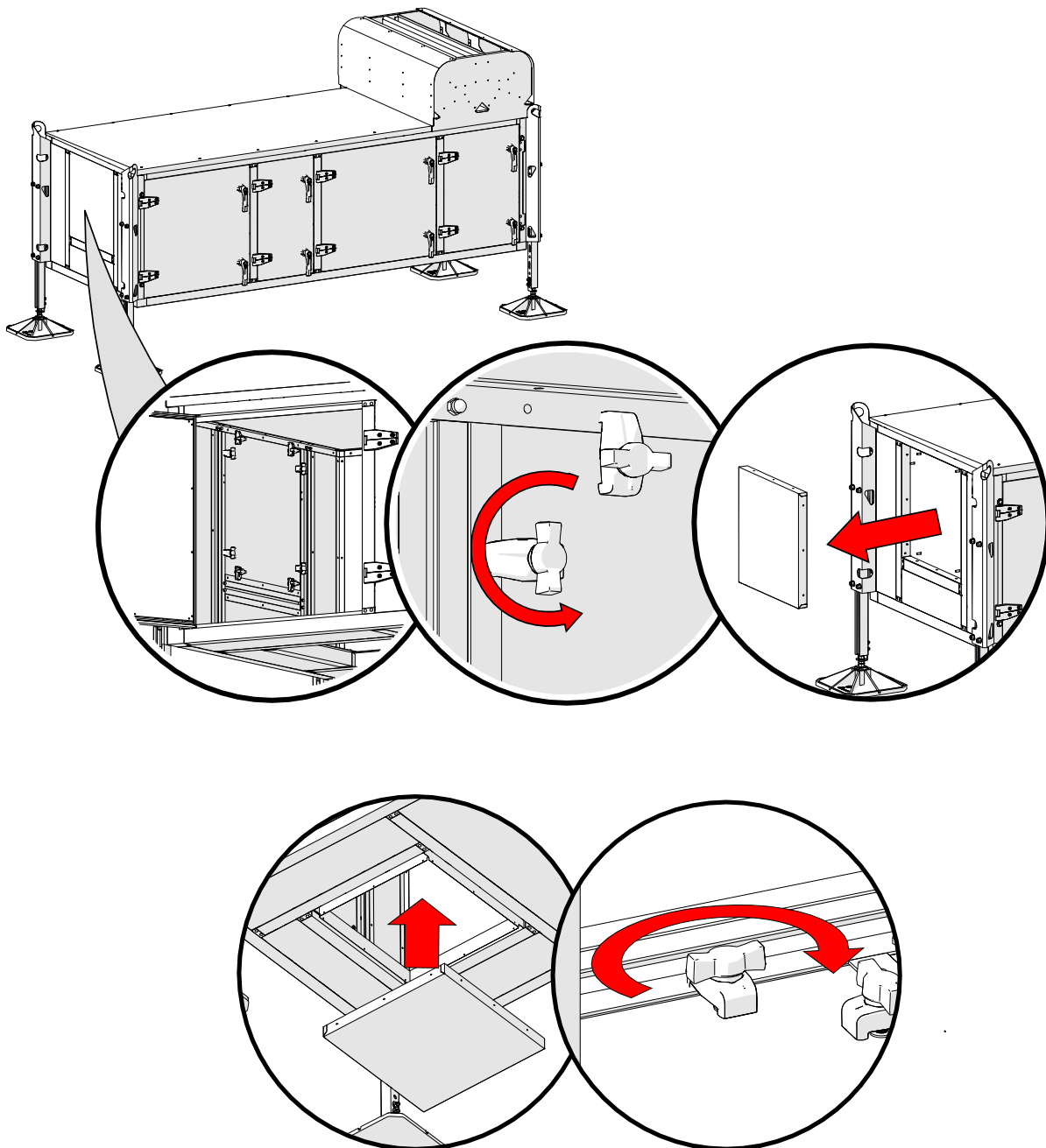
Make sure that all the equipment is delivered before installation. Notify any deviation of the ordered equipment to supplier.

- Make sure the doors are accessible for maintenance.
- Avoid placing the unit right against the wall.

8.1 Unit installation

Connection type

For sizes E2B and E3B it is possible to change the connection type, roof transition connection and side connection, on site. The units come as standard with roof transition connection ready. To change the connection type:

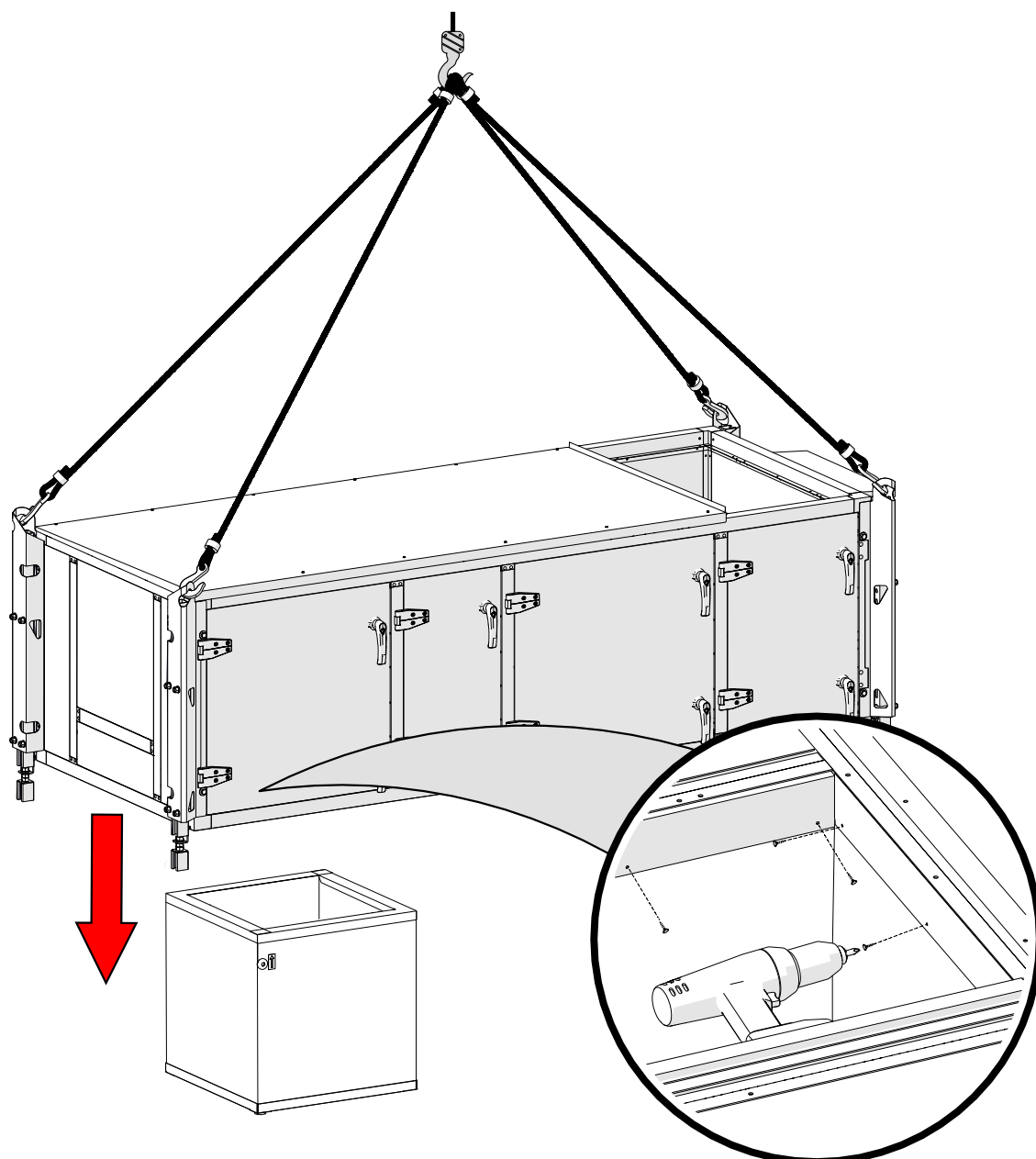


Installing the unit on the roof transition

* For installation with a side connection this step can be skipped.

For sizes E2B and E3B it is possible to install the unit on roof transition. Make sure to remove the roof hood before roof transition installation.

1. Lower the unit on top of the roof transition.
2. Make sure the unit opening and roof transition are aligned.
3. Connect the roof transition and unit with screws or rivets.
4. Use sealant to make the connection airtight.
5. Proceed to leg.



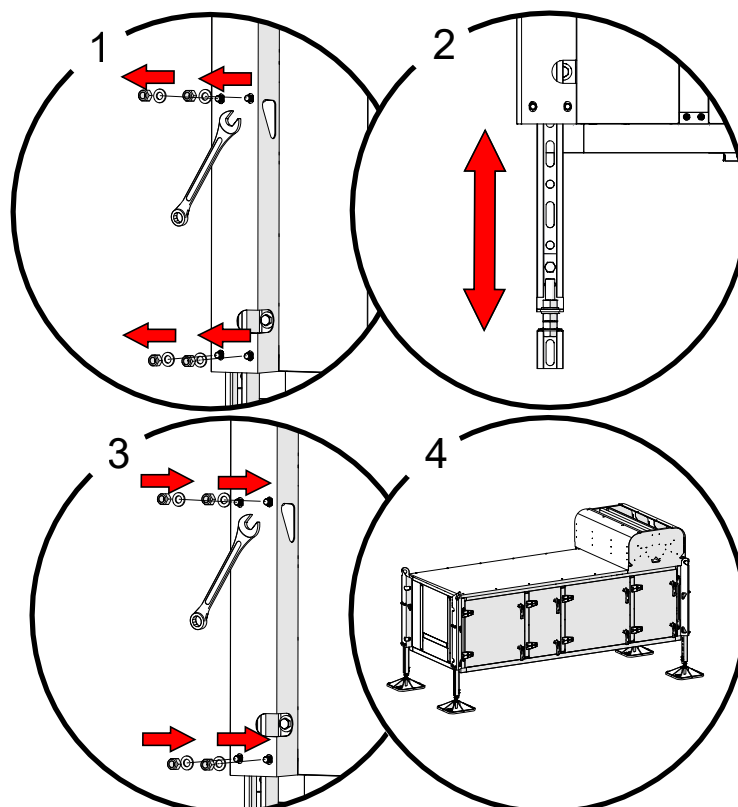
Installation and leg adjustment

For both roof transition installation and side duct connection setup, follow the instructions:

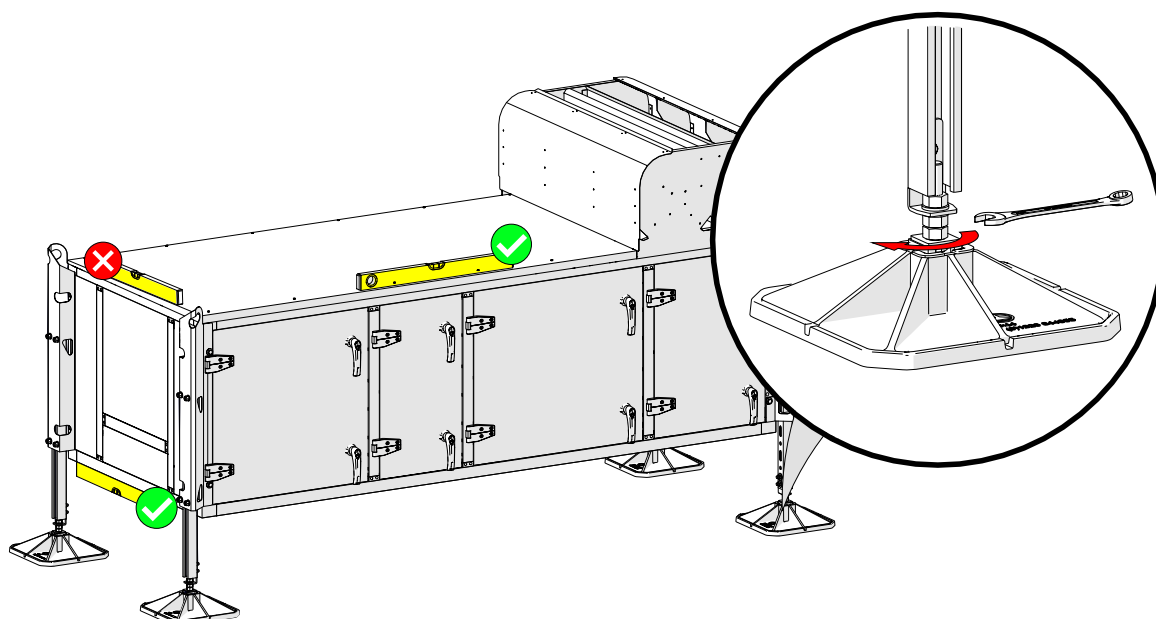
Place the footplates on the ground:

1. Loosen the bolts from the legs.
2. Lower the legs and adjust the height.
3. Place the legs on the footplate and lock the legs with bolts.
4. Tighten and secure the bolts with a clamp.

Make sure the unit is leveled before operation.

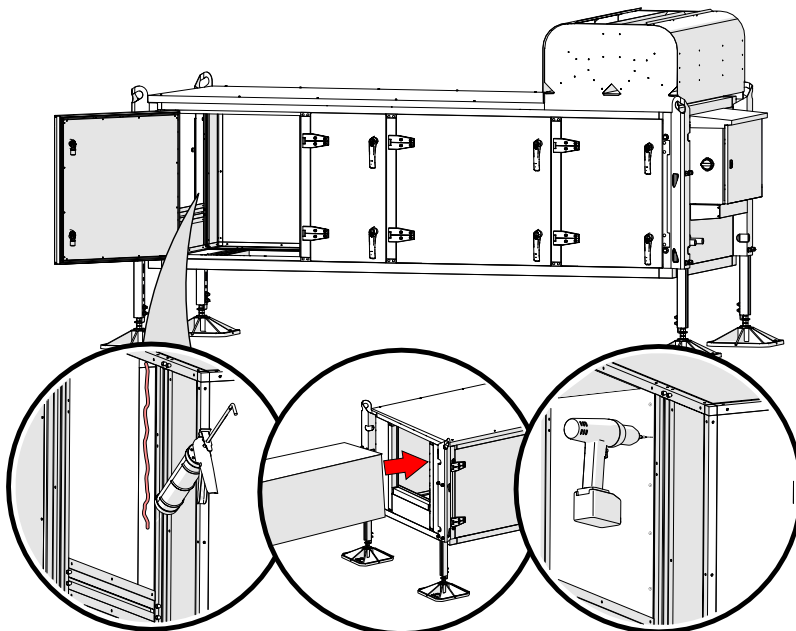


Leveling the unit



Making side duct connection

1. Make sure the unit is level.
2. Use sealant on the duct connection to make it airtight, like ETS NORD Ventilation Silicone.
3. Install duct inside the unit opening.
4. Connect the duct and the unit with screws or rivets.



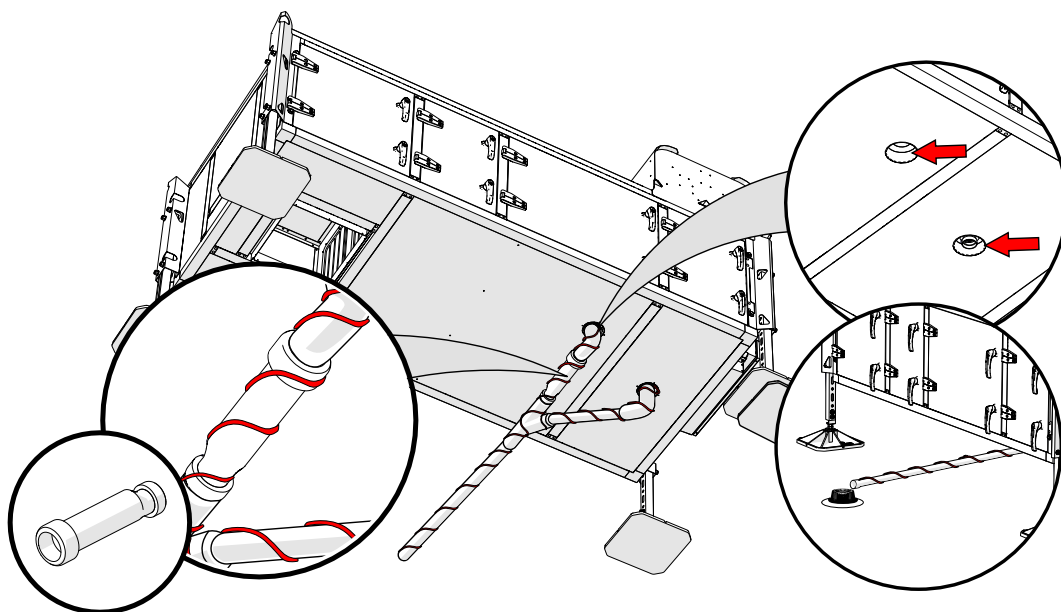
Drainage and drainage self-regulating heating cable installation

The unit has two condensation drainage connections, one for the heat exchanger section and the other for fan selection. Both drainage connections must be connected and guided to roof drainage.

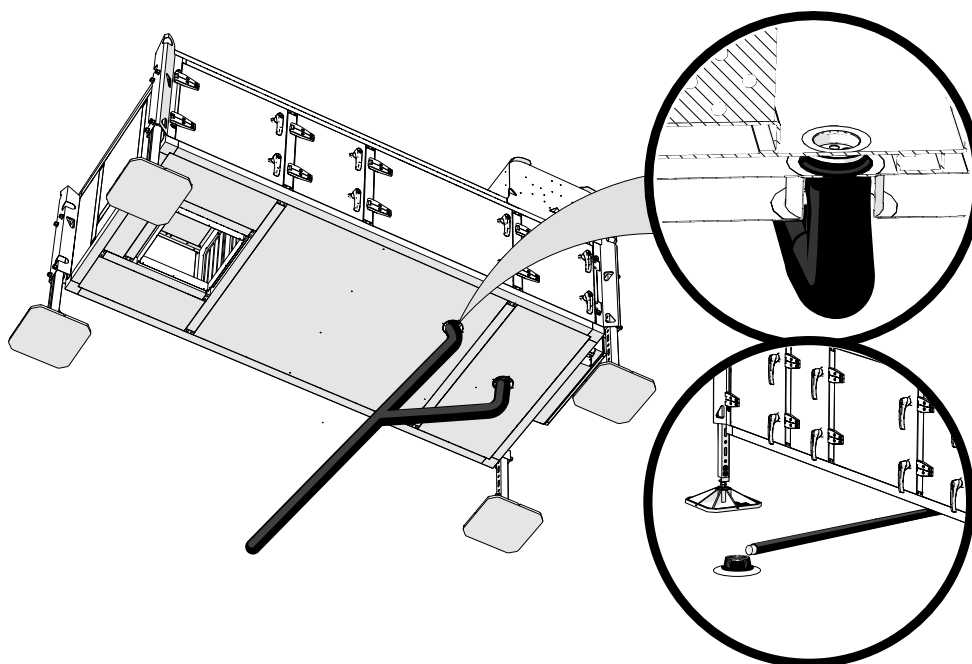
In addition, the unit has the option to connect the self-regulating heating cable to prevent condensate drainage freezing. The heating cable should be installed to the units that operate in colder climates. The heating cable is installed around the drainage pipe.



For self-regulating heating cable electrical connection refer to the electrical connection drawing. The heating cable is not delivered with the unit.

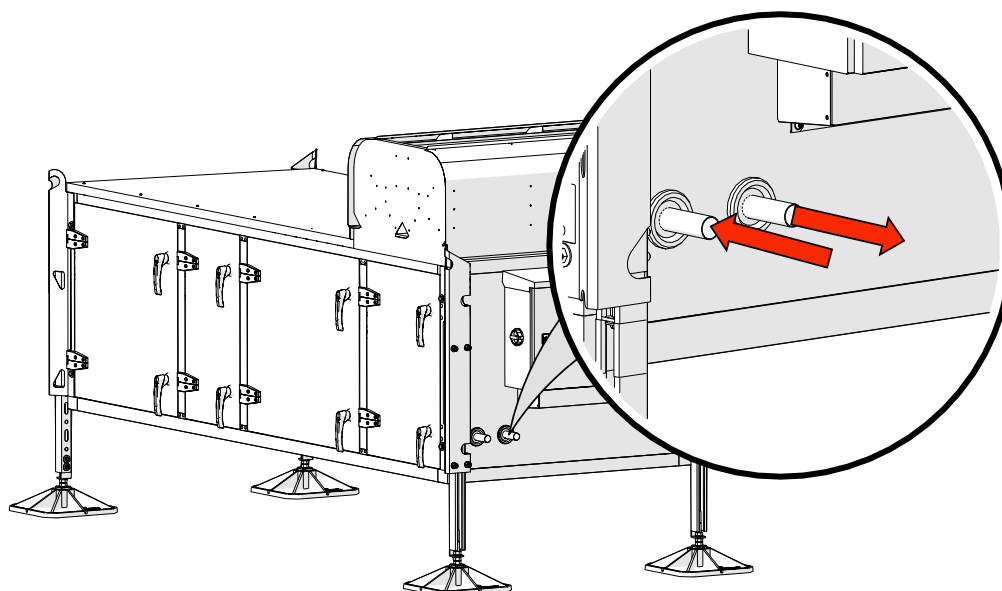


To mitigate the risk of freezing, the drainage pipe must be properly insulated:



Pipe connection

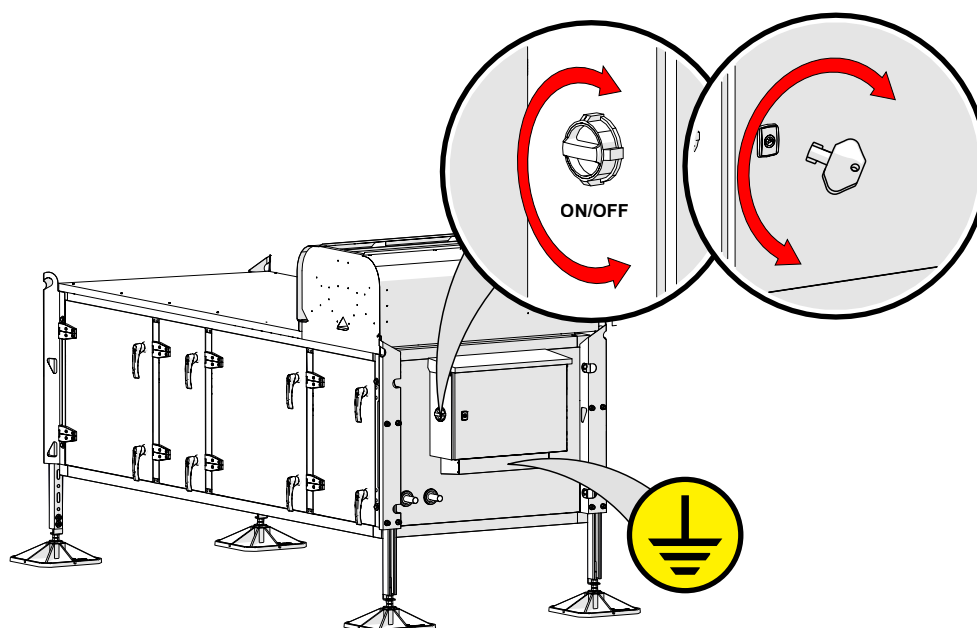
The pipe connection size is determined by the selected coil and specified in technical printout. The pipe connection is copper non threaded pipe ends.



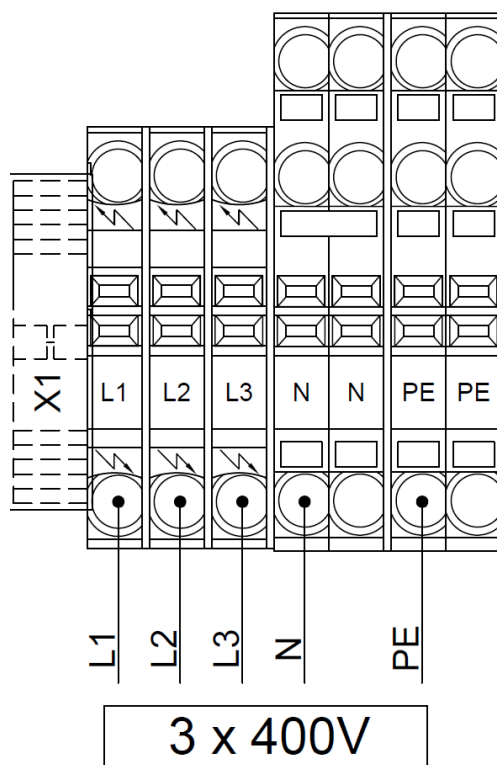
Electrical connection



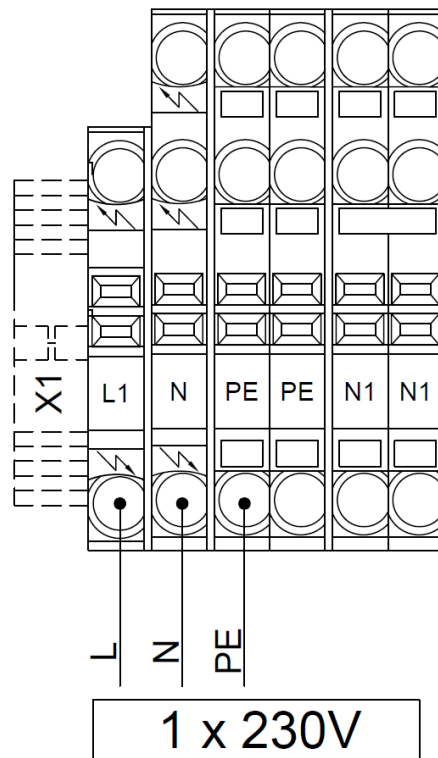
Always turn off the unit before opening the electrical panel.



E3B and E4C electrical connections



E2B electrical connections



9. Maintenance



Shut down the unit before opening the service door and doing any maintenance on the unit.

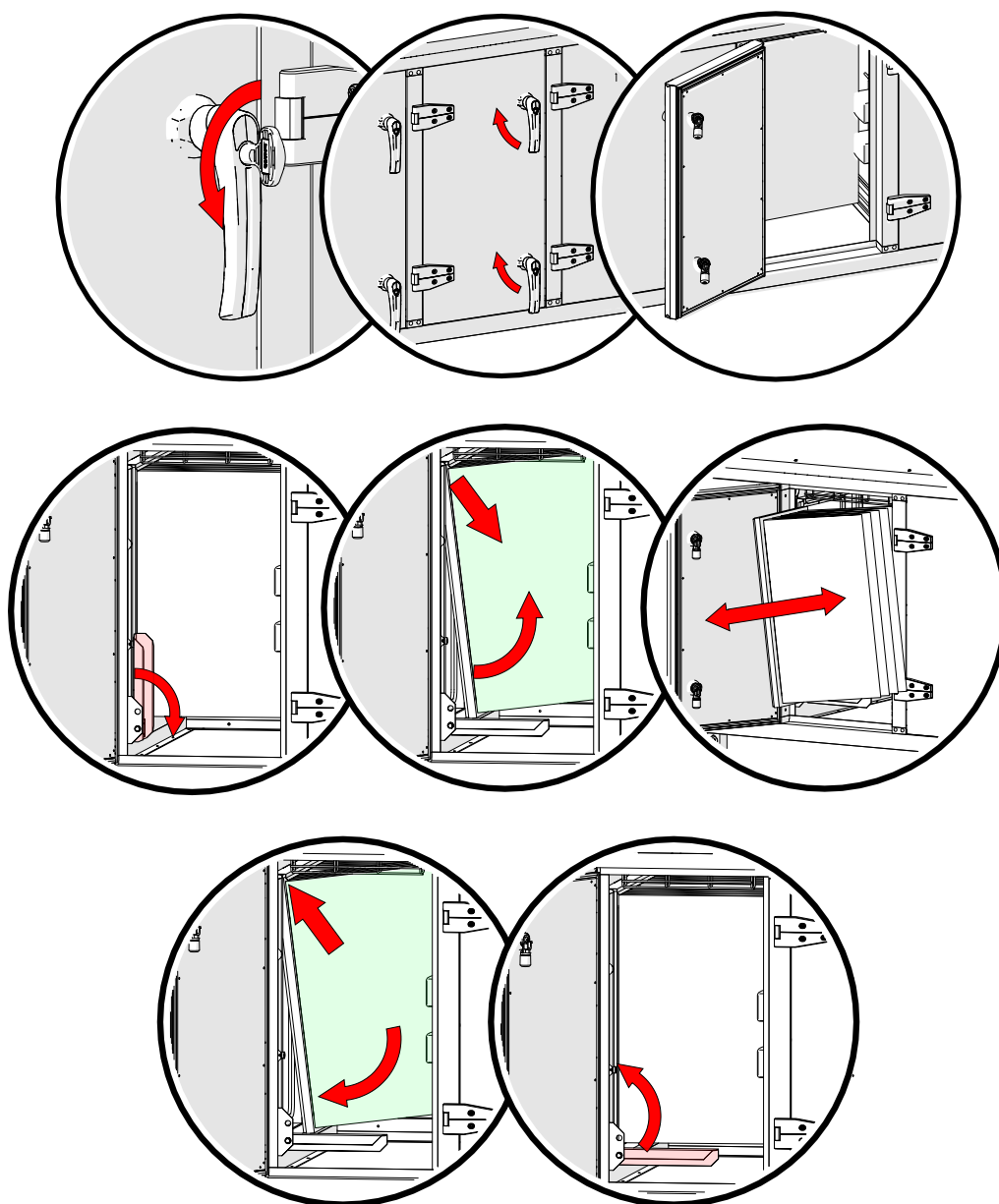
9.1 Filter replacement



Particles from the filter can be hazardous. Make sure you take the necessary precautions.

Filter types:

Unit size	Filter size (width x height x depth)	Number of bags per filter	Filter class for standard unit ISO 16890 / EN 779
E2B	3x (287x442x370)	3	ePM10 60% / M5
E3B	3x (287x592x370)	3	ePM10 60% / M5
E4C	2x (592x592x370) + 2x (592x287x370)	6	ePM10 60% / M5



9.2 Coil cleaning



Shut down the unit before opening the service door and doing any maintenance on the unit.

Regular cleaning of the coil fins is essential for optimal performance. The frequency of cleaning depends on the level of air cleanliness and the maintenance of the air filter and other system components. First, the air inlet side of the device must be cleaned with a brush, and then the entire coil must be cleaned with compressed air, water or steam (note that pressure washing is not allowed). Dirt must be blown out or washed out from the air outlet side towards the air inlet side. A mild detergent may be used to facilitate cleaning (make sure the detergent does not damage copper or aluminum). When cleaning, be careful not to damage the thin ribs of the device.

During the maintenance make sure that:

- There are no leakages in the system.
- Condensation tray, water lock and pipes are clean.
- There is no damage to lamellas, if necessary, use a fin comb.

9.3 Fan cleaning

Regular inspection and cleaning of extract air fans should be conducted as necessary.

- Wipe the fan impeller with cloth or vacuum cleaner with a soft nozzle. Dust accumulation primarily occurs on the inner side of the fan blades.
- Clean the fan's external surface from dust, dirt, and oil. If necessary, use soft cleaning detergent.
- Clean the fan section with cloth or vacuum cleaner with a soft nozzle.
- Take care to eliminate all impurities from the fan blades to avoid any imbalance.

Following any adjustments or cleaning, ensure that the fan operates smoothly without any vibrations.



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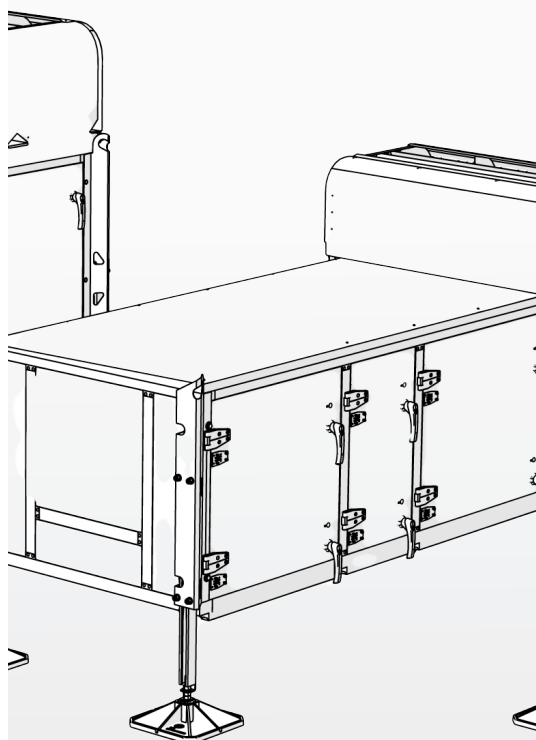
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*Let's move the air **together!***