Mounting

AM 950 C I AM 950 F

AIRMASTER

Revision	*Date*	*Description*
01	*2024-12-05*	*First edition.*
02	*2025-06-23*	*AM 950 C added. AME 900 F replaced with AM 950 F.*

NOTICE

Read the manual thoroughly before installing the AM 950 units.

Please keep it for later use. Manuals must be given to the owner of the unit for safekeeping.

Fill out this form for future reference:

Installation information	
Type	
Delivery date	
Serial number	
Mounting location	

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1 Introduction

This manual will give you instructions on how to install the AM 950 units (AM 950 C and AM 950 F) correctly and safely.

Mounting and installing an AM 950 unit is divided into two parts:

1. Mounting the unit (this manual).
2. Electrical installation. Please refer to the Installation manual.

Both manuals are part of the delivery. The manuals can also be downloaded from our website, see section 3.3.

1.1 Target group

This manual is addressed to qualified personnel.

1.2 Warning symbols

This manual may contain warning symbols. The colors and symbols adhere to the ISO 3864 and ISO 7010 standards. The visual depiction may vary depending on the type of media.

The symbols are described below:

	**DANGER** Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

	**WARNING** Indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

	**WARNING** Indicates a risk of crushing of hands.

	**CAUTION** Indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

Continued on the next page

	**CAUTION**
	Wear safety footwear as personal protection equipment.

	**NOTICE**
	Failure to comply with the instructions can damage the device and its environment.

	Information, tips, and recommendations.

1.3 Liability

The manufacturer cannot be held liable for damages due to usage violating this manual’s instructions.

The manufacturer reserves the right to make changes without notice. All values stated are nominal values and may be affected by local conditions.

The warranty is voided should this manual not be followed.

2 Safety instructions

Breaching the instructions marked with a warning symbol carries a risk of personal injury or material damage.

WARNING

- The unit must not be installed in explosion-protected rooms.
- The unit must not be installed in rooms with flammable or corrosive gas in the air.
- The unit must not be installed in rooms with abrasive particles in the air.
- The unit must not be installed in wet rooms.

CAUTION

Wear safety shoes for personal protection.

NOTICE

All applicable provisions must be observed when installing the unit in a room with a fire or stove drawing air from the room.

NOTICE

The unit should not be used without the filters specified in the Operation & Maintenance manual.

2.1 Responsibility

	CAUTION
	• The installation technician is responsible for installing the unit following local rules and standards. • The installation technician is responsible for ensuring that the unit is properly secured in a level vertical position. • The installation technician is responsible for ensuring that any existing functions in the wall/ceiling (e.g. vapor barrier) are restored and fully functional once the unit has been installed.

2.1.1 Personnel requirements

The mounting and installation of the unit must be done by qualified personnel. Laypersons should not attempt to install an AM 950 unit.

3 Product identification

3.1 AM 950 C

3.1.1 Product name and type

Product name	AM 950 C
Unit item number	9000950601
Type	Decentral air handling unit, ceiling/wall mounted

Figure 1: HHBB version

Table 1: Product name and type, AM 950 C unit

Please refer to Appendix A for a dimensional drawing.

3.1.2 Specifications

Weight: standard unit, complete	340 kg
Dimensions (W x D x H)	2167 x 1613 x 505 mm
Duct connection	Ø315 mm
Color: casing	RAL 9010

Table 2: AM 950 C specifications

Please refer to the AM 950 C datasheet for further information. The datasheet is available on our website, see information in section 3.3.

3.2 AM 950 F

3.2.1 Product name and type

Product name	AM 950 F
Unit item number	9000950701
Type	Decentral air handling unit, floor standing

Figure 2: HH and VV version

Figure 3: SSR version

Figure 4: SSL version

Table 3: Product name and type, AM 950 F unit

Please refer to Appendix B, Appendix C, and Appendix D for dimensional drawings.

3.2.2 Specifications

Weight: standard unit, complete	297 kg
Dimensions (W x D x H), HH and VV version	1150 x 661 x 2260 mm
Dimensions (W x D x H), SSR and SSL version	1210 x 661 x 2697 mm
Minimum ceiling height, HH and VV version	2300 mm
Duct connection	Ø315 mm
Color: casing	RAL 9010

Table 4: AM 950 F specifications

Please refer to the AM 950 F datasheet for further information. The datasheet is available on our website, see section 3.3.

3.3 Manufacturer

Airmaster A/S

Industrivej 59

9600 Aars

Denmark

Phone: +45 98 62 48 22

E-mail: info@airmaster.dk

Web site: www.airmaster.dk

4 Transportation and storage

The AM950 unit is packed on a pallet. Each pallet contains one unit.
The pallet must be tied up during transport so it will not move or shift. Make sure that it is not dropped or otherwise damaged during handling.

NOTICE

The unit must be stored in a dry area at a temperature between -10 to 30° C.

NOTICE

The unit can be tilted briefly, e.g. when passing through a door. Tilt the unit front side upward:

Ensure you support the back side of the unit with e.g. blocks of wood or similar to avoid damaging the fittings on the back side.

When tilting the unit always place it on the back side, never on the edges.

4.1 AM 950 C

Gross weight (1 unit and pallet)	Approx. 370 kg
Net weight (unit)	340 kg
Pallet dimensions (L x W)	2350 x 800 mm

Table 5: Weight and dimensions, AM 950 C

4.2 AM 950 F

Gross weight (1 unit and pallet)	Approx. 330 kg
Net weight (unit)	297 kg
Pallet dimensions (L x W)	2350*1300 mm

Table 6: Weight and dimensions, AM 950 F

5 Important information before you mount the unit

Read the instructions in this chapter carefully *before* you begin.

WARNING

- The floor and walls in the room where the unit is mounted must be even and leveled.
- Minimum ceiling height is 2300 mm for the AM 950 F unit. (see section 3.2.2).
- Use screws intended for the supporting wall/ceiling material. Make sure the screws can support the unit's weight and fit the unit's attachment points.

If the AM 950 F unit tips over due to an uneven or unlevelled surface, there is a high risk of serious personal injury and damage to the unit.

NOTICE

Use appropriate lifting equipment. The unit is heavy; do not try to lift or move it by hand.

NOTICE

Duct holes in the wall must have an outward-downward faced gradient of 1-2% to prevent heavy rain from entering the unit.

We recommend drilling duct holes 10-15 mm larger than indicated on the drawings.

This will allow for subsequent insulation, prevent direct contact with the wall, and allow for a vapor barrier, etc. to be restored.

5.1 Minimum distance to building parts and room layout

5.1.1 AM 950 C

It is important to position the unit correctly. Below is a sketch of the most important distances that you need to consider before installation.

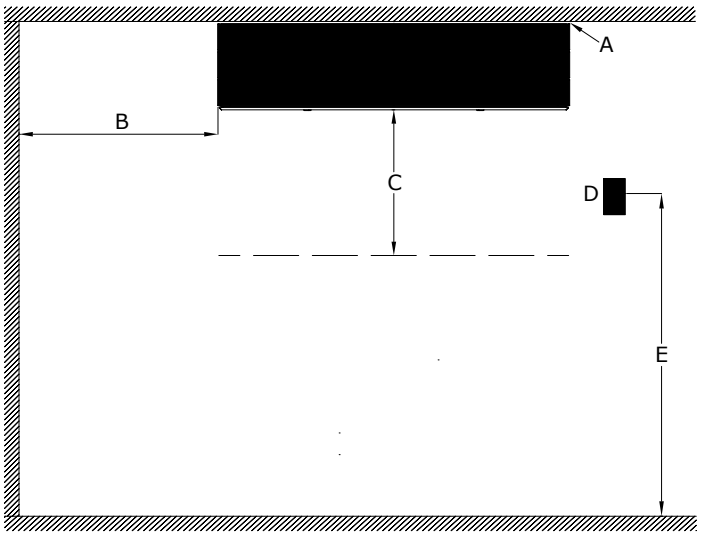


Figure 5: Minumum distance to building parts, AM 950 C unit

A	Max. distance from ceiling = 6 mm
B	Min. distance from wall = 0.5 m
C	Min. free space for maintenance work = 0.95 m
D	External PIR/motion sensor
E	Approx. 2.25 m (1.8 m – 2.5 m)

Table 7: Minimum distances, AM 950 C unit

Obstacles in the room affect the airflow from the AM 950 C unit, hence it is also necessary to consider the layout of the room when choosing the right position.

See examples of correct vs. incorrect installation in Figure 6.

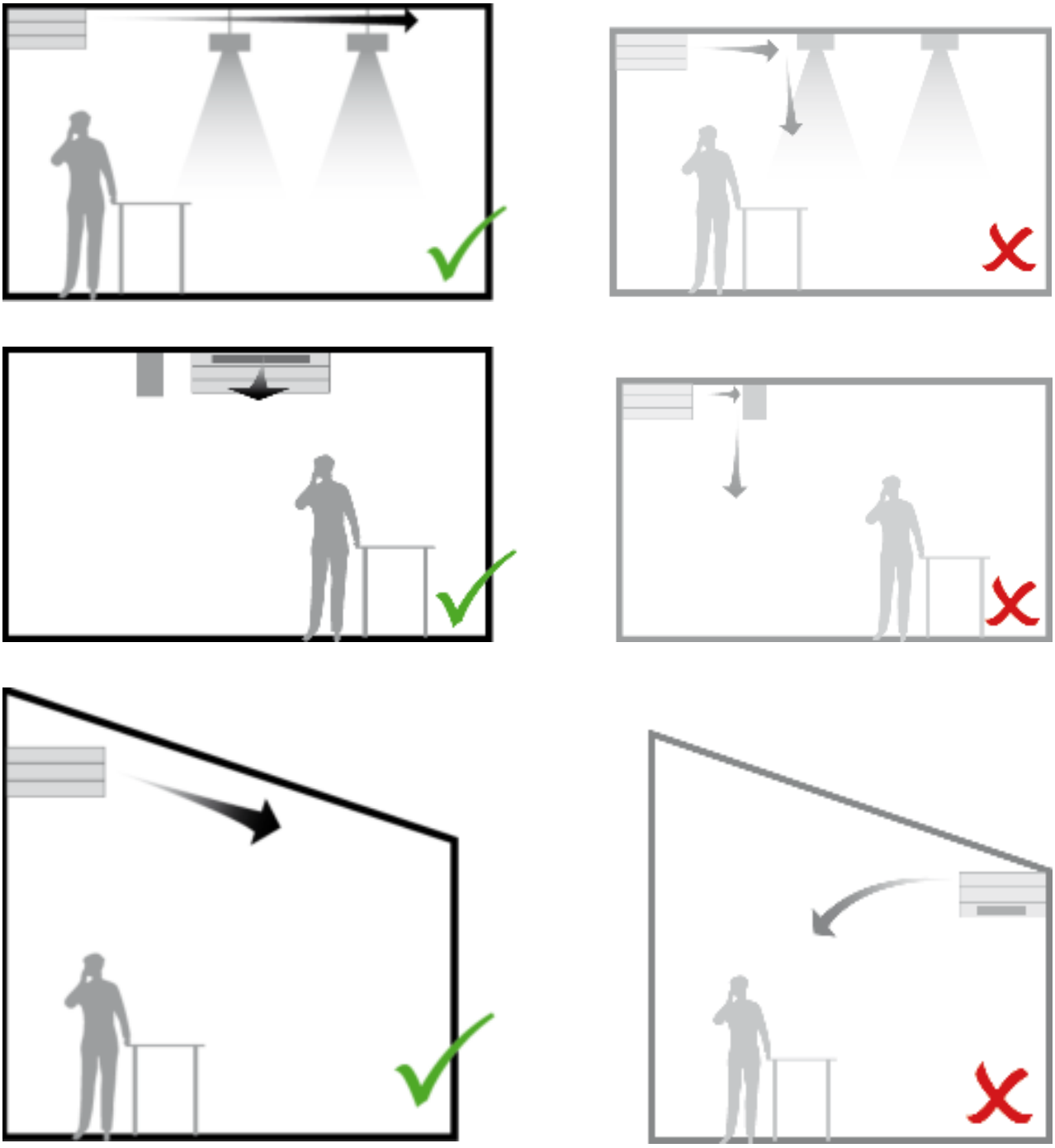


Figure 6: Correct installation vs. incorrect installation

5.1.2 AM 950 F

It is important to position the unit correctly. The unit itself requires free space for the door to open. Obstacles in the room may affect the airflow from the unit, hence it is necessary to consider the room's layout when choosing the right position.

Below are the most important distances you need to consider before installation:

- *A minimum distance of 10 mm is required on the left-hand side* (seen from the front) to open the unit door.
- *A minimum distance of 1150 mm is required in front of the unit*, otherwise, the unit door cannot open.

As mentioned above, obstacles in the room can affect the flow of air. A large ceiling lamp, for instance, can interrupt the airflow creating unwanted flow directions, see an illustrative example below:

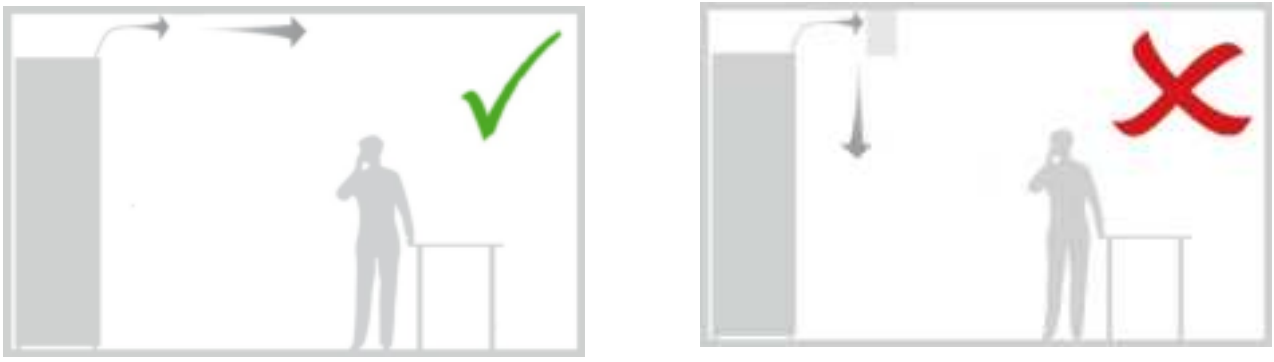


Figure 7: Obstacles can create unwanted flow directions - illustrative example only

5.2 Tools and accessories

Before you start mounting the AM 950 C or AM 950 F unit you need the following tools and accessories:

- Lifting equipment appropriate for the unit weight (min. 350 kg), e.g., a pallet loader.
- A core drill (min. Ø315 mm, see the Information Box on page 13)
- Common hand tools, including a spirit level
- Sealants and sealing tape.
- Clean underlay to prevent scratches to the unit, e.g. strong cardboard, thick plastic, a blanket, or equivalent material.
- Laths/battens/blocks of wood to support the unit when lifting it.

Depending on the customer's order: duct pipes, grilles, as well as a vapor barrier may also be required.

It is not possible to do the installation correctly without this equipment.

5.3 Unpacking

The scope of delivery can be seen from the delivery note; however, a general list of parts is listed below:

- AM 950 unit
- Airlinq® Orbit control panel, Airlinq® Viva control panel (option)
- Condensate drain hose (option, included if the condensate pump is selected as an option)
- Duct pipes, grilles, vapor barrier (options)
- Service cover key
- Manuals: Mounting manual, Installation manual, Operation & Maintenance manual.

Make sure you have all the parts and check if any parts look damaged before starting the installation.

	**CAUTION**
	Do not start the installation if one or more parts on the delivery note are damaged or missing.

6 The mounting process

6.1 AM 950 C

The mounting process for the AM 950 C unit is divided into seven steps, each of these steps is described on the next pages.

1. Disassemble the side and front covers
2. Disassemble the rear bracket
3. Mark drill holes for the brackets and ducts
4. Drill holes
5. Mount the bracket
6. Mount the unit
7. Reassemble the side and front covers

When the AM 950 C unit is shipped from the factory the rear bracket is mounted on the unit, this needs to be disassembled. To do so, you must first disassemble the side covers.

You also need to disassemble the front cover to attach the unit to the ceiling.

Once this is done, you proceed to mark and drill holes for the brackets as well as the duct holes in the wall.

The next step is to mount the rear bracket, then lift and mount the unit onto the bracket. The side covers and the front cover are then reassembled.

When the unit is mounted proceed to mount duct pipes and grilles, and the drain. This completes the mounting process.

The electrical installation, including installation of the optional Airlinq® Orbit or Airlinq® Viva control panel, is performed afterward, please refer to the Installation manual.

Once the unit is mounted fill out the form on page 2 with details on type, date, serial number, and mounting location.

6.1.1 Disassemble the side and front covers

1. Disassemble the left-hand side cover, see Figure 8. Carefully place the cover on a protective underlay to prevent scratches to the surface.

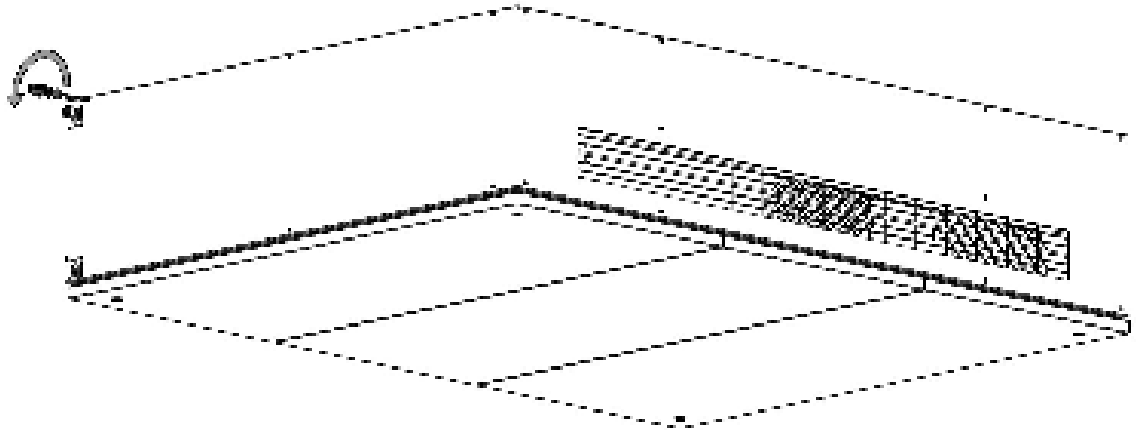


Figure 8: Disassemble the left-hand side cover

2. Disassemble the right-hand side cover, see Figure 9. Carefully place the cover on a protective underlay to prevent scratches to the surface.

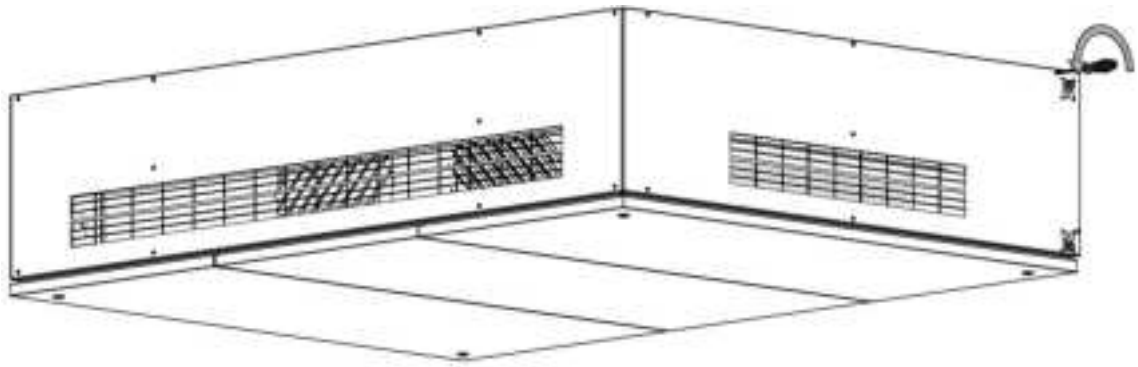


Figure 9: Disassemble the right-hand side cover

3. Disassemble the front cover, see Figure 10. Carefully place the cover on a protective underlay to prevent scratches to the surface.

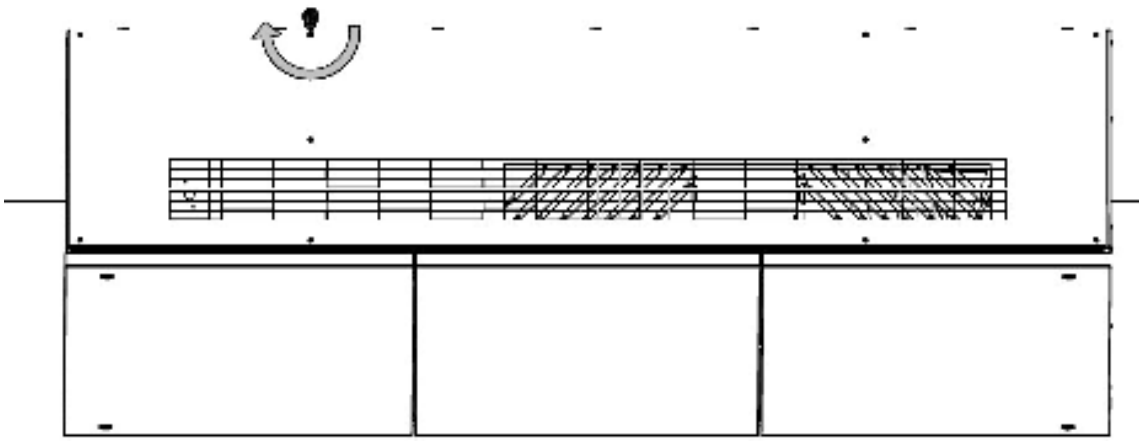


Figure 10: Disassemble the front cover

Keep the bolts and washers, you need them when reassembling the front and side covers.

6.1.2 Disassemble the rear bracket

1. Disassemble the rear bracket, see Figure 11 and Figure 12:

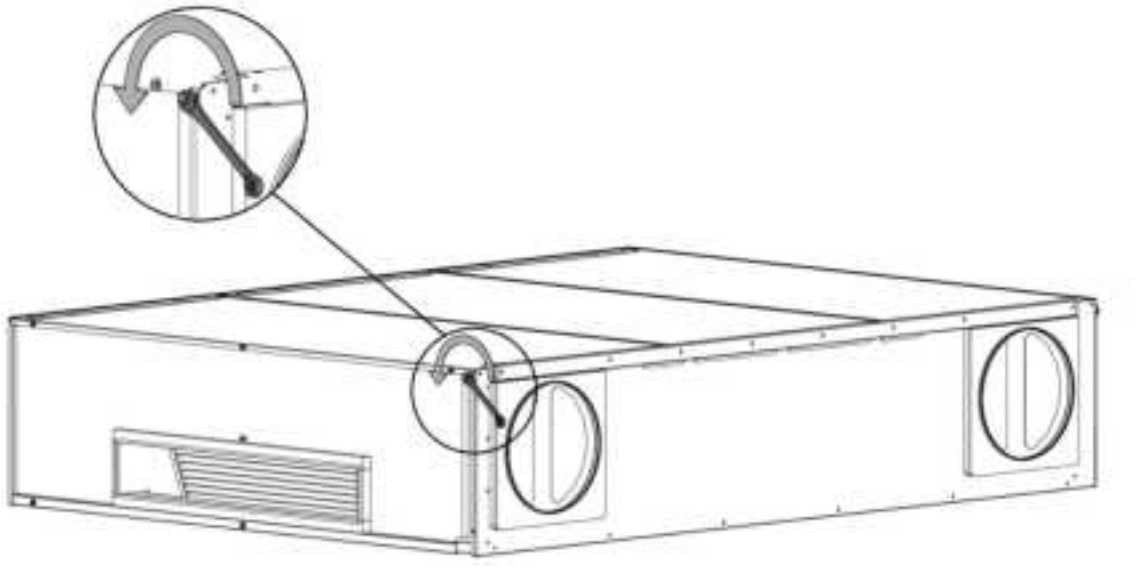


Figure 11: Disassemble the rear bracket, left-hand side seen from behind

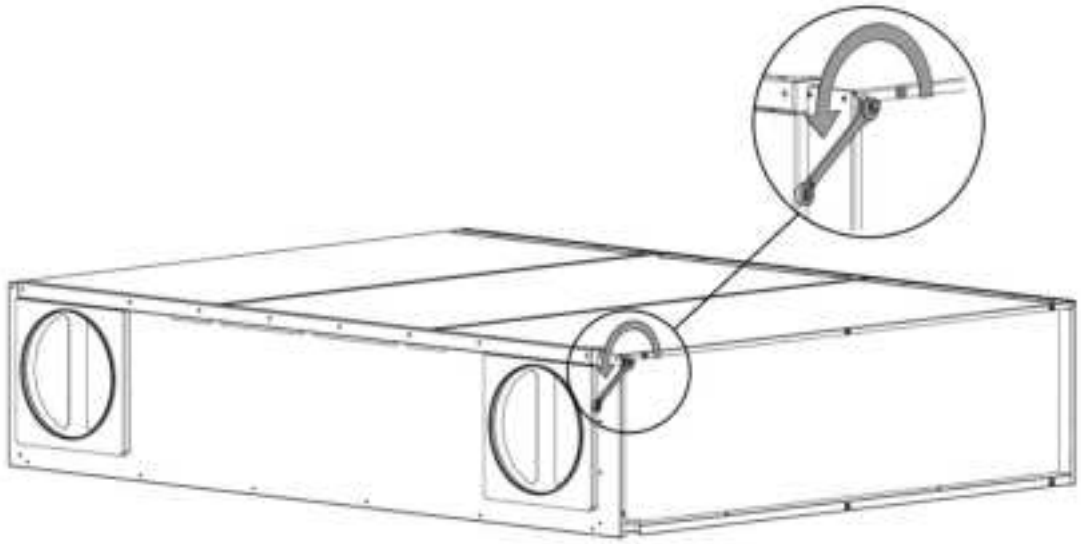


Figure 12: Disassemble the rear bracket, right-hand side seen from behind

Keep the bolts, you need them to mount the unit onto the bracket.

6.1.3 Mark drill holes for the brackets and ducts

6.1.3.1 Rear and front brackets

1. Hold the rear bracket against the wall and ceiling. Make sure the bracket is level. See Figure 13.
2. Mark the holes for the rear bracket.
3. Mark the holes for the front bracket, see Figure 14, Figure 25 and Table 8.
   (The front bracket is part of the unit and cannot be disassembled).

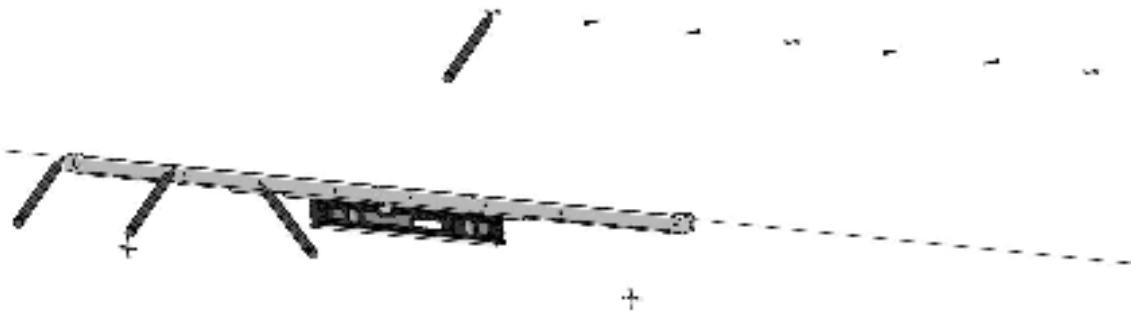


Figure 13: Mark drill holes for the rear and front brackets

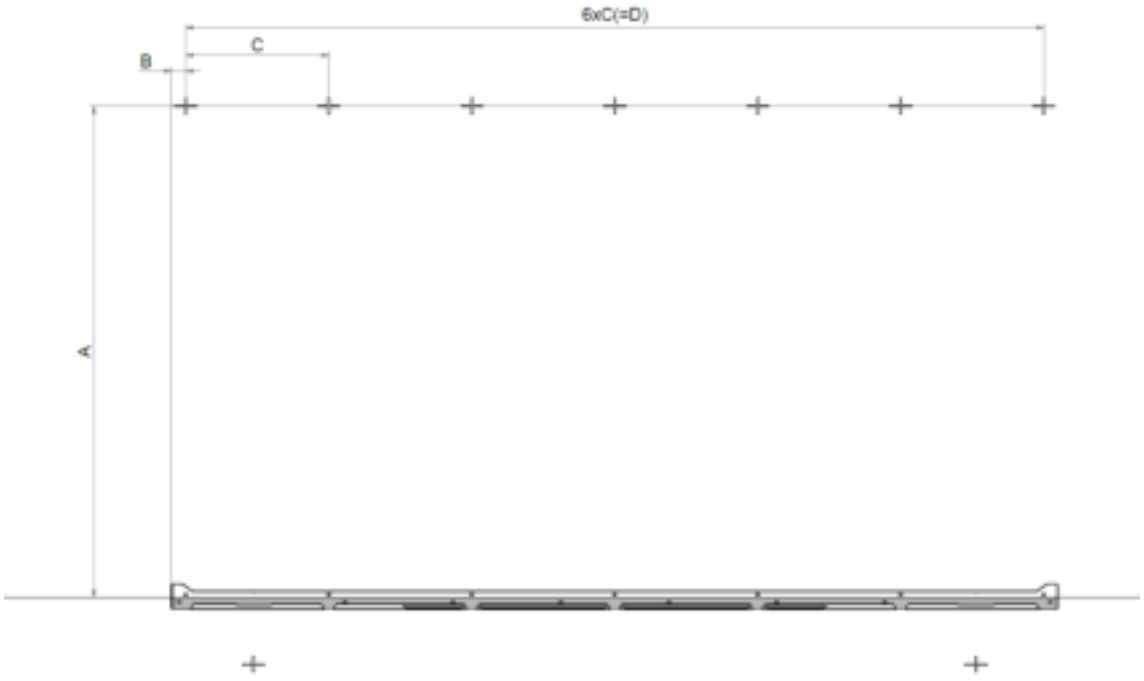


Figure 14: Distances from rear bracket to front bracket

A	B	C	D
1580 mm	32 mm	321 mm	1926 mm

Table 8: Bracket distances

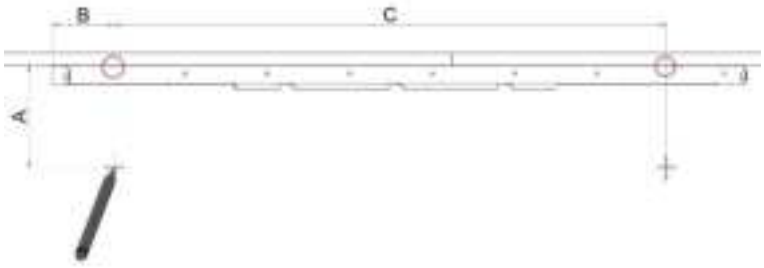
6.1.3.2 Duct

1. Hold the rear bracket against the wall and ceiling as you did just before. Make sure the bracket is level and in the same place as before.
2. Mark the center of the duct holes, see Figure 15 and Table 9.

Figure 15: Mark drill holes for the ducts

A	B	C
213 mm	184 mm	1620 mm

Table 9: Duct distances

	The rear bracket has two notches on the top, these mark the center of the duct holes. Use this as a reference point to control that your measurements are correct. 

6.1.4 Drill holes

The next step is to drill the holes.

When drilling the duct holes make sure you have the correct gradient as well as size, see the Information Box on page 13.

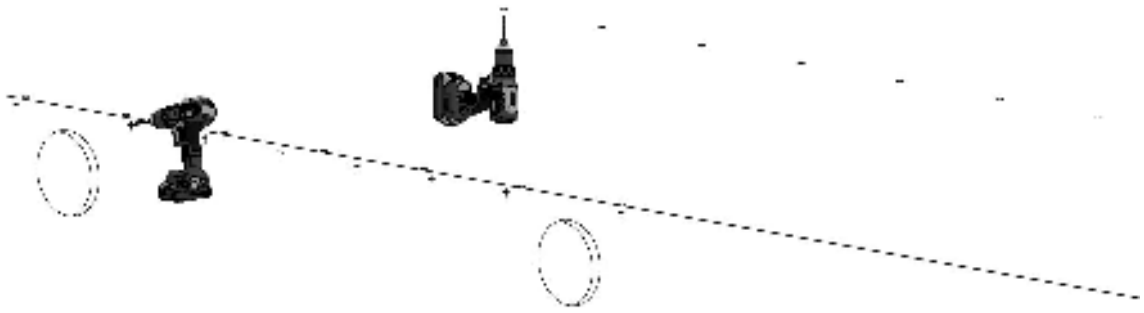


Figure 16: Drill holes

6.1.5 Mount the bracket

1. Mount the bracket using *all* the attachment points, both on the wall and on the ceiling.

Figure 17: Mount the bracket

6.1.6 Mount the unit

Use appropriate lifting equipment to lift the AM 950 C unit, refer to section 5.2 on page 16.

1. Place a protective underlay between the lift and the unit to prevent scratches, see Figure 18 below.
2. Lift the unit up and onto the bracket. Make sure it is hinged onto the bracket correctly.
   Make sure that the electrical wire and the drain hose do not get squeezed between the wall/ceiling and the unit.
3. Make sure the unit is level.

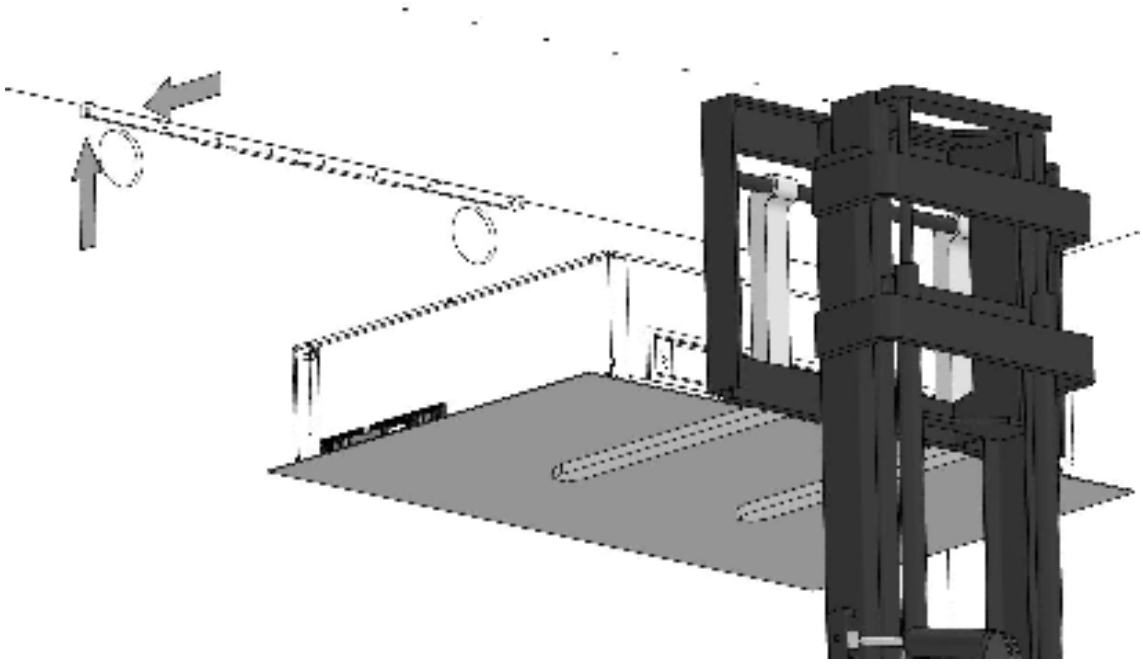


Figure 18: Lift the unit up and onto the bracket

	**WARNING**
	Do not place your hands between the wall and the unit.

4. Attach the unit to the bracket on both sides using the large bolts that you kept when you dismantled it, see Figure 19 and Figure 20 below.
   The bracket fully supports the unit when mounted correctly.
5. Check that the unit is level.

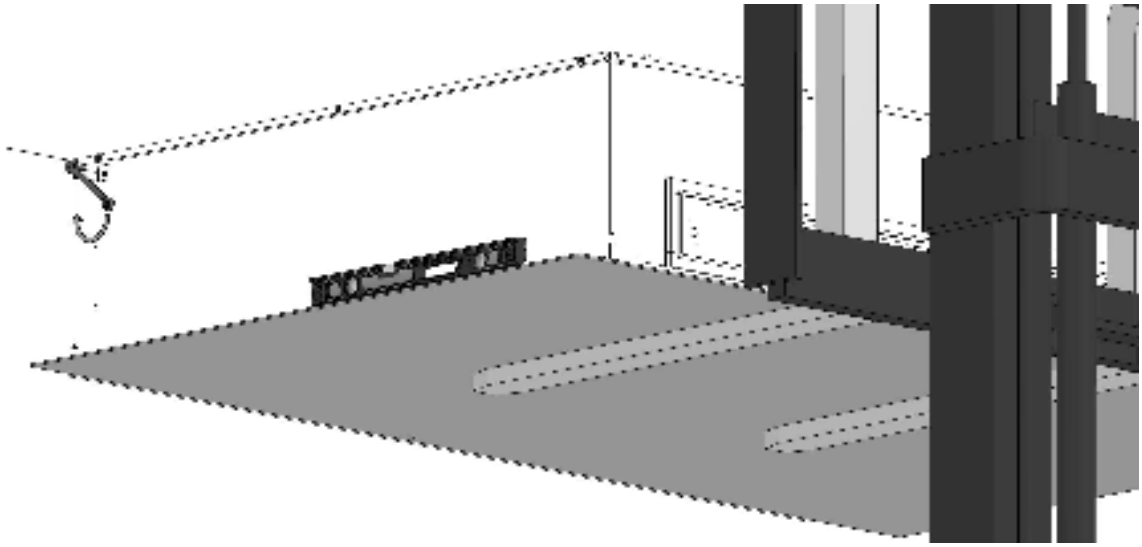


Figure 19: Attach the unit to the bracket, left-hand side

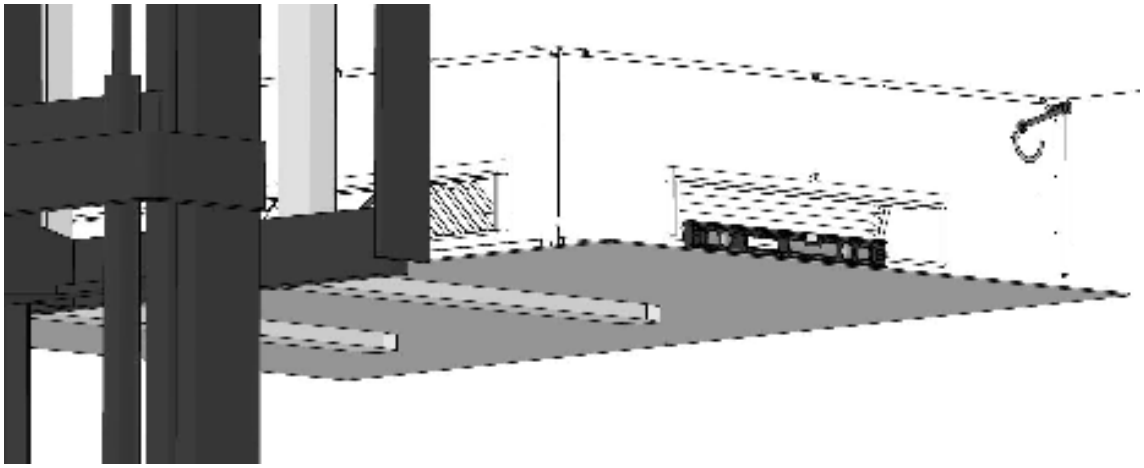


Figure 20: Attach the unit to the bracket, right-hand side

6. Mount the front bracket onto the ceiling, see Figure 21. Use *all* the attachment points.
7. Check that the unit is level.

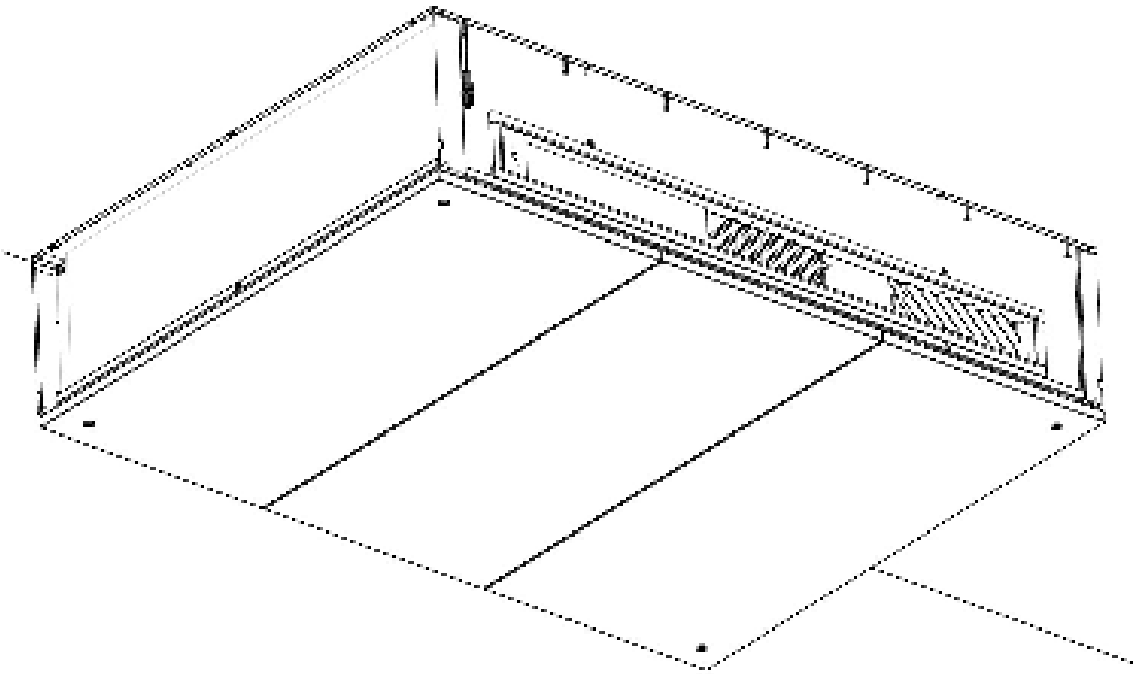


Figure 21: Mount the front bracket to the ceiling

6.1.7 Reassemble the side and front covers

Reassemble the front and side covers using the bolts from earlier on, see Figure 22, Figure 23, and Figure 24.

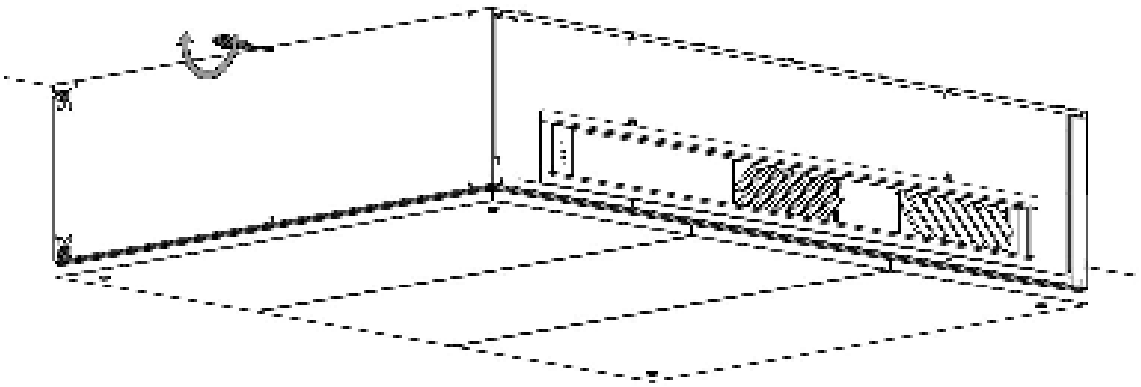


Figure 22: Reassemble the left-hand side cover

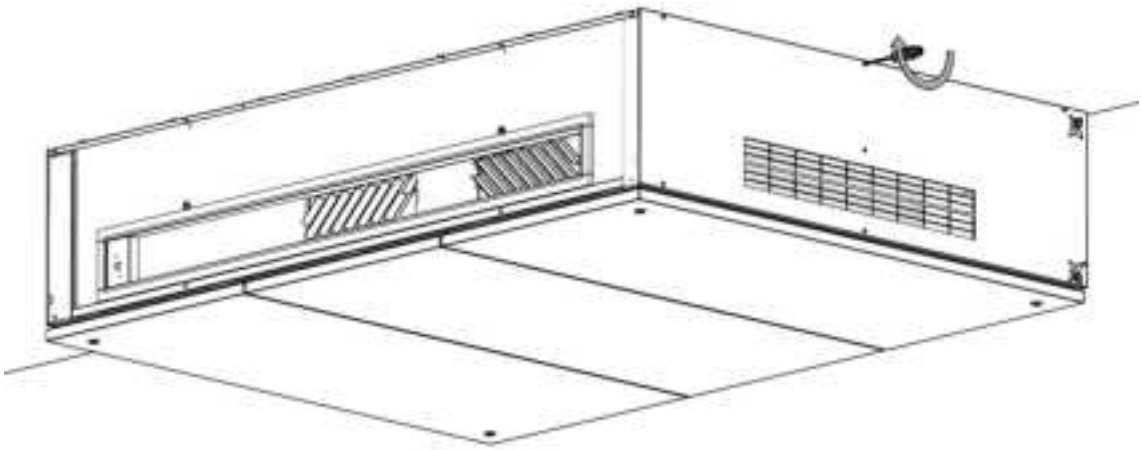


Figure 23: Reassemble the right-hand side cover

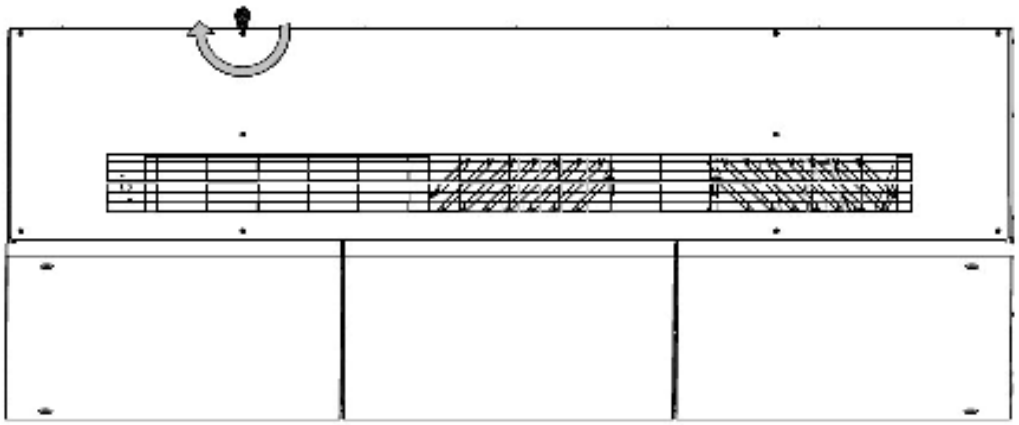


Figure 24: Reassemble the front cover

Next step is to mount duct pipes and grilles, please continue with section 6.3, Mount duct pipes and grilles, on page 32.

6.2 AM 950 F

The mounting process for the AM 950 F unit is divided into three or four steps:

1. Mark and drill duct holes
2. Mount the unit
3. Mount duct pipes and grilles + sealing
4. Connect the drain (if the unit is supplied with a condensate pump and drain).

Each of these steps is described on the next pages. Please note that the figures refer to the HH version only.

If you are mounting a VV, SSR, og SSL version you need to consider the location of the duct holes. Please refer to Appendix B, Appendix C, or Appendix D for dimensional drawings of each version.

The electrical installation, including installation of the optional Airlinq® Orbit or Airlinq® Viva control panel, is performed afterward, please refer to the Installation manual.

Once the unit is mounted fill out the form on page 2 with details on type, date, serial number, and mounting location.

6.2.1 Mark and drill duct holes

When drilling the duct holes make sure you have the correct gradient as well as size, see the Information Box on page 13.

1. Mark the holes for the ducts.
2. Drill duct holes.
   When drilling, consider wearing a face mask or similar protection equipment to protect yourself from inhaling dust particles.

6.2.2 Mount the unit

1. Before lifting the unit into an upright position place some laths/battens/blocks of wood as depicted in Figure 25. Without this, the height-adjustable feet may break or deform once the unit is lifted. Make sure the feet are as short as possible.

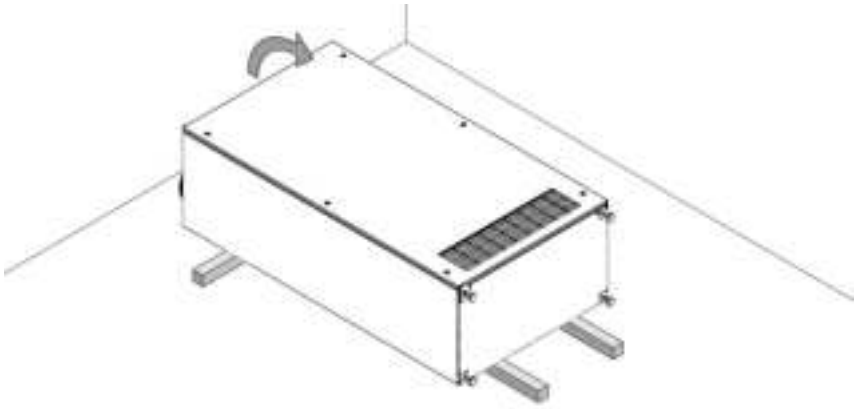


Figure 25: Place laths/battens/blocks of wood before lifting the unit

2. Raise the unit into an upright position and place it in its final position, as close to the wall as possible. A pallet loader can for instance be used to move the unit, see Figure 26 below.

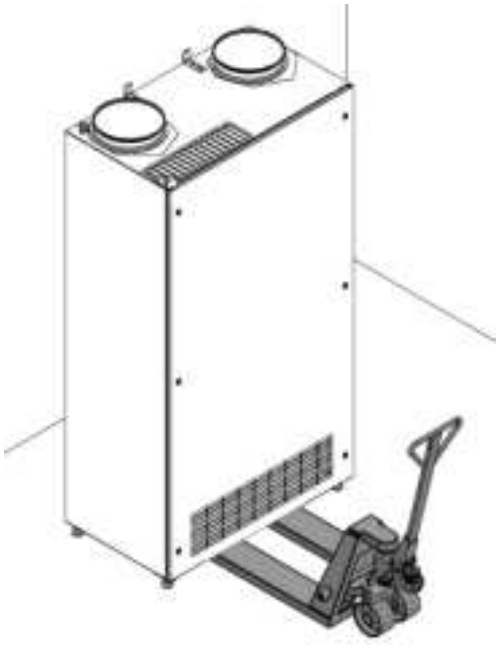


Figure 26: Move the unit into place

	**WARNING**
	Do not place your hands between the wall and the unit.

	CAUTION
	Be careful when moving the unit on the pallet loader. If the unit tilts over it can cause injury to persons and damage the unit.

3. Adjust the feet to make the unit level, see Figure 27 below.

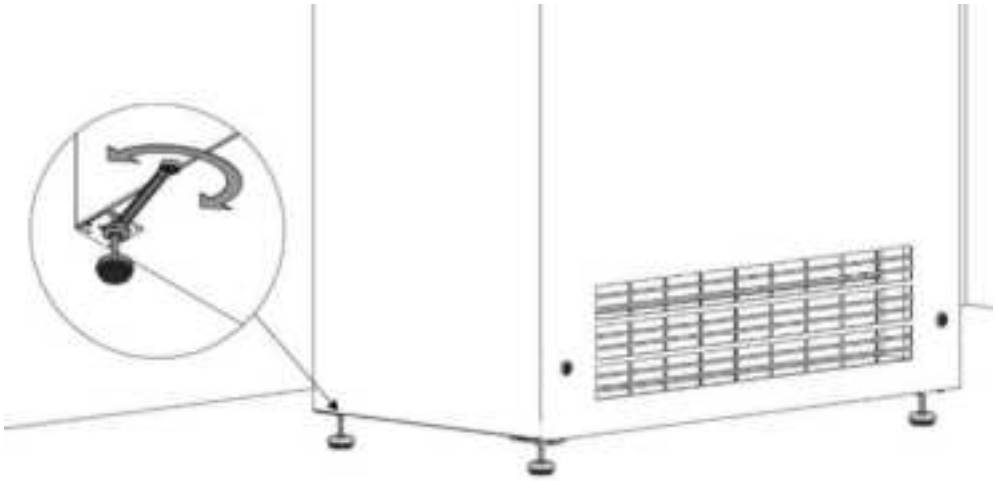


Figure 27: Adjust the feet to level the unit

4. Attach the brackets on top of the unit to the wall using screws applicable to the material of the wall. Make sure the unit is firmly secured to the wall.

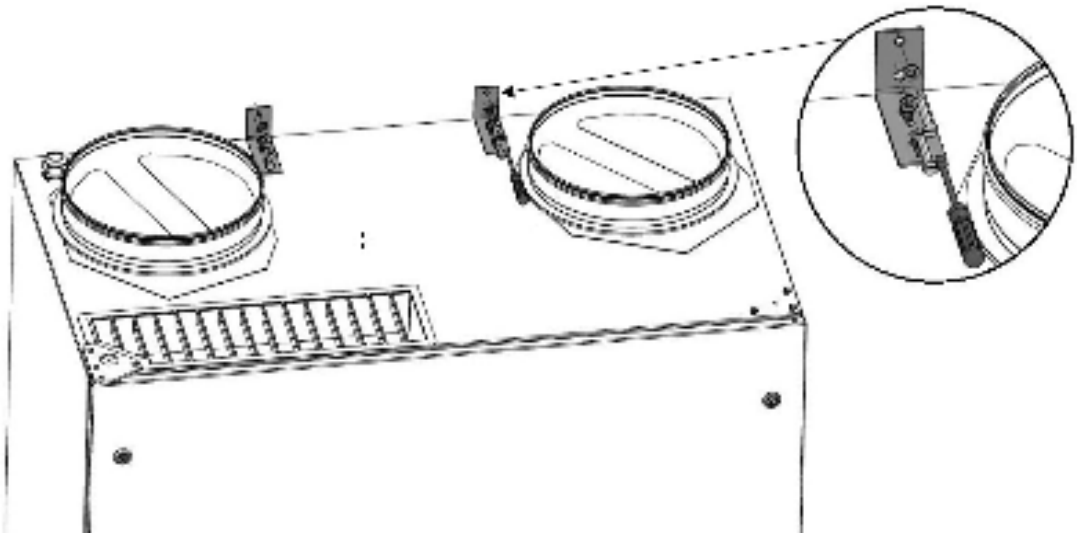


Figure 28: Attach the bracket on top of the unit to the wall

6.3 Mount duct pipes and grilles

Please note that this section and the following subsection provide a general description of fitting the ducting and subsequent sealing.

Materials and methods for fitting the ducting depend on the customer's order, the options chosen, and the actual site, hence we can only provide general guidance on this matter. However, the steps required are the same:

1. Mount the unit (already done)
2. Fitting the ducting
3. Mount the outside grille.

Figure 29 provides a general overview. Please note that this depicts a unit with intake/exhaust ducts on the back side, however, the process also applies to units with intake/exhaust ducting going through the ceiling.

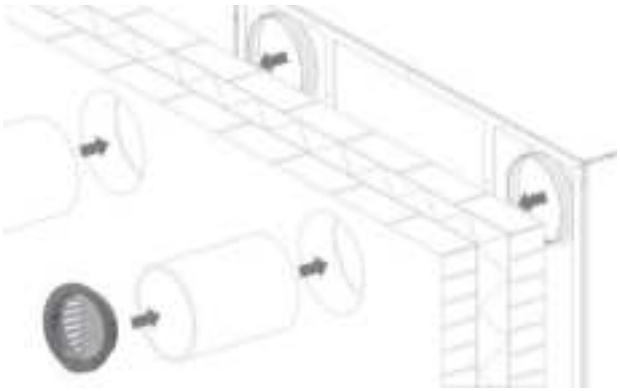


Figure 29: Duct pipes and grilles - general overview

	NOTICE
	• Ventilation ducts must be installed according to local standards and rules in effect. • Condensation and heat insulation must be performed according to local standards and rules in effect. • Fire requirements according to local standards and rules in effect must be observed.

Important information:

- The length of the ducting is calculated based on the thickness of the wall/dimensions of the roof.
- Make sure the duct pipes do not get twisted or compressed against the intake air spigot/exhaust air spigot on the unit as this will increase the noise level.
- Intake air ducts and exhaust air ducts must be insulated against condensation if they are within the building envelope. Service access must be provided to all components.
- Intake air ducts and exhaust air ducts must be insulated against noise if they are visible. Service access must be provided to all components.
- Sealant must be applied to the outside and inside, see section 6.3.1.
- An outside grille must be mounted. Please refer to our website for more information on the Boomerain® grille.

6.3.1 Sealing

Please note that Figure 30 below depicts a unit with intake/exhaust ducts on the back side through a wall.

Figure 30 is a sectional drawing depicting a wall with a duct hole and duct fittings. A unit is installed on the inner wall, i.e. the grey box on the right-hand side marked with the number ‘1’.

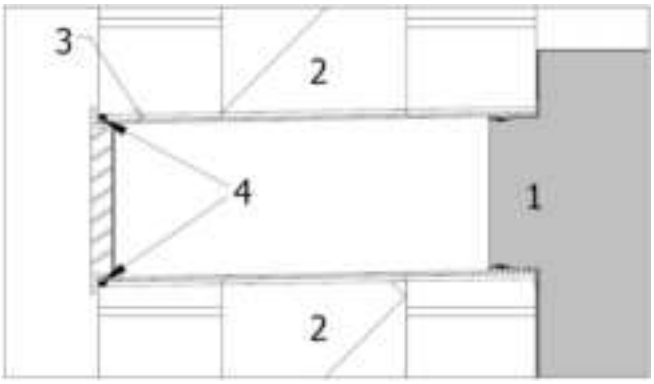


Figure 30: Sealing the gaps around ducts, sectional drawing

1	Unit
2	Wall
3	Duct and duct pipe
4	Sealing points on the outside

1. Apply sealant to the duct's outside edges, see ‘4’ in Figure 30 above.
2. Apply sealant to the inside around the base and sides of the unit, i.e. between the unit and the wall, see Figure 31 below.

   Depending on the condition of the wall use a sealant that retains long-term elasticity or expanding sealing tape to form a flexible seal.

Figure 31: Sealing around the unit

6.4 Condensate drainage (option)

Depending on the options chosen, the AM 950 unit may be fitted with a condensate pump and a condensate hose.

Please note that this section provides general information about condensate drainage. We can only provide general guidance as drainage connections depend on the actual site.

Drainage can be done in various ways; one is to connect the drain hose to a waste-water pipe, and another is to lead the hose through the outer wall. Other options also exist.

If the drainage hose is connected to a waste-water pipe we recommend installing a water trap to block unpleasant odors emanating from the waste-water system, see Figure 32.

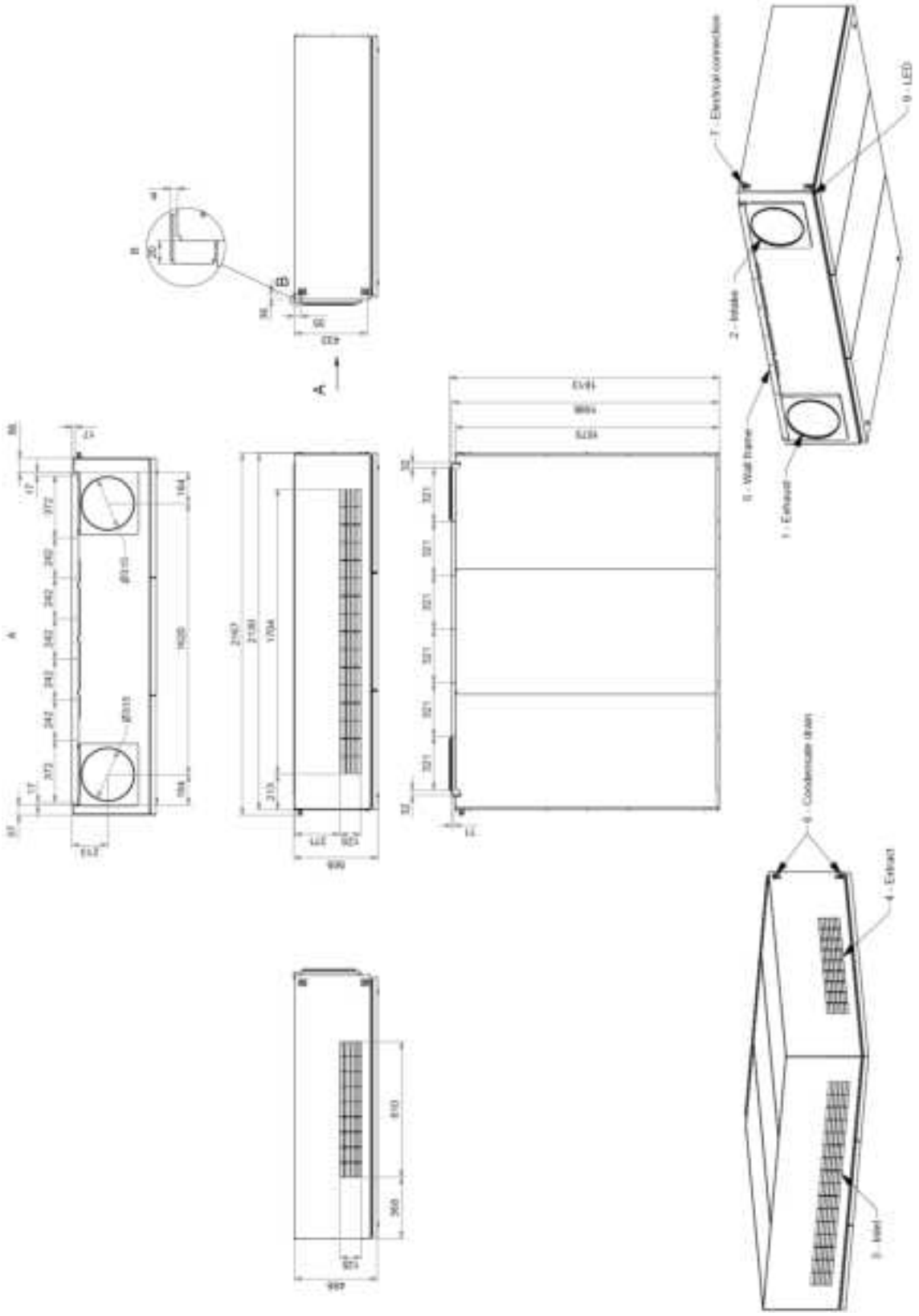
Figure 32: Water trap to avoid odors

The drainage hose can also be led through the outer wall; when doing so, the hose *must* be protected against the formation of ice.

If you wish to lead the drainage hose through the wall drill a hole with a suitable diameter and an outwardly sloping gradient of 1-2%.

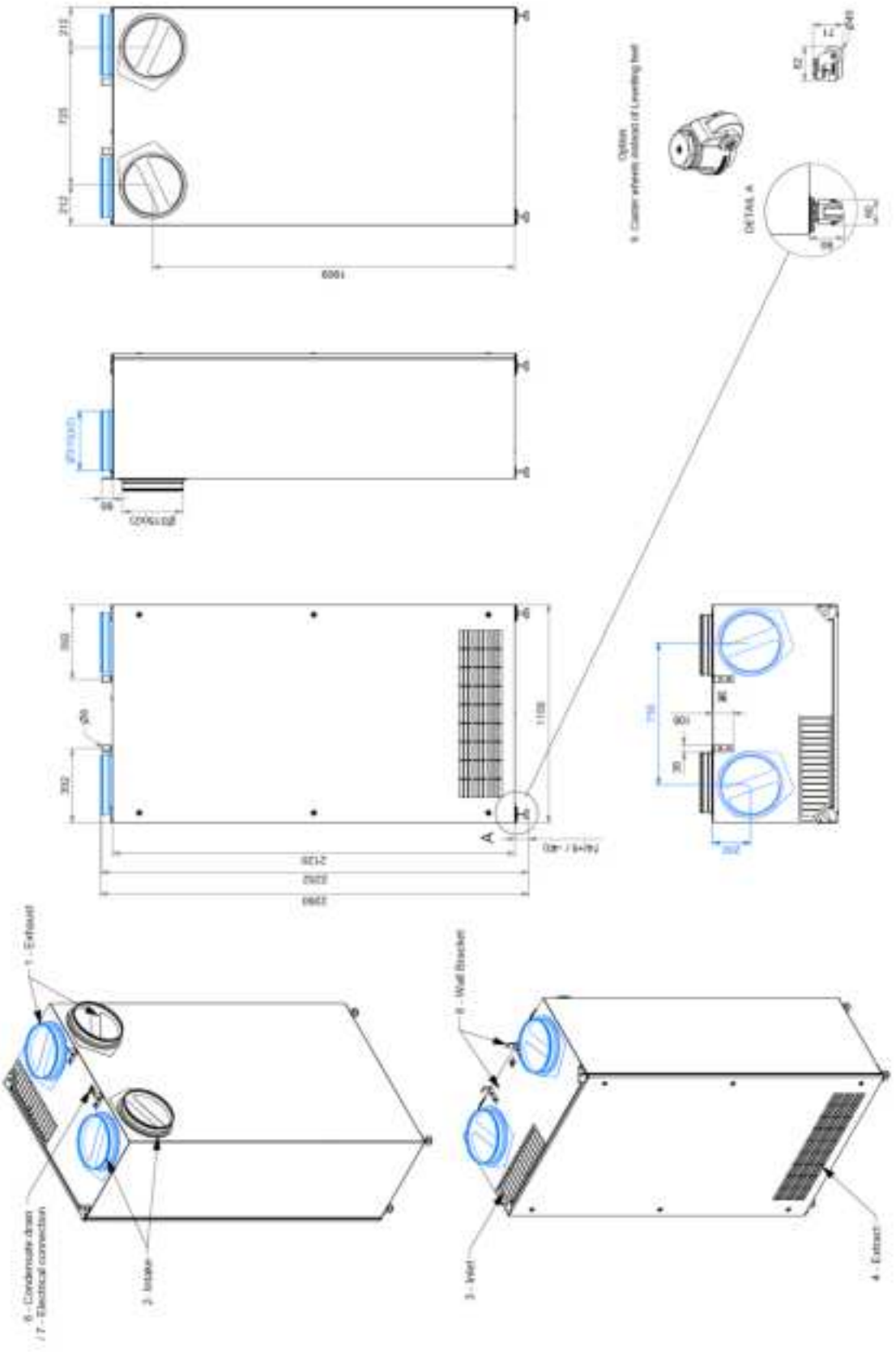
Remember to seal the joint between the hose and the outer wall.

Appendix A Dimensional drawing, AM 950 C unit



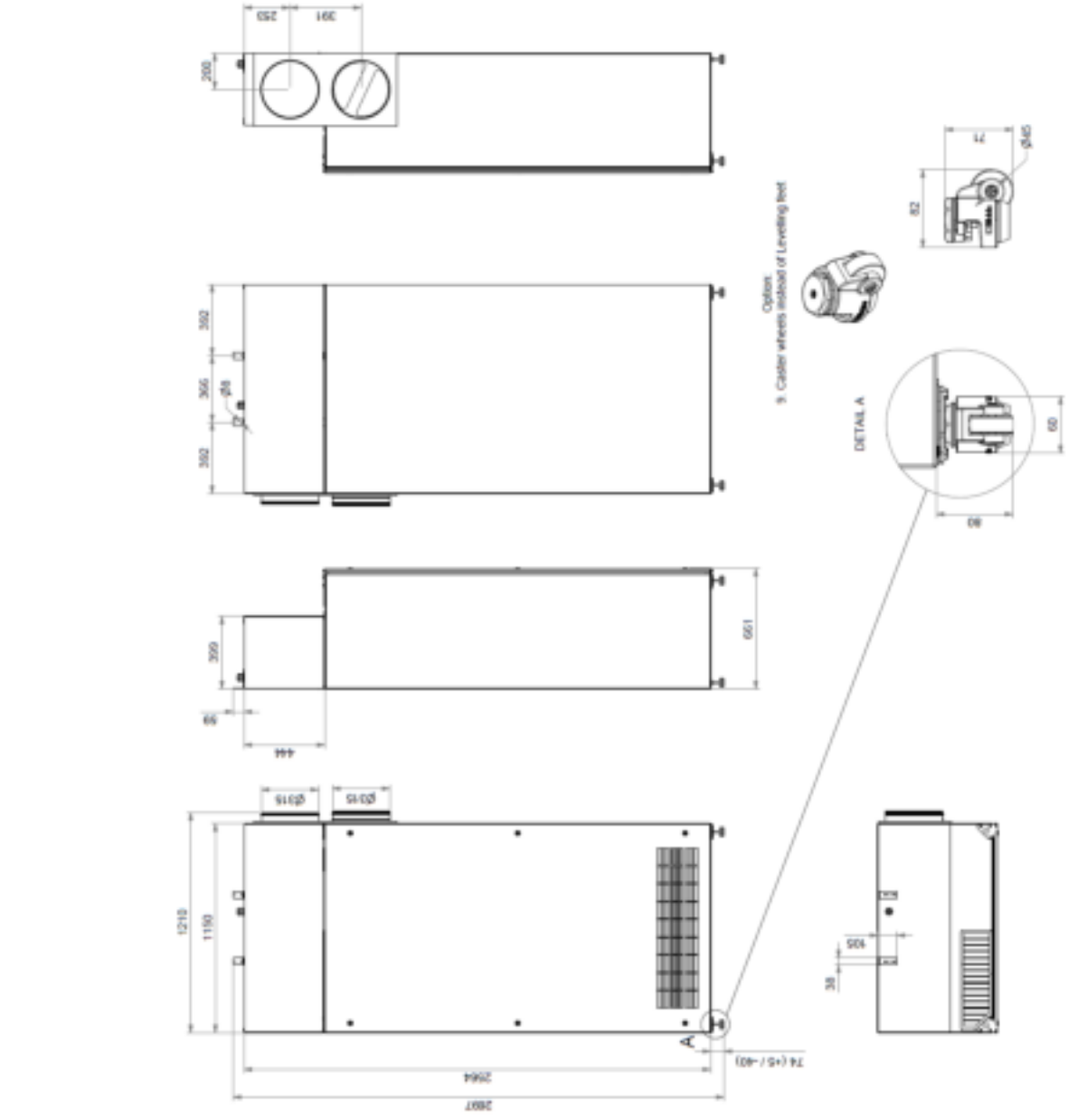
Measures in mm.

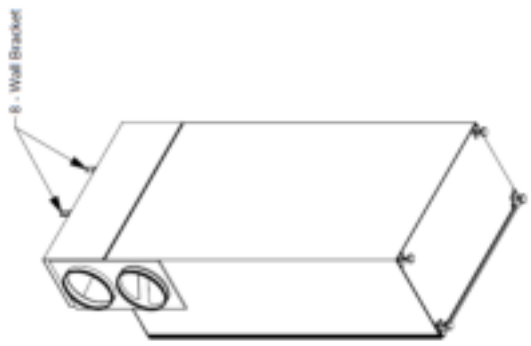
Appendix B Dimensional drawing, AM 950 F unit, HHVV

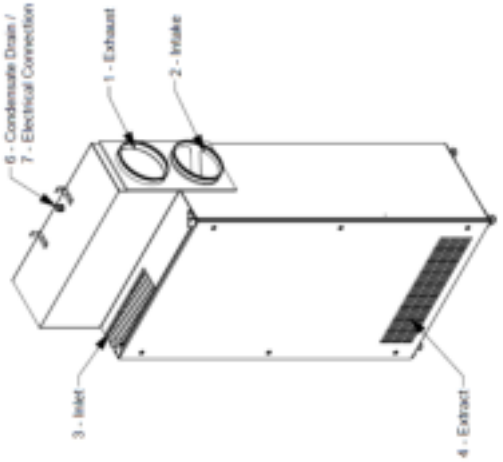


Measures in mm.

Appendix C Dimensional drawing, AM 950 F unit, SSR

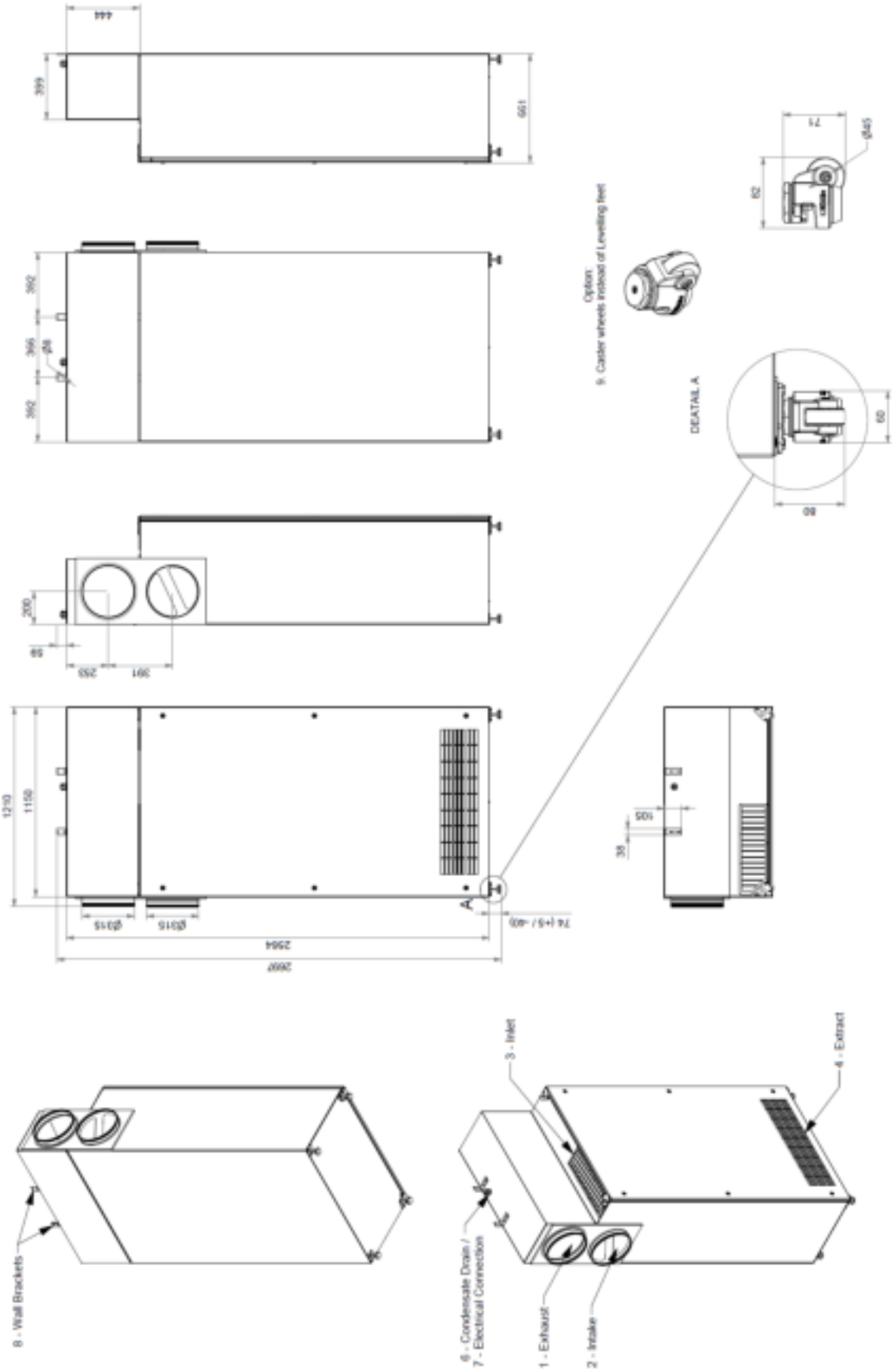






Measures in mm.

Appendix D Dimensional drawing, AM 950 F unit, SSL



Measures in mm.

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