



Fixture Installation

Orbital Shower Panel R3 (OS8733-E)

5-06-0009

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Table of Contents

Thank you for your purchase	4
Prerequisites and Approvals	4
Approved Waterproofing Membrane	5
For installations outside of Sweden	5
For installations in Sweden	5
Warranty	6
Service	6
System Overview	7
Installation Overview	8
Installation System Requirements	8
Shower Installation Overview	9
Product Measurements	10
Recycling Optimisation Site Suggestion	11
Seal mountings in wet zone	12
Fixture Installation	13
Component Overview	13
Kit Measurements	17
Recommended Kit Measurements	18
Prepare Shower Area	19
Install Drain	22
Install Wall Brackets	26
Install Wallbox	28
Prepare Orbital Systems Shower Head	31
Pipes and Connections	32
Install Audio	38
Prepare for Tiling	41
Apply Waterproofing Membrane	44
Install Tiling Frame Set	50
Tiling	51
Final Preparations	53

Thank you for your purchase

This manual applies to model OS8733-E

 Read the Safety Guide before starting the installation or before operating the shower.

Thank you for purchasing the Orbital Shower from Orbital Systems. To enjoy the full potential of the shower please read and follow the procedures in this manual. Make sure that you fully understand how to operate this shower and make sure that it is properly maintained in accordance with the instructions given in this manual. Do not discard this manual, keep it handy for future reference. This manual is valid for all shower models. When applicable the manual will only be displaying the Orbital Systems Shower Head & Hand Shower variant.

Prerequisites and Approvals

Orbital Shower is designed and type approved according to the Swedish requirements in Swedish National Board of Housing and Building & Planning regulations (BBR). The system is type approved according to RiSE C900373 & C900374, Kiwa 1513; 0753 and Kiwa safety certificate K100686/02 and DVGW CERT W 540 AS-0605DO0262.

Orbital Shower is CE-marked based on certificate and test reports from third party labs.



If industry regulations and instructions in this manual are followed, Orbital Systems guarantees a functional shower system.

Approved Waterproofing Membrane

For installations outside of Sweden

The following chapter describes a general waterproofing membrane procedure for installing Orbital Shower in a wet-room area. Industry rules for how to apply waterproofing membrane in wet-room areas shall be applied.

For installations in Sweden

Following waterproofing membranes are approved according to Swedish regulations. Choose one of the following and go to <http://publiccert.ri.se/sv/Product/Index/C900374?key=PID024128> for separate instructions of how to apply your chosen waterproofing membrane.



The following sealing layers for the Wallbox and floor luminaire are industry approved according to Säker Vatten industry standards (<https://www.sakervatten.se/branschregler-na>):

- Adda system F
- Ardex Tricom /A7+A8
- Bostik Pro
- Bostik Universal
- Casco Folie
- Centro CE TM#F System
- Ecodur foliesystem
- FF Kakel foliesystem
- GKH F-System
- KERABLOCK TEX 750
- Kerasafe+
- LIP Foliesystem 27
- Mapeguard WP 90, WP 200
- Midun foliesystem
- Mira Vapourmat
- PCI VG2014 Foliesystem
- Schönox WSF
- Sense Pro system F
- Sopro AEB 815
- Weber TEC Foliesystem
- ZebraSystem F1

Warranty

For Warranty and Liability for Defects information, please visit Orbital Systems web <https://orbital-systems.se/terms-conditions>.



Service

Orbital Systems and our team of expert staff are available to assist you if you require product advice, experience any problems, need to purchase spare parts or to set up a service appointment.

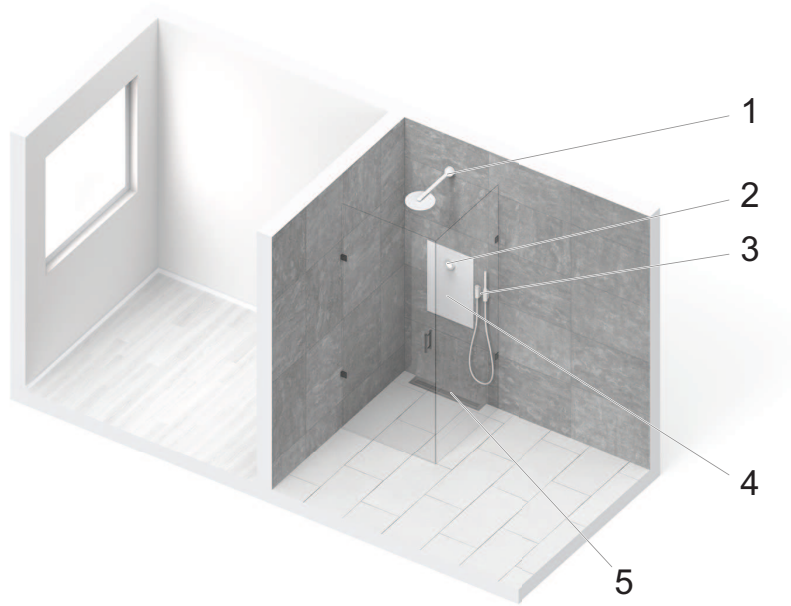
Repairs should only be carried out by Orbital Systems.

Contact us

- support@orbital-systems.com
- www.orbital-systems.com
- Europe: +46 (0)40 619 55 50

System Overview

Orbital Shower Panel R3 (OS8733-E)



1. Shower Head (optional)
2. Control Dial
3. Hand Shower Kit (Hand shower, Diverter and Holder) (optional)
4. Shower Unit (RSK 835 91 20) and Cabinet (RSK 831 41 82)
5. Drain Unit (RSK 711 54 63) and Outlet unit (RSK 711 99 33)

Preparation and installation of shower area (including piping, connections, water proofing and tiling), installation of cabinet (4) and drain (5) are included in the Fixture installation manual.

Installation of the Shower unit (4), Control dial (2), Shower head (1) and Hand shower kit (3) are included in the Technology installation manual. Operation of the shower is included in the User Guide.

Installation Overview

Installation System Requirements

Connectivity

Internet connection: Password protected Wi-Fi 2,4 GHz / 5 GHz or Ethernet.

The installation kit contains components for either Wi-Fi connection OR Ethernet depending on what has been specified in the shower order.

Electrical Supply

Residual circuit breaker: One breaker per Shower Core

Power supply: One Phase, 230VAC / 50 Hz / 16A

Mains supply wire: Min. 2.5 mm² (rated for 16A circuit)

Plumbing / Water

Incoming tap water supply connections: Separate hot and cold, 2x female G 1/2" swivel nut.

Incoming cold water temp. (min-max): 4-25°C

Incoming hot water temp. (min-max): 50-65°C

Maximum working pressure tap water: PN10

Incoming water pressure (min-max): 2-10 bar

The supply pressure is the fundamental requirement for the shower flow:

- 2 bar: 7.5 litres/min
- 3 bar: 9.5 litres/min
- 4 bar: 11 litres/min

Recommended water supply flow: 9 litres/minute per inlet hot and cold

Water hardness (min-max): Required: 3°dH-10°dH

Recommended: 6°dH-10°dH (or a total hardness of 110-180mg CaCO₃/litre)

Water iron content: <0,3mg/litre

Shower Installation Overview



Available shower variants:

A: Orbital Systems Shower Head & Hand Shower

B: Orbital Systems Shower Head



IMPORTANT

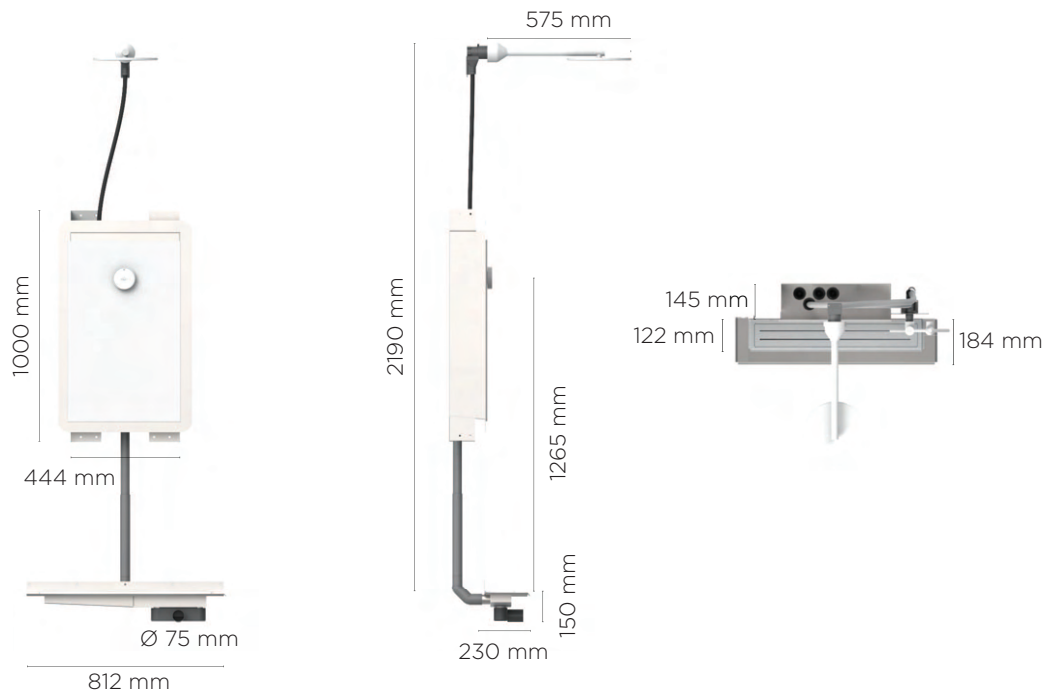
The image is a principle sketch, and should not be used as an installation scenario.

Cabinet must also be equipped with a leakage indicator.

Drain Unit HxWxD: 192x812x184 mm

Drain Connection: Ø75 mm

Product Measurements

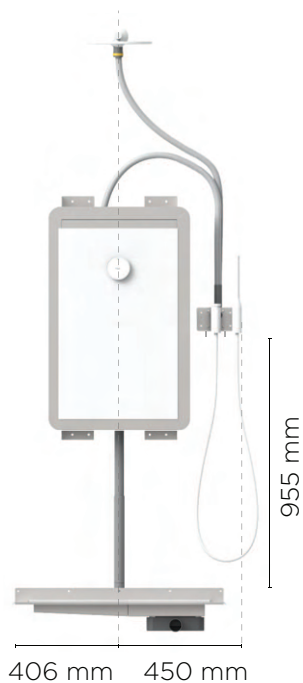


Orbital Systems Shower Head & Hand Shower



CAUTION

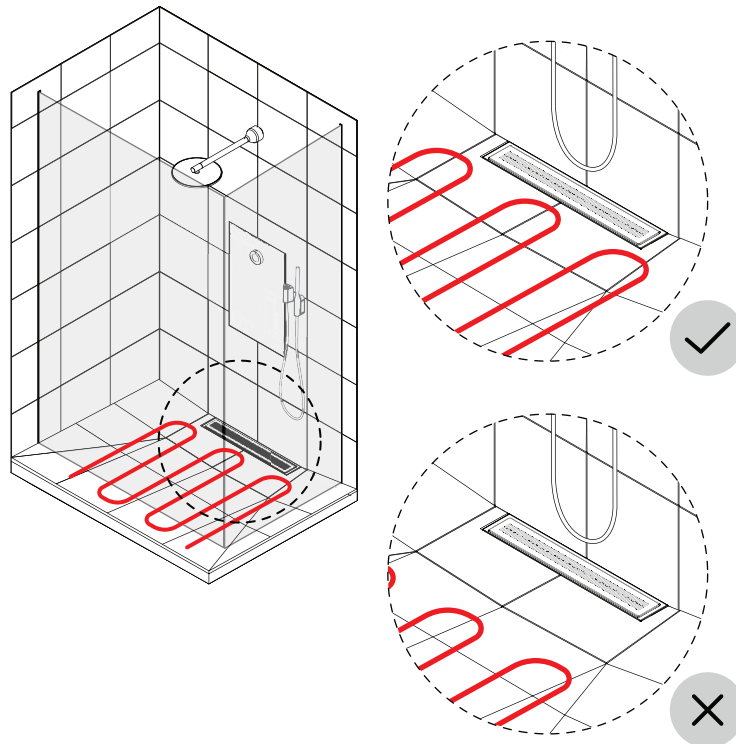
Make sure the wall is wide enough (min. 450 mm from center of Control Dial) to fit the Diverter and Hand Shower.



Recycling Optimisation Site Suggestion

Recommended installation

A fully enclosed shower area with floor heating is recommended to optimize recirculation rates.



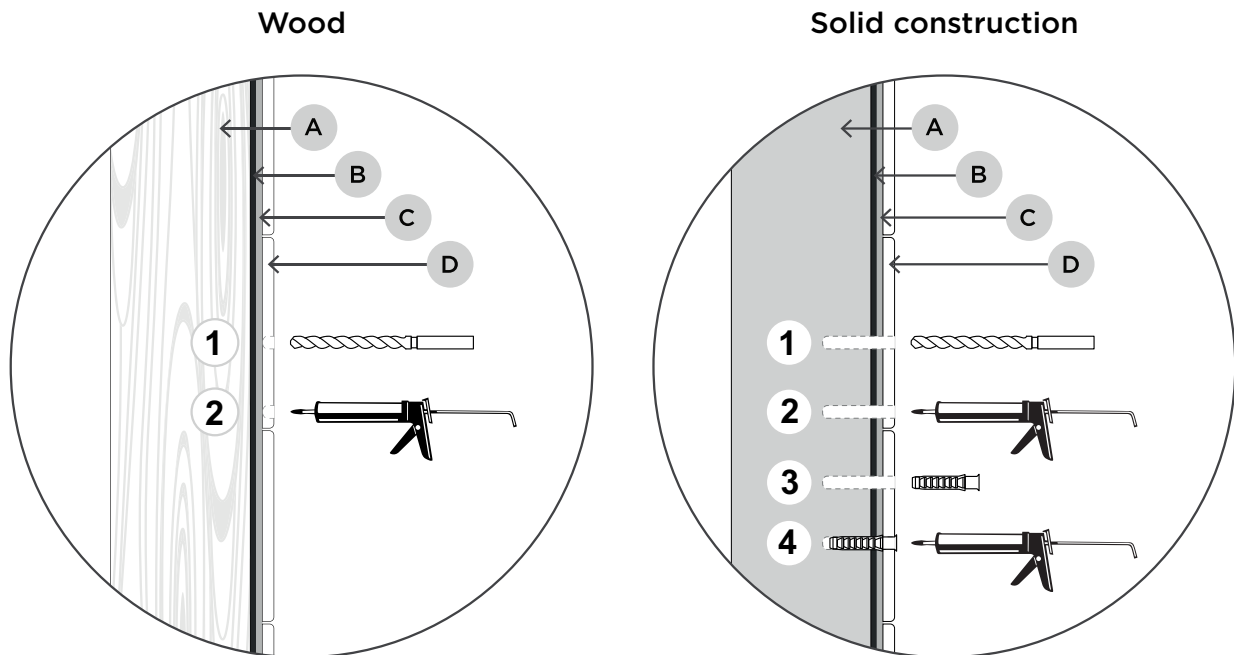
Seal mountings in wet zone



CAUTION

For installation in Sweden according to current Industry Rules Safe Water Installation. All mountings in the wet zone must be sealed against the water-proofing layer of the wall or floor. Material for sealing must adhere to the substrate and be water-resistant, mold-resistant and aging-resistant.

Seal the drill holes according to industry rules.

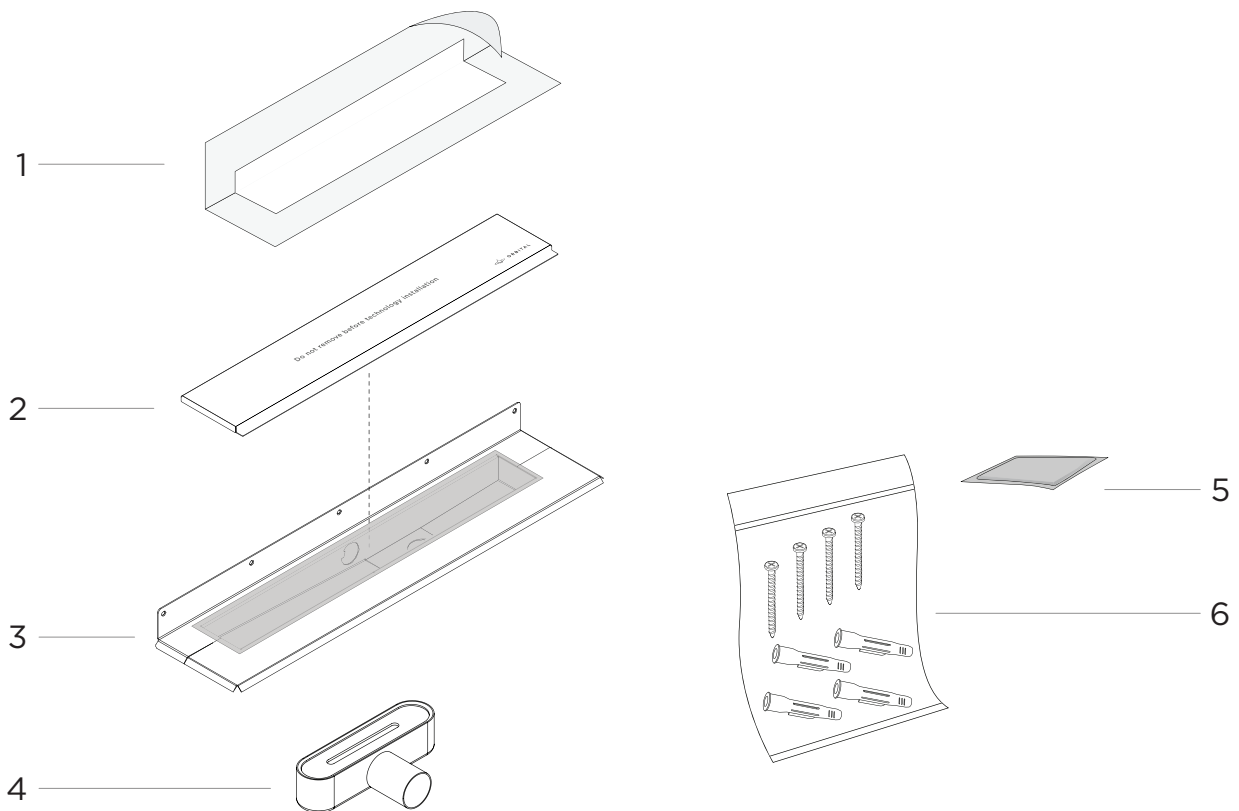


- **A:** Wood / Concrete
- **B:** Waterproofing membrane
- **C:** Tile adhesive
- **D:** Tile

Fixture Installation

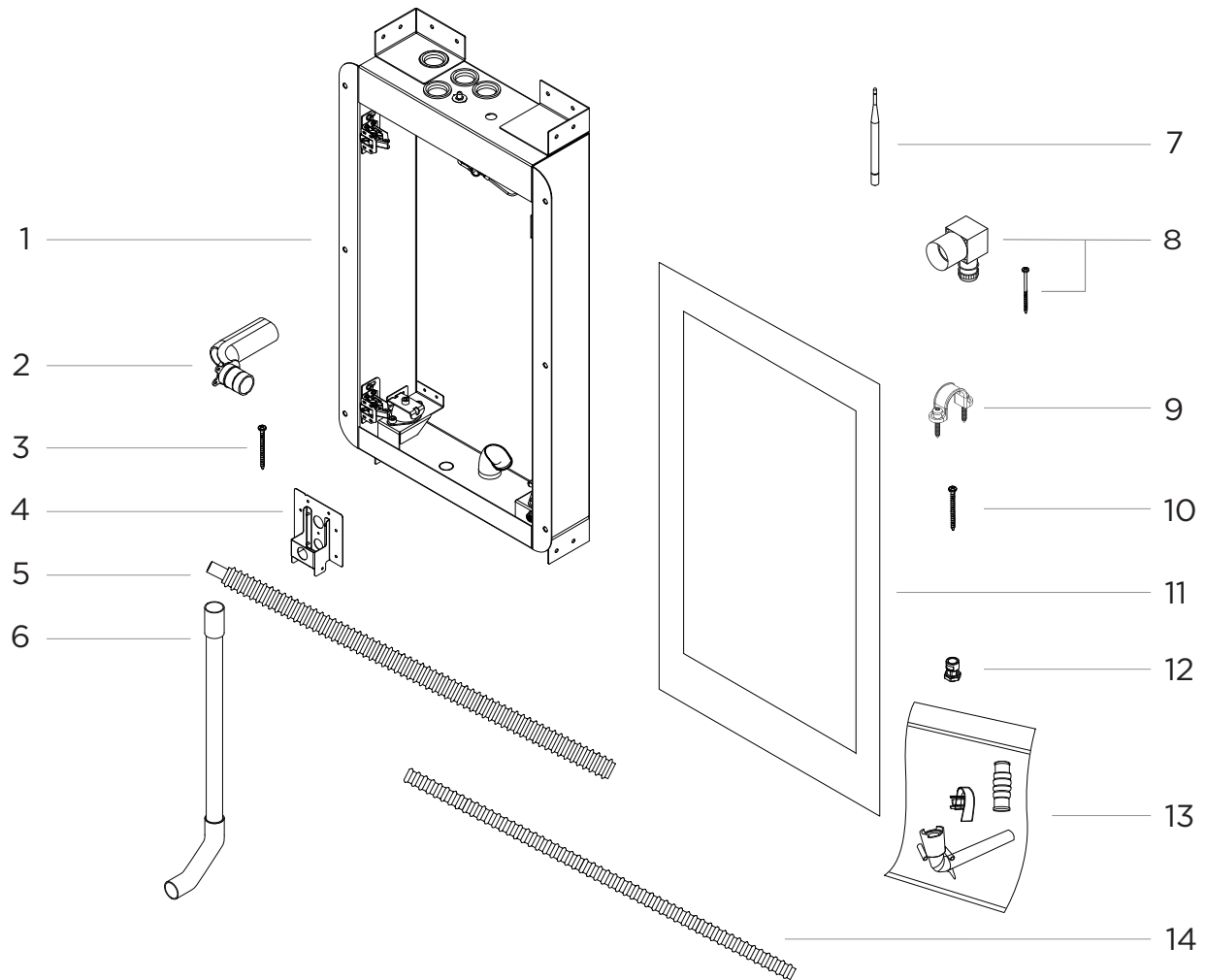
Component Overview

Fixture kit - Floor Fixtures



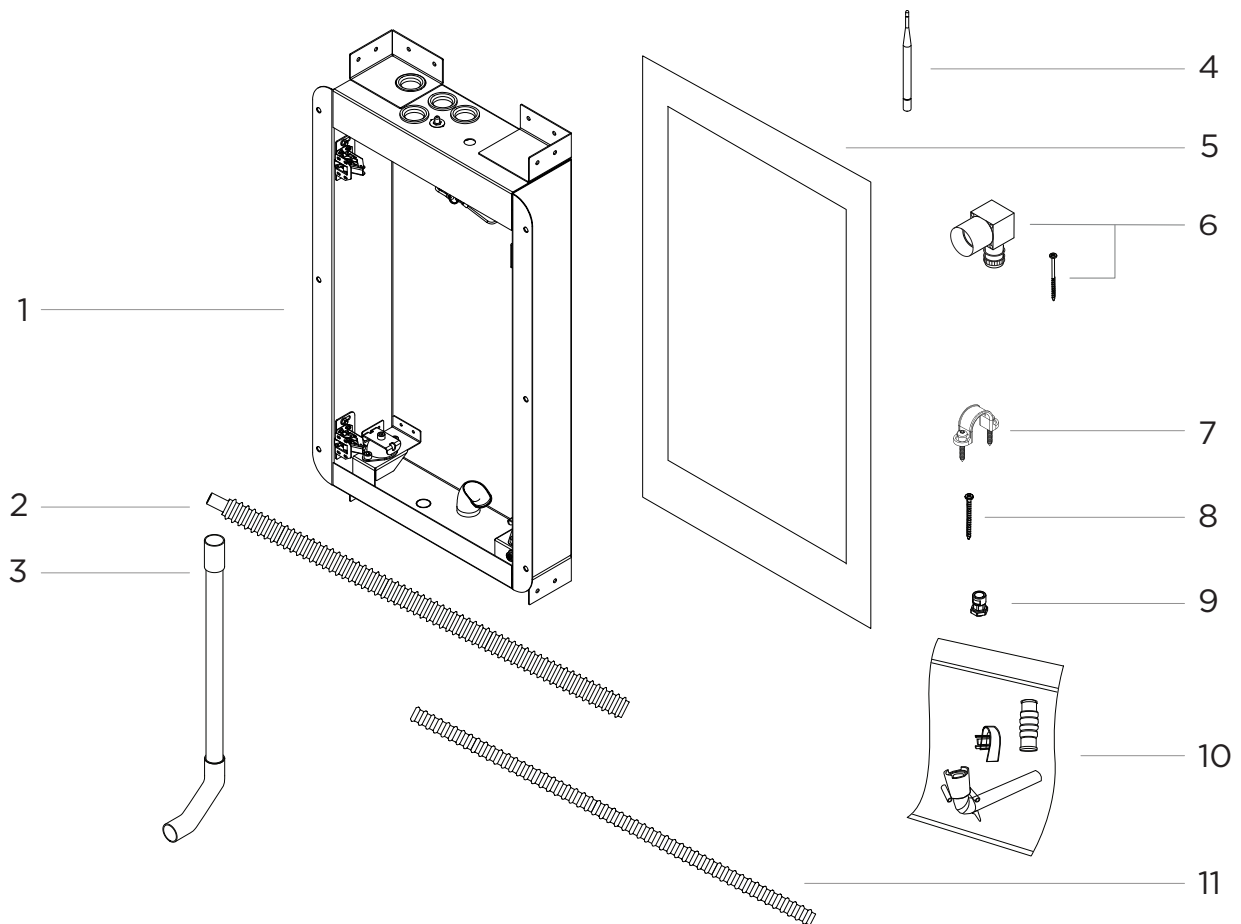
1. Drain Waterproofing membrane, 1x
2. Tiling frame set, 1x
3. Drain Unit (RSK 711 54 63), 1x + screws, x7
4. Outlet Unit (RSK 711 99 33), 1x
5. Cleaning wipe, 1x
6. Screw and plug kit, 1x

Fixture kit - Wall fixtures (Head & Hand shower)



1. Core wall enclosure (RSK 831 41 82), 1x
2. Conduit Elbow (RSK 187 79 99 / 188 27 00), 5x (Head & Hand)/ 3x (Head)
3. Screws, 8x
4. Wall pistol mounting plate, 1x
5. Piping, PEX Hose with Conduit (RSK 188 23 36), 150 cm, 2x
6. Drain pipe, 1x
7. Wi-Fi Antenna, 1x
8. Wallbox UNI Push V2 (RSK 188 21 81/ 188 26 57) x1, screws, 4x
9. Pipe Clamps, 3x
10. Screws, 3x
11. Waterproofing membrane, 1x
12. Wallbox ethernet connector, 1x
13. LK Drainage bend V2 complete (RSK 188 26 11), 1x
14. Piping (RSK 187 06 65), 350 cm

Fixture kit - Wall fixtures (Head shower)

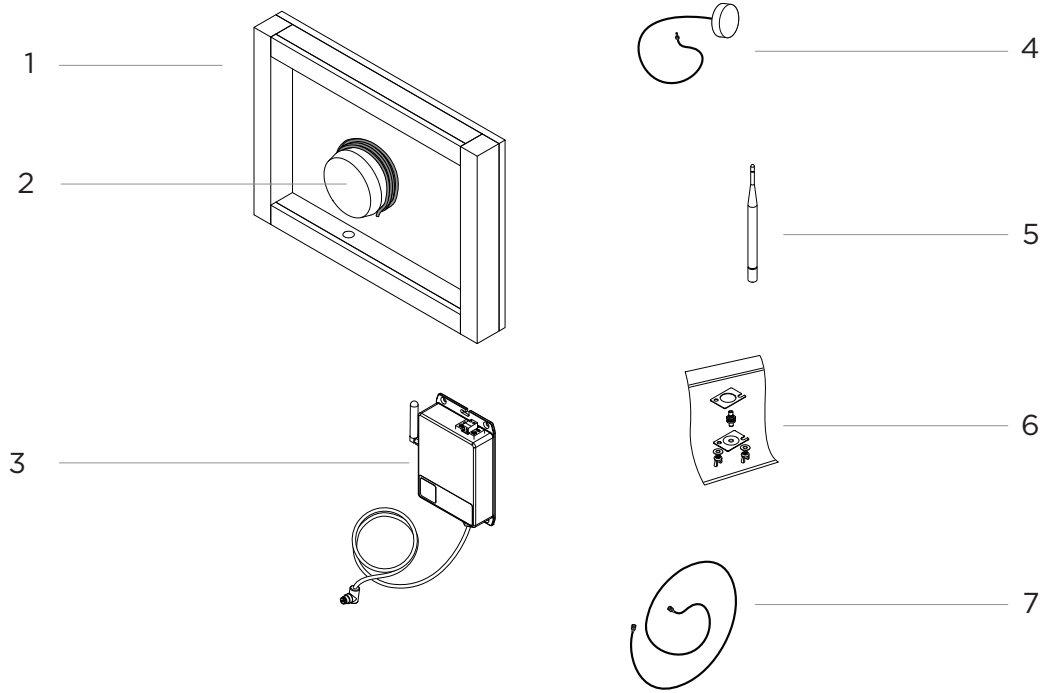


1. Core wall enclosure (RSK 831 41 82), 1x
2. Piping, PEX Hose with Conduit (RSK 188 23 36), 100 cm
3. Drain pipe, 1x
4. Wi-Fi Antenna, 1x
5. Waterproofing membrane, 1x
6. Wallbox UNI Push V2 (RSK 188 21 81/ 188 26 57) x1, screws, 4x
7. Pipe Clamps, 1x
8. Screws, 8x
9. Wallbox ethernet connector, 1x
10. LK Drainage bend V2 complete (RSK 188 26 11), 1x
11. Piping (RSK 187 06 65), 350 cm

Provided by Customer:

1. Waterproofing Conduit Membrane for Diverter
2. Waterproofing Conduit Membrane for Shower Head
3. Waterproofing Conduit Membrane for Control Dial

Audio kit



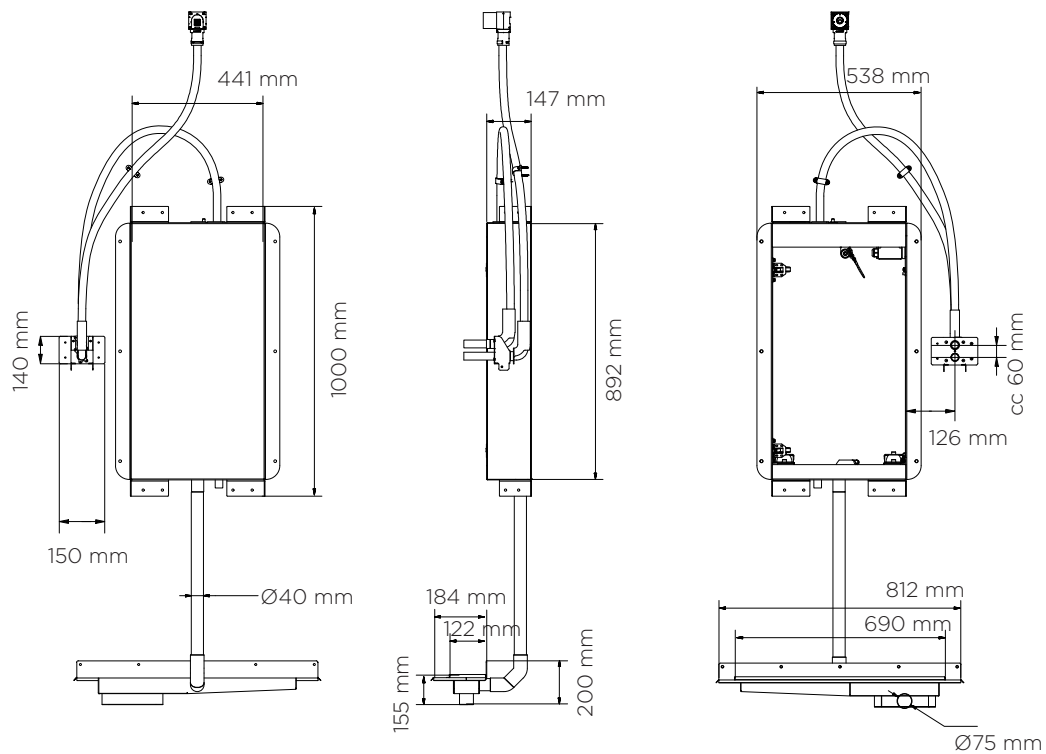
1. Audio fixture
2. Speaker with speaker cable
3. Amplifier with amplifier cable and stub antenna
4. Puck antenna (only used for *Orbital Shower Cabinet*)
5. Rod antenna (only used for *Orbital Shower Hatch*)
6. Assembly kit to the rod antenna
7. Cable to the rod antenna

Kit Measurements

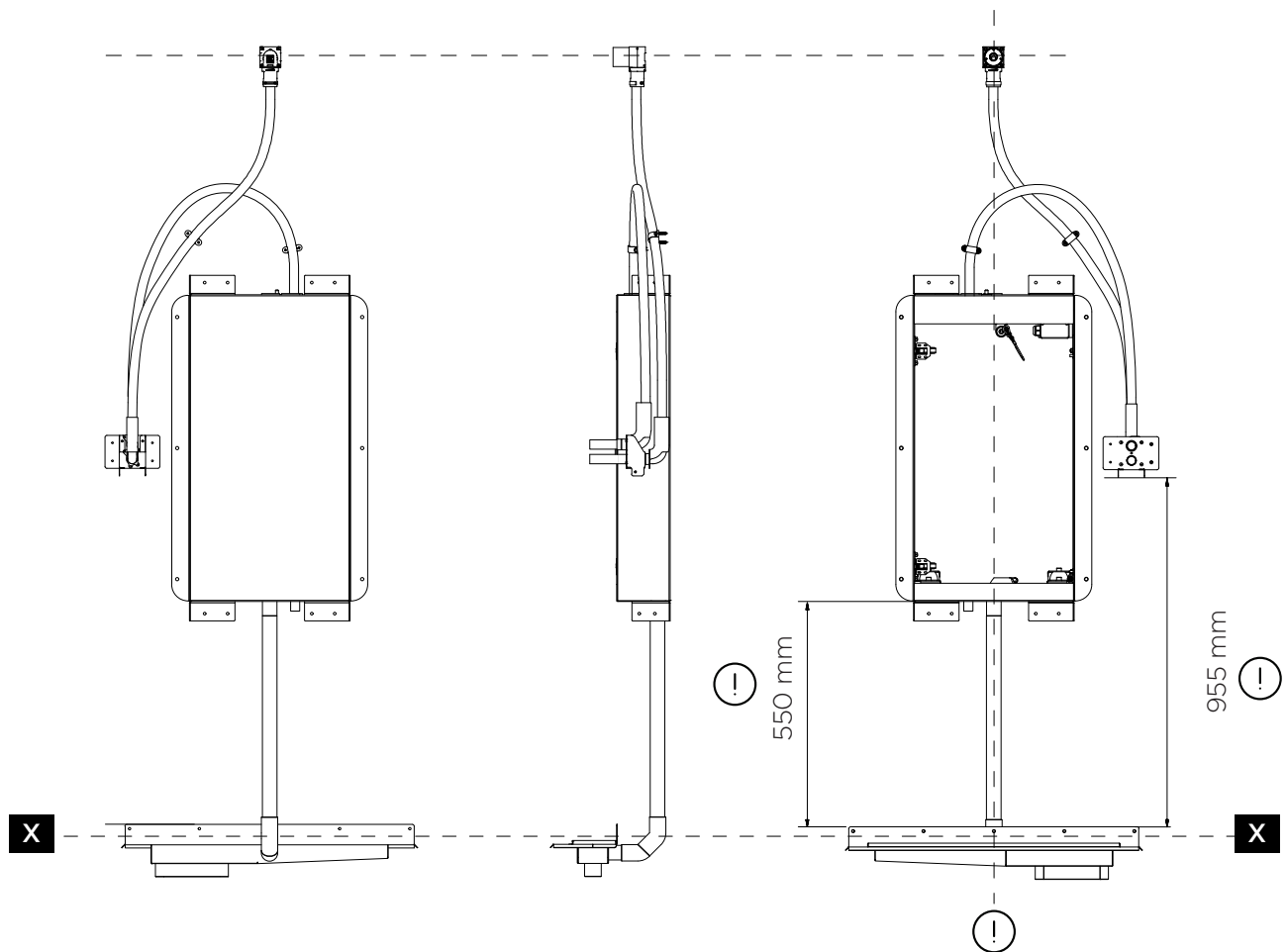


NOTICE

Use the two 45 degree Pipe Elbows included in the kit for the Drain Unit. A 90 degree elbow will not be applicable.



Recommended Kit Measurements



X Finished floor height where it is level.



IMPORTANT

Incoming tap water can only be drawn in from the top.

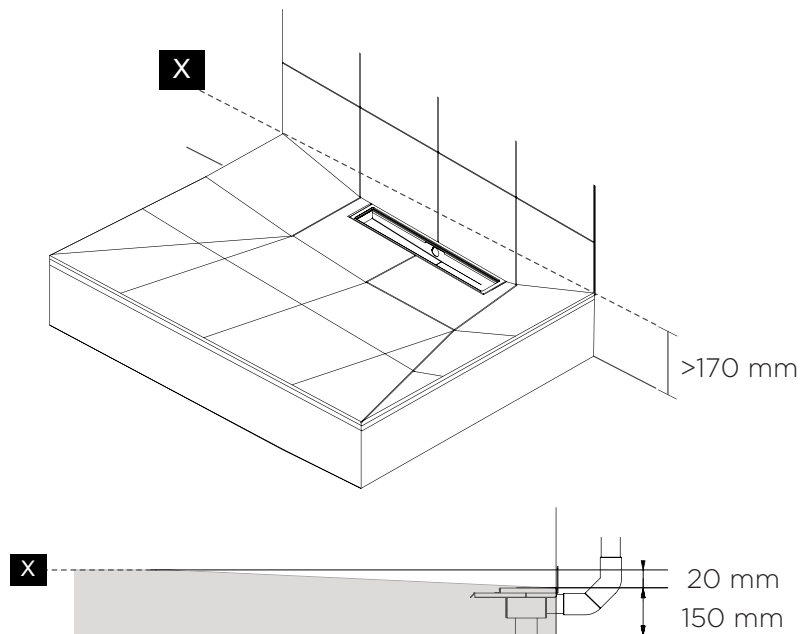


IMPORTANT

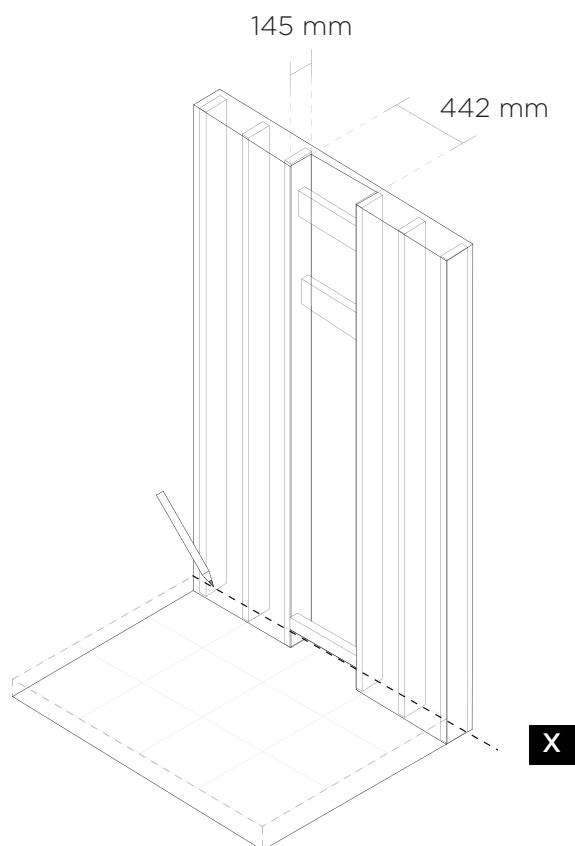
Leakage indicators must be mounted at least 60 mm from the floor or wall.

Prepare Shower Area


1. Mark the finished floor height where it is level (>170 mm). This mark will be used as measurement "X" in the installation process to ensure that there is enough space for the Drain Unit.



- 2.

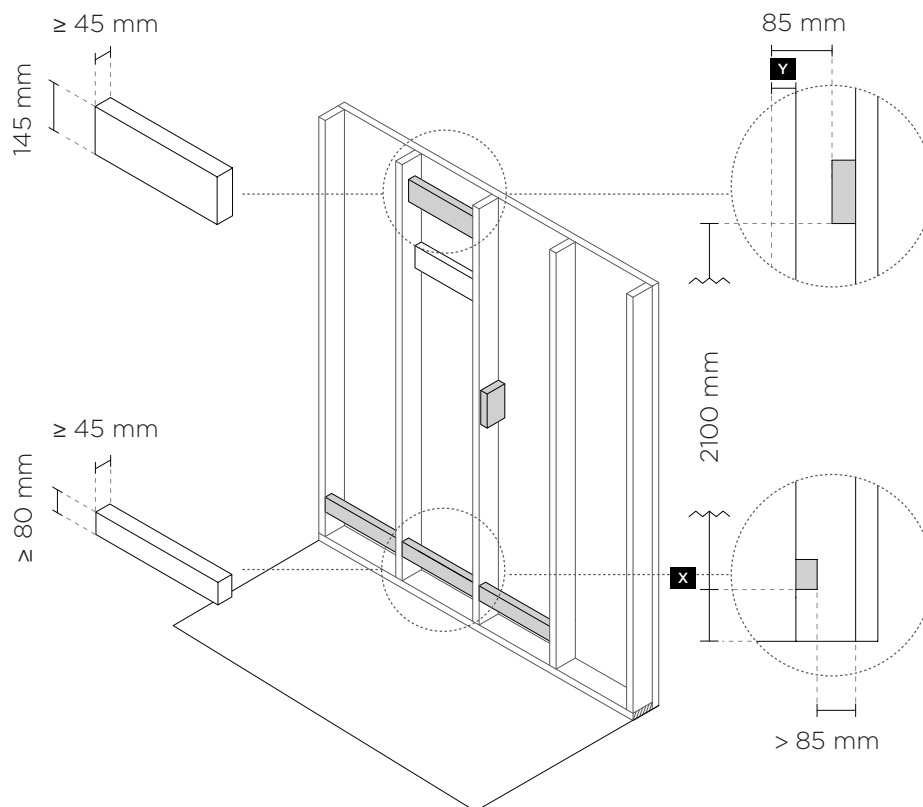


X Finished floor height where it is level.

3. 

CAUTION

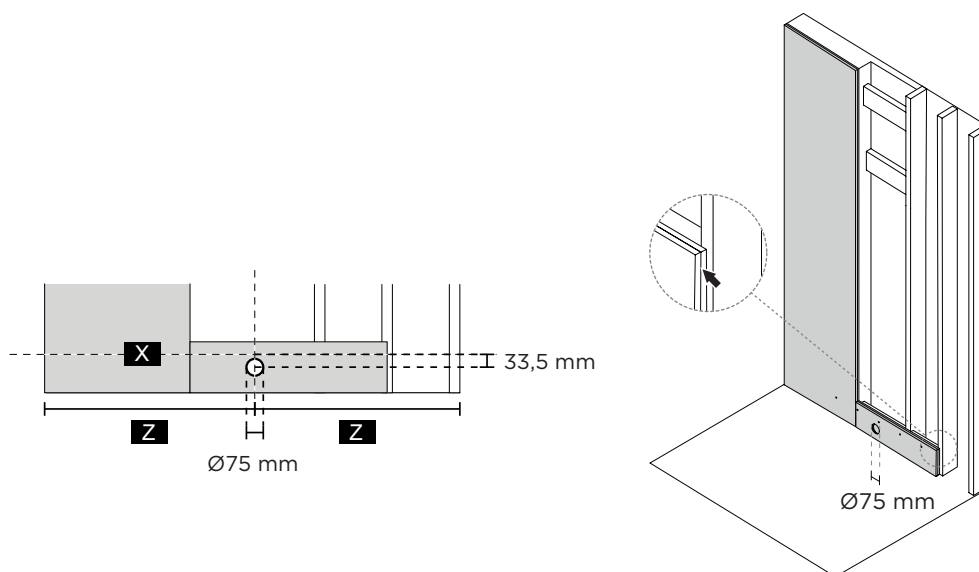
It is crucial that all noggin pieces are in level and set according to recommended measurements to avoid misalignment in the shower installation.



X Finished floor height where it is level.

Y Wall thickness after completed installation.

4. Apply wall covering according to industry rules.

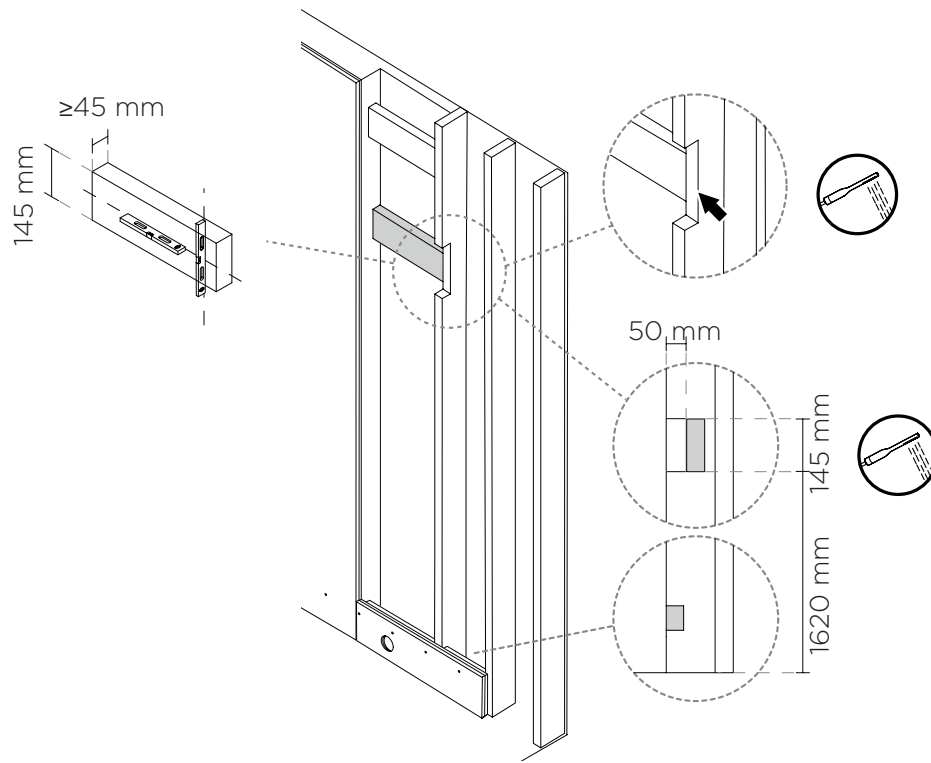


5. Valid for Orbital Systems Shower Head & Hand Shower



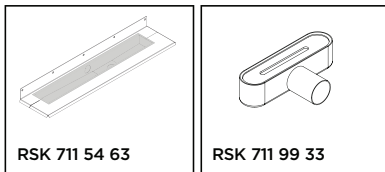
NOTICE



It is optional which side of the shower the Diverter is placed. Mirror slot in stud and wall covering if needed.

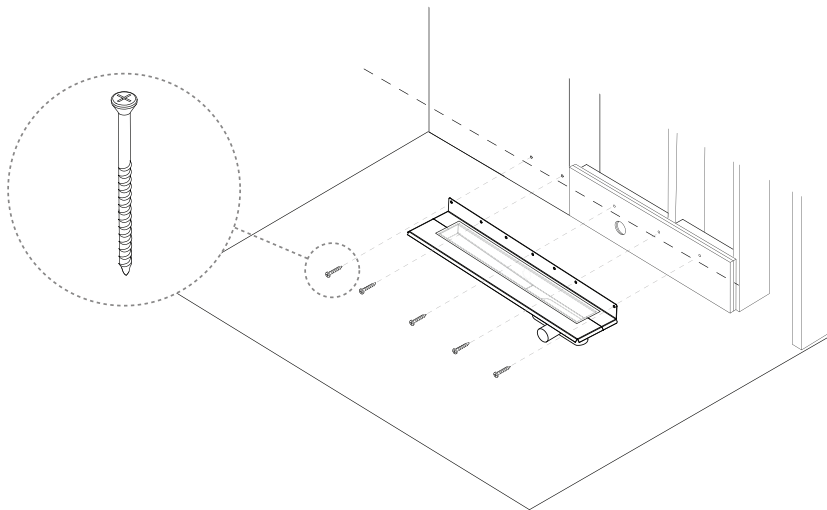


Install Drain

Drain unit and Outlet unit



1.  **CAUTION**
Plumbing and electrical installation should be performed according to industry rules.
-  **CAUTION**
Do not remove the Protective Cover until the Frame is being installed in a later step.

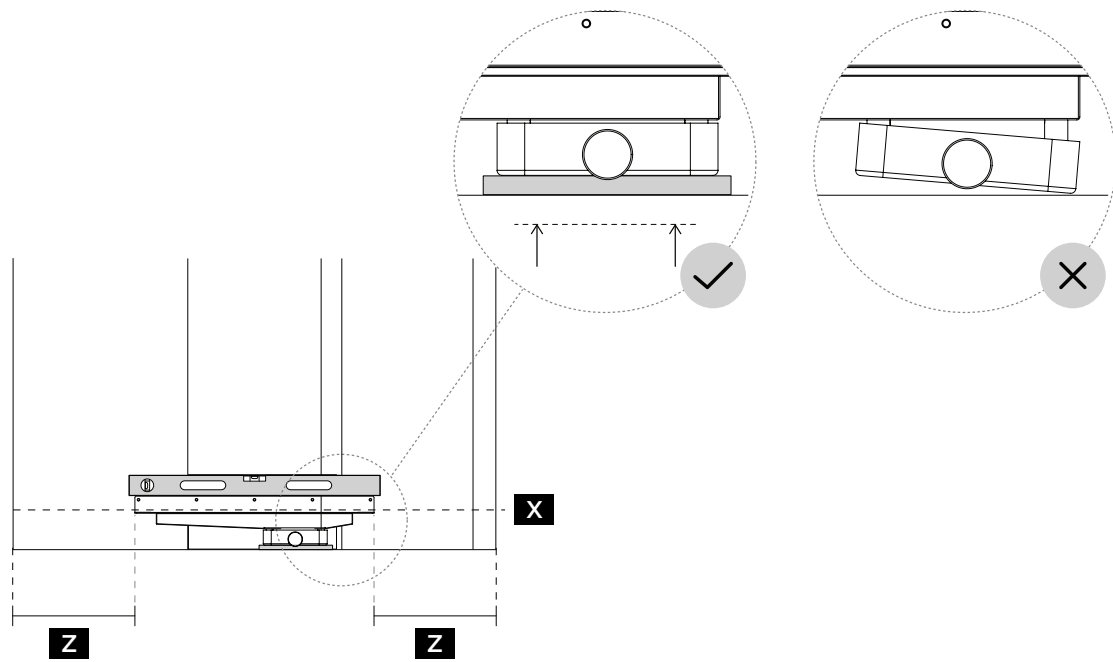


x7

Countersunk stainless steel screw

All supplied screws (x7) must be inserted.

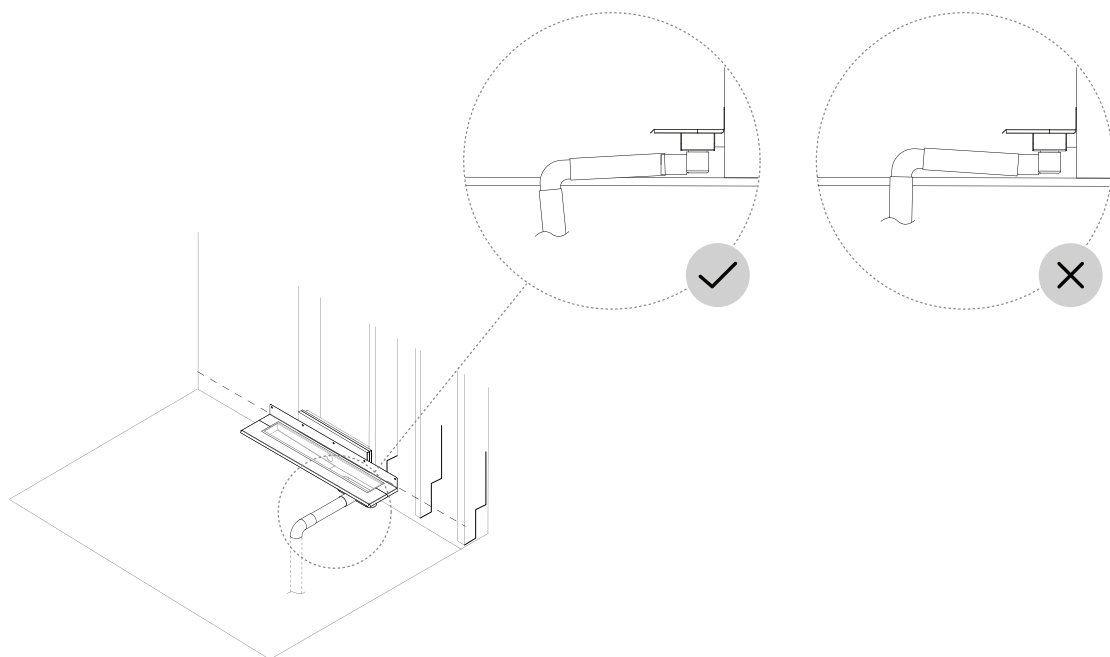
2.



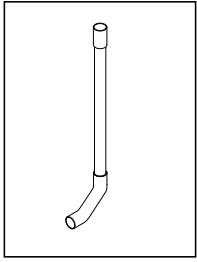
X Finished floor height where it is level.

Z Drain Unit is centered in the shower area.

3. Connect Drain Unit to the sewerage system as defined by industry rules.



Drain piping



CAUTION

Perform the installation in accordance with current Industry Rules Safe Water Installation:

- A waste water pipeline shall be laid with falls along the entire length of the pipeline.
- Wastewater pipes must be installed with regard to the movements that can be expected during the construction period and during operation. Fasteners for cables must be mounted and placed according to the supplier's installation instructions. A fastening device must be placed no more than 200 mm from the floor drain.
- On pipes that are to be cast in, fastening devices are placed according to the supplier's installation instructions, alternatively at all branch pipes, sockets, bends, deposits and on straight sections to a sufficient extent to prevent the pipe's position from changing.

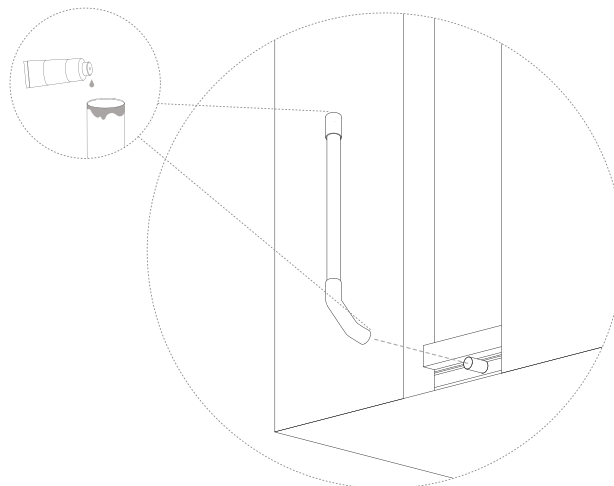
1.



NOTE

Apply Glidex lubricant when assembling.

For installations in Sweden leakage test shall be performed. The drain must be sample flushed and inspected visually to ensure that the assembly is tight. The leakage test shall be documented.



-
2. Anchor the Pipes and Fittings according to industry rules. For installation in Sweden according to Safe Water § 4.4.1, pipes that are to be cast in, fastening devices are placed according to the supplier's installation instructions, alternatively at all branch pipes, sockets, bends, deposits and on straight sections to a sufficient extent to prevent the pipe's position from changing.

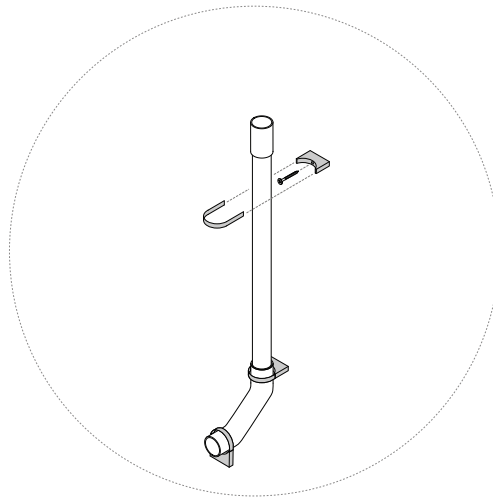
Provided by Customer:

- Anchors



CAUTION

Make sure to fasten and anchor the Pipes and Fittings so they cannot move or be separated.

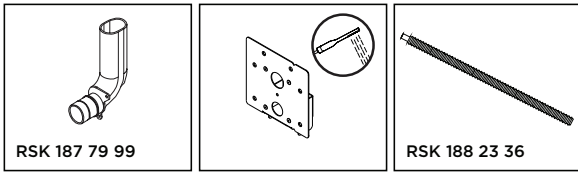


Install Wall Brackets

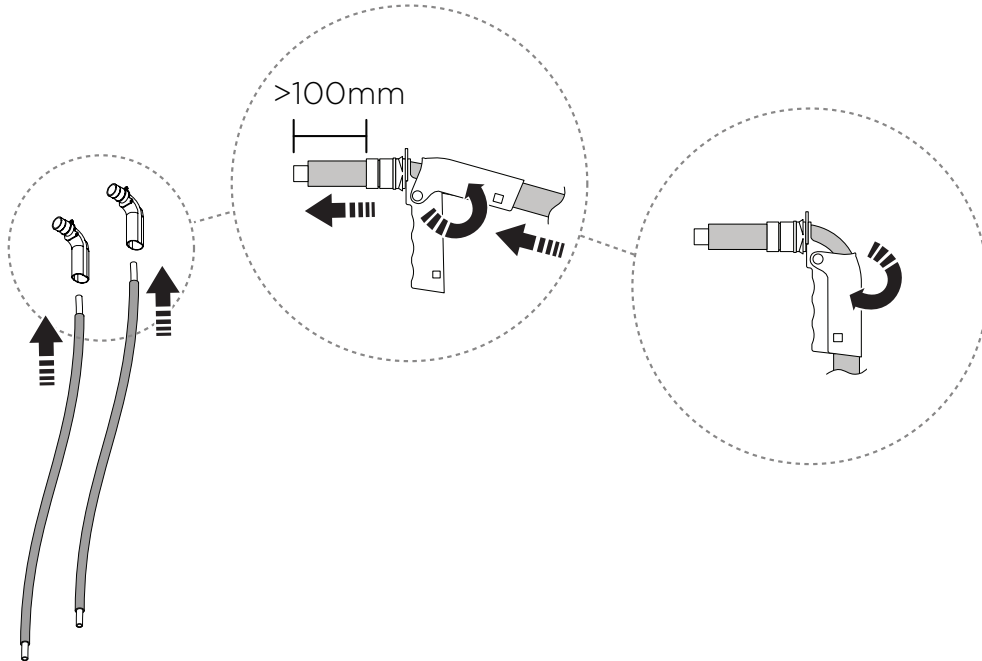


NOTICE

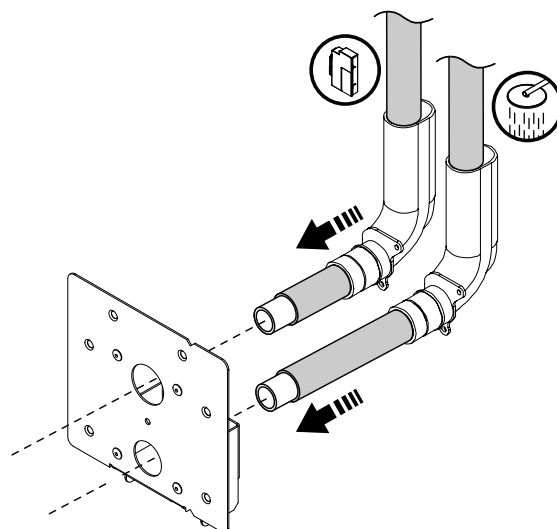
Following steps only valid for Orbital Systems Shower Head and Hand Shower.



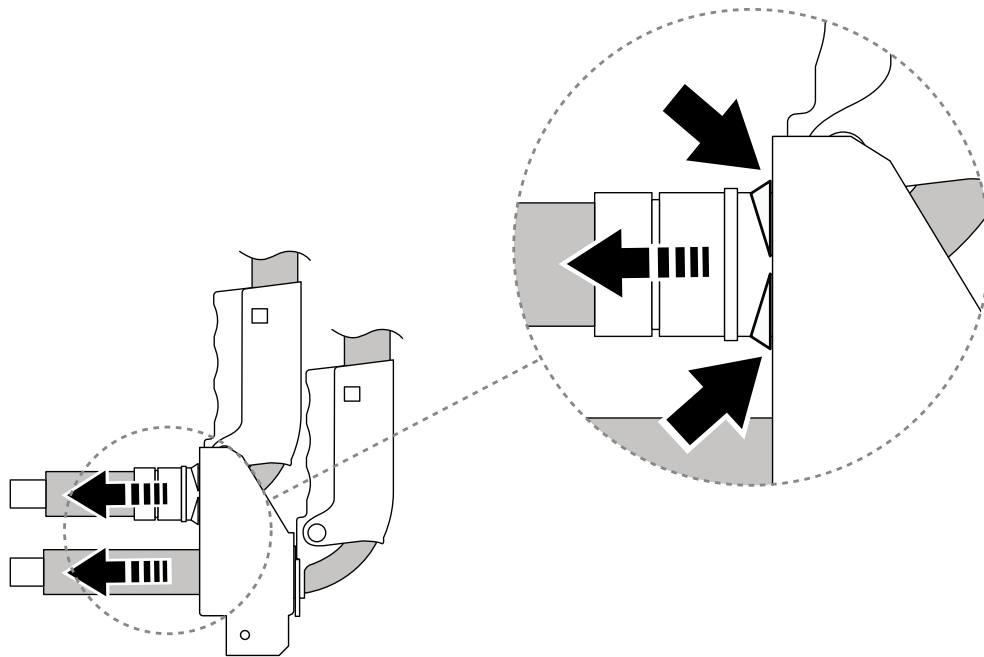
1.



2.



3.

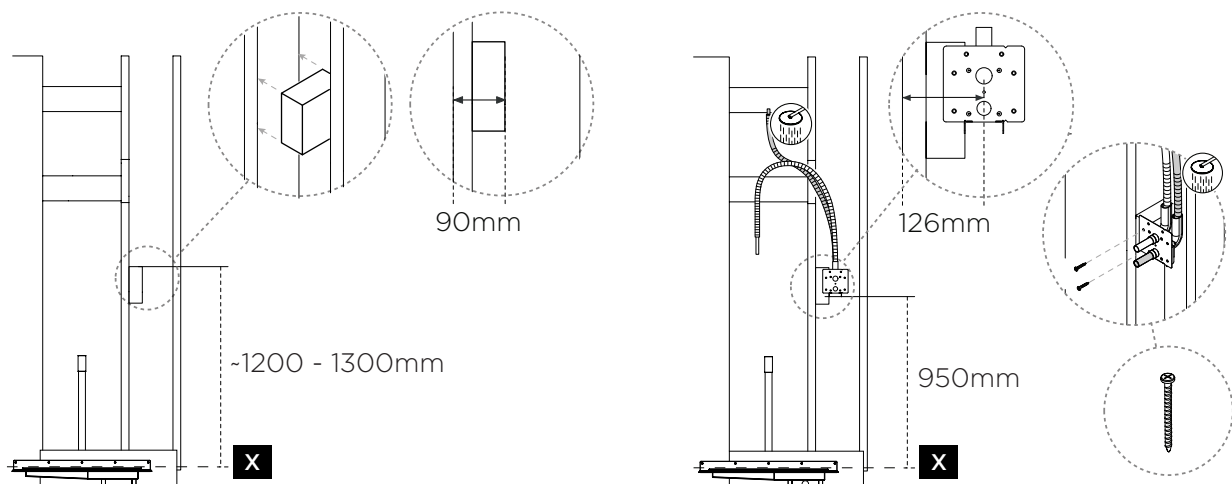


4.



CAUTION

- The Orbital Shower Core shall be connected to the top inlet.
- The Shower Head shall be connected to the bottom inlet.



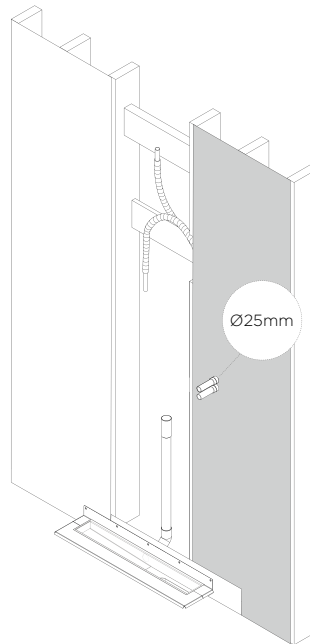
X Finished floor height where it is level.

x3

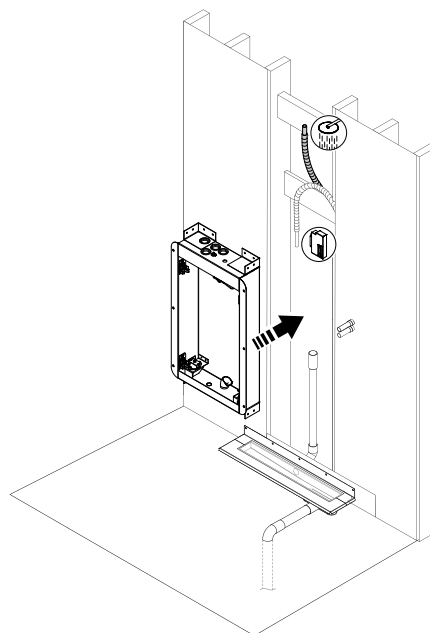
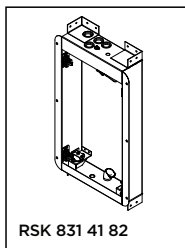
Countersunk stainless steel screw

Install Wallbox

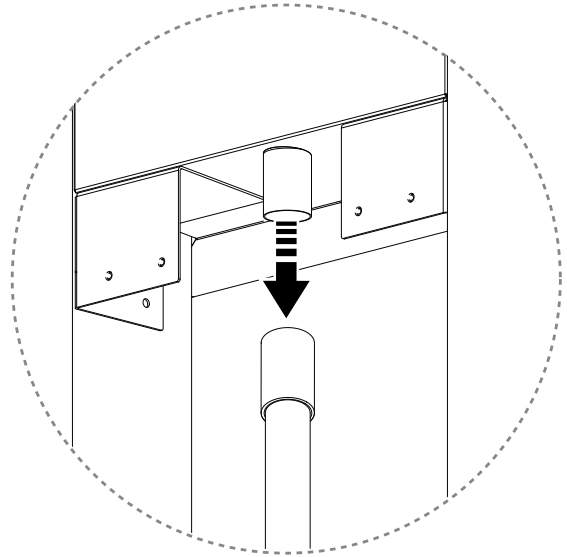
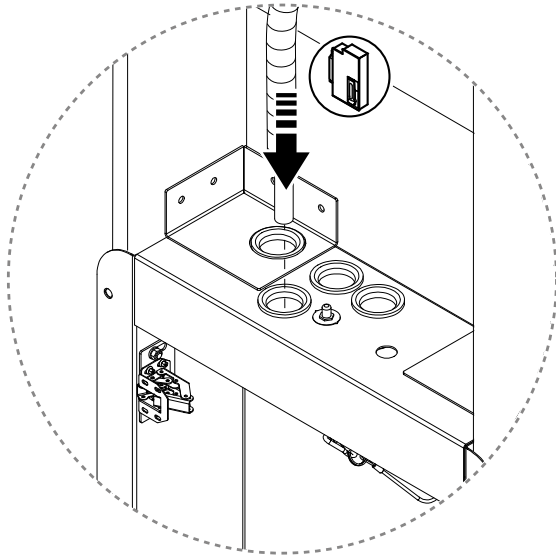
1. Apply wall covering according to industry rules.



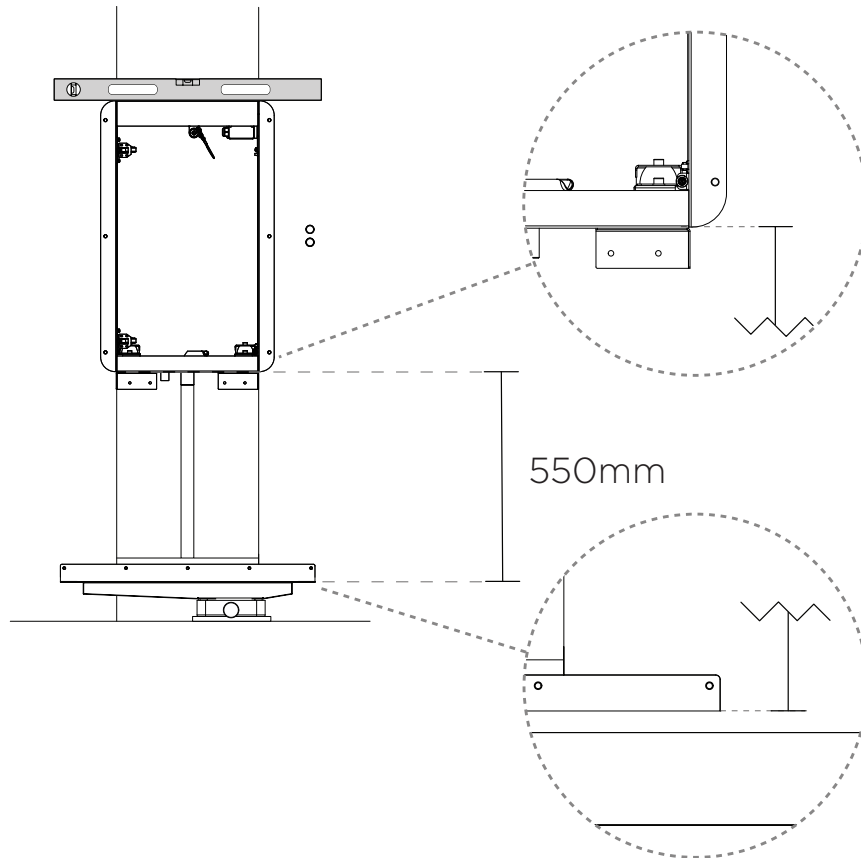
- 2.



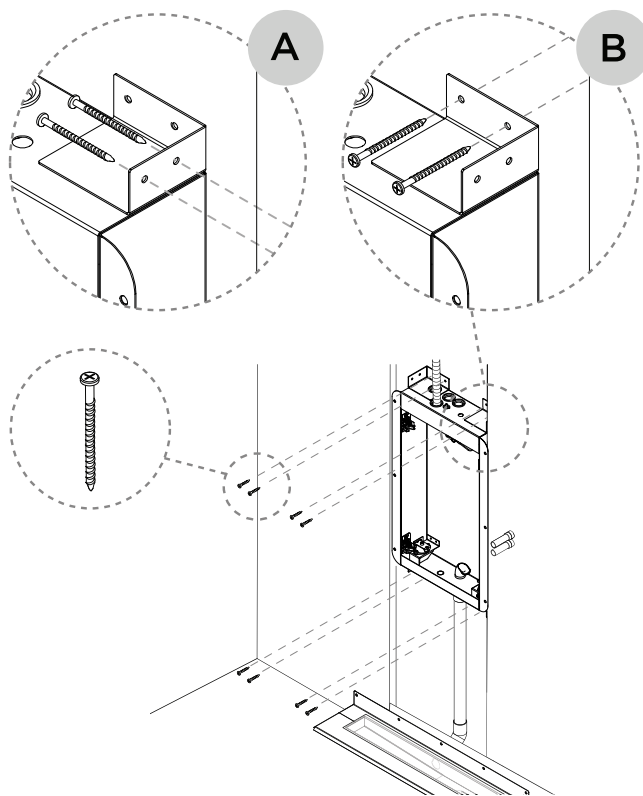
3.



4.



5.



x8

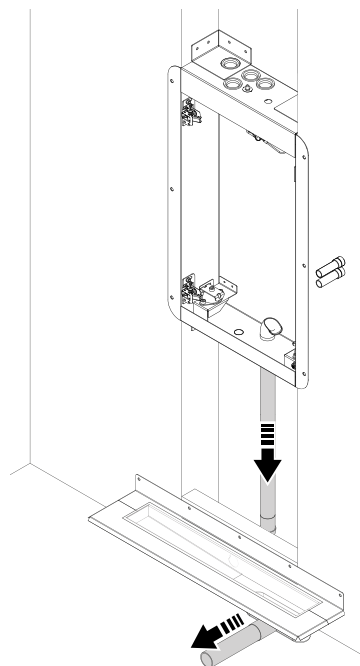
Pan head stainless steel screw

6.

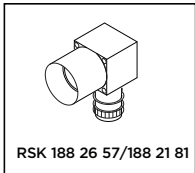


CAUTION

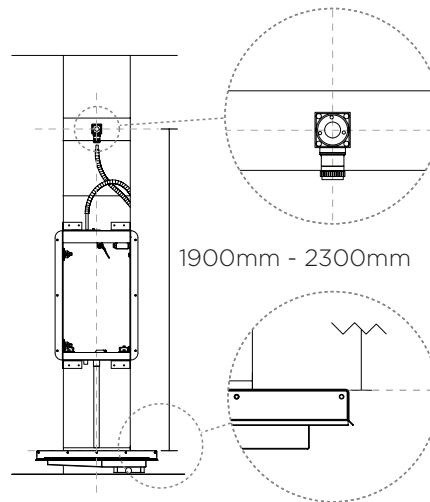
Check water tightness to eliminate leakage.



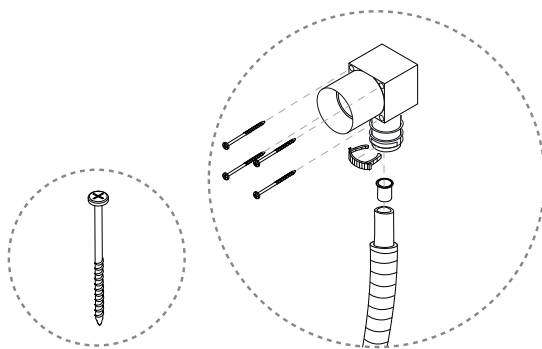
Prepare Orbital Systems Shower Head



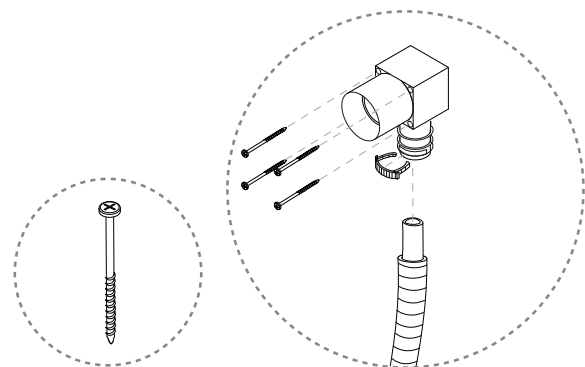
1. Measure and mark placement of Wallbox UNI Push.



2. Follow instructions provided for the Wallbox UNI Push. Mount the Wallbox with four screws from the front. Installation should be performed according to industry rules. Make sure that the support sleeve is inserted into the pipe and that the pipe is fully inserted, and past the o-ring, into the Wallbox UNI Push.



Wallbox UNI Push with external support sleeve



Wallbox UNI Push with integrated support sleeve

x4

Pan head stainless steel screw

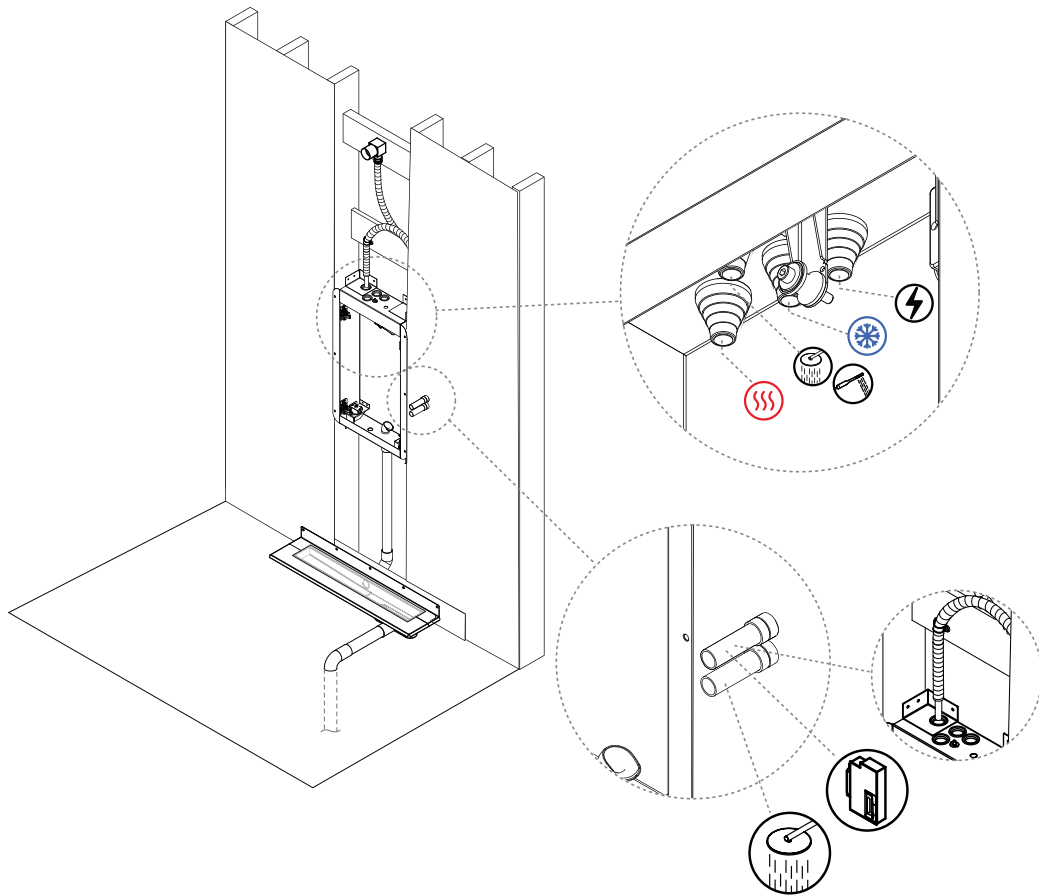
Pipes and Connections



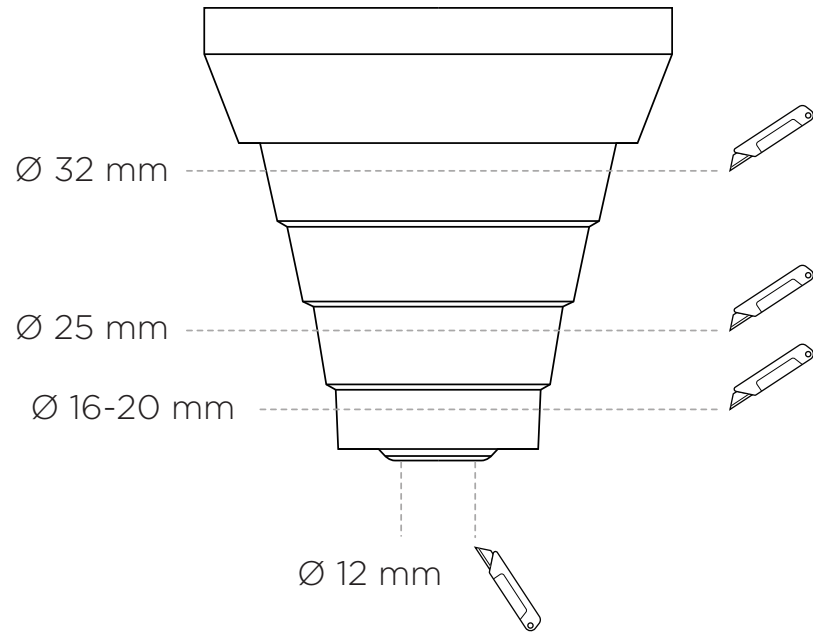
Provided by Customer:

- PEX Hose with Conduit Ø25 mm
- Power Cable with Conduit Ø16 mm
- Anchors

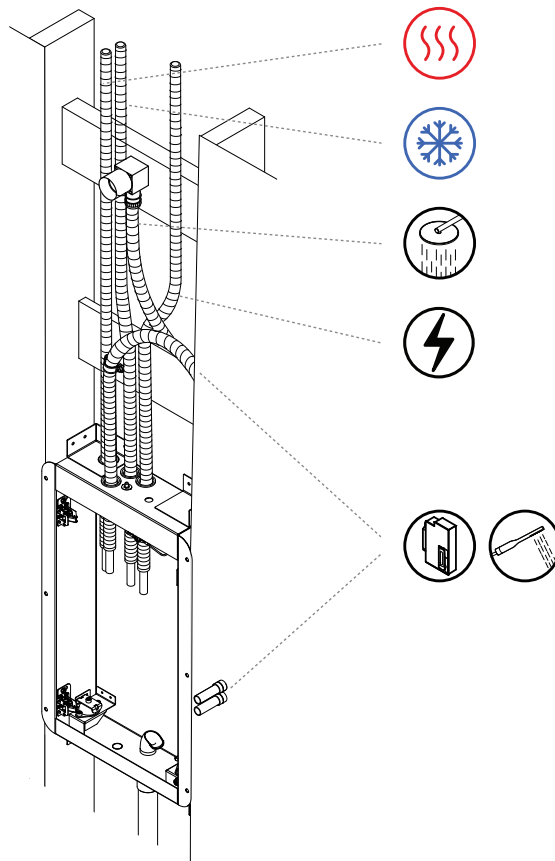
1.



2. Cut the Cone depending on the diameter of the Conduit.



- 3.

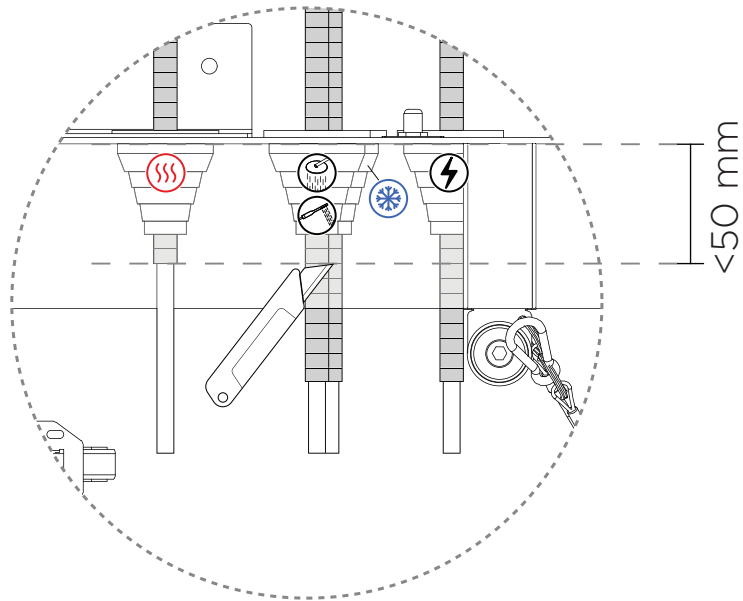


4. Cut the Conduits.



CAUTION

Cut the Conduits as close as possible to the Cones.

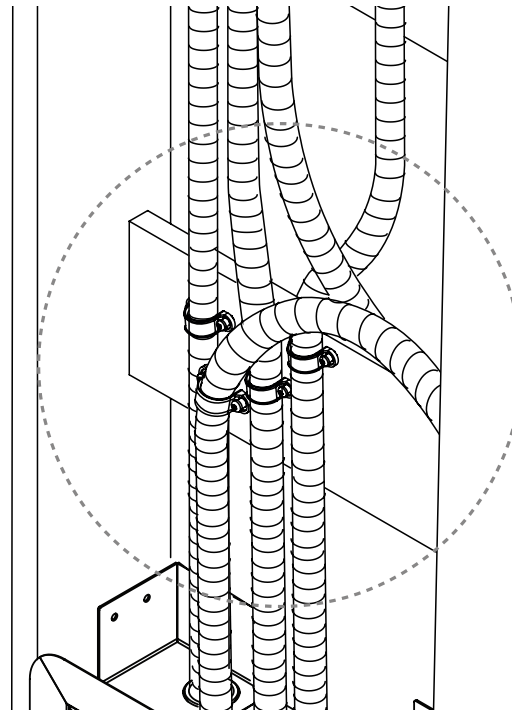


5.

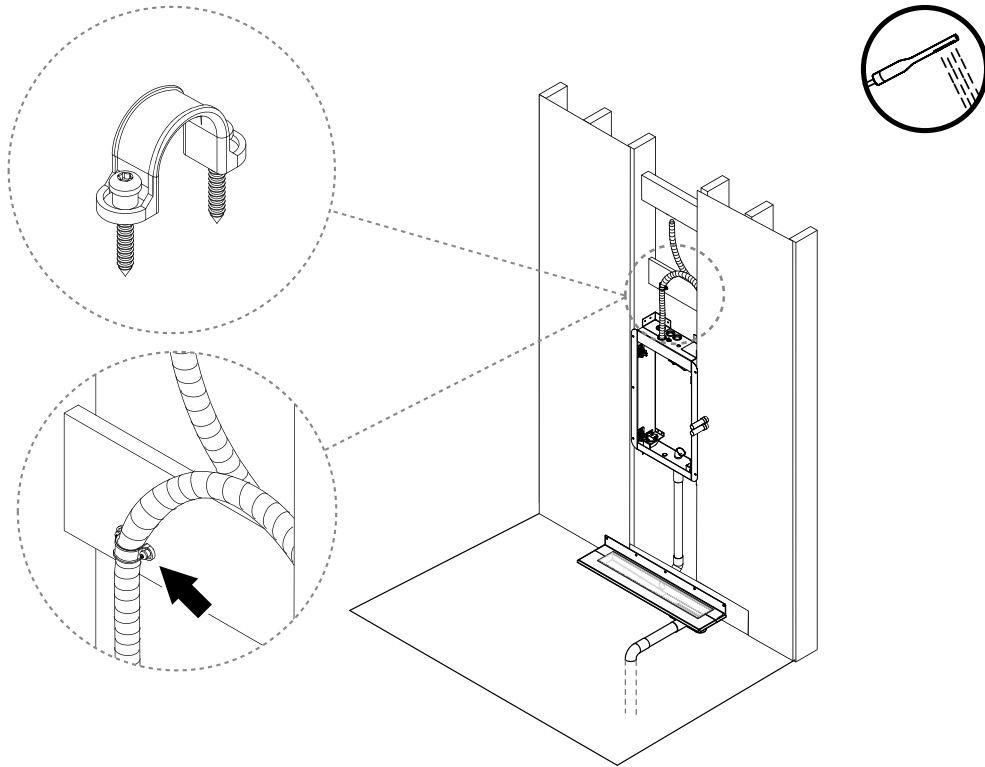


NOTICE

Anchors provided by Customer.



6. Secure Conduit in slot in stud and anchor with Conduit Clamp.

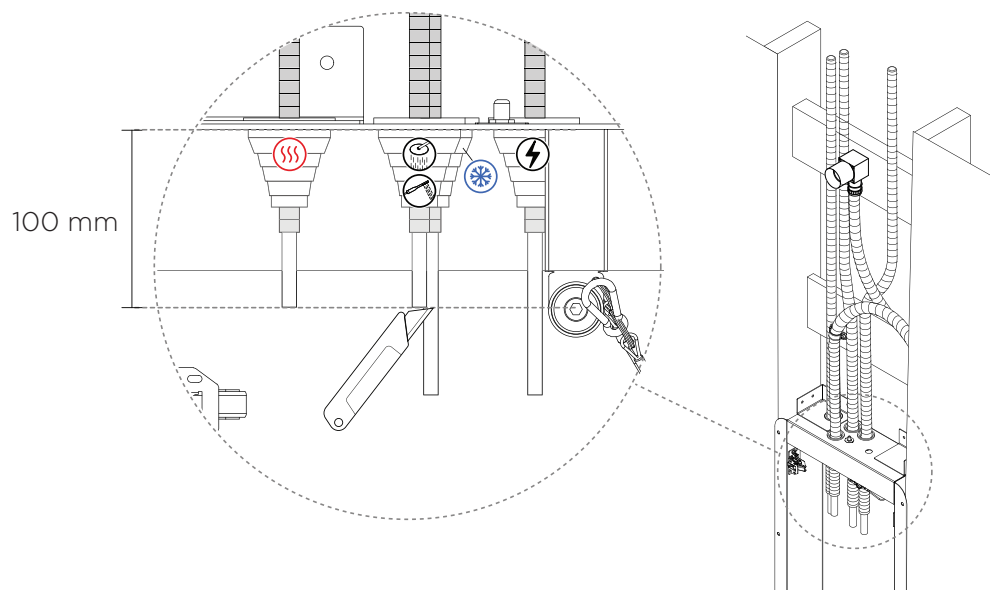


7. Cut the PEX.



NOTICE

Length might be adjusted depending on the chosen connector applied later.

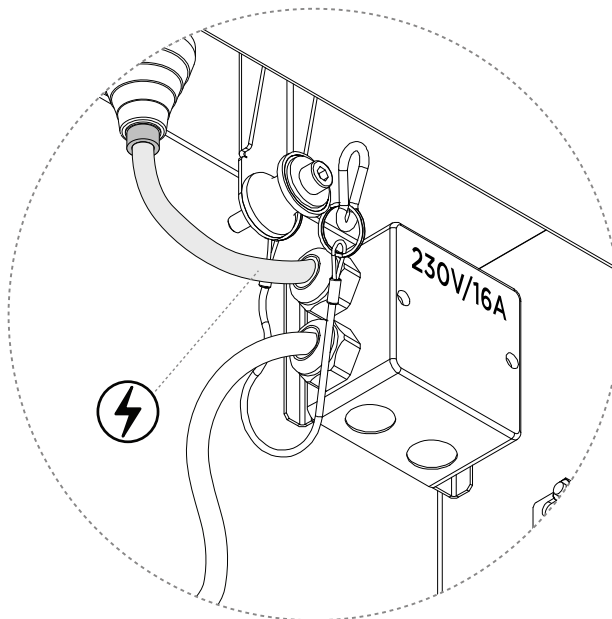


8.

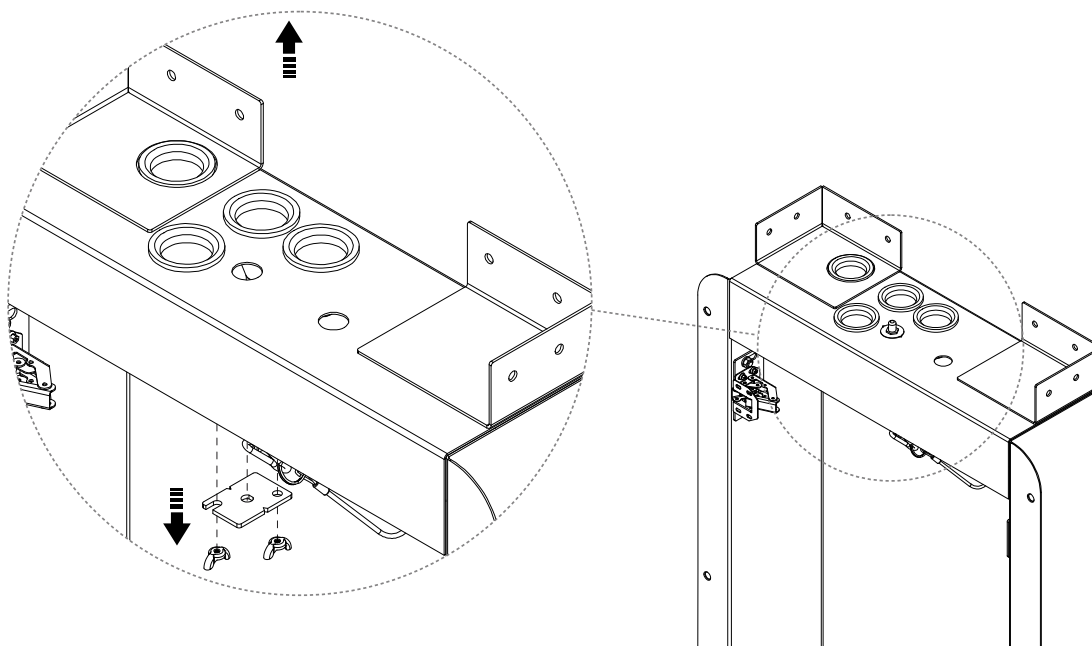
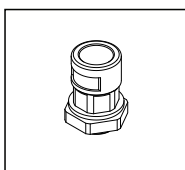


WARNING

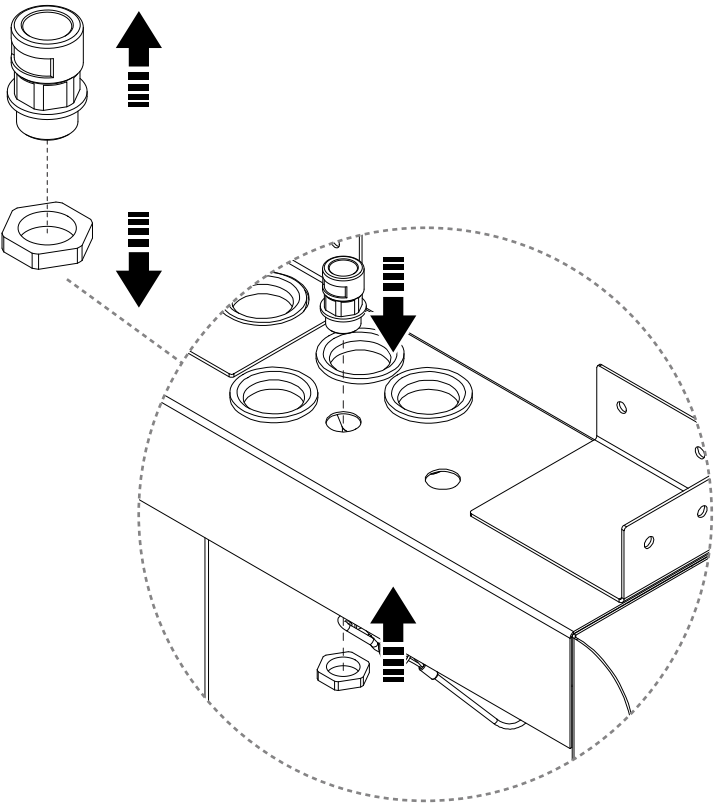
Electrical installation should be performed according to industry rules by a competent electrician.



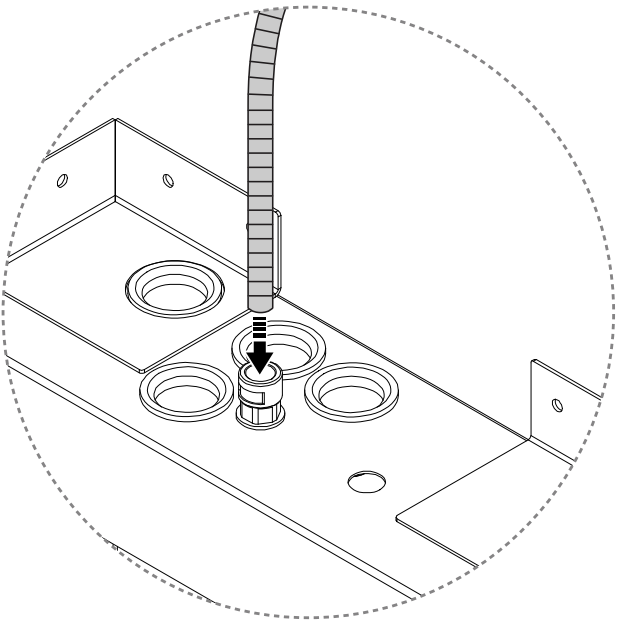
9. Only valid for Orbital Ethernet installation



10.

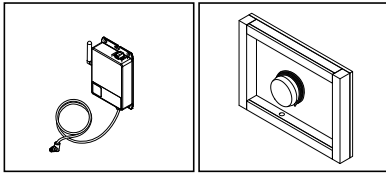


11.



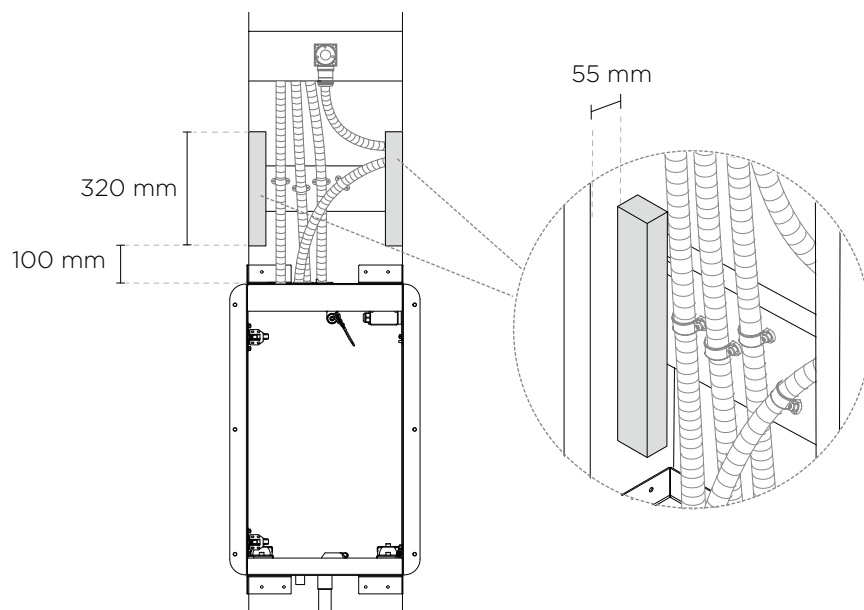
Install Audio

Following steps are only valid for Orbital Audio

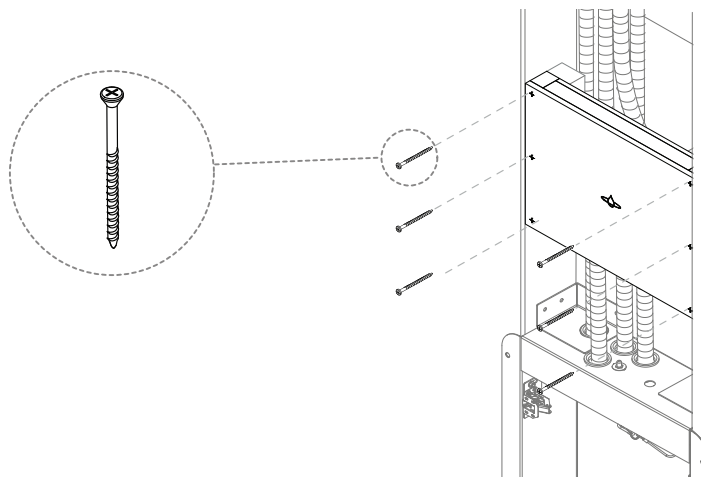


Check that the exciter is intact and attached to the back of Audio fixture before starting the installation.

1. Install two studs in between the head shower and the control display, where Audio fixture will be placed.



2. Place Audio Fixture in level with the front edge of the vertical studs. Pre-drill and attach with six stainless steel countersunk screws.

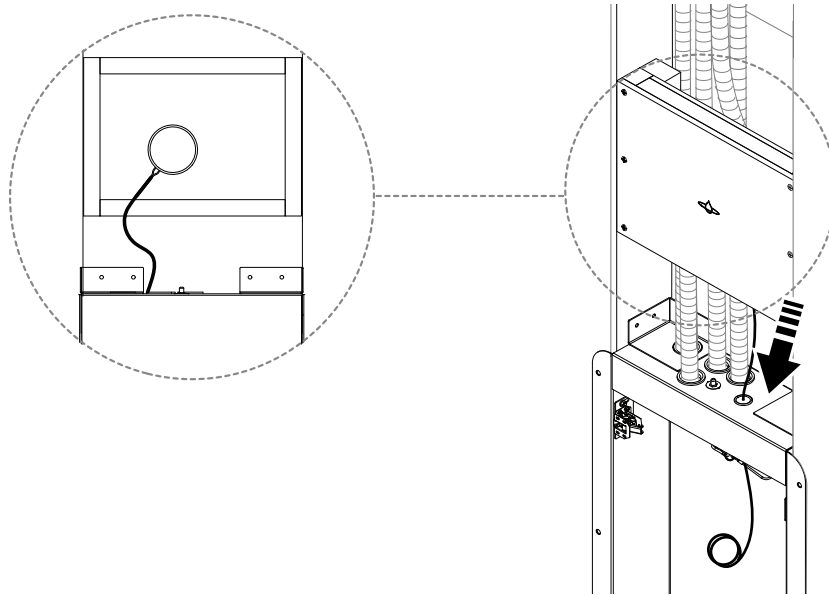


-
3. Draw the speaker cable from the back of Audio fixture to the wallbox.

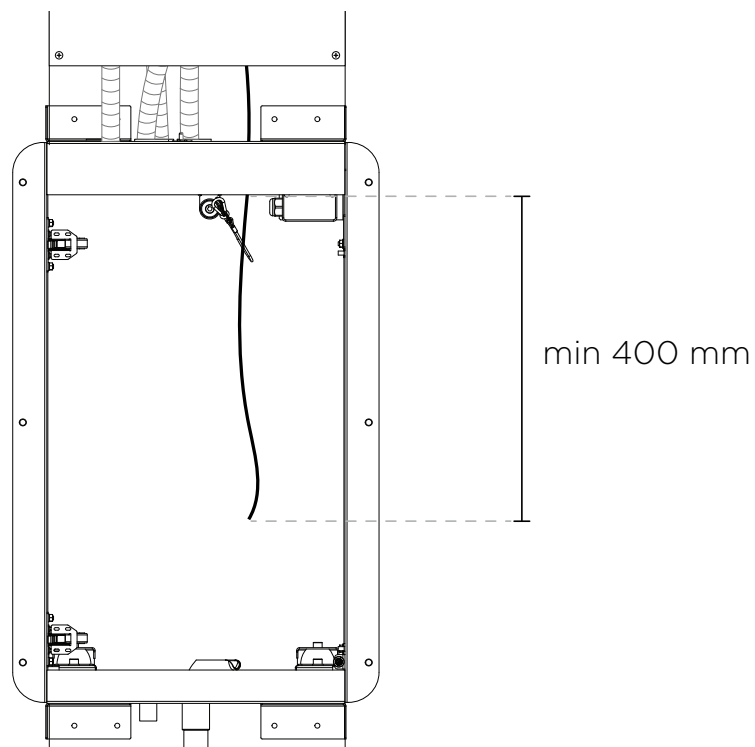


CAUTION

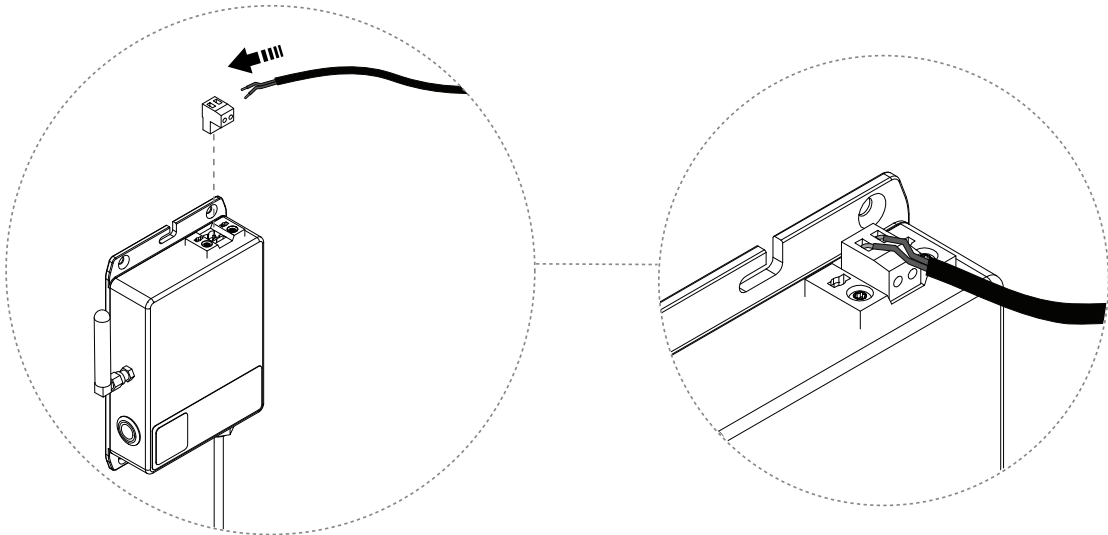
Use the supplied rubber plug.



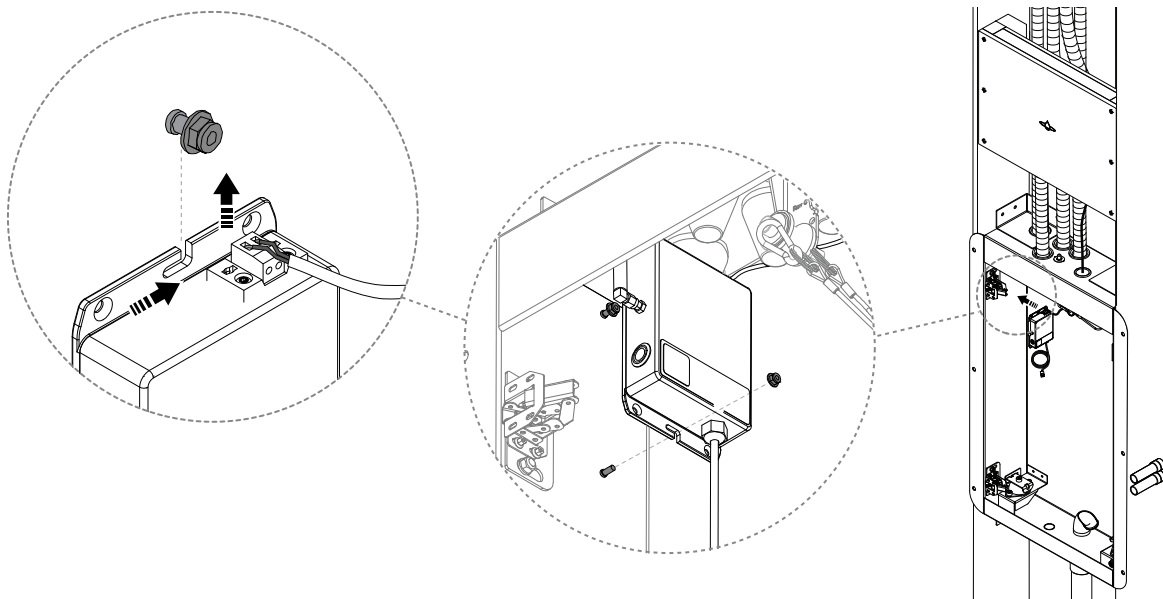
-
4. Cut the speaker cable.



-
5. Strip the speaker cable and attach it to the amplifier.

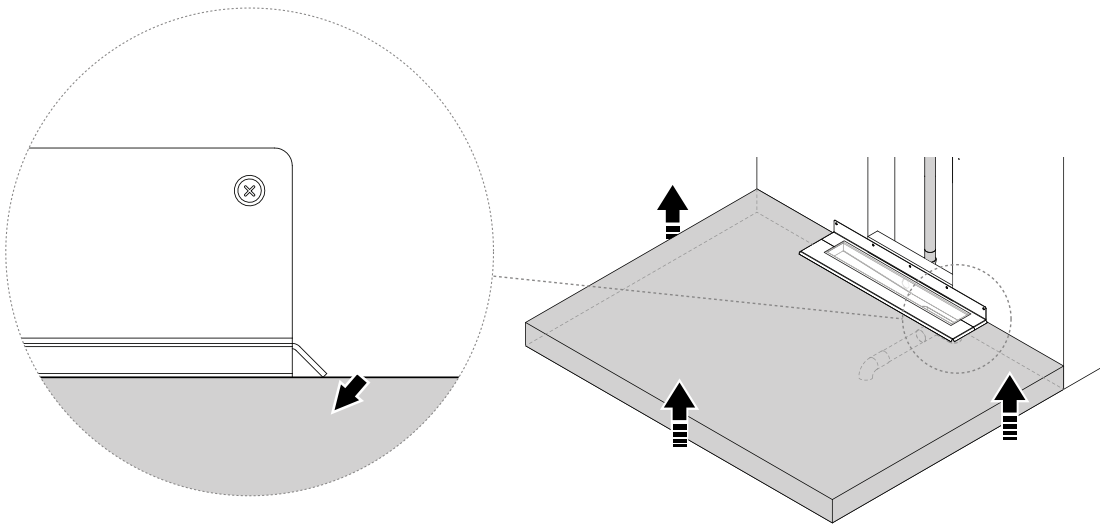


-
6. Mount the amplifier in the wallbox by loosening the nut from the lower bracket and threading the amplifier into the upper bracket. Attach the lower nut and tighten.

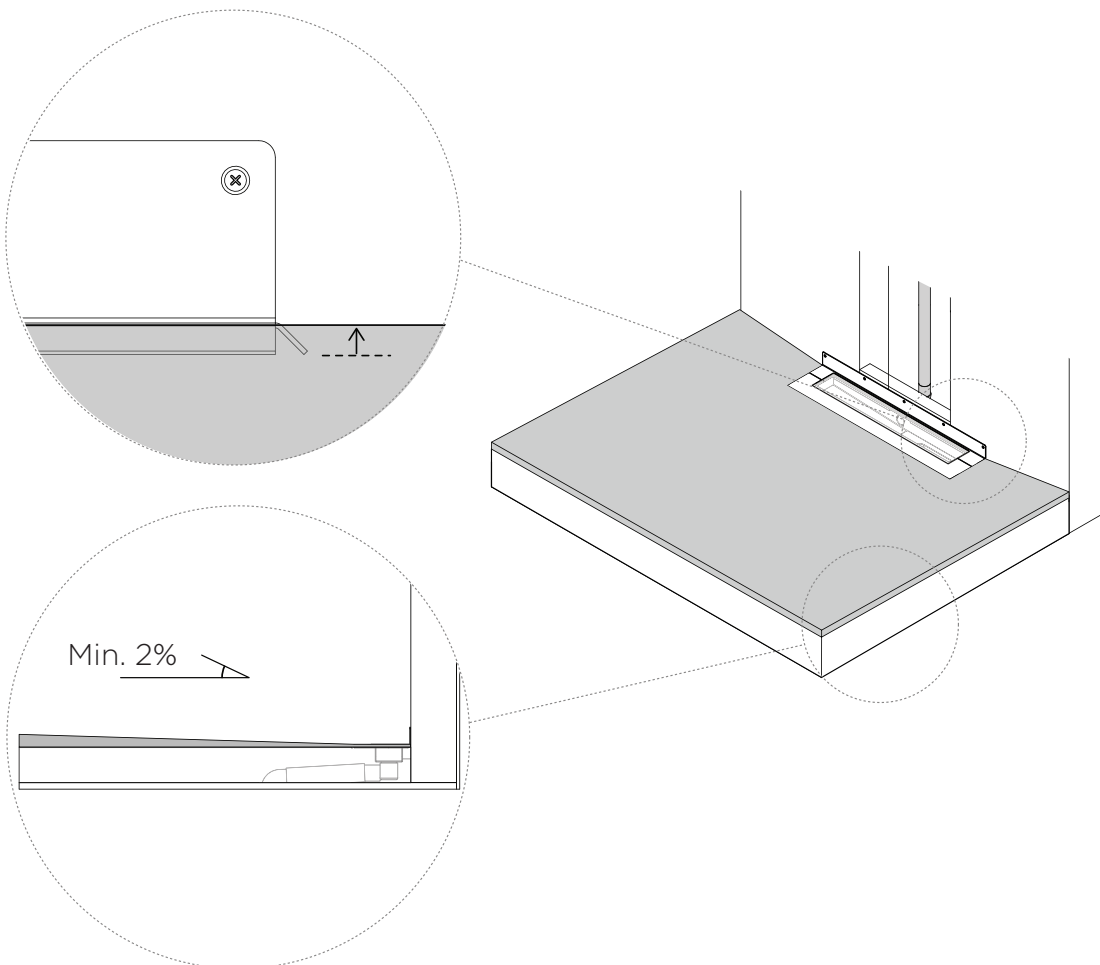


Prepare for Tiling

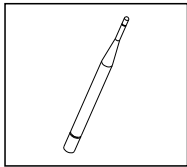
1. Raise the floor until it is level with the flange on the drain unit.



2. Form a steep inclination according to industry rules (min. 2% inclination) towards the Drain Unit. Make sure that the lowest part of the inclination is in level towards the Drain unit surface.

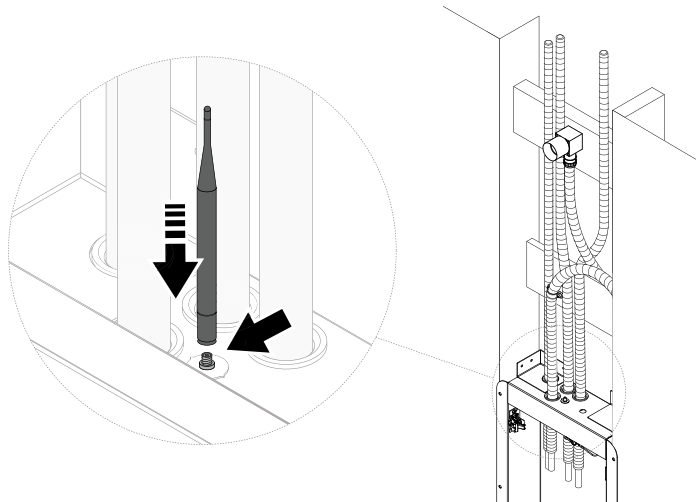


3.

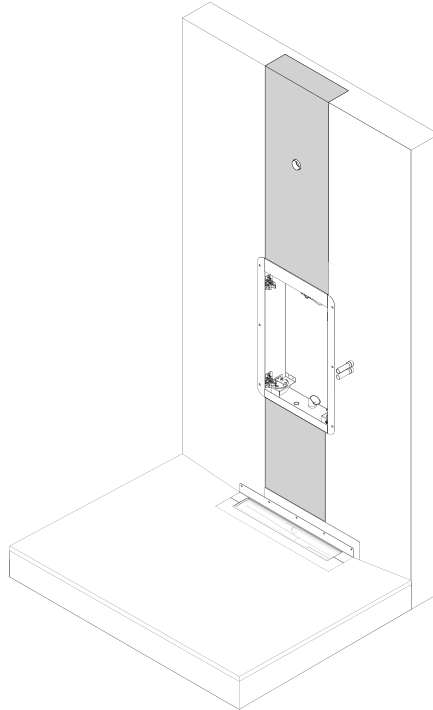


CAUTION

For Wi-Fi connection, do not forget to mount the Antenna before closing the wall.



-
4. Apply wall covering according to industry rules.

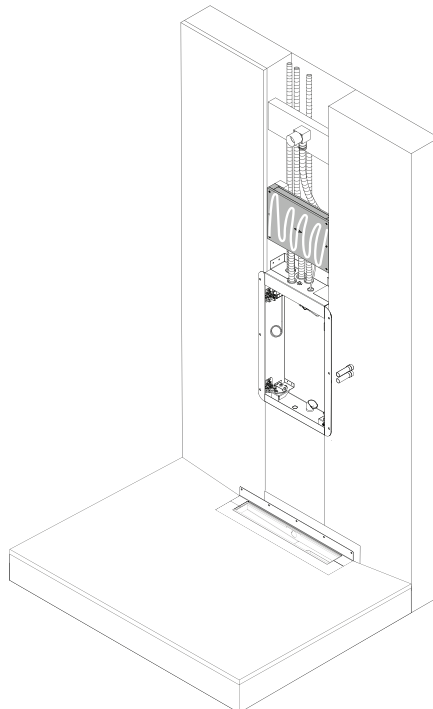


Only valid for Orbital Audio installation

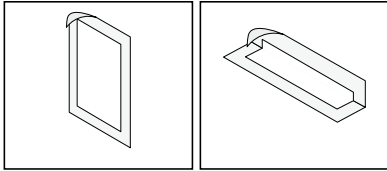


CAUTION

Make sure to apply construction glue to all wallboard layers.



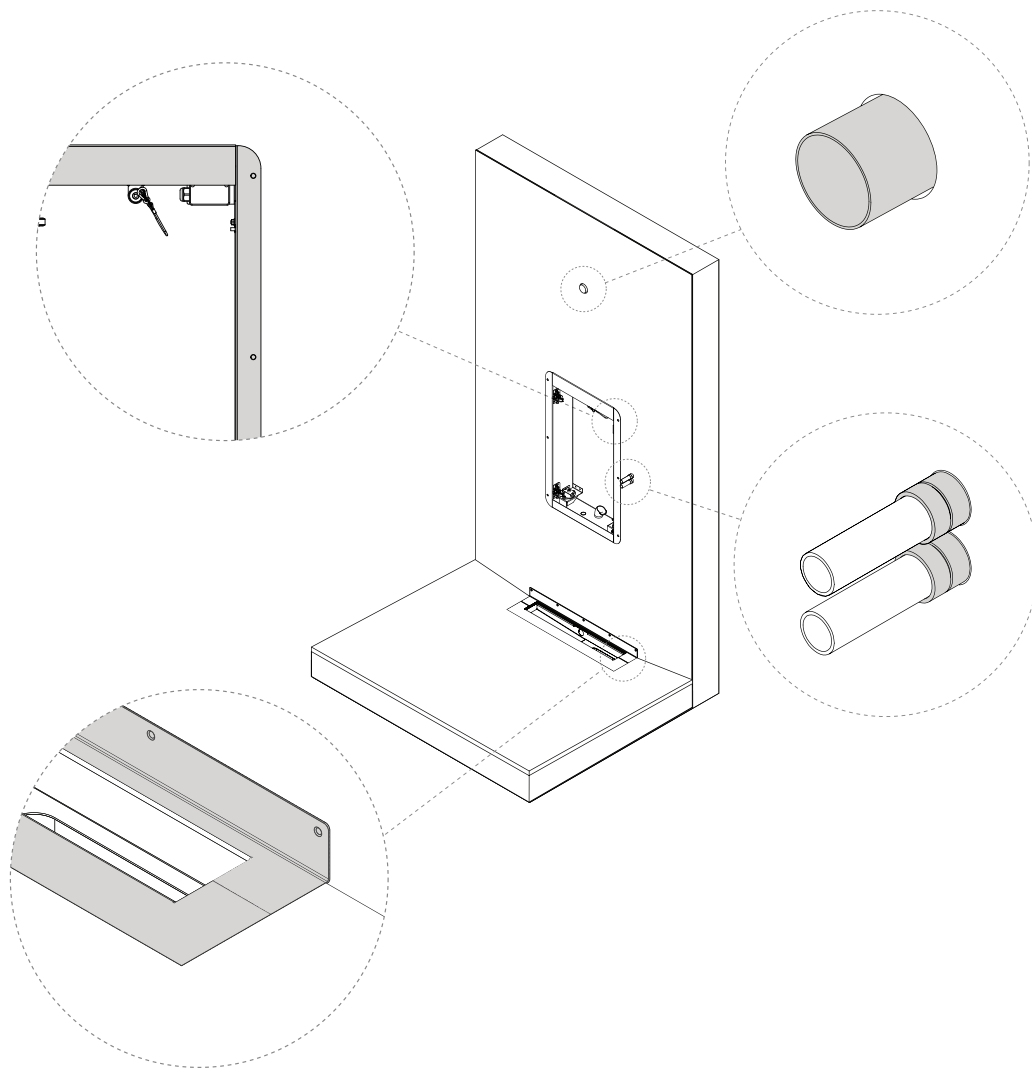
Apply Waterproofing Membrane



Provided by Customer:

1. Waterproofing Conduit Membrane for Diverter
2. Waterproofing Conduit Membrane for Shower Head
3. Waterproofing Conduit Membrane for Control Dial

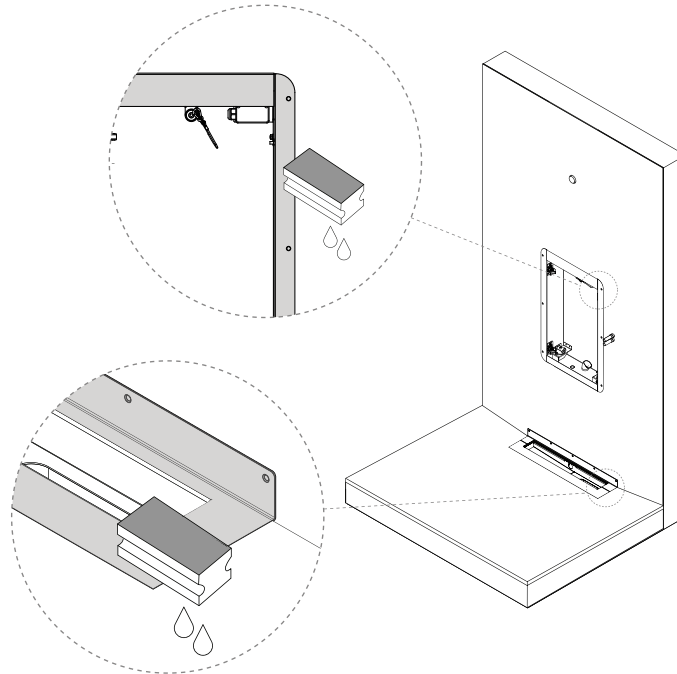
Waterproofing membrane shall be applied around 2 penetrations in the wall and on the metal flanges of the Wallbox and the Drain Unit.



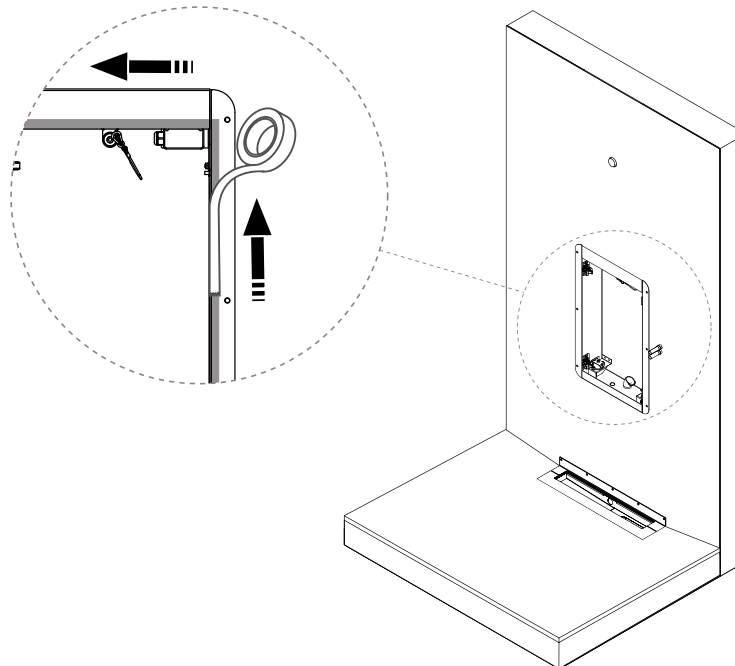
-
1. Roughen the metal surface of the Drain Unit and the Wallbox and clean them with the included cleaning wipe.

**NOTICE**

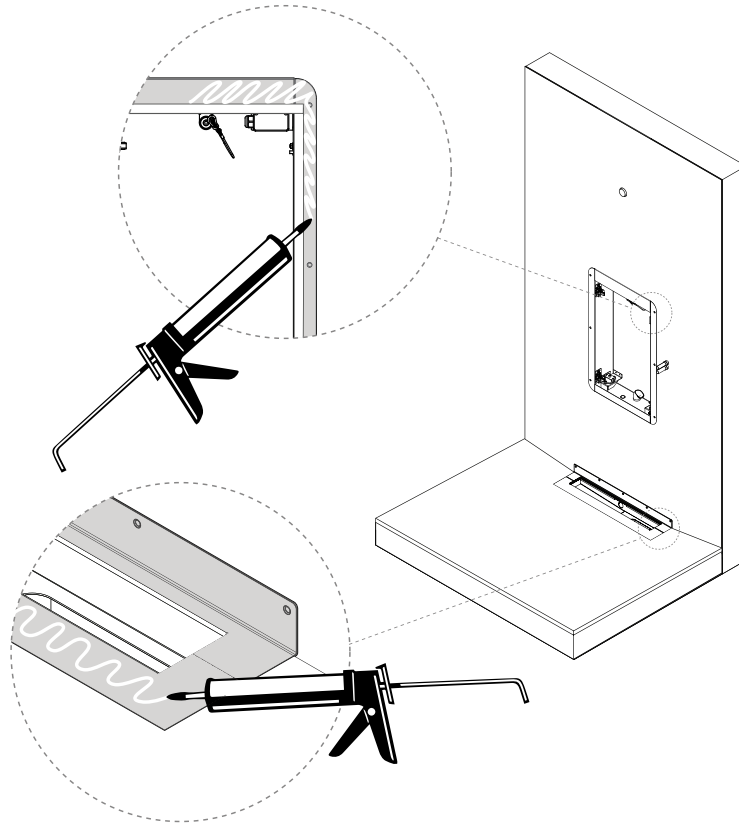
To achieve optimal bonding, all surfaces should be clean and free of adhesion reducing substances (e.g. dust, acid, grease).



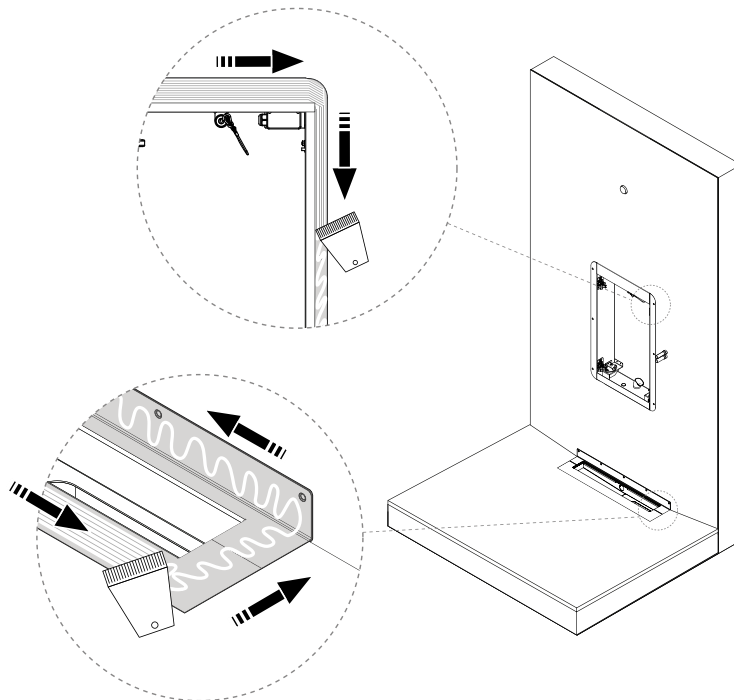
-
2. Mask the black lacquered part of the Wallbox flange with tape.



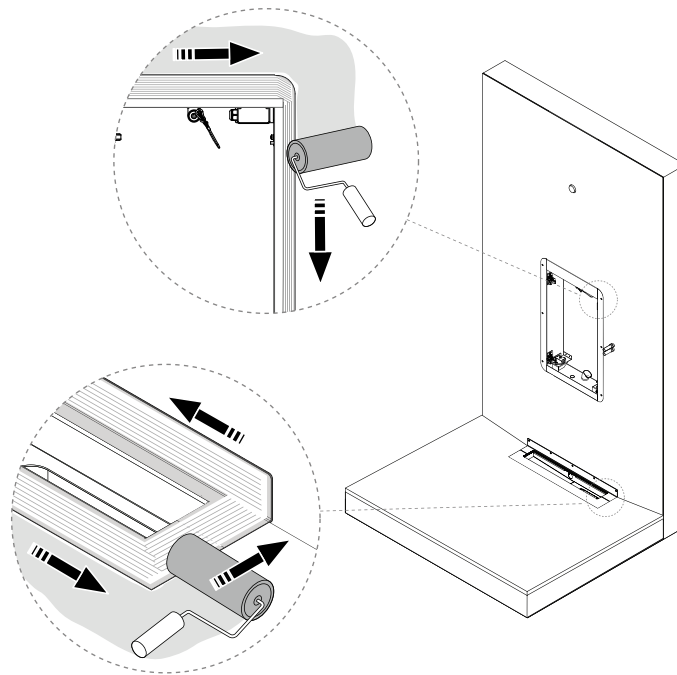
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3. Apply waterproofing glue on the metal flanges of the Wallbox and Drain Unit.



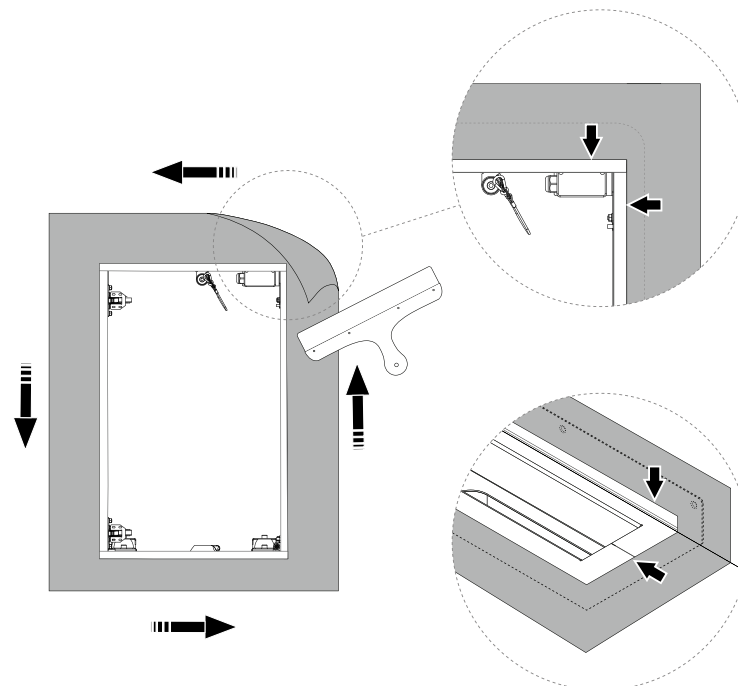
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4. Spread the waterproofing glue with a fine-toothed glue spreader or brush.



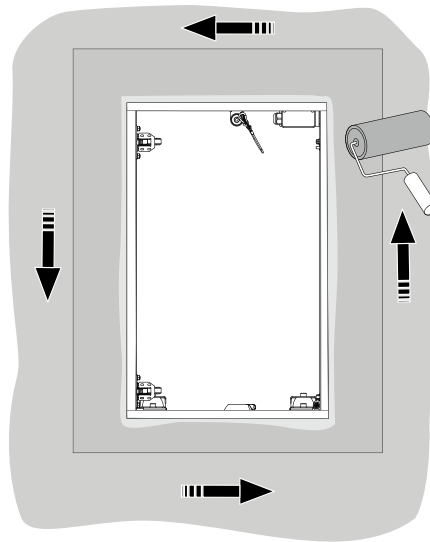
-
5. Apply liquid membrane to the floor- and wall surfaces which the Drain Waterproofing Membrane and the Wallbox Waterproofing Membrane are going to cover.



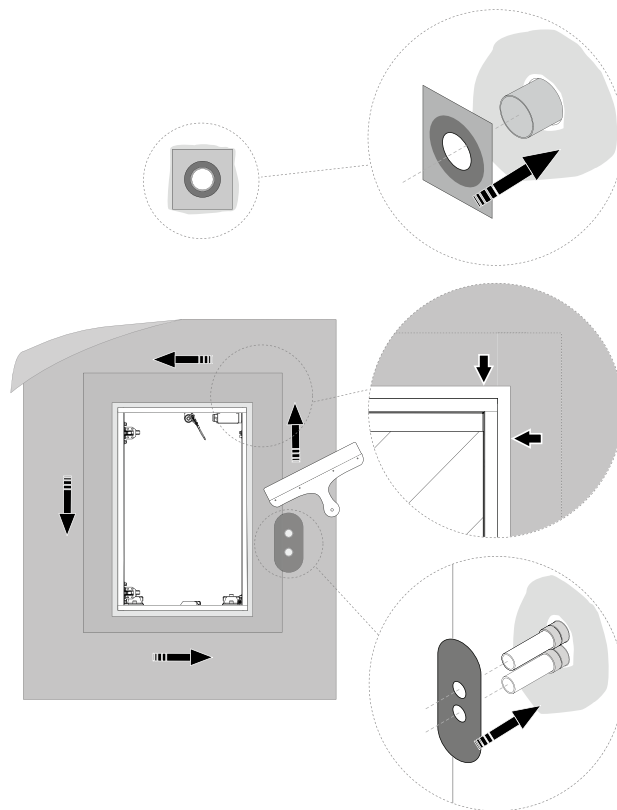
6. Apply the Wallbox Waterproofing Membrane around the Wallbox and the Drain Waterproofing Membrane around the Drain Unit. When mounting the Drain Waterproofing Membrane, make sure to cover both the floor and the wall. Firmly apply pressure and remove air pockets using a smoothing tool. Make sure no blisters or creases occur.



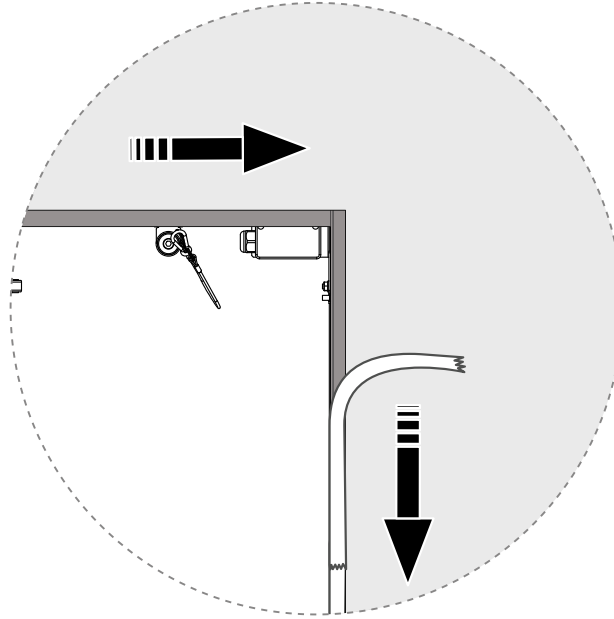
-
7. Apply liquid membrane on top of the Wallbox Waterproofing Membrane and to additional wall surface.



-
8. Carefully mount Waterproofing Membrane and overlap by at least 50 mm. Close the joints with liquid membrane. Apply Waterproofing Conduit Membrane according to chosen manufacturer to seal the conduits coming out of the wall.

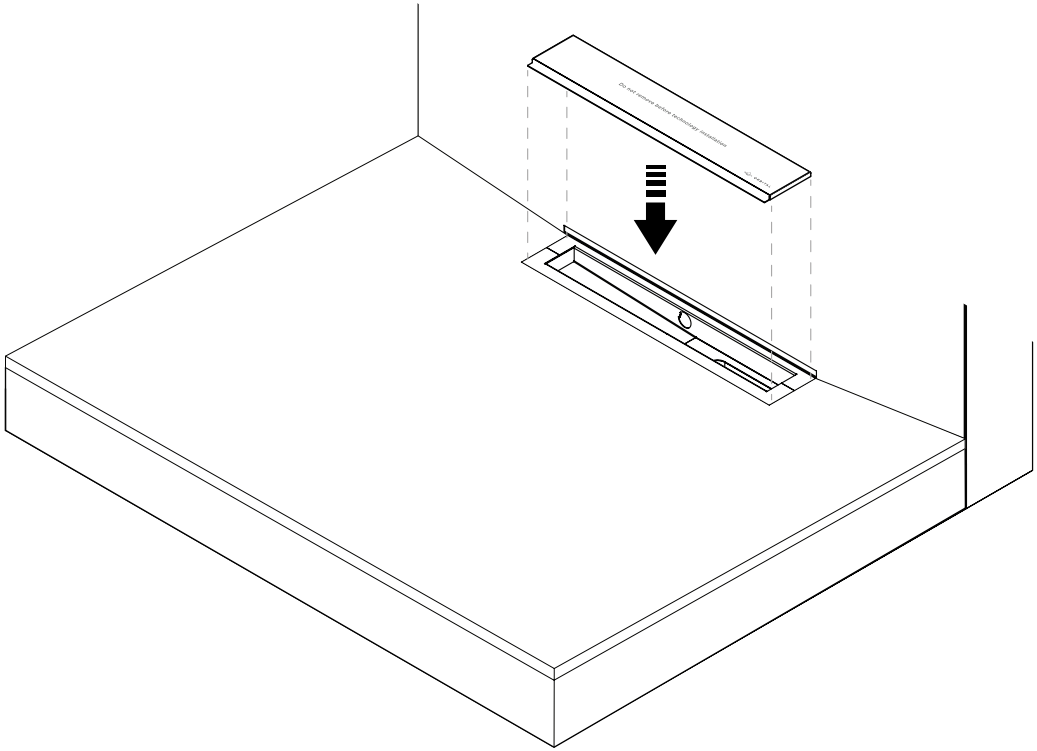
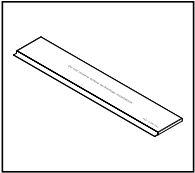


-
9. Remove the tape from the flange of the Wallbox.



-
10. Make sure remaining surfaces are being waterproofed according to chosen waterproofing membrane manufacturer and industry rules.

Install Tiling Frame Set



Tiling

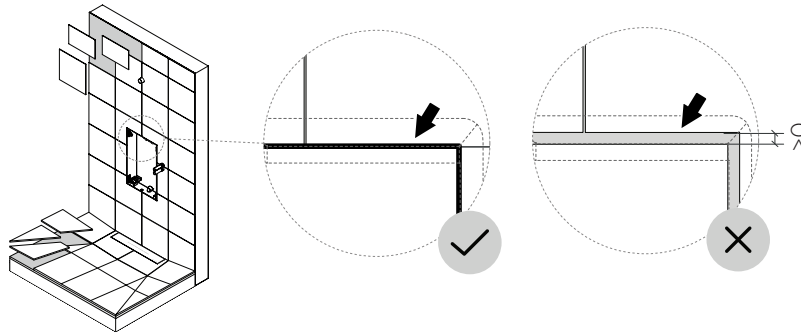
To achieve a nice straight and even gap of 2.5 mm between the door panel and the tile, the recommendation is to use a tile strip (L-strip). Use 2x2 tile moldings, according to the dimensions below. Choose a strip according to the type of tile (thickness, color, for example) you intend to use. The transition from black lacquer to stainless steel on the Cabinet is a guide for how the strip should be positioned in the fix.



NOTE

It is important to keep exactly 90 degree angles and set everything vertically / horizontally. It is also important that you do not smear fix over onto the black lacquered area on the Cabinet. Finally, it is recommended to place a thin sili-cone joint in the meeting with the tile strip and the Cabinet, mainly along the bottom side of the Cabinet hole, avoiding water flowing on to the fix.

1. Apply tiles up against the lacquered line on all sides of the flange of the Wall Box.

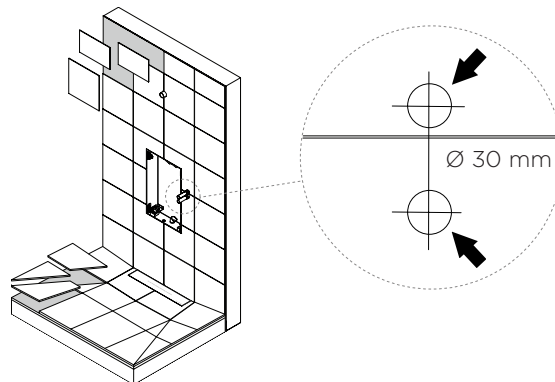


2. Cut holes in tiles for water connections.



CAUTION

- Do not cut the PEX Hoses, they need to stick out for coming installation steps.
- Do not use a larger drill than 30 mm in diameter for the tiles, otherwise the diverter will not fully cover the holes.

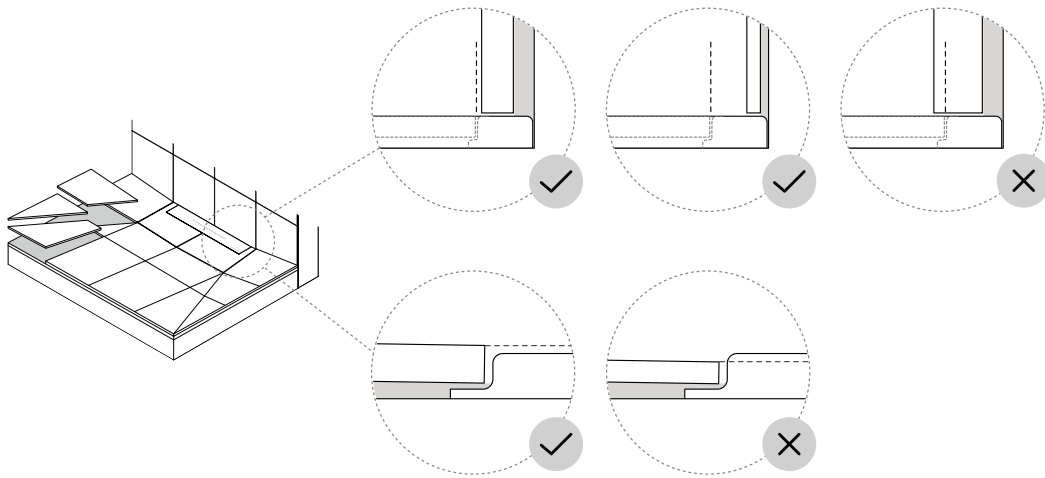


-
3. Make sure the tiles do not overlap the Grating, allowing it to be removed.

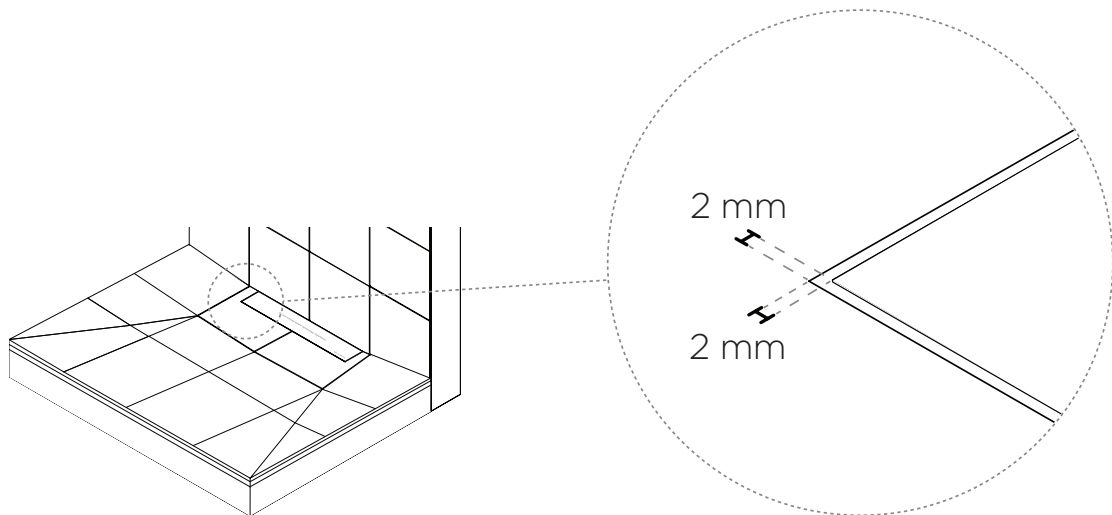


NOTICE

Floor tiles must be level with, or higher than the Frame. To achieve this, the floor tiles must be at least 8 mm thick.



-
- 4.



Final Preparations

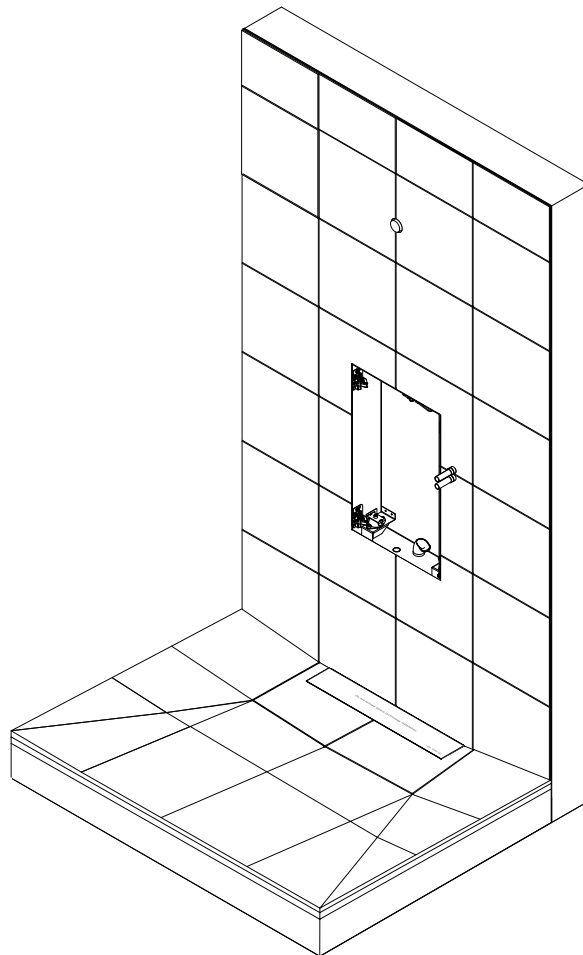


CAUTION

The Orbital Shower will not function without executing above mentioned steps.

Fixture Installation completed.

Next step is to install the Orbital Shower Core, Control Dial, Shower Head and Hand Shower (including Diverter and Hand Shower Holder). See Technology Installation Manual for details.



ORBITAL



CERTIFIED SPACE TECHNOLOGY