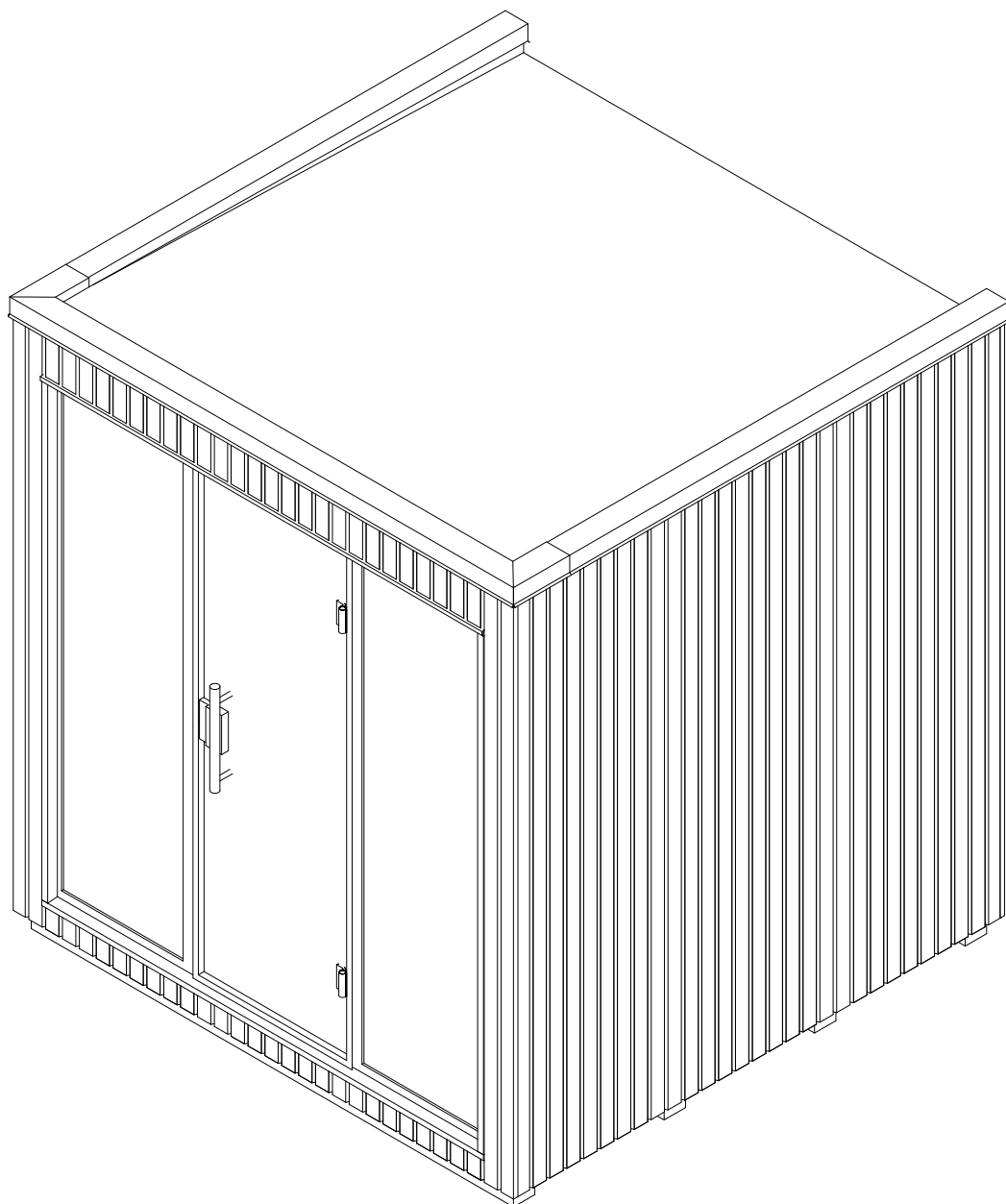




INSTALLATION MANUAL

Sauna
"LUIK"

THERMO ASH



1. Preparations

- Ensure the sauna model fits in the designated room with sufficient extra room for ease of installation.
- Clean the location of sauna with care in order to not damage any components.
- Sauna is intended to be installed on a level surface.
- Adequate electrical supply must be ensured for electrical components of the sauna. Refer to user manuals of respective products.
- Electrical connections to the power grid and to the sauna may only be carried out by licensed electrician.
- Producer cannot be held responsible for any errors resulting from disregard to the levelness of substructure, inadequate storing conditions, inadequate power supply, unauthorized alterations to components or any other circumstances occurring from deviations described in this manual and/or good customs.

2. List of tools

- Level
- Tape measure
- Power drill
- Rubber or plastic mallet
- Caulk gun
- Screwdriver set

Installation of a sauna requires 3-4 persons.

3. Installation

- Follow the instructions precisely.
- Always start from 1 and continuously move forward in an organized manner.
- Keep the installation site always clean and organized.
- This manual does not take into account any possible peculiarities of the installation site.
- Take care not to damage any components during installation due to dropping, dragging or careless handling.
- Special attention towards elements - they must be stored with care and kept away from any hard or sharp objects. Glass is tempered and may shatter if the edges are struck.

Preparing the sauna base

1. Choose a location

*A sufficiently large and level surface must be provided for the sauna.

2. Prepare the base

*The surface must be level and strong (e.g. concrete slab, stone parquet, gravel/crushed stone base).

*Remove any soft or uneven areas that may cause subsidence.

3. Check the measurement

*The dimensions shown in the drawing determine the minimum area required.

4. Check the level

*Use a spirit level or laser to make sure the surface is straight.

*All corners must be at the same height.

5. Consider technical connections

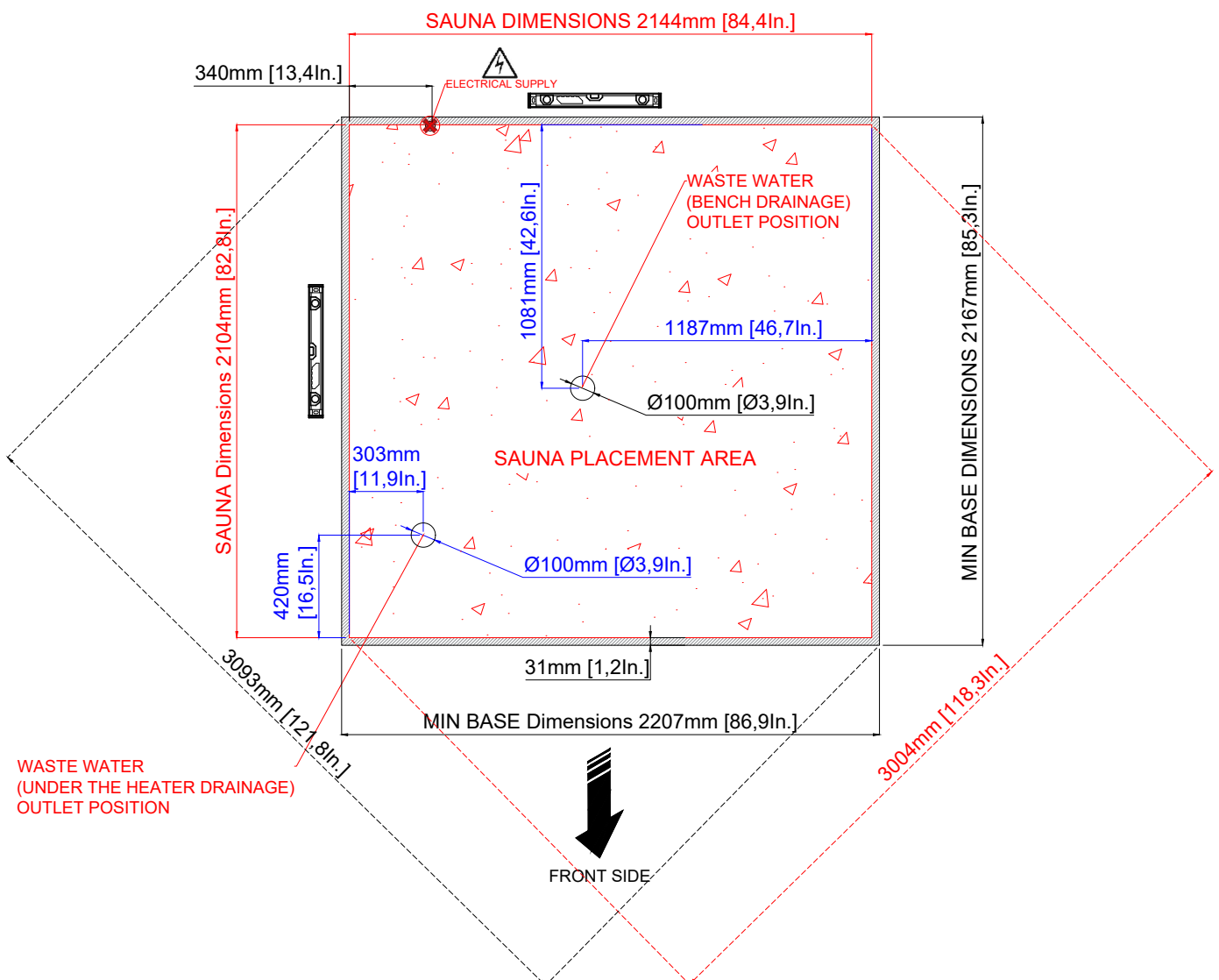
*Leave the space shown in the drawing for the electrical supply (Electrical supply).

*If necessary, also plan for water drainage if this is important in the location.

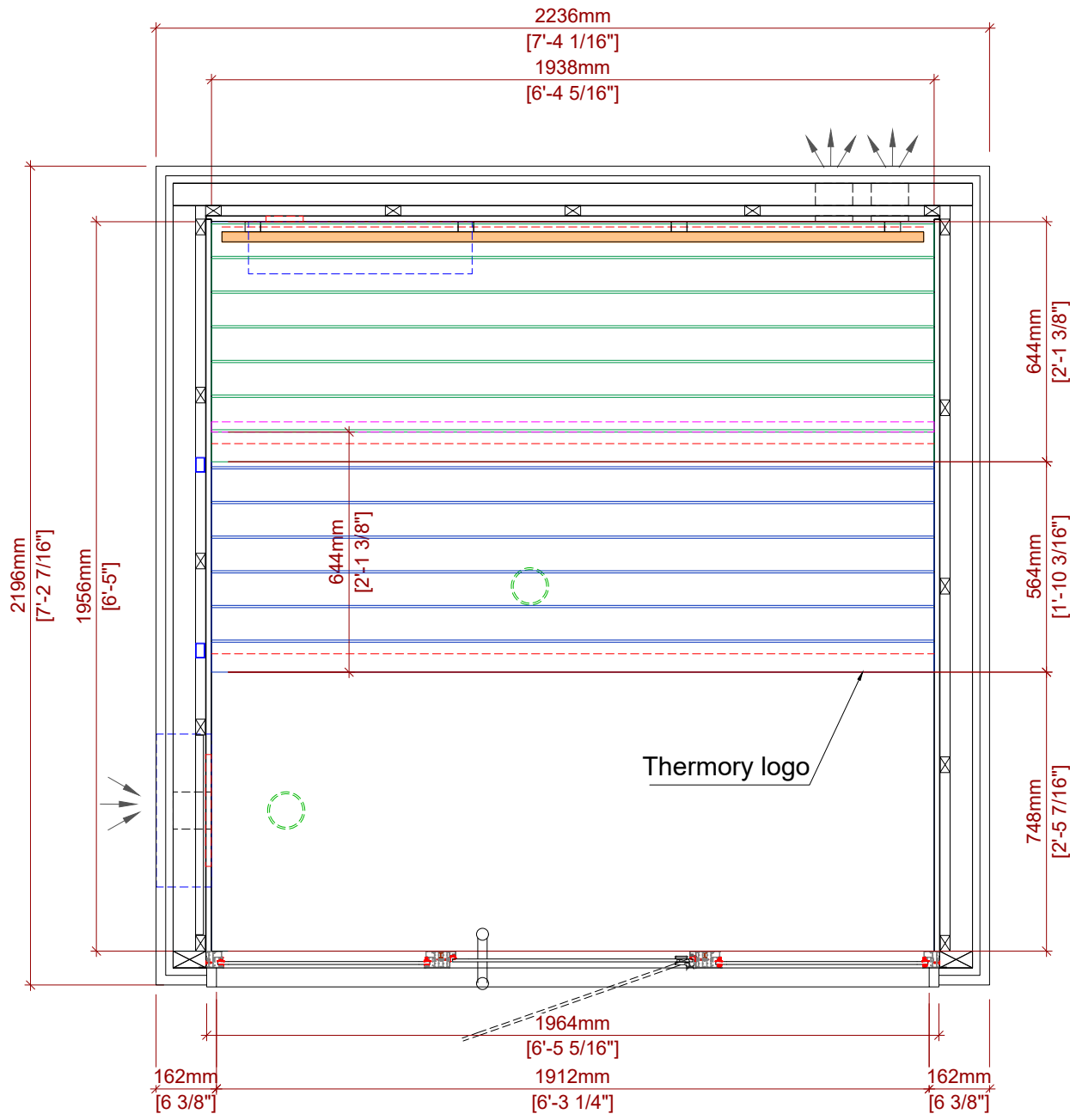
6. Prepare the base for the load

*The base must withstand the weight of the sauna, as well as the load of people

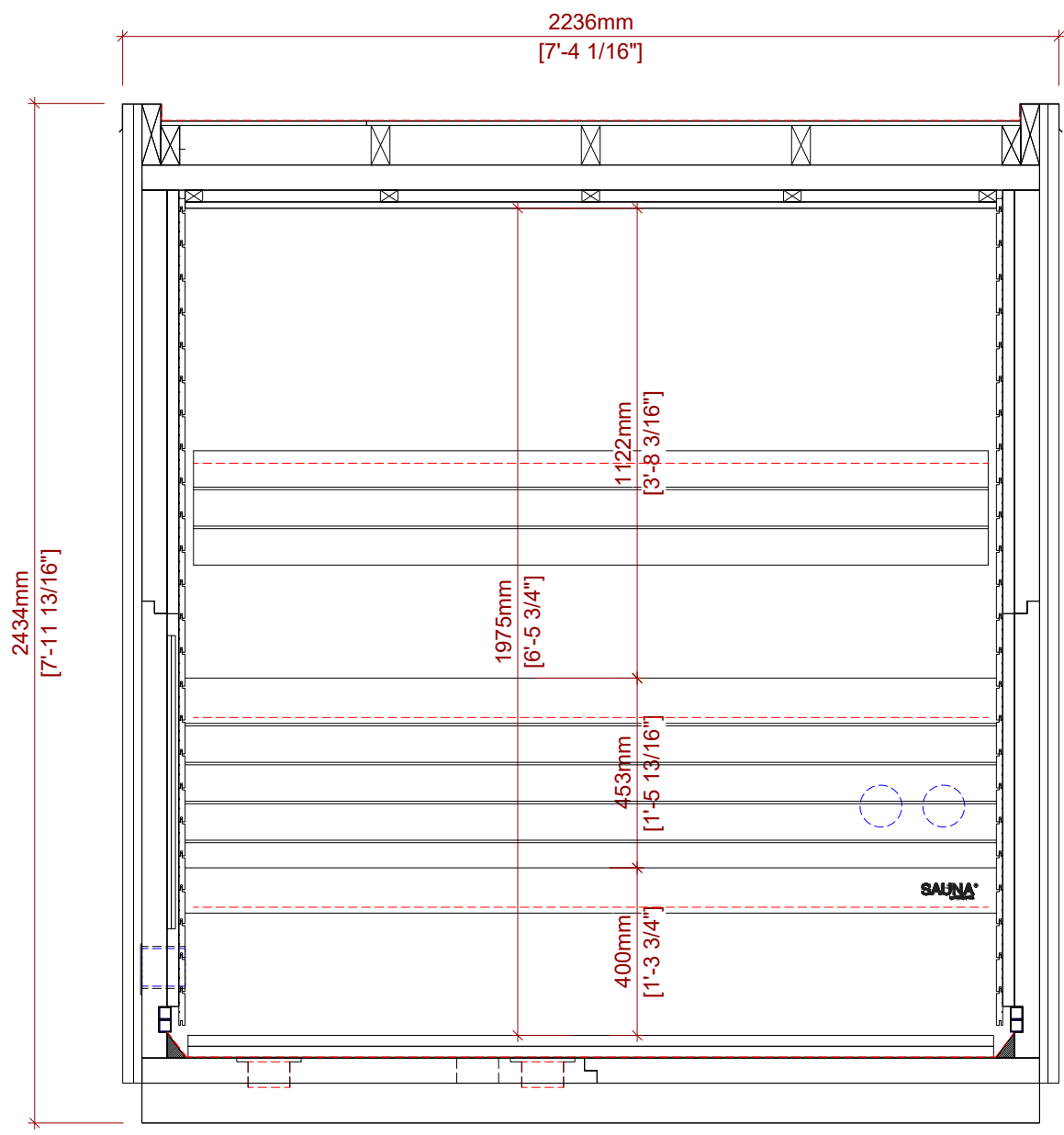
*It is recommended to use durable materials that will not sink or move over time.



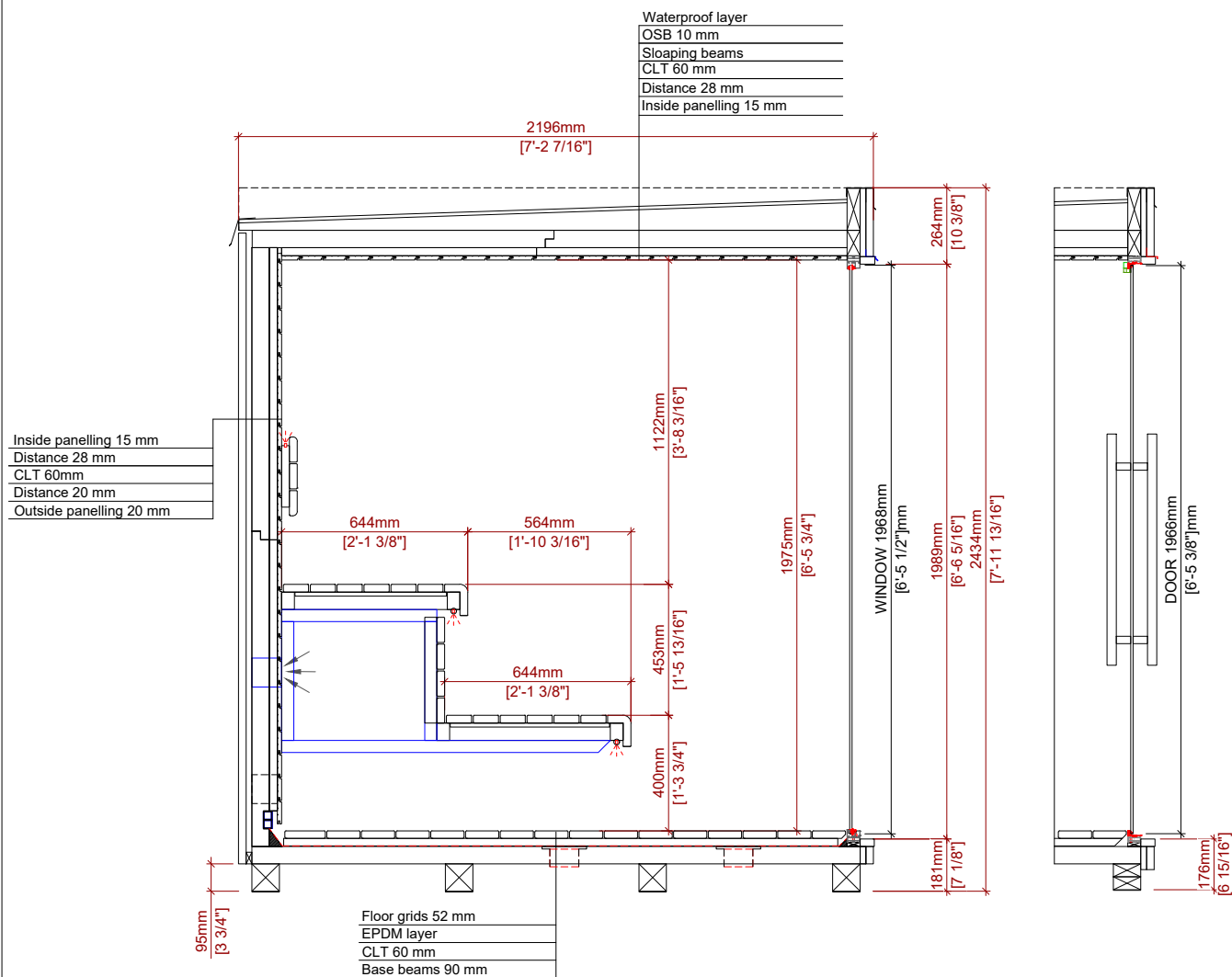
FLOOR PLAN



SECTION 1-1

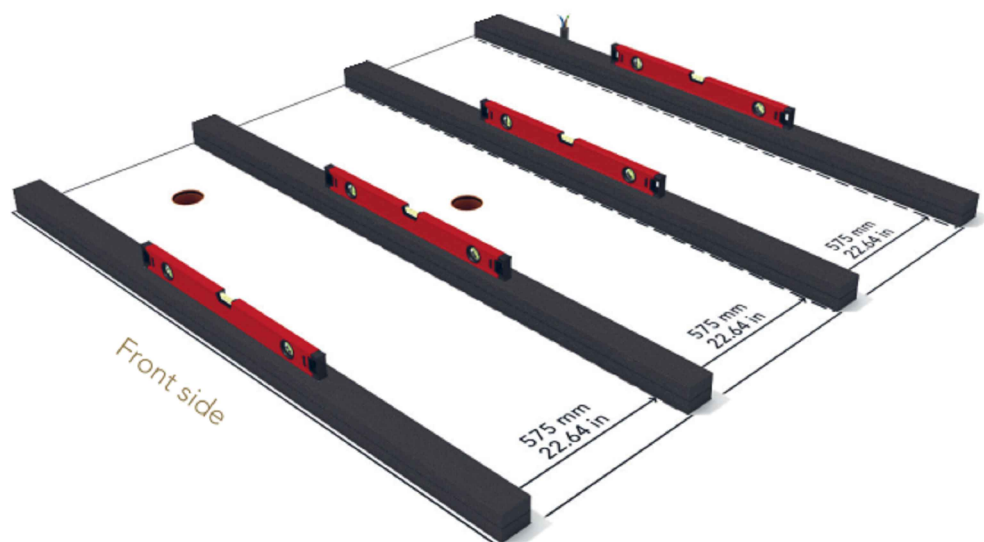
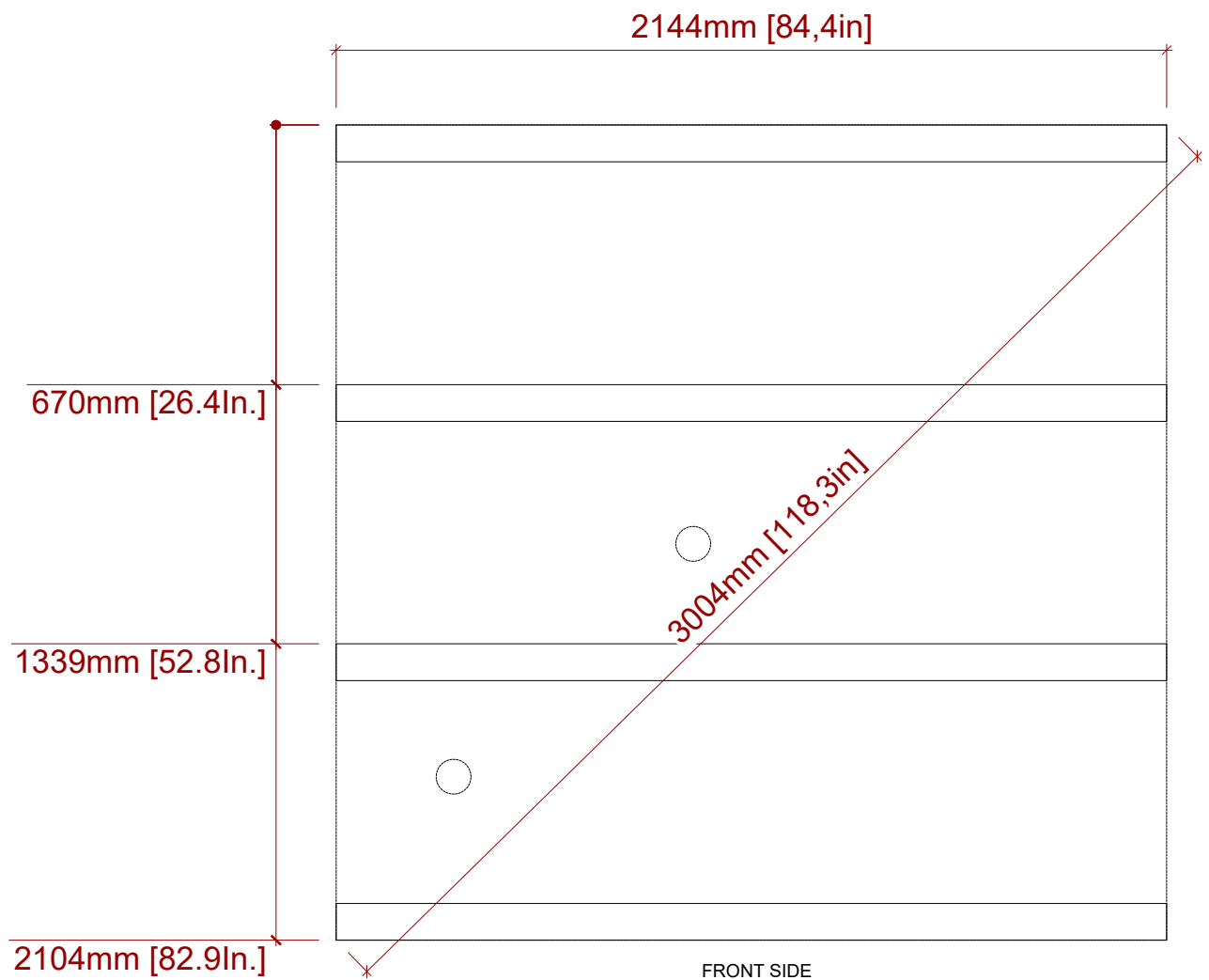


SECTION 2-2



BASE BEAMS

1. Place base beams.
2. Confirm Base beams are level.



1. Start assembly from floor element
2. Place the elements on previously assembled and stable base beams fix with screws.

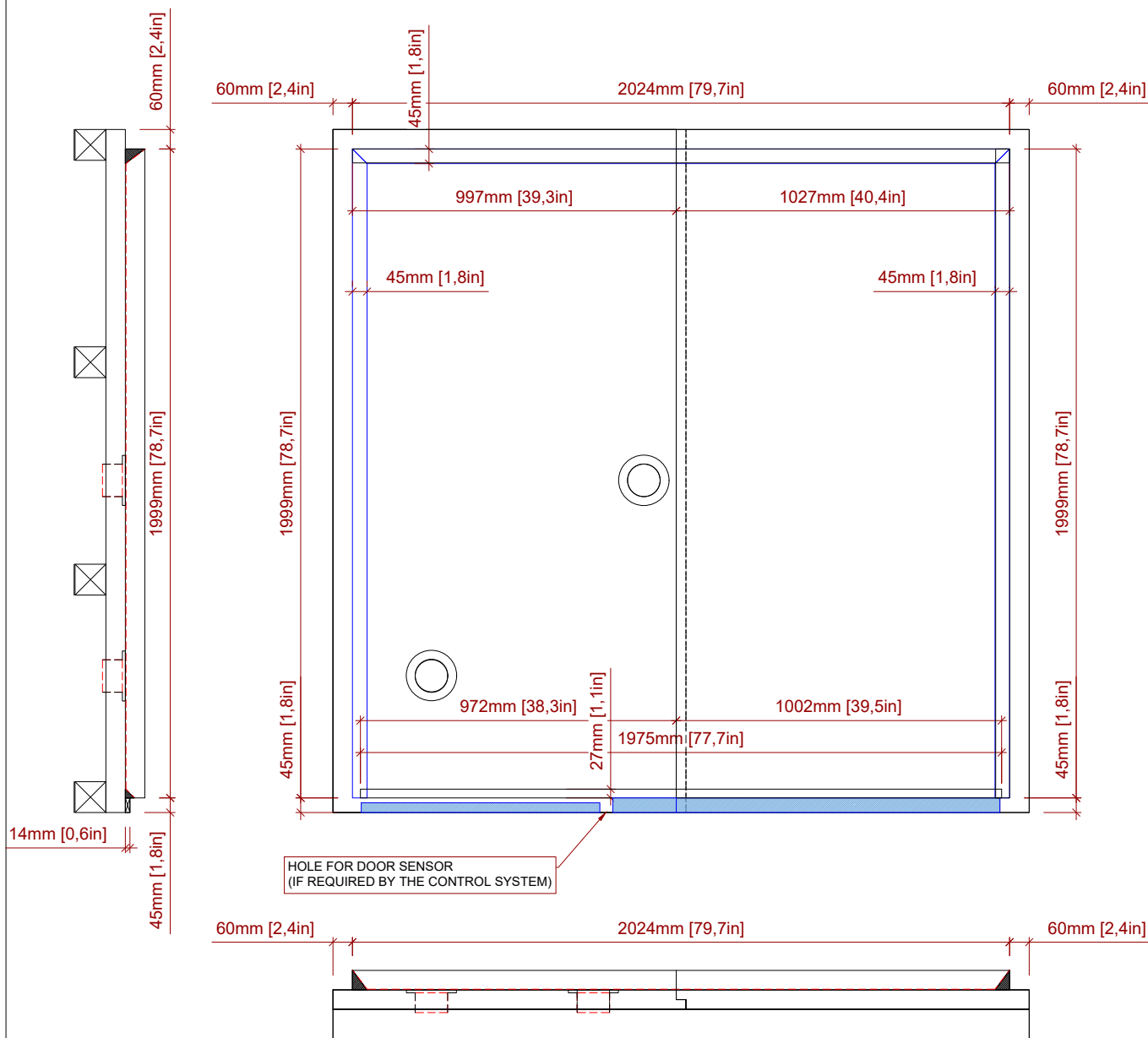
Stainless steel screws 6x120mm (0,24x3,94in) (4,7in)- 24 pcs

Stainless steel screws 5x60mm (0,2x2,4in) (2,4in)- 5 pcs



EPDM AND CONTROL MEASURES

EPDM MEMBRANE 2100x2100mm (82,7x82,7in)



EPDM INSTALLATION

The EPDM rubber flooring installation is carried out in two stages, covering the first half of the floor and then the second half. Before applying adhesive, ensure that both the EPDM rubber and the floor surfaces are clean and free from dust.

1. Fold half of the EPDM back on itself. Apply a thin layer of adhesive to both the EPDM rubber and the floor by using the mini roller included in the package.
2. Avoid applying adhesive to the edges of the EPDM that overlap with the electrical conduits.
3. Once the adhesive no longer feels tacky, roll and smooth the EPDM rubber onto the floor.
4. Using a broom smooth out creases or bubbles.
5. Repeat the process on the other half.
6. Trim off any excess rubber if necessary.

1.



2.



After the EPDM adhesive is applied, a drying period of 15 - 20 minutes is required. Ensure the surfaces are dry to the touch before bonding.



Please follow safety precautions for EPDM rubber installation.



Safety Precautions for EPDM Rubber Installation:

When installing EPDM rubber, ensure proper ventilation in the working area to prevent inhalation of adhesive fumes. Wear appropriate personal protective equipment (PPE) such as gloves and eye protection to avoid contact with adhesive and potential injury from sharp tools during trimming. Additionally, exercise caution to prevent slips or falls on adhesive-covered surfaces.

EPDM INSTALLATION

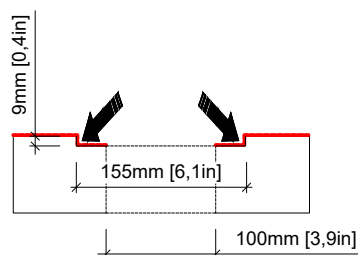
The EPDM rubber flooring installation is carried out in two stages, covering the first half of the floor and then the second half. Before applying adhesive, ensure that both the EPDM rubber and the floor surfaces are clean and free from dust.

1. Fold half of the EPDM back on itself. Apply a thin layer of adhesive to both the EPDM rubber and the floor by using the mini roller included in the package.
2. Avoid applying adhesive to the edges of the EPDM that overlap with the electrical conduits.
3. Once the adhesive no longer feels tacky, roll and smooth the EPDM rubber onto the floor.
4. Using a broom smooths out creases or bubbles.
5. Repeat the process on the other half.
6. Trim off any excess rubber if necessary.

3.



4.



PRESS EPDM INTO THE ROUTED CORNER OF THE DRAIN OPENING DURING GLUING

Safety Precautions for EPDM Rubber Installation:

When installing EPDM rubber, ensure proper ventilation in the working area to prevent inhalation of adhesive fumes. Wear appropriate personal protective equipment (PPE) such as gloves and eye protection to avoid contact with adhesive and potential injury from sharp tools during trimming. Additionally, exercise caution to prevent slips or falls on adhesive-covered surfaces.

EPDM INSTALLATION

The EPDM rubber flooring installation is carried out in two stages, covering the first half of the floor and then the second half. Before applying adhesive, ensure that both the EPDM rubber and the floor surfaces are clean and free from dust.

1. Fold half of the EPDM back on itself. Apply a thin layer of adhesive to both the EPDM rubber and the floor by using the mini roller included in the package.
2. Avoid applying adhesive to the edges of the EPDM that overlap with the electrical conduits.
3. Once the adhesive no longer feels tacky, roll and smooth the EPDM rubber onto the floor.
4. Using a broom smooths out creases or bubbles.
5. Repeat the process on the other half.
6. Trim off any excess rubber if necessary.

5.



6.



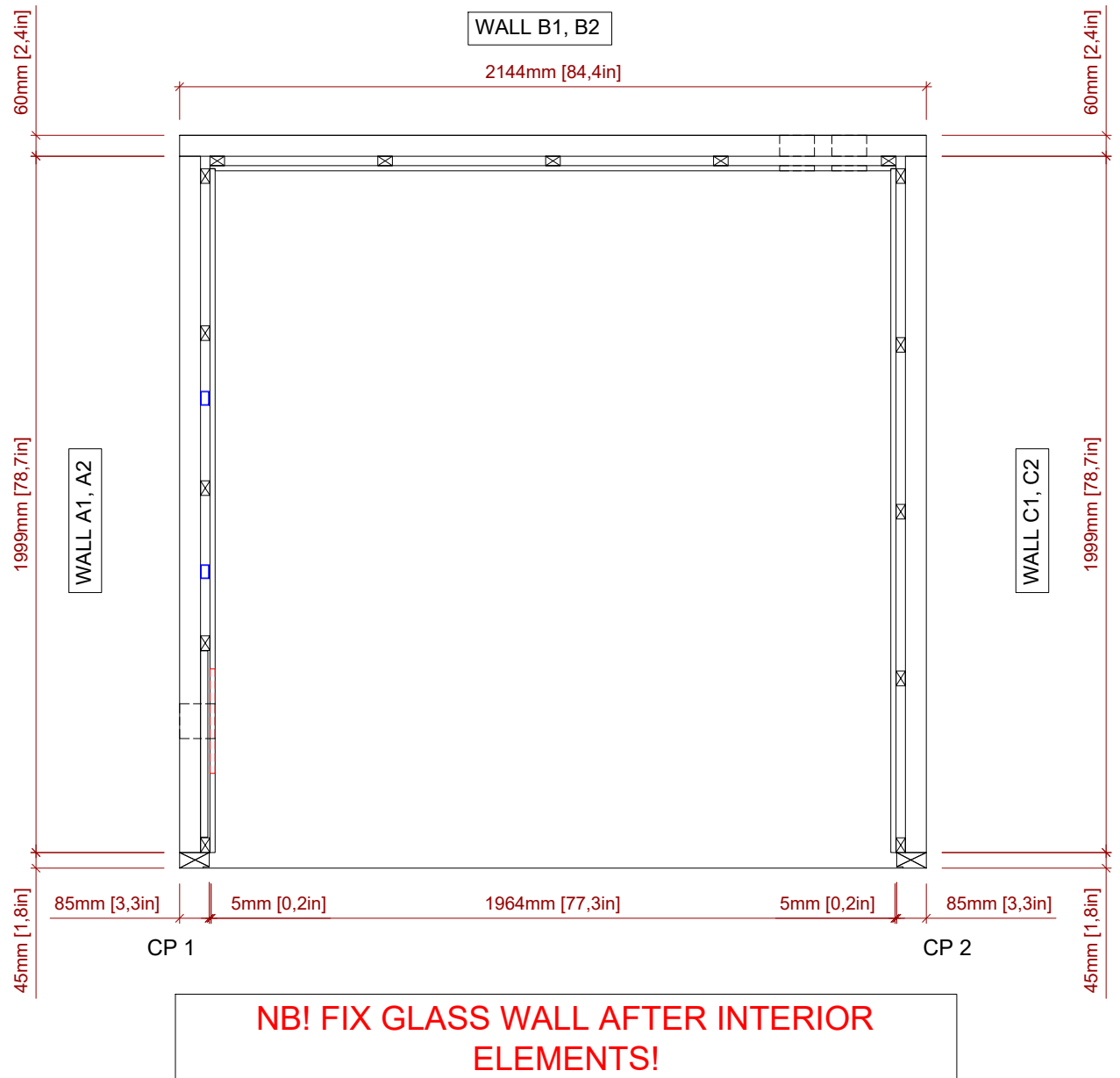
CUT OUT THE DRAIN TRAP OPENING
AND INSTALL THE DRAIN TRAP COVER



Safety Precautions for EPDM Rubber Installation:

When installing EPDM rubber, ensure proper ventilation in the working area to prevent inhalation of adhesive fumes. Wear appropriate personal protective equipment (PPE) such as gloves and eye protection to avoid contact with adhesive and potential injury from sharp tools during trimming. Additionally, exercise caution to prevent slips or falls on adhesive-covered surfaces.

WALL PLAN

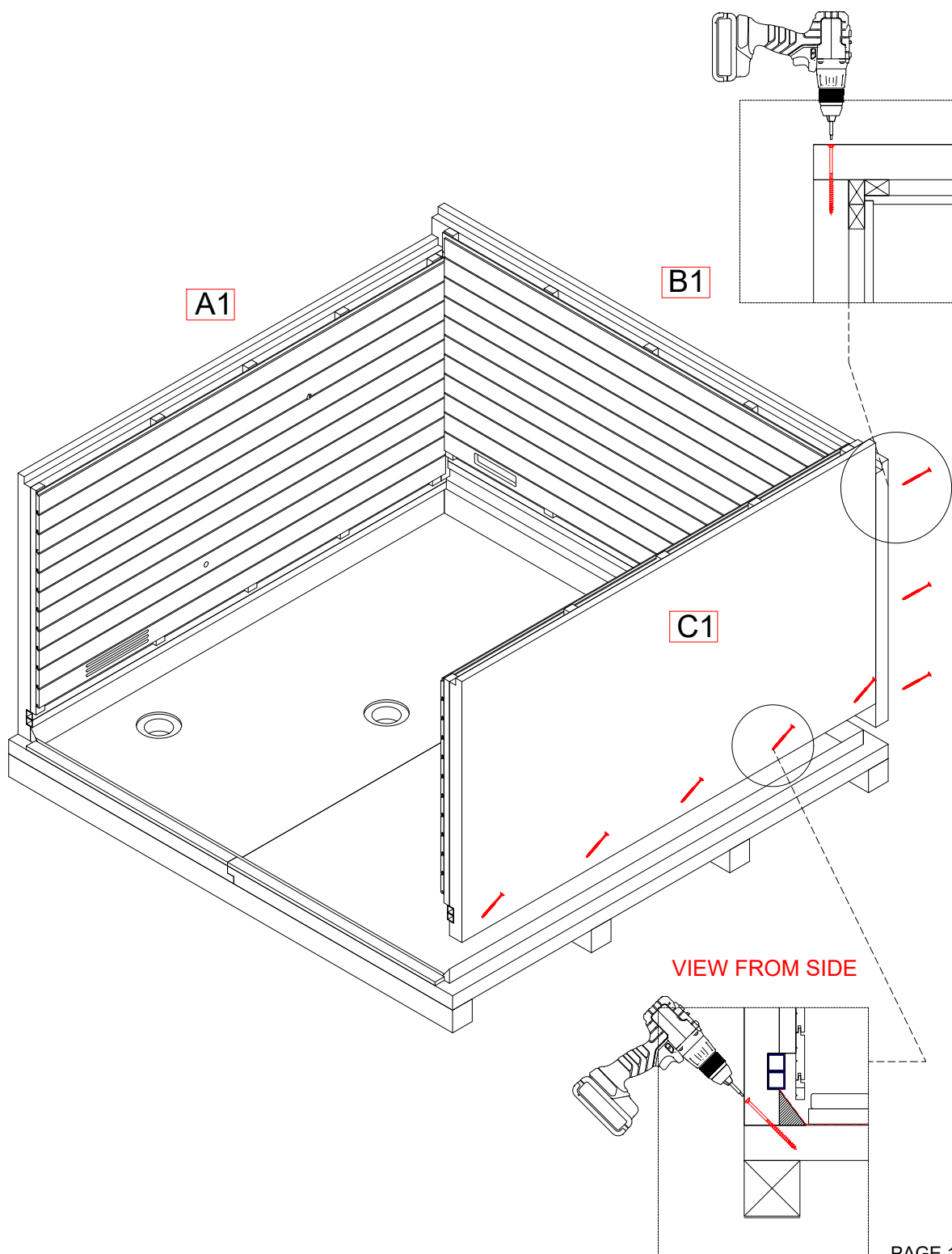


WALL FIXING

1. Begin the assembly from B WALL. Position the elements onto the previously assembled and stable floor element, then secure them in place using screws.
2. Ensure the interior cladding reveals align continuously around the perimeter when positioning the CLT panels;
Adjust panel placement as needed before final fixing. If required, use screws or spacers between the CLT panels to pull or adjust them together and achieve consistent reveal alignment.

Stainless steel screws 6x120mm (0,24x3,94in) - 21 pcs

VIEW FROM TOP



WALL FIXING

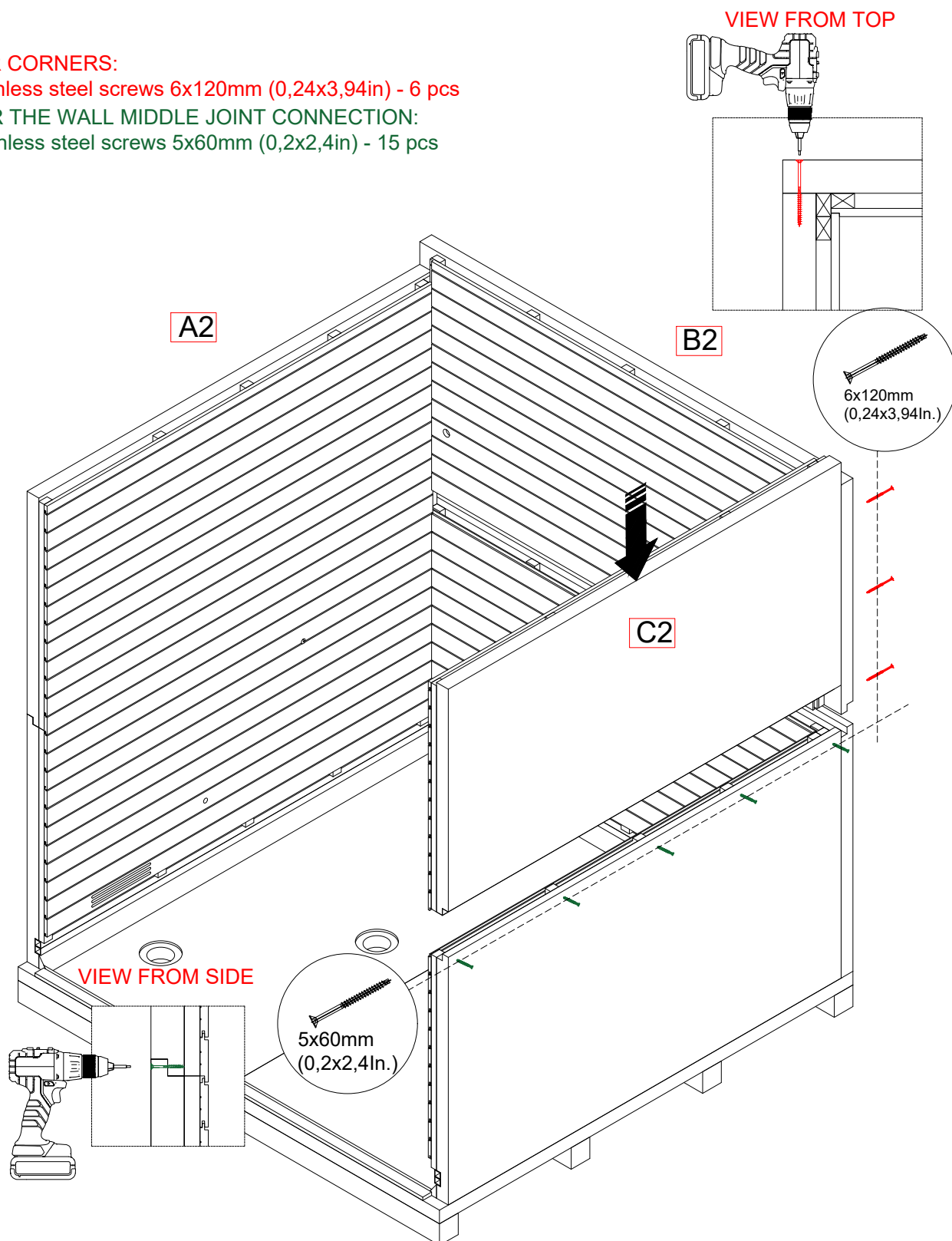
1. Place the upper element onto the fixed bottom element.
 2. Secure the elements together with screws.
 3. Ensure the interior cladding reveals align continuously around the perimeter when positioning the CLT panels;
- Adjust panel placement as needed before final fixing. If required, use screws or spacers between the CLT panels to pull or adjust them together and achieve consistent reveal alignment.

FOR CORNERS:

Stainless steel screws 6x120mm (0,24x3,94in) - 6 pcs

FOR THE WALL MIDDLE JOINT CONNECTION:

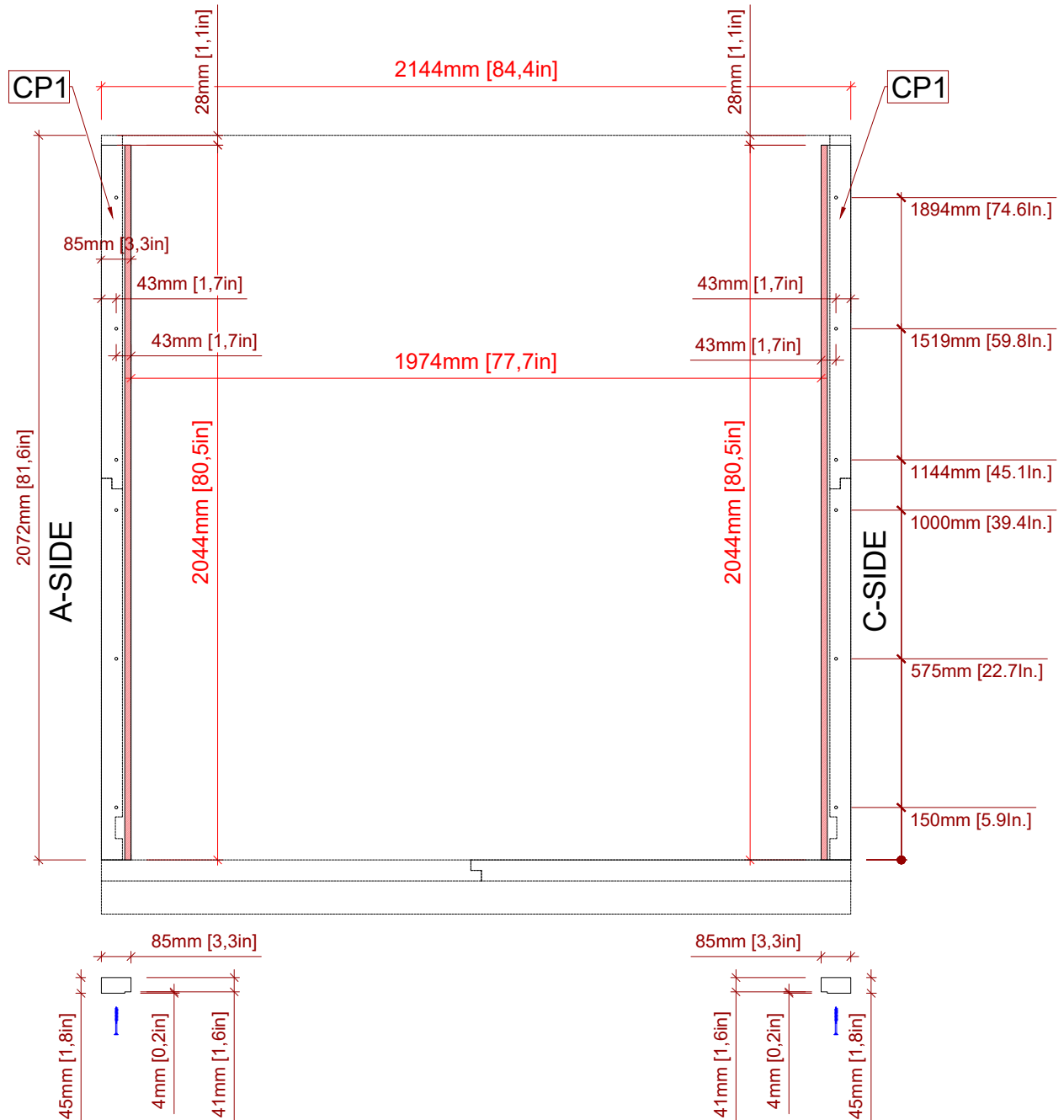
Stainless steel screws 5x60mm (0,2x2,4in) - 15 pcs



FRONT FRAME

1. Fix front frame details on secured wall elements with screws.

FOR CORNER POSTS:
Stainless steel 6x120mm (0,24x3,94in) - 12 pcs
FRONT VIEW



CEILING PLAN

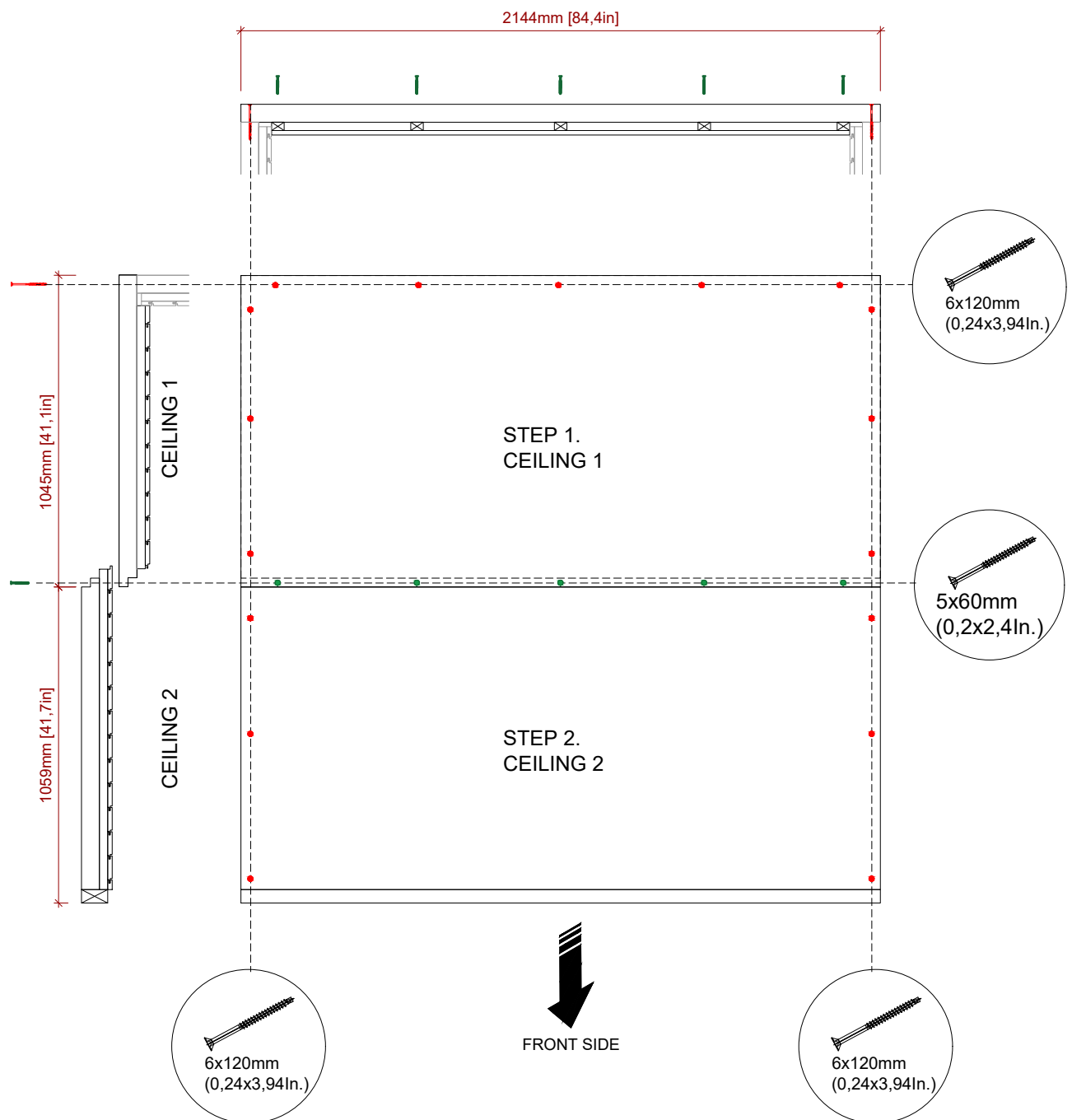
1. Place ceiling elements on secured wall elements.
2. Start with ceiling element 1.

FOR THE CORNERS:

Stainless steel screws 6x120mm (0,24x3,94in) - 17 pcs

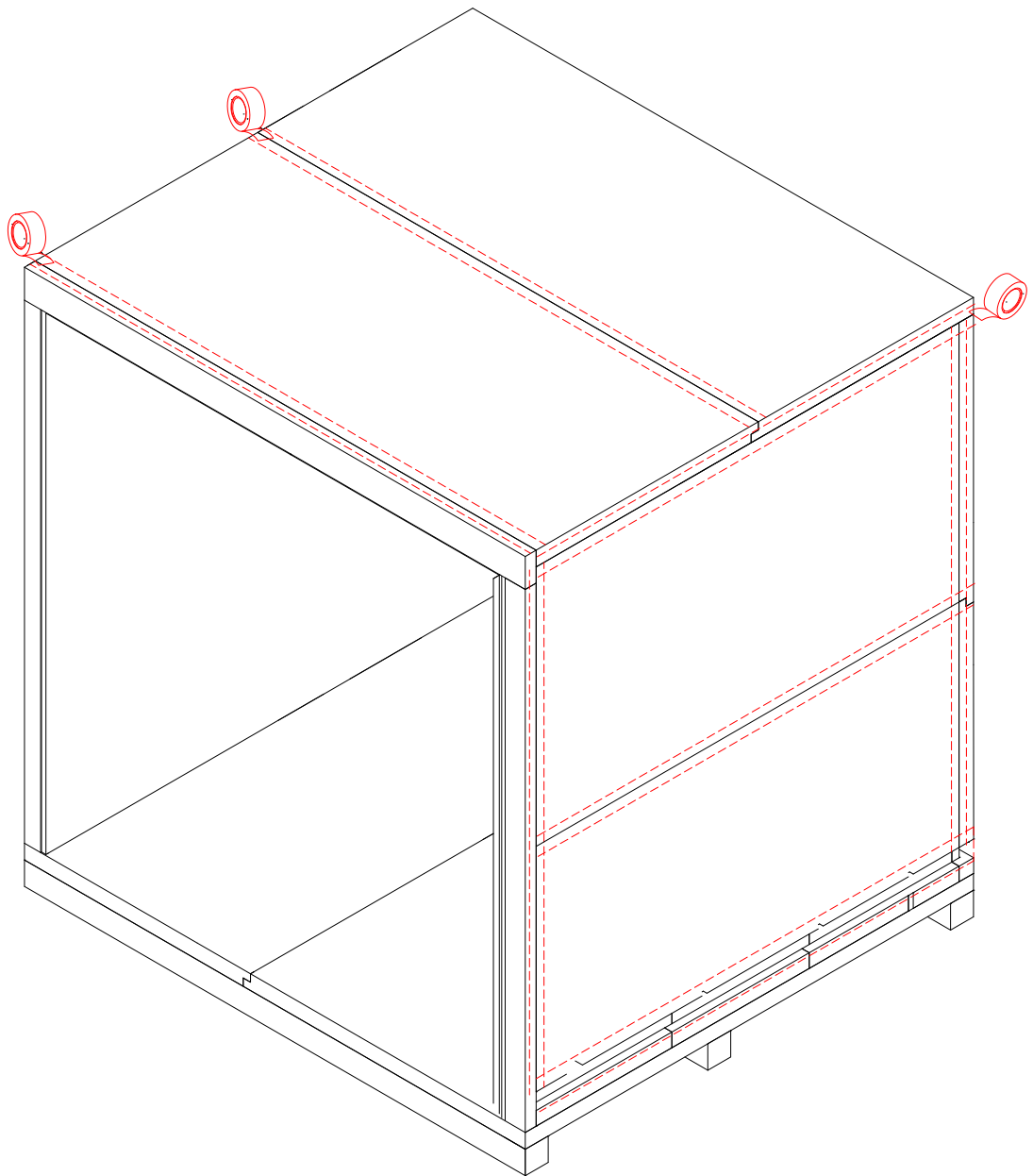
FOR THE CEILING MIDDLE JOINT CONNECTION:

Stainless steel screws 5x60mm (0,2x2,4in) - 5 pcs



SEALING THE JOINTS

1. Apply tape to seal the joints between the elements and all electrical conduits.



ROOF PLAN

1. Place the roof elements on the secured ceiling elements.
2. First, attach the front edge beam, followed by the corner beams. Ensure that they are flush with the ceiling edges.
3. Attach the furring strips.
4. Secure the OSB to the furring strips.

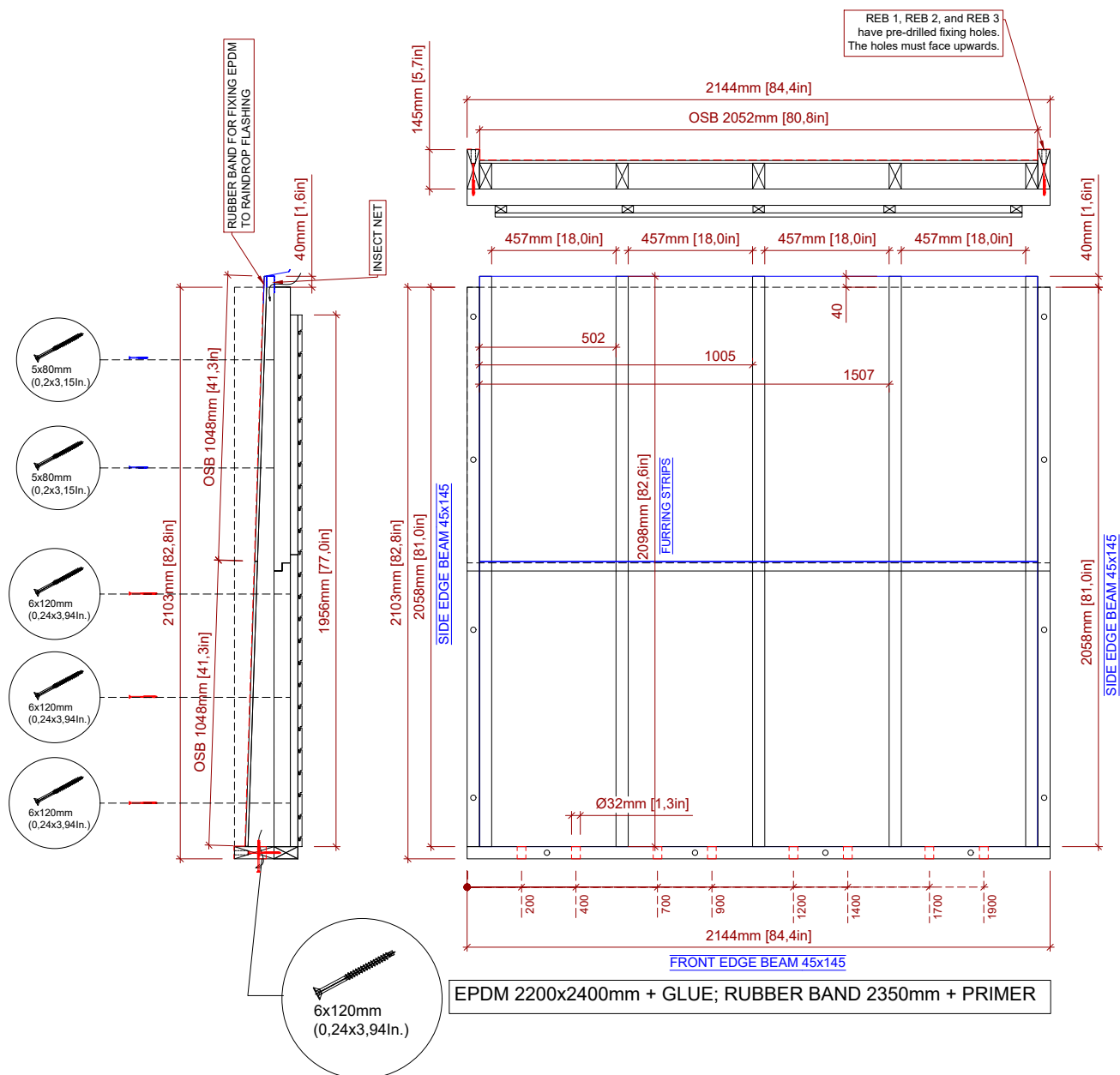
1) FOR EDGE BEAMS AND FURRING STRIPS.

Stainless steel screws 6x120mm (0,24x3,94in) - 27 pcs

Stainless steel screws 5x80mm (0,2x3,15in) - 20 pcs

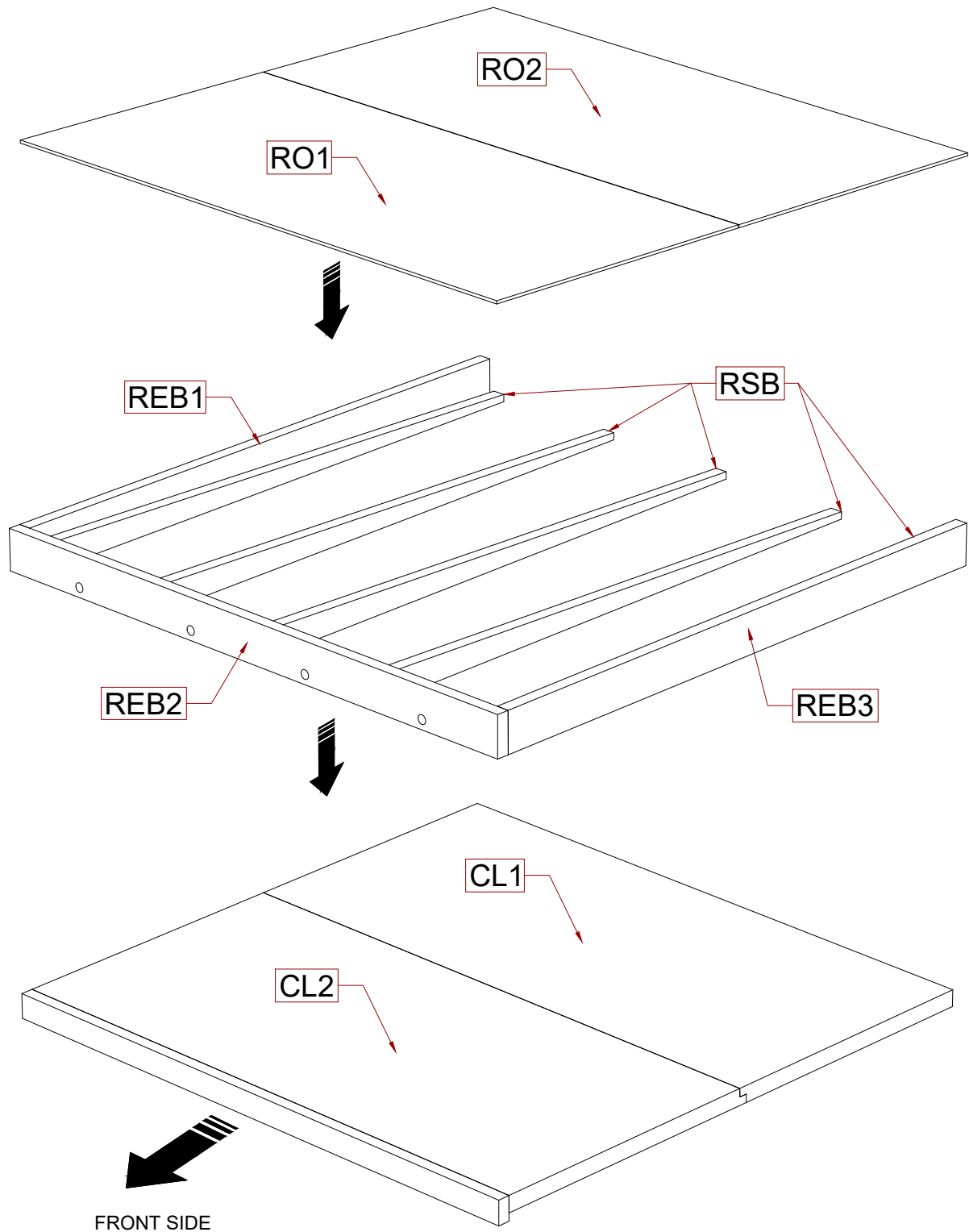
2) FOR OSB (ON TOP OF FURRING STRIPS):

Stainless steel screws 4x30mm (0,15x1,2in) - 30 pcs



ROOF PLAN

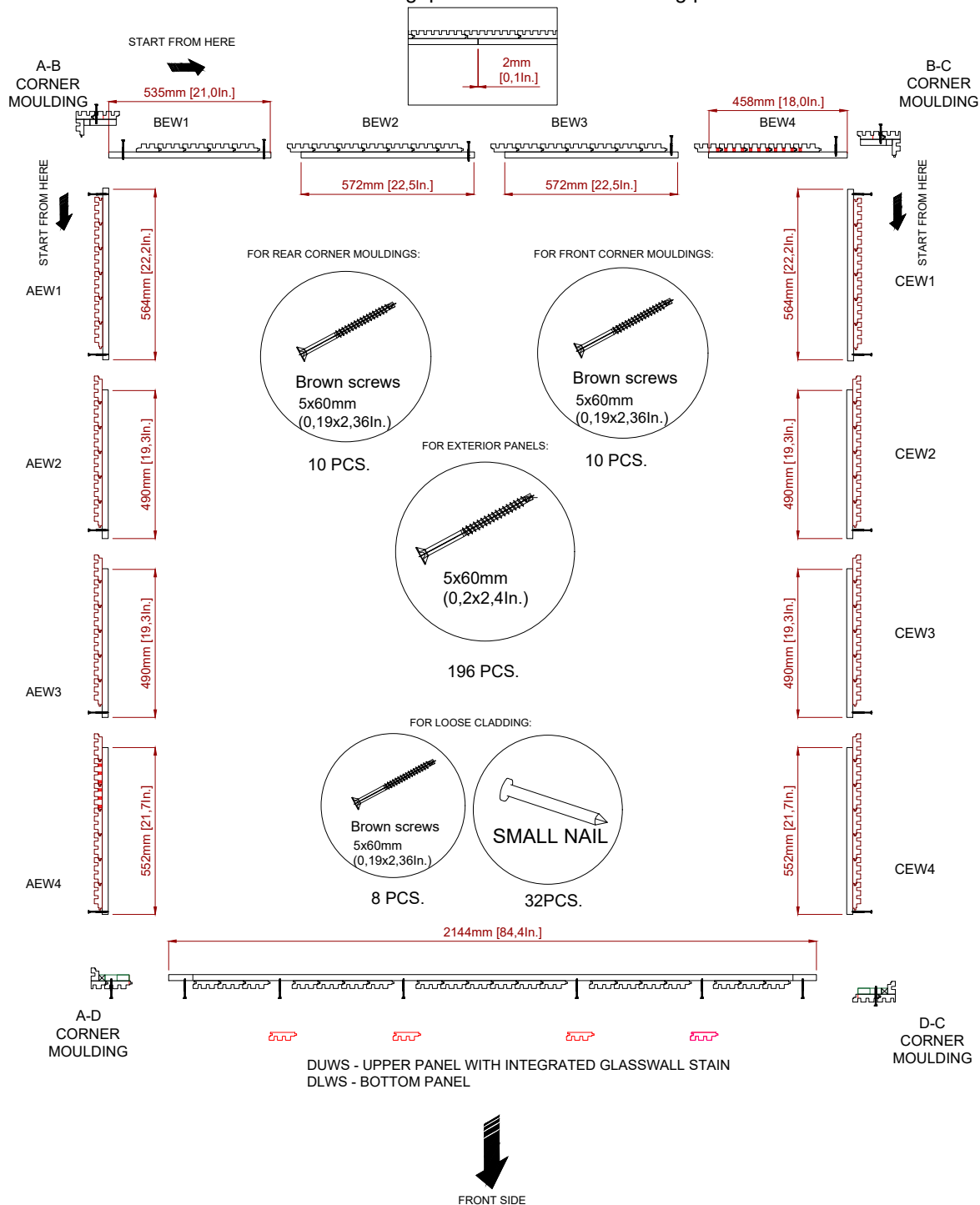
1. Place roof elements on secured ceiling elements.



EXTERNAL CLADDING PANELS

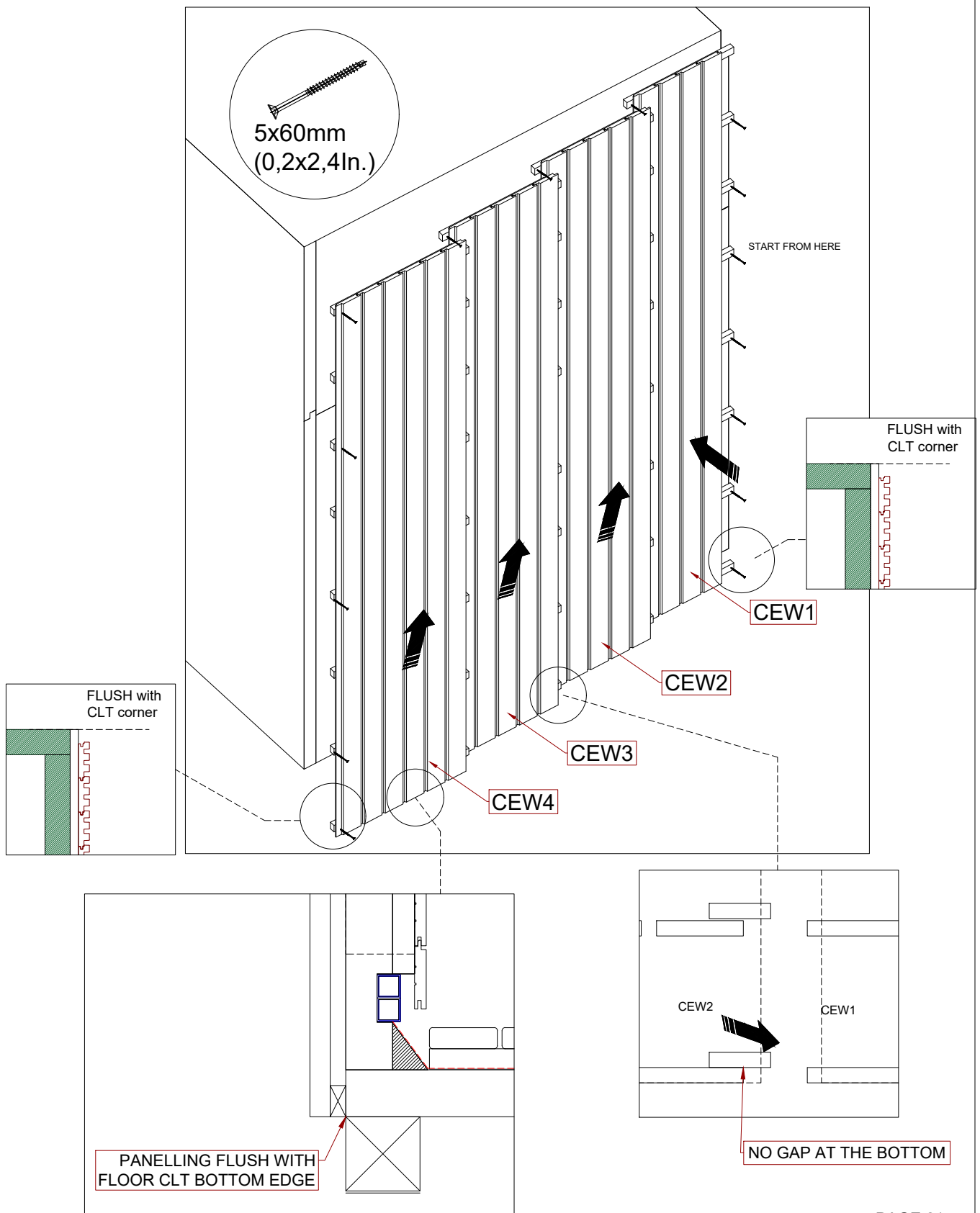
1. Check the sauna dimensions. Tolerances must be within ± 3 mm (0.1 in).
2. The first and last cladding panels must align with the CLT corner.

NB! Leave a small gap between exterior cladding panels



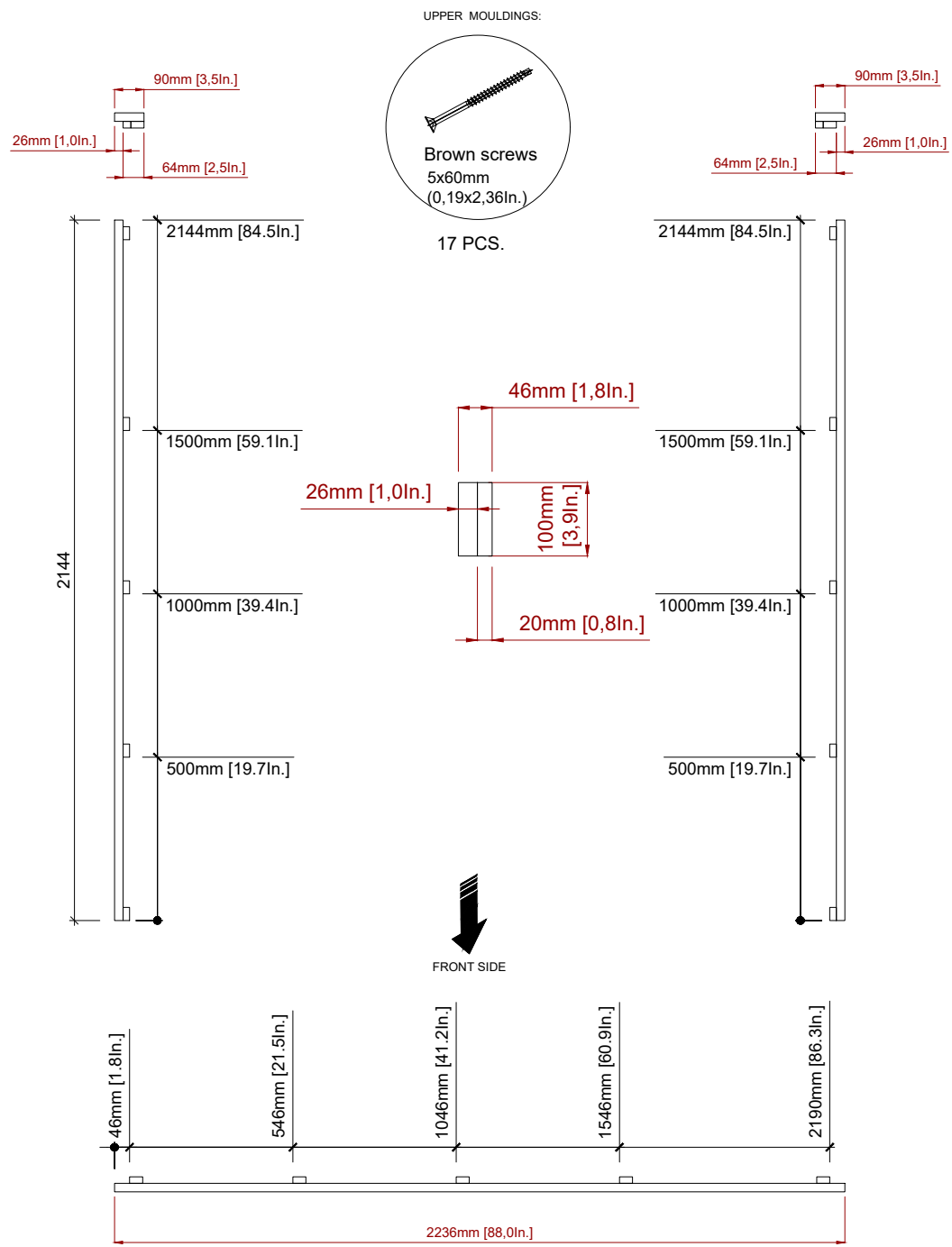
EXTERNAL CLADDING PANELS

1. Fix cladding panels to wall elements with screws.
2. Secure the first panel through the support battens at the left and right edges, as shown in the diagram.
3. The first and the last cladding panels must be flush with the wall corners.



EXTERNAL CLADDING UPPER MOULDINGS

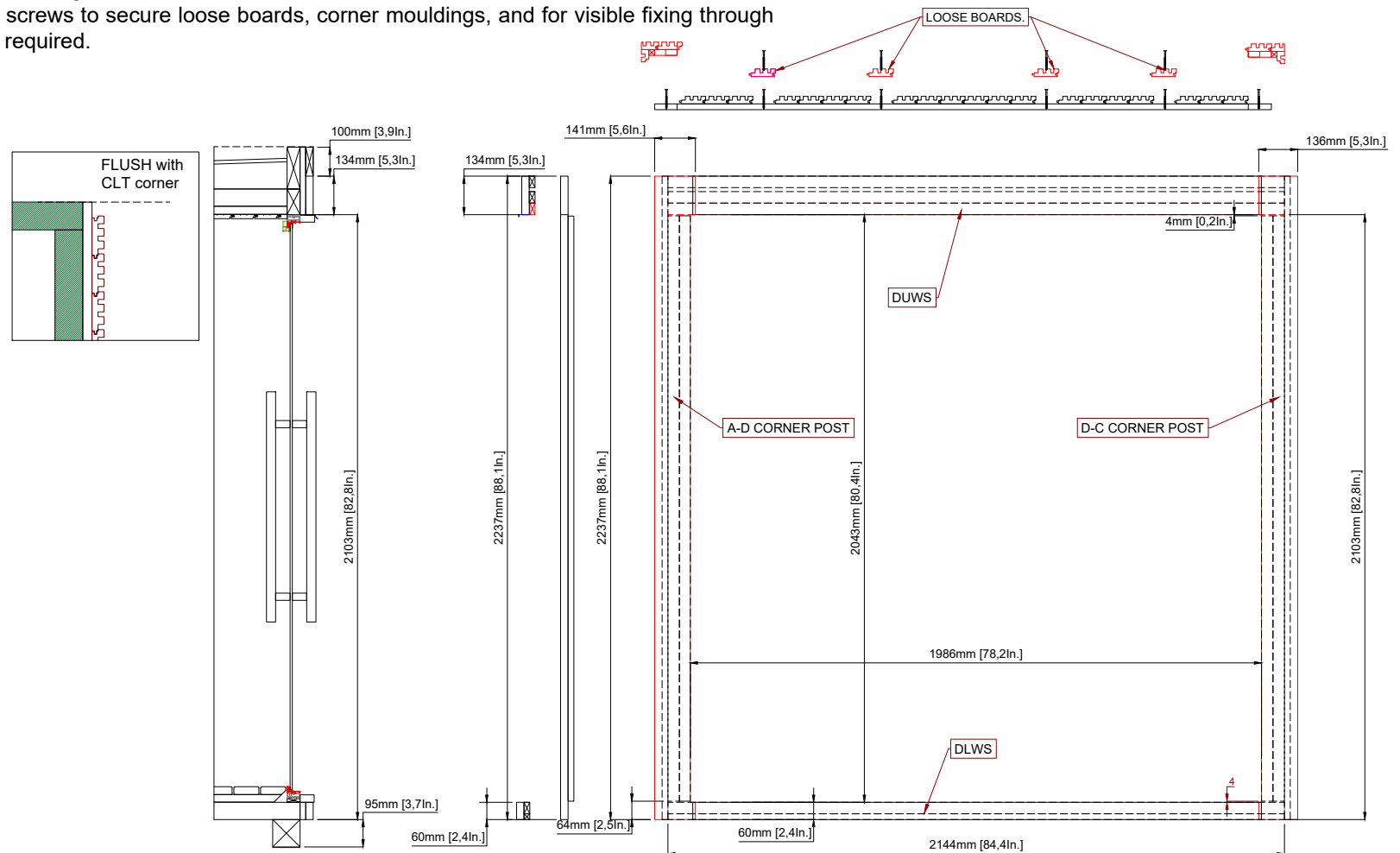
1. Fix upper moldings on top of the exterior cladding panels using brown exterior screws.



FRONT EXTERNAL CLADDING PANELS

**NB! DONT INSTALL
THE FRONT PANELING,
BEFORE GLASSWALL!**

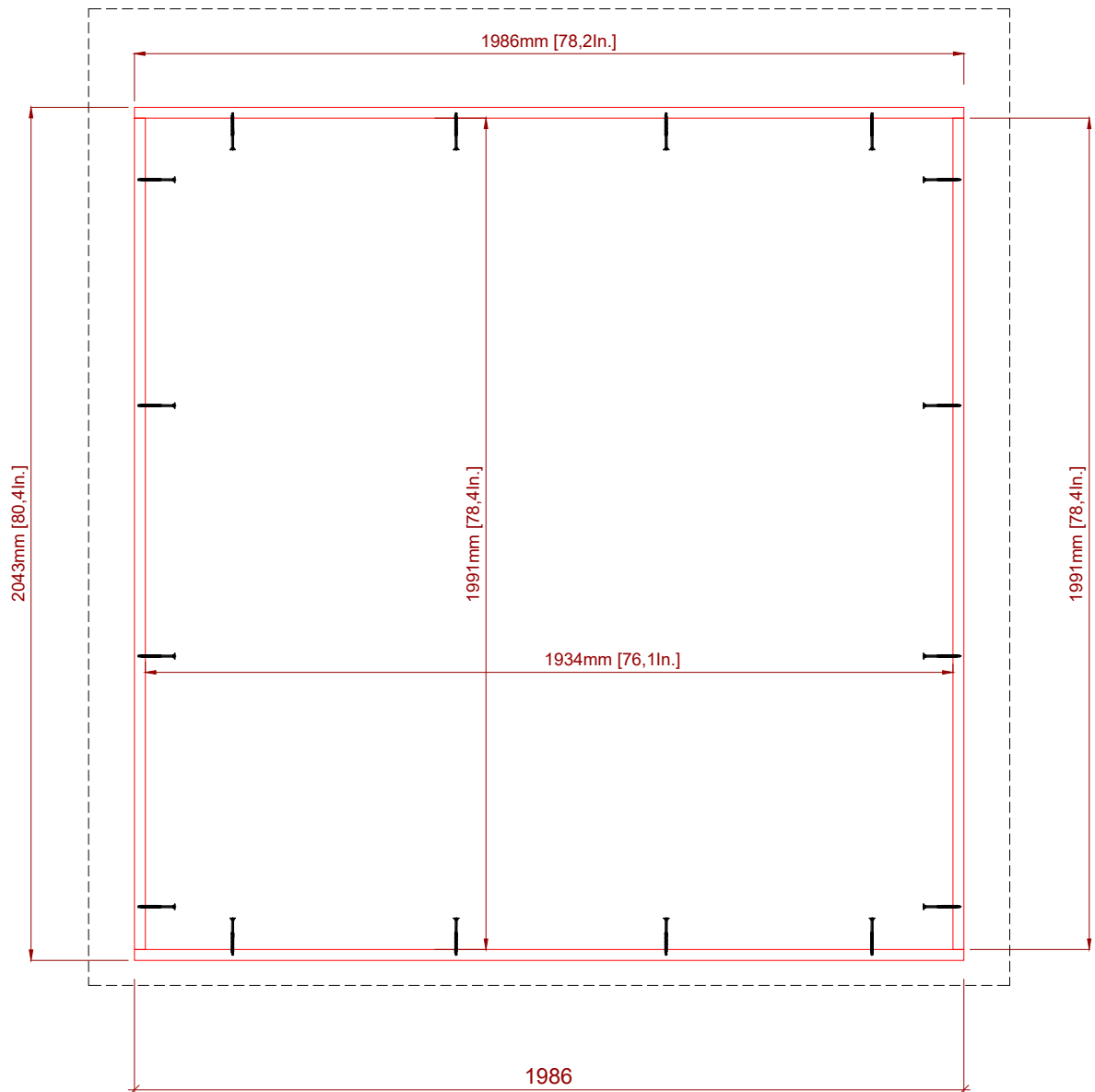
1. Secure the cladding panels to the wall elements with standard 5 × 60 mm (2.4 in) screws.
2. Secure the first DLWS panel 95 mm (3.7 in) above the base beam or flush with the bottom edge of the floor CLT.
3. Secure the DUWS panel 2103 mm (82.8 in) above the DLWS panel. Ensure that a 100 mm (3.9 in) gap remains above the DUWS panel.
4. Secure the corner mouldings.
5. Use brown exterior screws to secure loose boards, corner mouldings, and for visible fixing through the cladding where required.



GLASS WALL REVEALS

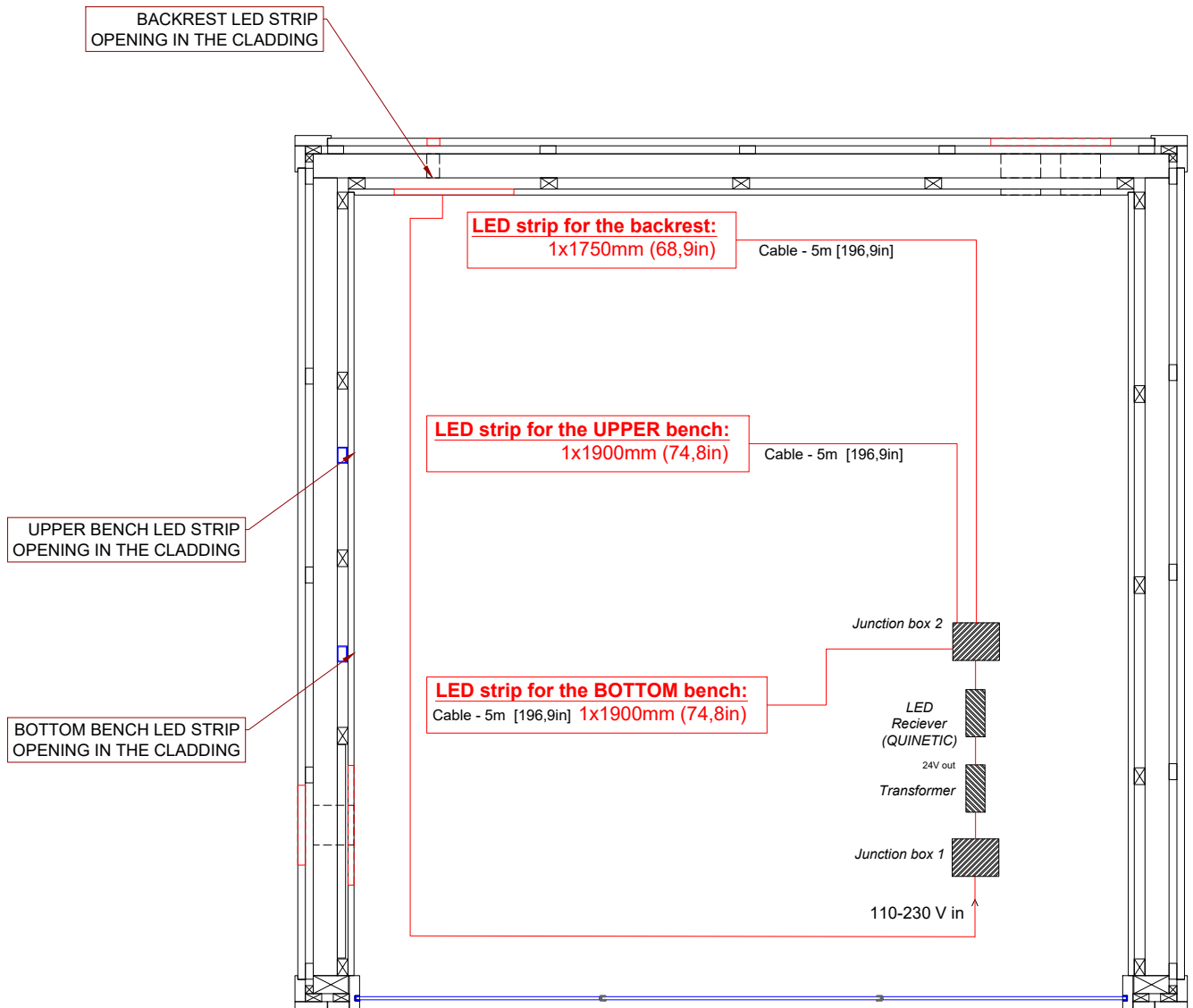
1. Ensure that the exterior glass wall opening matches the dimensions shown in the drawing.
2. The reveals must be installed after the front cladding has been installed.
3. Secure the reveals with brown exterior screws.
4. Install the upper and lower reveals first.
5. Install the side reveals.

SAUNA GLASS WALL REVEALS



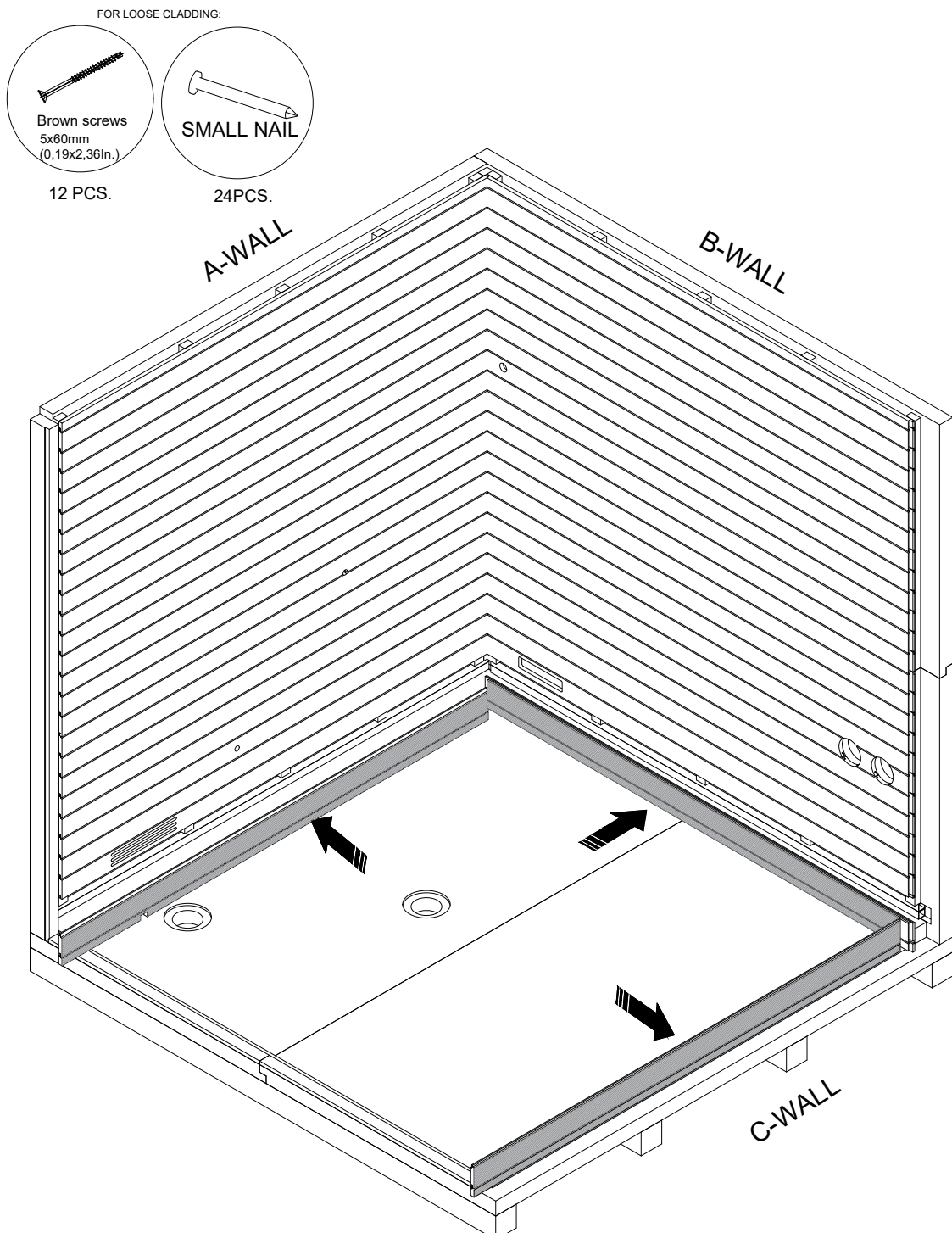
ELECTRICAL

1. Inside the sauna, there is a pre-assembled electrical box with IP55 protection.
2. During the sauna installation, it is necessary to route the pre-produced electrical cables from the factory according to specifications and technical requirements.
3. At the bottom of the wall, there are two cable channels (see Figure 1).
4. Note: ALL ELECTRICAL CONNECTIONS MUST BE COMPLETED BY A CERTIFIED ELECTRICIAN!



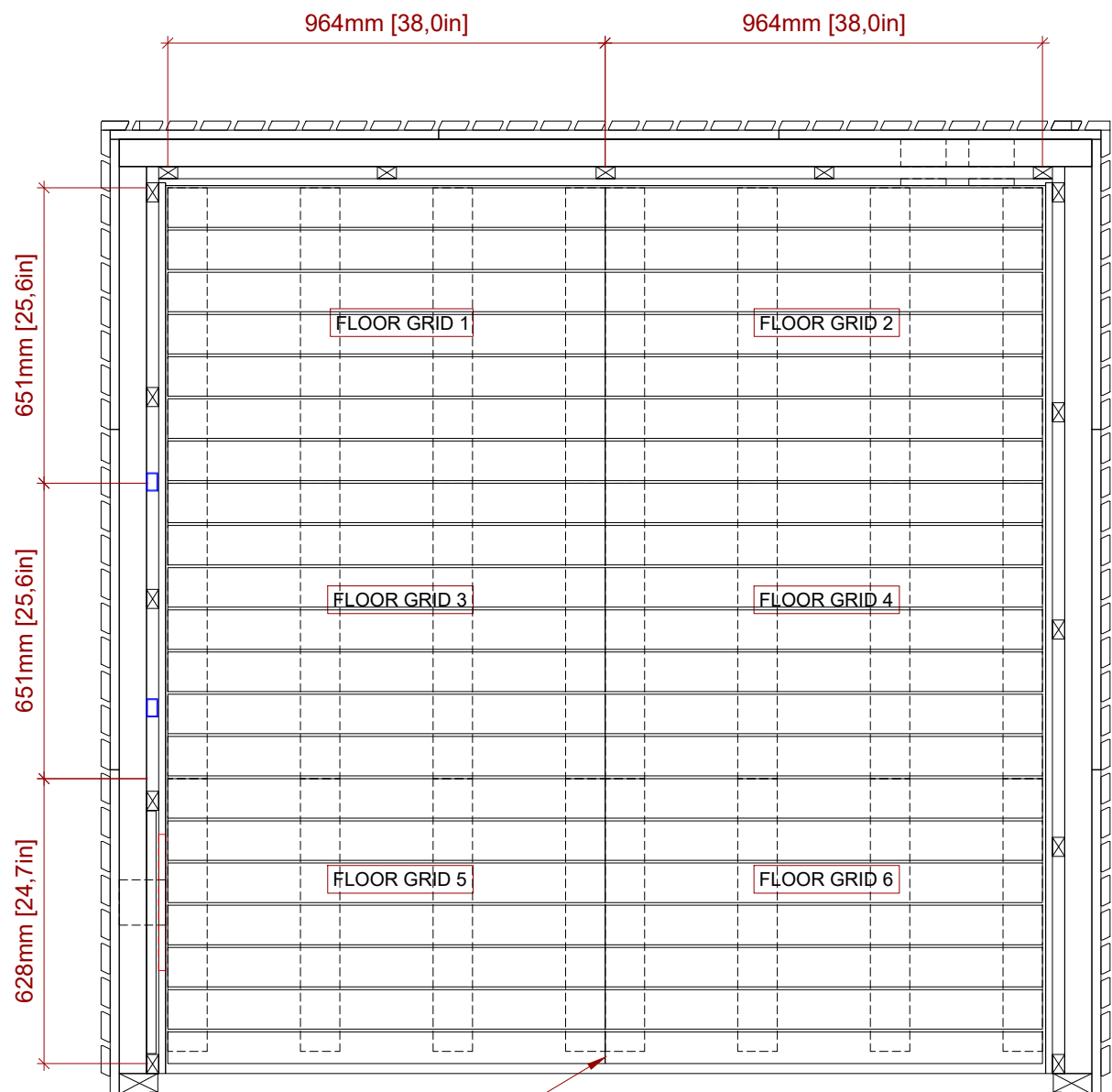
LOOSE INTERIOR CLADDING

1. Fix loose cladding with brown screws, small nails or pins.



FLOOR GRIDS

1. Place floor grids on EPDM floor.

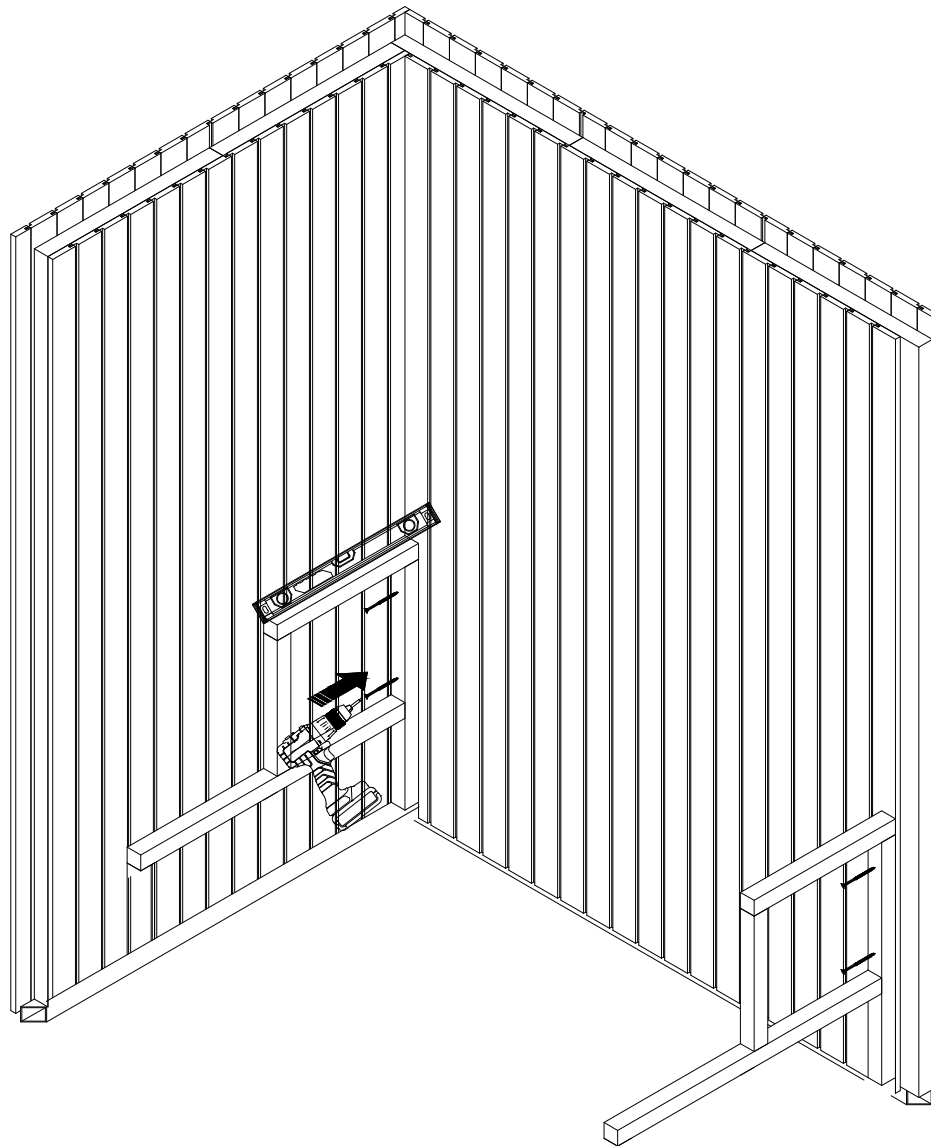


ANGLED END GOES TO THE FRONT

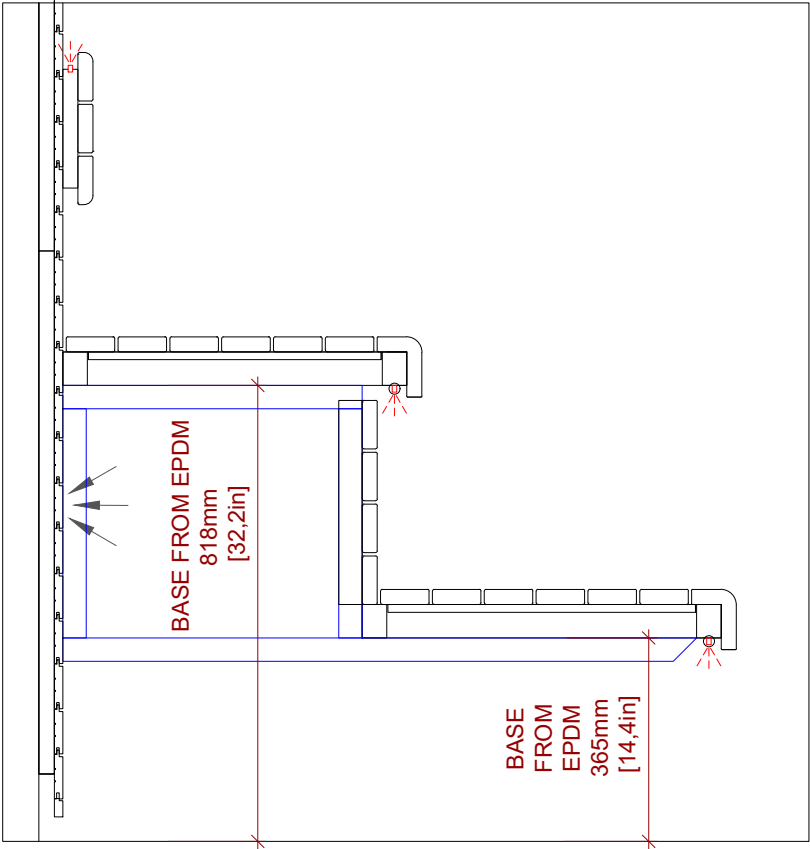
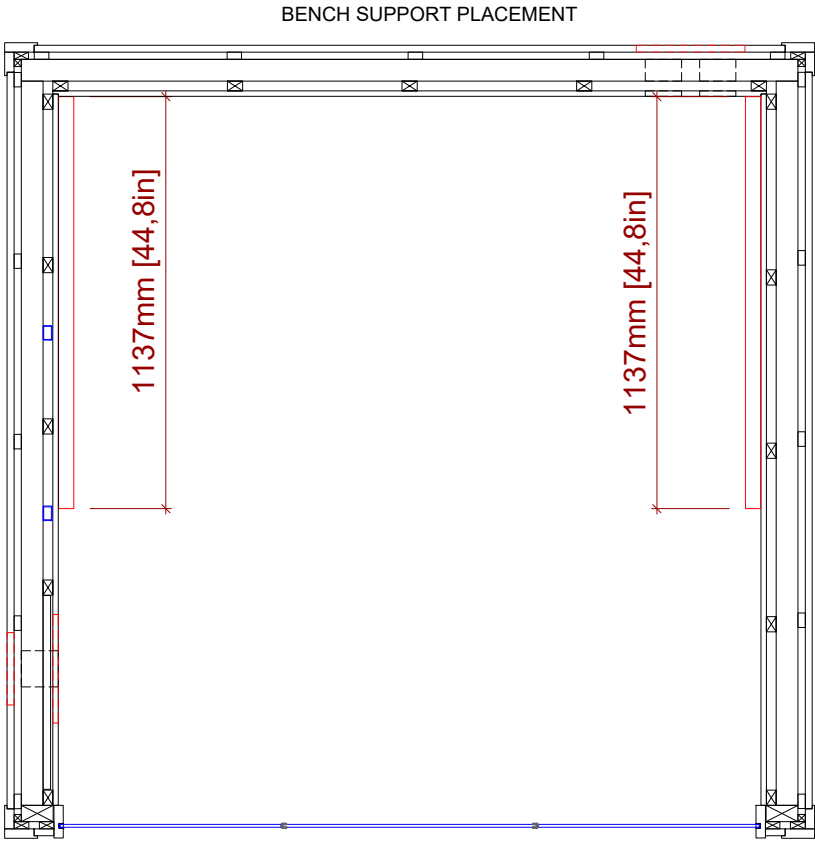
BENCH SUPPORTS

1. See your technical drawing on next page
2. Measure right placement of supports
3. Regulate supports to right height
4. Check level
5. Fix screws

Stainless steel screws 5x120 - 20 pcs



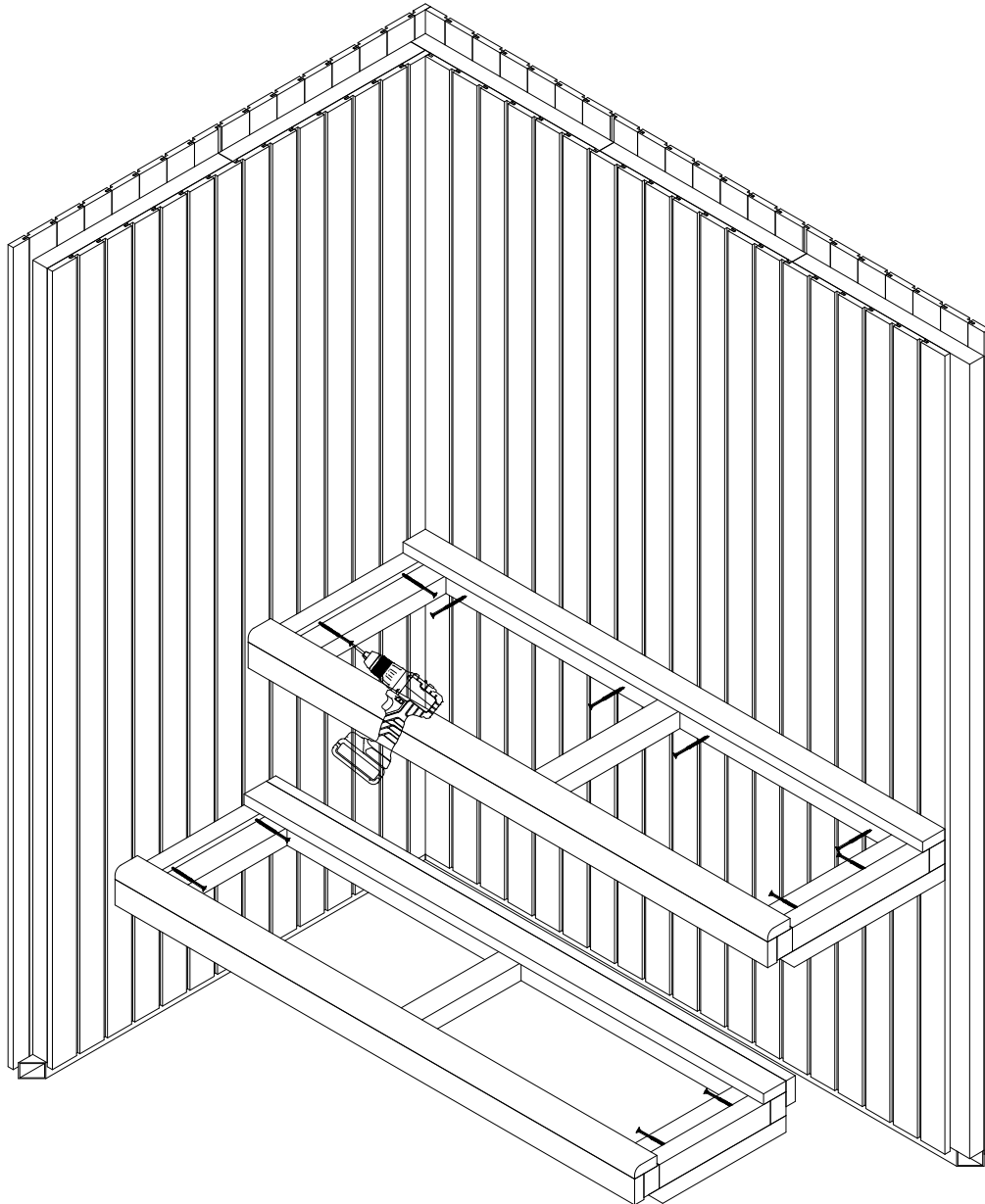
*Example picture



FIXING BENCH FRAMES

1. Remove bench grids from the bench frame
2. Place bench frames on supports
3. Control measures from cross-section drawing
4. Level benches
5. Fix side screws to tighten walls
6. Fix back screws

Stainless steel screws 6x120mm (0,24x3,94in) - 16 pcs



*Example picture

FIXING BENCH SKIRT

1. Control measures from cross-section drawing
2. Fix bench skirt with screws

Stainless steel screws 5x60mm (0,2x2,4in) - 6 pcs

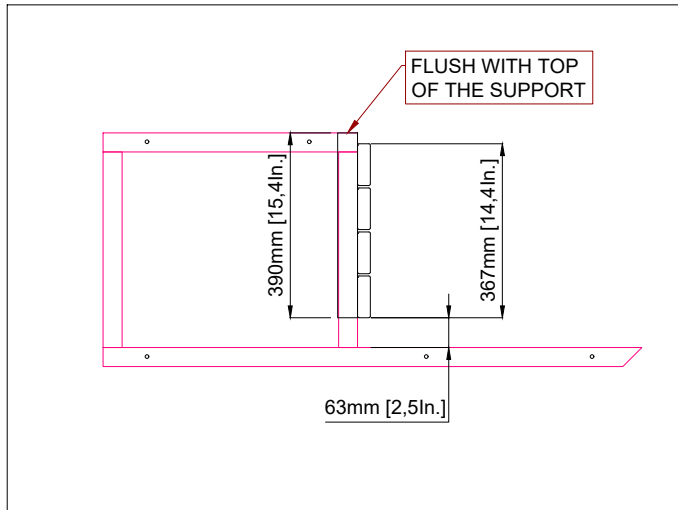
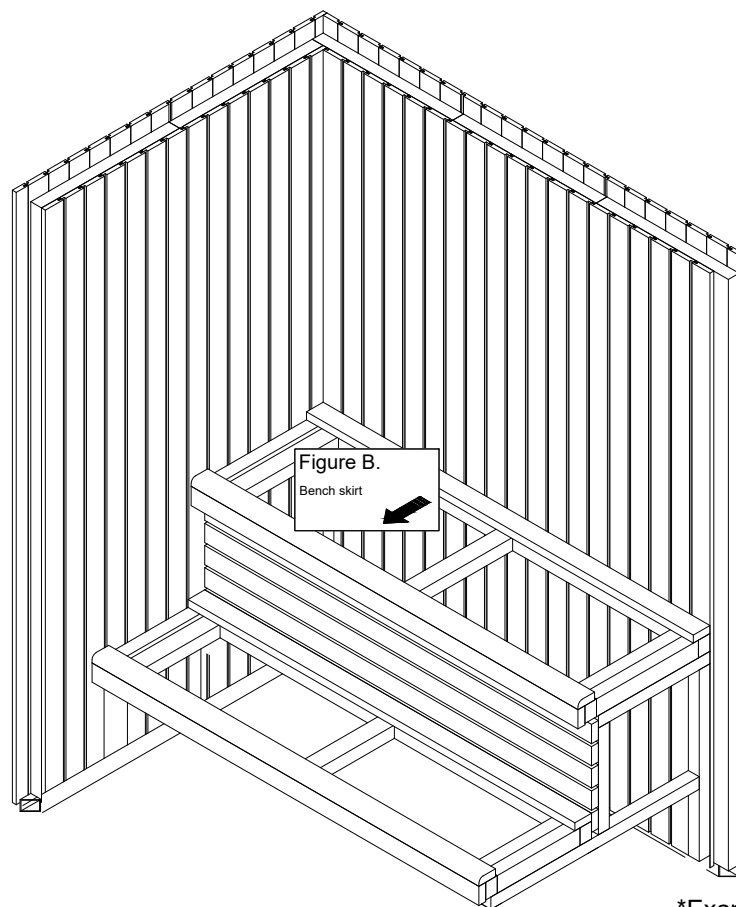
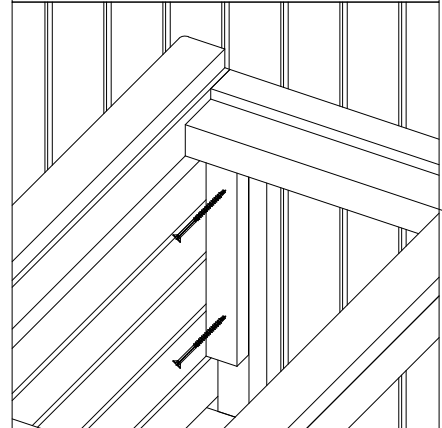


Figure B.

Bench skirt

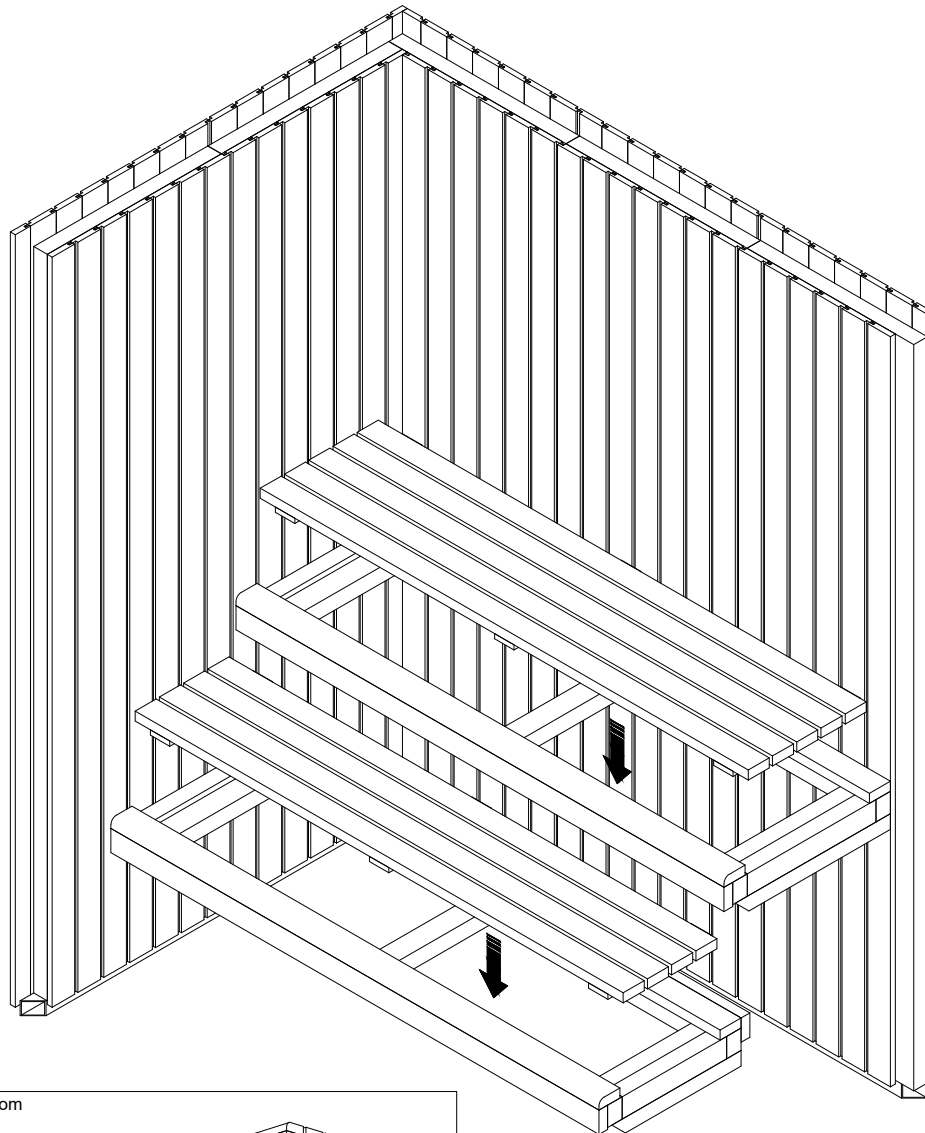


*Example picture

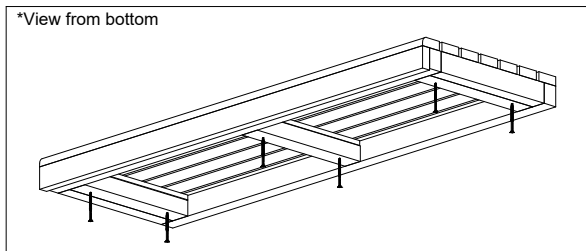
FIXING BENCH GRIDS

1. Place bench grids on bench frames
 2. Fix bench grids from below with screws
- *Fixing bench grids helps to prevent bench grid from bending

Stainless steel screws 5x60mm (0,2x2,4in) - 12 pcs



*View from bottom

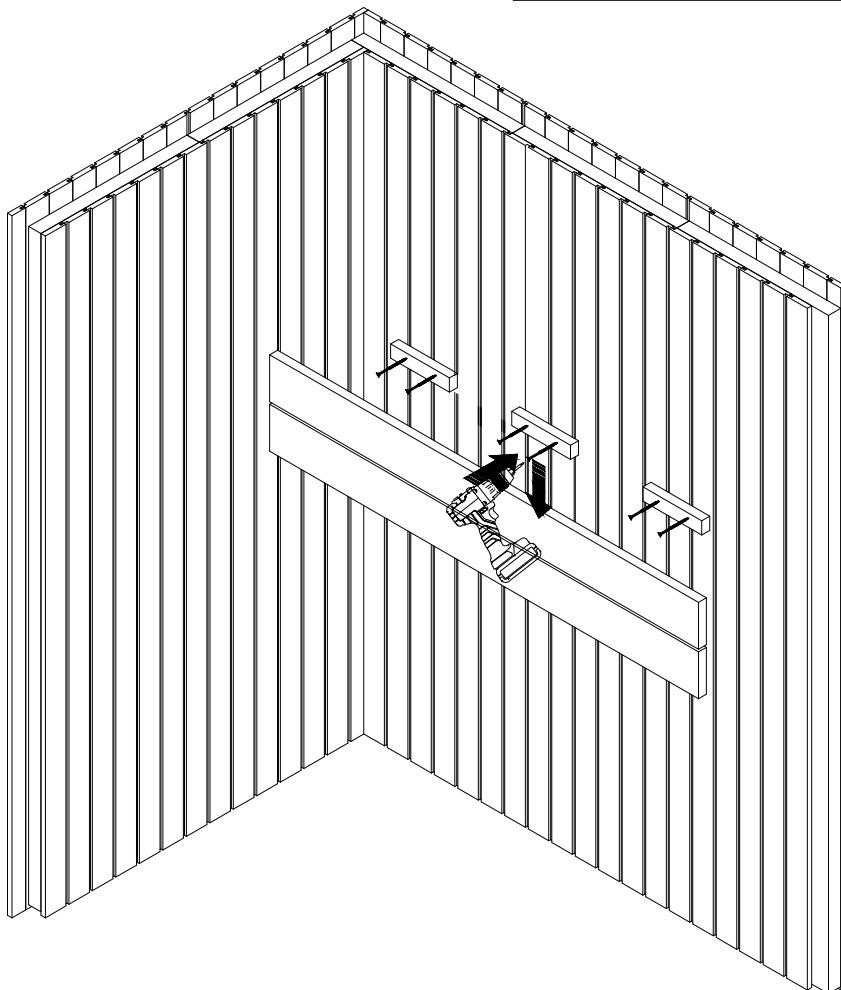
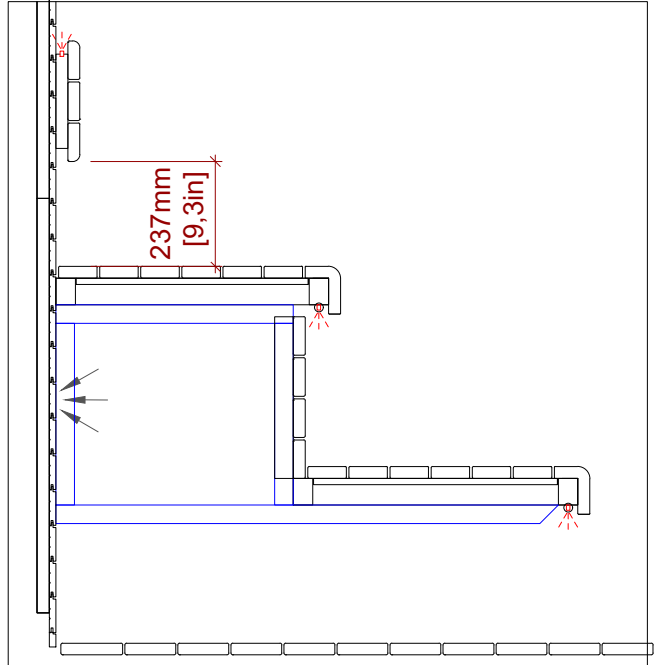


*Example picture

FIXING BACKREST WITH HOLDERS

1. Fix holders on the wall
2. Place backrest on top of holders
3. Fix backrest to holders from top
4. Use wooden covers

Stainless steel screws
4x40mm (0,15 x 1,6in) - 9 pcs



*Example picture

Led strips installation

Always use certified electrician!

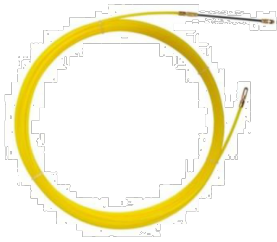
Install the lighting before attaching the benches and backrest.

Pull the led strip cables through the pipes to the ceiling.

Attach the led strips to the clamps.

List of tools:

Pull cable



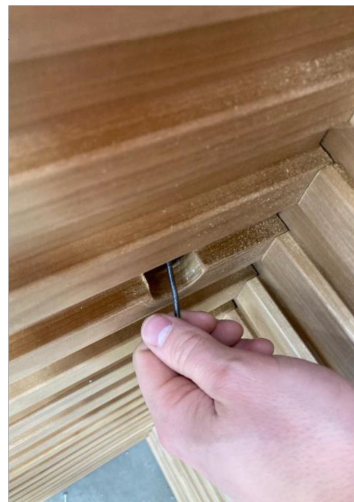
Insulating tape



1. Insert the pull cable to the pipe.



2. Catch the end of the cable through the Led hole.



3. Tie insulating tape tightly around the LED cable. NB! not around the LED strip.



4. Gently pull the cable up.



5. Do not remove the tapes. That way it won't get in the way during installation.



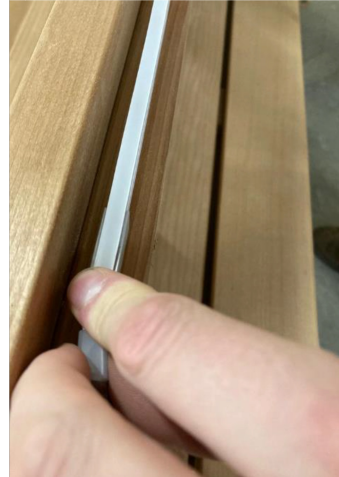
6. When installing on the back rest, do not grab LED strip.



- 7.** Grab the cable if necessary.



- 8.** Attach the led strips to the clamps.



- 9.** Do not press the beginning of the LED strip into the clamp.



- 10.** Pull the led strip straight between the clamps. This can only be done from the LED strip, not from the cable or the cable plugs. Correctly installed LED strip.



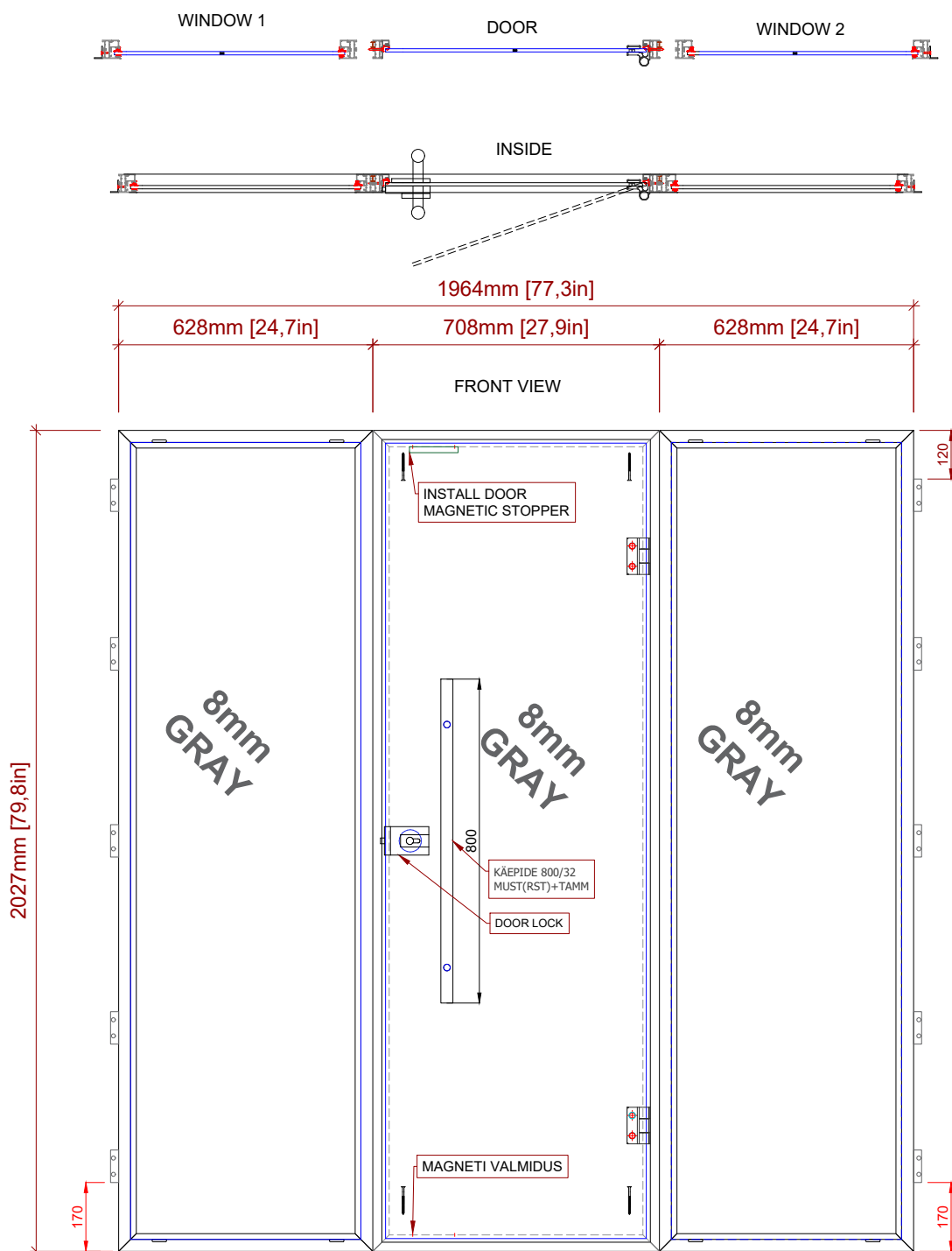
GLASS WALL

Stainless steel screws 5x60mm (0,2x2,4in) - 20 pcs

HINGES: Colcom CO 8680 Collio (Black) 2PCS

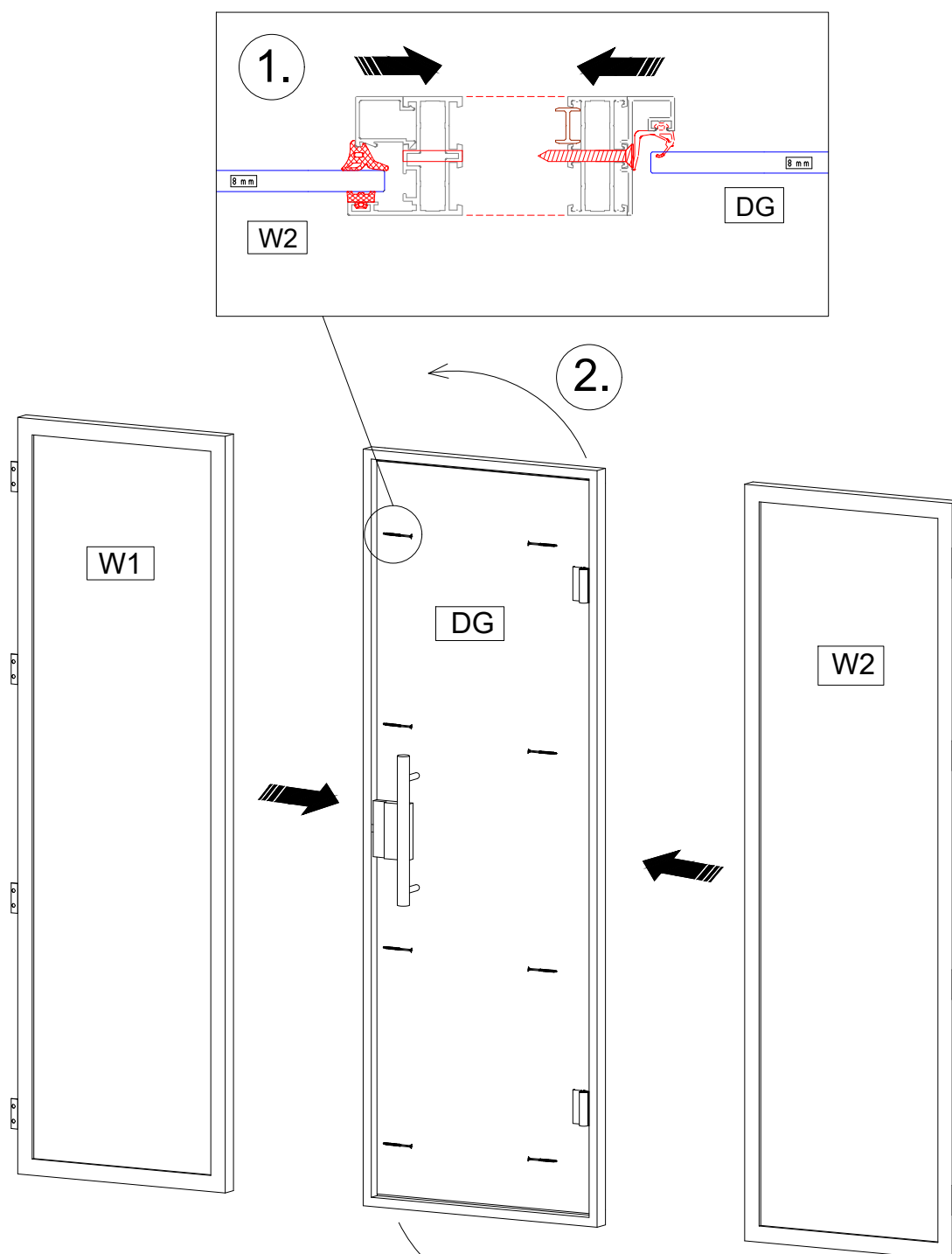
HANDLE:

DIAMANTEK METROPOL TOTAL LENGTH 800mm / D=32mm
(METAL BLACK OUTSIDE / OAK NATURAL INSIDE)



Glass wall with aluminum frame

1. Secure the glass wall elements to each other with screws underneath the seal.
2. **NB! The door opening direction (left-handed or right-handed) can be changed during installation. The magnetic door stopper must always be positioned at the top — there are installation marks on the frame.**



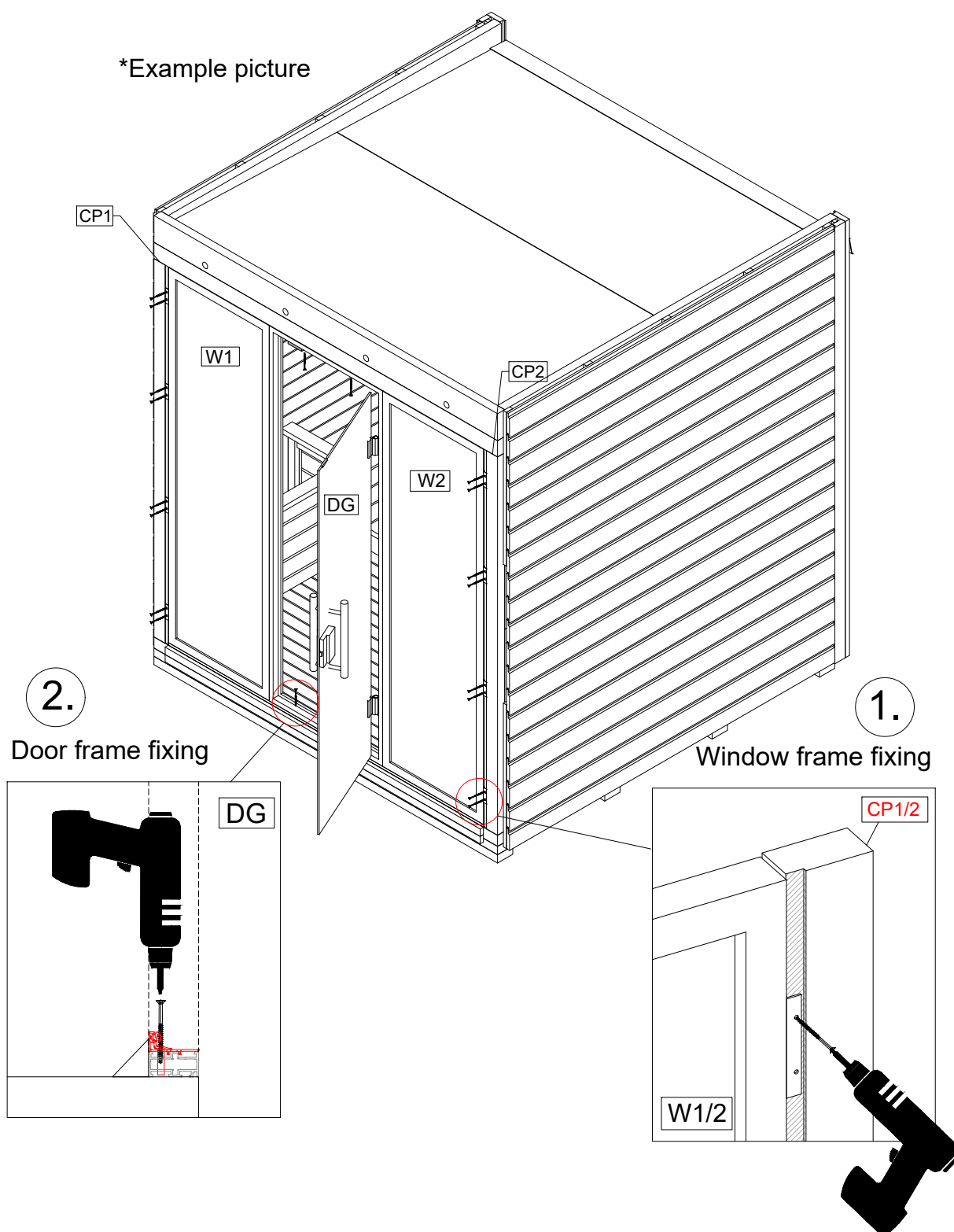
NOTE! Screw holes for fixing the door element are located behind the door gasket.

Glass wall with aluminum frame

1. Fix the window element from the front.
2. Fix the door element from inside, the screw holes are below the door gasket.

NB! An installation gap of 3 mm has been allowed at the top and sides of the glass wall.

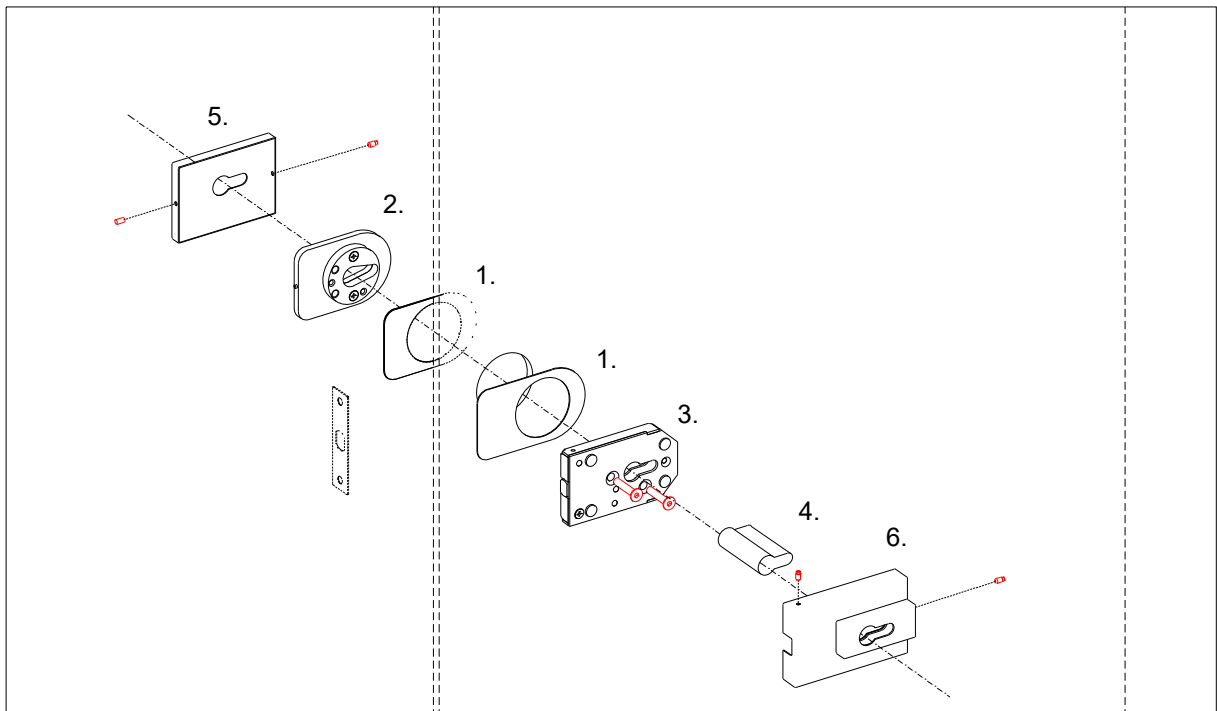
*Example picture



Door lock (optional)

Door lock installation:

1. Install the sealing gasket on both sides of the door.
2. Install the inner lock component into the opening in the glass.
3. Secure the outer lock component to the inner component with bolts from the outside.
4. Insert the lock mechanism into the lock case.
5. Secure the inner cover with small bolts.
6. Secure the outer cover with small bolts.

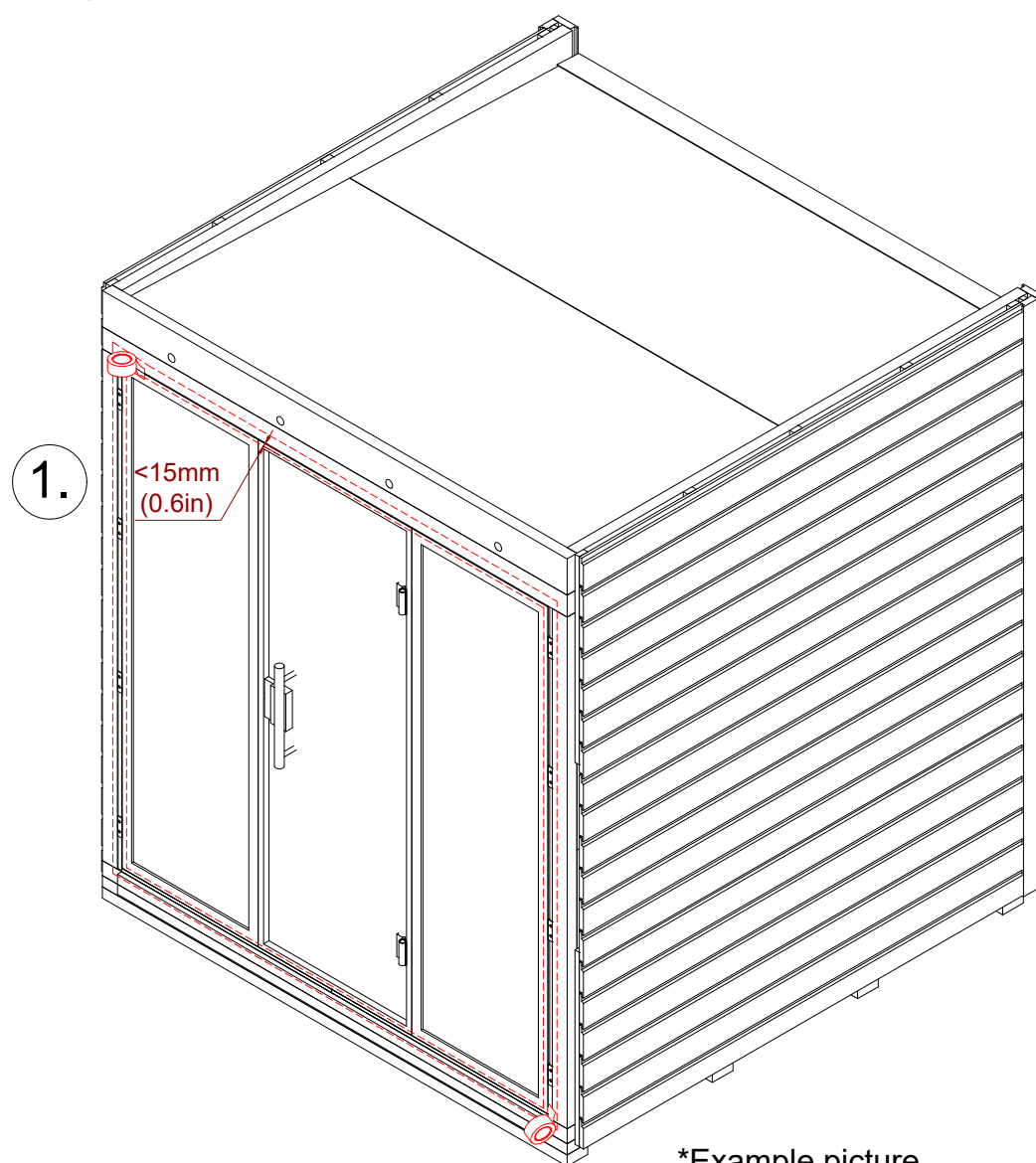


CHECK THAT THE LOCK ENGAGES PROPERLY AND ADJUST IT IF NECESSARY.

Glass wall with aluminum frame

1. Use wind barrier fabric tape to seal the gap between the glass wall and the frame.

NB! Ensure that the tape remains hidden — it may extend a maximum of 10–15 mm (0.6in) onto the profile



*Example picture

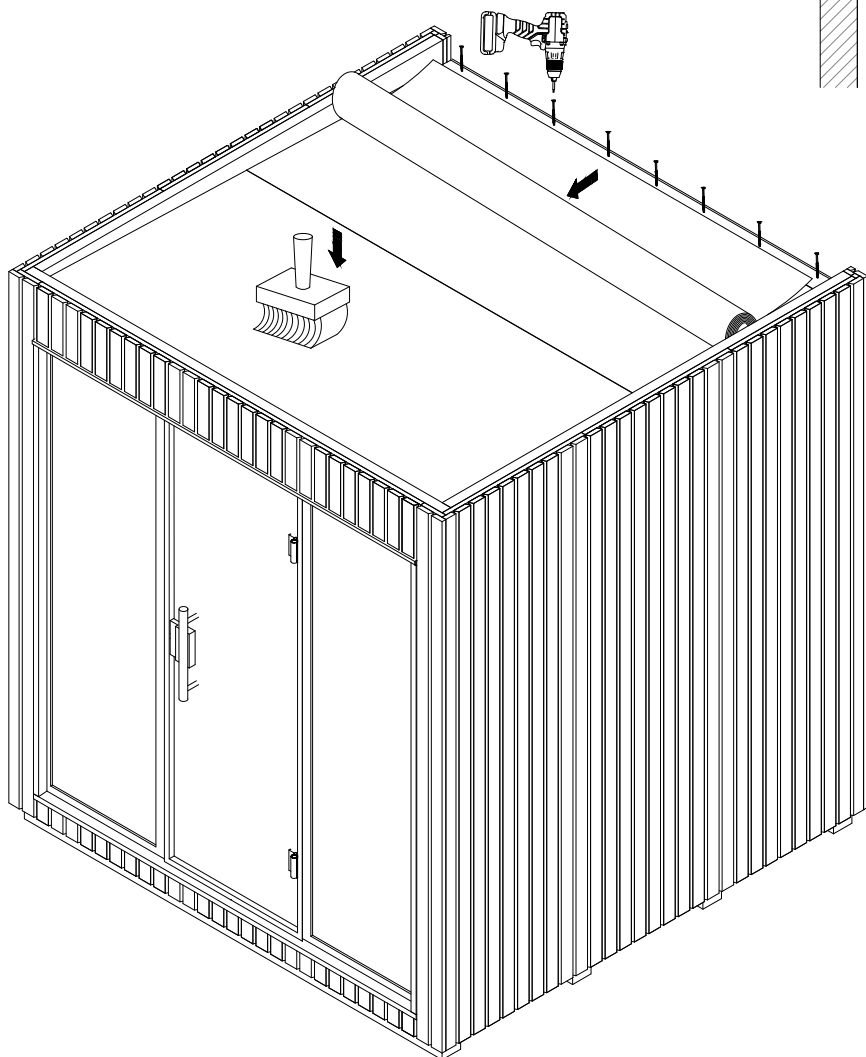
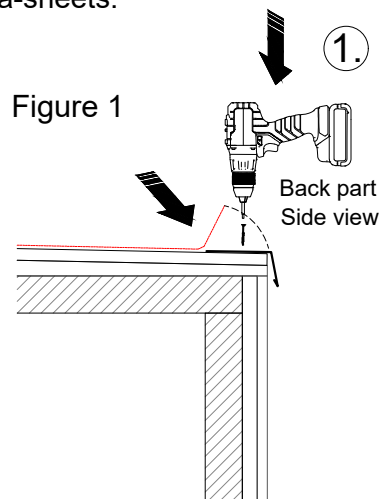
EPDM LAYER AND RAINDROP FLASHING

Before applying the EPDM rubber onto the roof, make sure all top OSB boards are securely fastened. Prior to adhesive application, affix the raindrop flashing to the end of the roof slope using flat screws (refer to Figure 1). The EPDM edges should extend onto the wall section where the roof flashing will be attached later. For detailed installation steps, please see the next page.

For general information on EPDM installation, please visit:

<https://www.permarroofstore.co.uk/installation-guides-data-sheets>.

Stainless steel flat screws - 10 pcs



THE INSTALLATION OF EPDM RUBBER ON THE ROOF

The EPDM rubber is installed on the roof in two stages (first half of the floor and second half of the floor).

Before gluing, clean the surfaces from dust (EPDM rubber and roof osb).

- Apply adhesive to both the EPDM rubber and the roof in a thin layer.
- Initially, glue the center of the EPDM, leaving the edges unglued. Later, glue the edges of the EPDM where the roof flashing will be attached.
- Once the adhesive no longer feels tacky, roll and smooth the EPDM rubber onto the roof.
- Repeat the same process for the other half of the roof.
- After gluing, trim the edges of the EPDM rubber if necessary.
- For the raindrop stain and the edge of the EPDM, use Firestone QuickPrime
- After installing the EPDM tape, fix the rear edge of the EPDM.
- After installing the EPDM rubber, attach the front and side flashings of the roof.

THE INSTALLATION OF EPDM RUBBER ON THE ROOF

The EPDM rubber is installed on the roof in two stages (first half of the floor and second half of the floor).

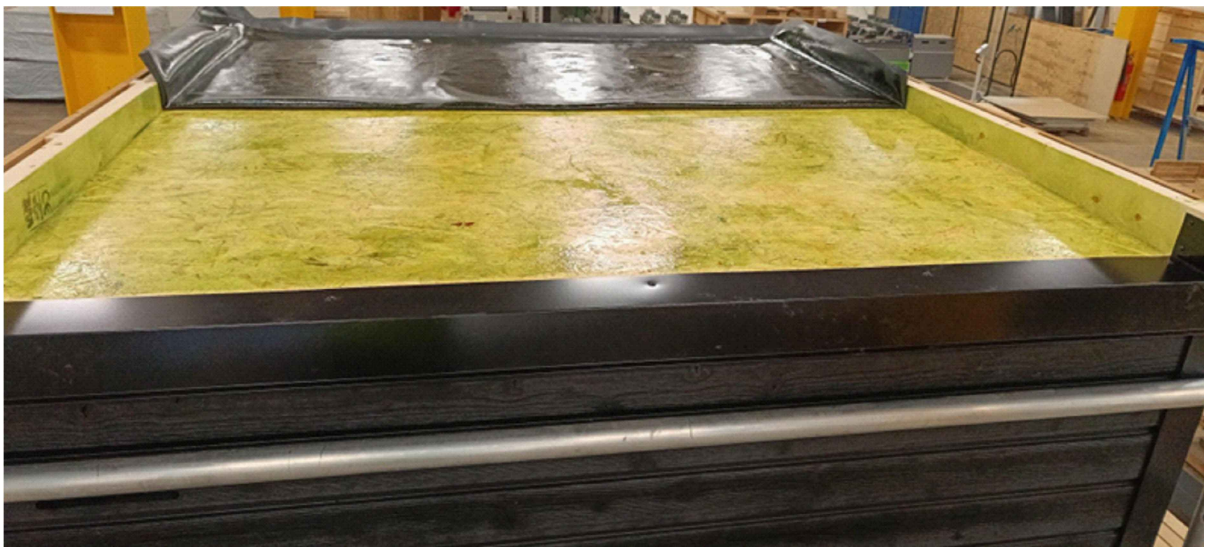
Before gluing, clean the surfaces from dust (EPDM rubber and roof osb).

Apply adhesive to both the EPDM rubber and the roof in a thin layer.

Initially, glue the center of the EPDM, leaving the edges unglued.

Once the adhesive no longer feels tacky, roll and smooth the EPDM rubber onto the roof.

Repeat the same process for the other half of the roof.

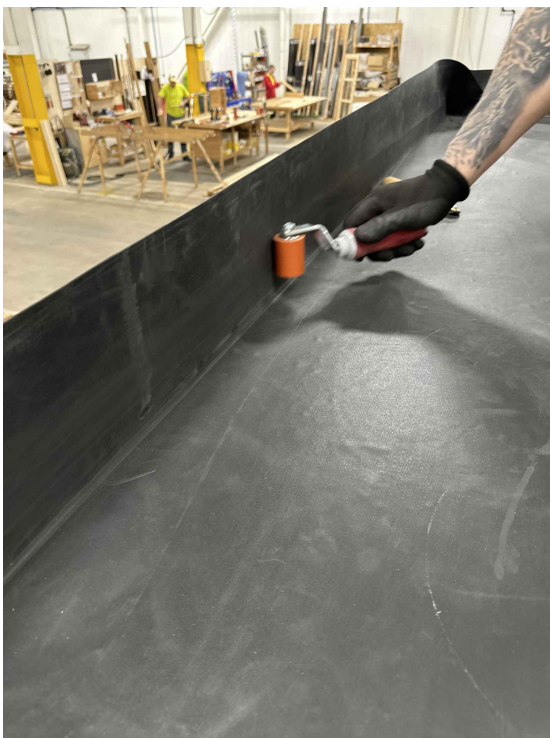


THE INSTALLATION OF EPDM RUBBER ON THE ROOF

Connect the EPDM rubber at the corner by folding and gluing it without the need for cutting. This method ensures the corner joint achieves maximum waterproofing.

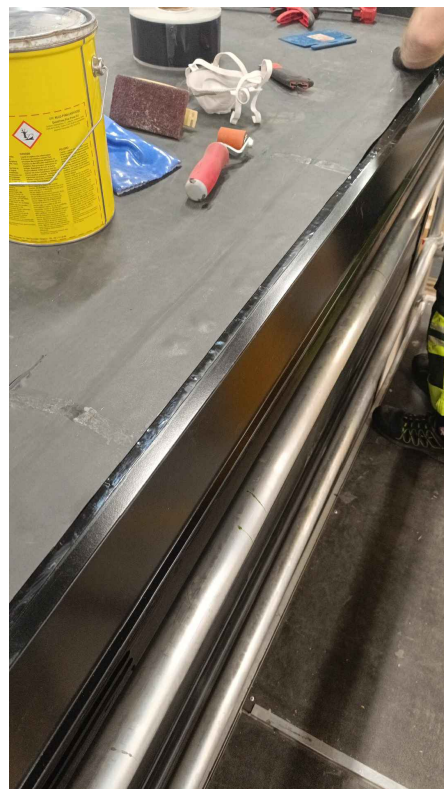
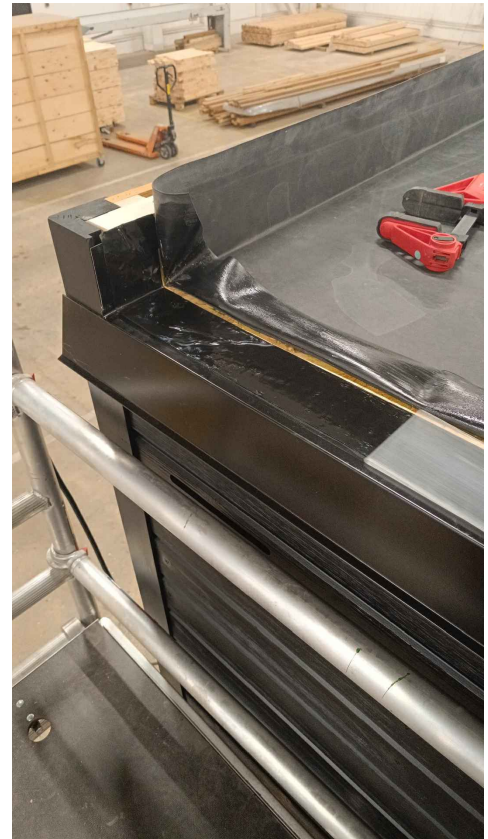


Attach EPDM rubber with adhesive overlay to the edge.



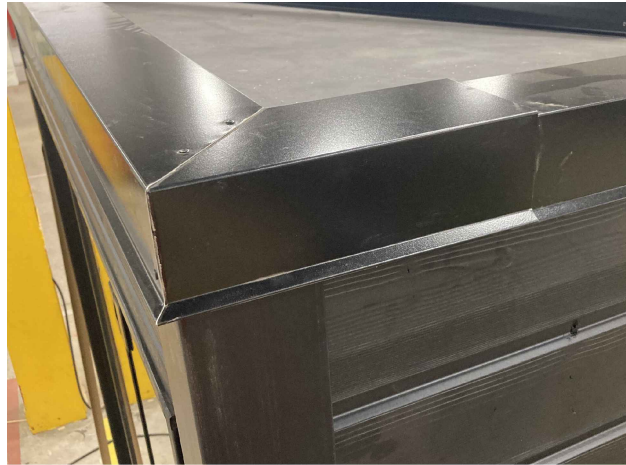
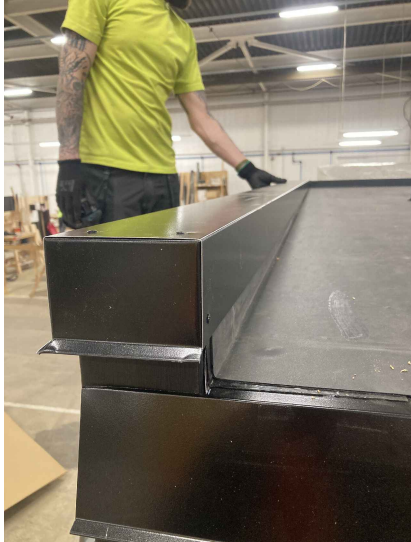
THE INSTALLATION OF EPDM RUBBER ON THE ROOF

Fasten the raindrop flashing screws before gluing the rubber.
For the raindrop flashing and the edge of the EPDM, use Firestone QuickPrime
After installing the EPDM tape, fix the rear edge of the EPDM.

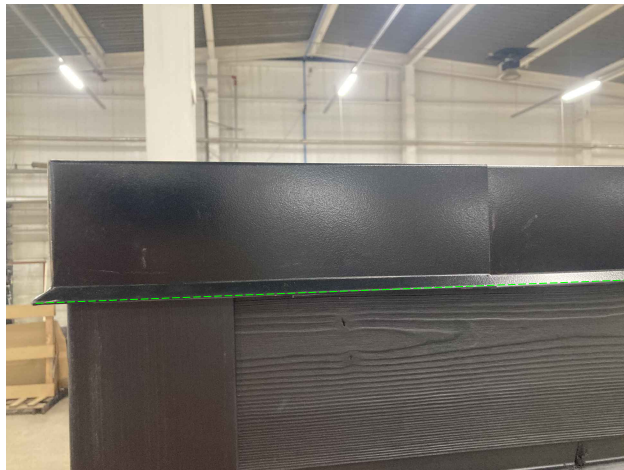


THE INSTALLATION OF EPDM RUBBER ON THE ROOF

After the EPDM rubber installation, proceed with installing the metal roof flashings. Install the side roof flashing before the front flashing. Use specialized roof metal screws with gaskets for securing the metal roof flashings. Ensure there is adequate wooden support beneath each screw to hold the screw.



During installation, it is important to visually ensure that the metal roof flashings are aligned in a straight line.

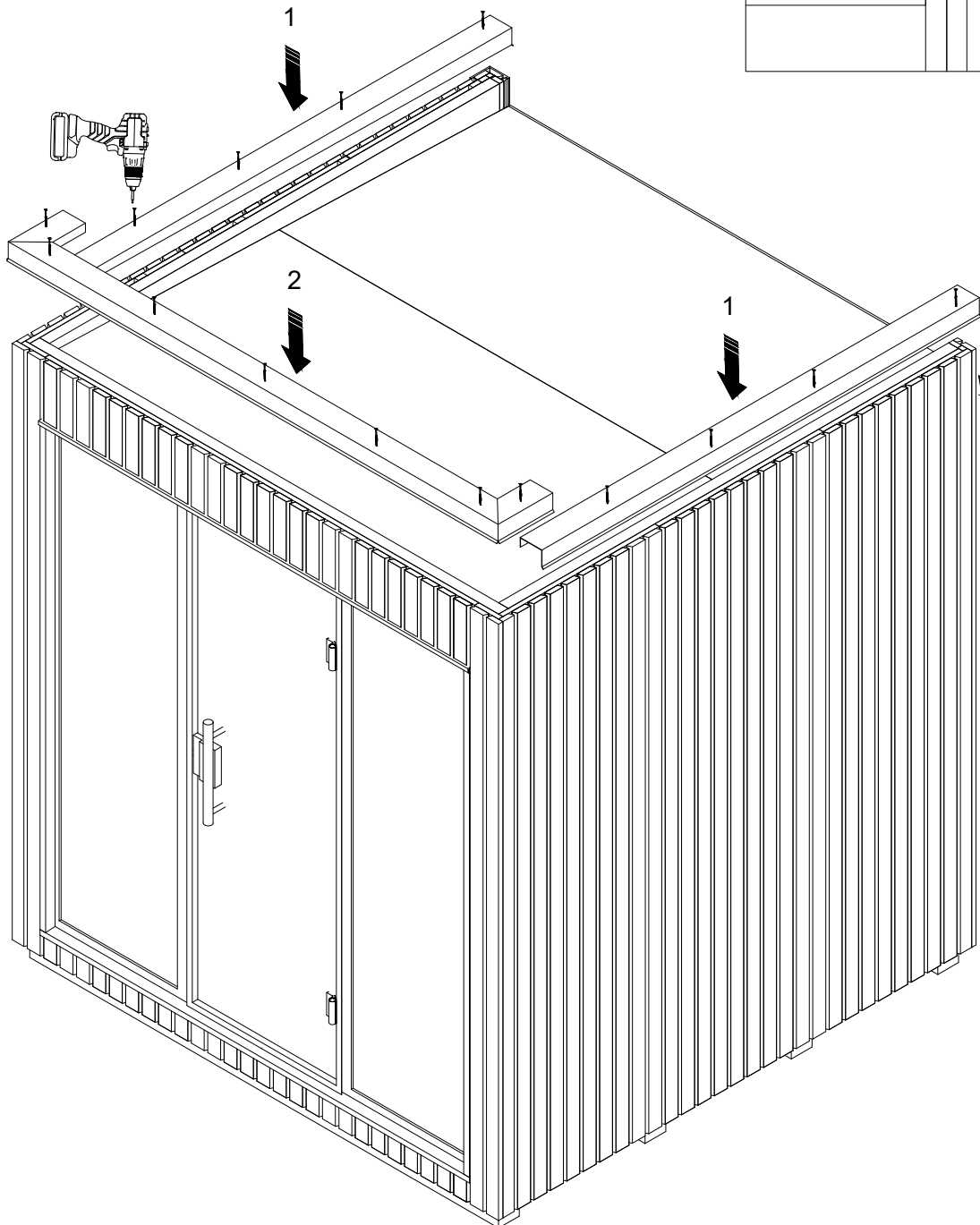
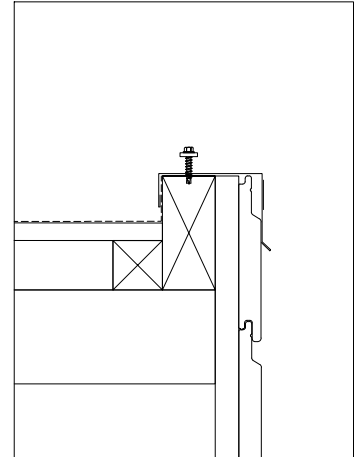


ROOF FLASHINGS

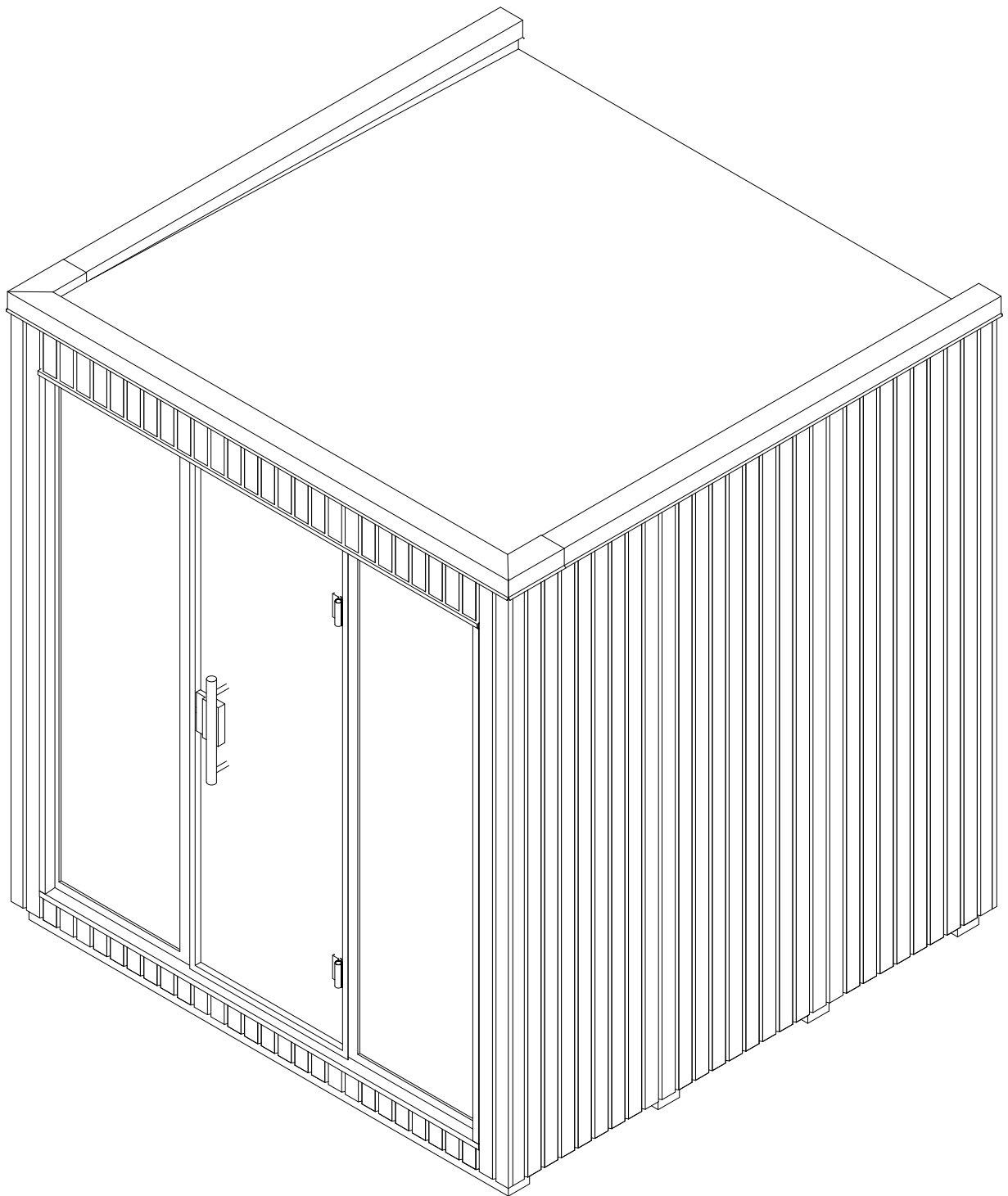
1. Flashings are fixed with special black screws.

Stainless steel black flashing screws - 20 pcs

Side view



COMPLETE SAUNA



Instructions for use and maintenance of pre-built and pre-assembled indoor and outdoor saunas

1. General installation requirements

- 1.1. Your sauna should be installed by a professional installer.
- 1.2. The installer of the sauna must have familiarised themselves thoroughly with the manufacturer's warranty terms and the installation instructions of the purchased sauna.
- 1.3. The electrical components of the sauna may be installed and connected only by a person with the respective certified competence.
- 1.4. The wooden parts of the sauna must not be in permanent contact with water or the structures of the room.
- 1.5. The exterior surfaces of the sauna must not be directly exposed to excessive humidity.
- 1.6. The installation site must have proper grid connection readiness for supplying power to the electrical components of the sauna. Requirements applicable at the installation location (country).

2. On-site requirements - indoor sauna

- 2.1. Make sure adequate ventilation is ensured in the room to be used for installing the sauna to ventilate the humidity and warm air created by the sauna.
- 2.2. Fresh air supply for the sauna room and heater must also be ensured. Be sure to leave an air gap between the sauna structures and the boundary structures of the room. This is necessary to avoid formation of excessive condensation between the structures of both the building and the sauna that could damage them and shorten their lifetime. The manufacturer recommends ensuring a minimum distance of 50 mm.
- 2.3. The installation surface must be level and stable.

3. On-site requirements - outdoor sauna

- 3.1. The outdoor sauna is designed to be installed on a pre-prepared level and stable surface capable of bearing the load.
- 3.2. Safety distances - you must leave at least a two-metre clearance around the sauna, unless specified otherwise or provided otherwise by the local requirements for similar buildings.
- 3.3. If your sauna is delivered pre-assembled, the installation site must be accessible for heavy machinery.

4. Sauna heater and heating stones

- 4.1. Install the sauna heater according to the heater manufacturer's installation instructions.
- 4.2. Install the heating stones according to the heater manufacturer's instructions. Installation requirements for the heating stones may vary depending on the sauna heater selected. As a general rule, the heating elements of the heater must be covered with stones. Pouring water directly on the heating elements will shorten the life of the heater and pose a health risk (hot water splashes).
- 4.3. It is recommended to wash the heating stones with water before installation. This cleans the stones of any possible processing and production residues.
- 4.4. Using the heater without the stones is not allowed.

Instructions for use and maintenance of pre-built and pre-assembled indoor and outdoor saunas

5. Finishing/treating the wooden parts of the sauna with a protective agent
 - 5.1. Before using the sauna, all wooden surfaces must be treated with a suitable protective agent. The manufacturer recommends using sauna wax or sauna oil (paraffin oil).
 - 5.2. Depending on the installation method used for your sauna and the free space left in and around the sauna, the wooden surfaces can be treated before or after installing the parts but certainly before using the sauna.
 - 5.3. Treating the wood will extend the lifetime of the wood and your sauna, preserving its properties and appearance. Treated surfaces repel water and dirt and are easier to clean.
6. Taking the sauna into use
 - 6.1. Make sure all parts of your sauna are intact and functional after installation and before the first heating.
 - 6.2. First heating: slowly heat your sauna to a temperature of 100 °C (212 °F) under supervision, keep this temperature for two hours and let the sauna cool down slowly. The sauna must be well ventilated during the first heating - it is recommended to leave the door half-open. This is necessary to allow the wood protecting agent to be absorbed into the wood and any residues from production and processing to evaporate from the surfaces.
 - 6.3. Staying in the sauna during the first heating is not allowed - substances evaporating from surfaces may cause an unpleasant smell.
7. Using your sauna
 - 7.1. Use the sauna only for the purpose for which it was manufactured.
 - 7.2. Pour water only on the heating stones.
 - 7.3. Use the sauna in moderation - it stimulates circulation, relaxes muscles and cleanses.
 - 7.4. Rinse yourself with water between sauna sessions.
 - 7.5. It is recommended to drink mineral water after the sauna to replenish fluids.
8. General sauna maintenance
 - 8.1. After each use:
 - Wipe the bench with a damp cloth after.
 - Always remove pools of water from wooden surfaces.
 - If the design of the bench allows it, raise the platforms to an upright position to dry.
 - Let the heater run under supervision for approximately 20 minutes - wooden parts dry more efficiently this way.

Instructions for use and maintenance of pre-built and pre-assembled indoor and outdoor saunas

8.2. Once a year or as needed:

- Wash the horizontal (and, if necessary, vertical) surfaces of your sauna with a special sauna detergent. Use a soft brush or damp cloth and observe the instructions of the detergent.
- Stronger stains can be removed with fine-grained sandpaper. All treated surfaces must be treated with a protective agent.
- Repeat treatment of the wooden parts with a protective agent.
- Check the structures of the sauna (bench fastenings, wall connections) and, if necessary, tighten the fastenings.
- Have a competent person check the condition of the electrical connections and components.
- Check the functioning of the door and adjust it, if necessary and possible.
- Check the condition of the heating stones: when used intensively and especially as they age, they could emit stone dust that will accumulate on the wooden surface above and behind the heater. Replace the stones, if necessary.
- Do not use substances or working procedures not suited for washing the sauna.
- Washing wooden parts with running water is not allowed.

9. Maintenance of an outdoor sauna

9.1. Trees and bushes growing near the sauna and a shady location may cause mossing on the surfaces. Clean the surfaces with a soft brush and damp cloth, as necessary.

9.2. In areas with thick snow-cover, remove snow from the roof of the sauna. Do not allow more than 50 cm of snow on the roof.

10. Wooden materials in the sauna

10.1. Wood is a natural material and subject to natural phenomena (differences in grain pattern, variations in tone, expansion and contraction due to heat and moisture).

10.2. Wood may develop cracks or deformations over time. This is natural and does not affect the use of the sauna. If in doubt, contact the vendor.

10.3. Thermally modified wood emits some scent during the first three heating periods.

11. Repair works

11.1. Damage to wood - scratches and dents up to 1 mm deep:

- Clean and dry the surface thoroughly.
- Sand down with 500 grit sandpaper or until dispersed.
- Clean off dust and treat with a protective agent. The protective agent will even out the colour difference caused by sanding.

12. The following are not allowed in the sauna:

12.1. Drying clothes or other textiles. Evaporating humidity may damage the wood; and textiles placed near the sauna heater may pose a fire hazard.

12.2. Heating to a temperature higher than 115 °C (239 °F) - fire hazard.

12.3. Placing combustible materials on the sauna heater.

GLASS HANDLING, STORAGE AND THE ABC'S OF CLEANING

HANDLING AND STORAGE

1. Taking precautions is generally always cheaper than correcting mistakes later.
2. It is recommended to remove stickers and spacers from the glasses as soon as possible.
3. It is recommended to use suction cups to lift large glasses.
4. When storing both tempered and non-tempered glass for a long time, the supporting edge of the glass must rest on a dry and softened surface (e.g., plastic, cardboard, rubber) - the edges of the glass must not be supported directly on the floor or the ground.
5. When storing several glasses at the same time, there must be spacers between the tempered glasses. Non-tempered glasses of the same size can be supported against each other, in the case of non-tempered glasses of different sizes, pieces of cardboard must be placed in between.
6. Glasses must be stored in a dry and well-ventilated room away from direct sunlight.
7. The storage conditions are important, because if water gets between the glasses (for example, as precipitation from above or evaporating from the bottom), soda starts to separate from the inside of the glasses, as a result of which they form on the surface of the glass white spots that cannot be removed. Such glasses belong to disposal.
8. The corners are the weakest point of the glass, so they must be protected with special attention. The glass must also be protected from the dangerous effects of the external factors listed below.

DANGEROUS EXTERNAL FACTORS FOR GLASS

Construction	First, any glass must be protected on the construction site, where chemical and mechanical factors can permanently damage the glass surface. In the case of glasses in the vicinity, constant air exchange is maintained, the glasses can be covered with a polyethylene film. If there is no air exchange, and the glasses are covered with polyethylene film break due to thermal stress.
Stickers and spacers	The adhesive on stickers and caps hardens under the influence of solar radiation. If the adhesive contains basic (pH=7.1-14) particles, the result may be a matting of the glass. If the adhesive contains acidic (pH=0-6.9) particles that are not visible on the glass damage, but the damage has been caused by the normal aging process of the glass.
Silicones	Chemically and sandblasted frosted glasses must not contact silicones with containing substances, because this way the surface of the glass becomes transparent and needs replacement.
Wall mixes	During of normal hardening, masonry mixtures often release alkaline (pH=7.1-14) particles that can damage and dull the surface of the glass. Petrified mixture removing it from the glass results in scratching the glass surface.
Concrete splashes	Washing off fresh concrete with plenty of clean water can damage the glass save. On the other hand, removing the dried concrete will scratch the surface of the glass and means replacing the glass.
Acid wash	Hydrochloric acid is used to clean brick and concrete surfaces, which can damage reflective surface coatings and glass missile silicones. Acid washing must be carried out before glazing.
Welding and cutting sparks	If these sparks fall on the surface of the glass, the surface of the glass is permanently damaged and needs to be replaced. Therefore, welding and cutting work is important avoid near glass.
Storage of other materials opposite the glass	Different materials against the glass can scratch the surface of the glass – especially glasses with a reflective coating are sensitive in this regard.
Metal constructions	Aging details of constructions secrete oxides (tin, copper, iron, zinc), which can get on the glass surface with both rain and washing water. Oxides can permanently damage the surface of the glass and the glass must be replaced.
Large temperature fluctuations	As a result of excessively large temperature differences, a large internal stress occurs on the glass, as a result of which the glass cracks, i.e. a thermal break occurs. Thermal

	breakage occurs when the temperature difference on the surface of untempered glass is approx. 40-50°C. To prevent thermal breakage, it is recommended to temper the glass, because tempered glass can withstand temperature differences of approx. 150-200°C.
Organic mastics	They can secrete emollients, oils and solvents, which stick very strongly with a glass surface. Organic mastics do not have to be harmful to the glass in direct contact with the glass - it is enough if water with residues flows over one glass on the surface of other glasses.
Running water	If water flows over cement, concrete, plaster before reaching the surface of the glass, organic coatings or mastics, residues remain on the surface of the glass. Scraps and glass a chemical reaction can occur between the surfaces, damaging the glass surface.
Hard water	The minerals in the water settle on the surface of the glass and stick to it strongly. Leaving the dried residues of minerals untreated, their later removal turned out to be impossible and the glass must be replaced.
Air pollution	Air pollution can contain various chemicals, especially in the case of (acid) rain adhere strongly to the glass surface. Leaving air pollution unremoved can create a chemical reaction on the surface of the glass to produce matte spots.

GLASS CLEANING

1. Glass should not be cleaned in direct sunlight.
2. The glass cleaning intervals directly depend on the environment surrounding the glass and the degree of soiling of the glass.
3. Glass cleaning includes washing, rinsing and drying.
 - 3.1 Glass cleaning starts with removing abrasive particles such as dust with clean water.
 - 3.2 Then use a soft cloth, towel or sponge to apply the cleaning agent to the glass using circular motions and applying medium pressure.
 - 3.2.1 When cleaning satin glasses (i.e., frosted glasses), it must be remembered that even if only one spot on the glass is dirty, the entire surface of the glass must be cleaned (to avoid halo formation). Do not use when cleaning frosted glasses excess pressure.
 - 3.3. Rinse with plenty of clean water.
 - 3.4. Use a clean, soft cloth, towel or sponge to dry the glass.
 - 3.5. After cleaning the glass, it is also important to remove the residues of water and cleaning agents from the slats, seals and frames in order to prevent damage to these parts.

REMOVAL OF DIFFERENT STAINS FROM GLASSES

1. Grease stains, oils, fats and various sealants - stains can be removed with a cleaning agent that contains a small amount of alcohol. After using the cleaning agent, be sure to rinse the glass clean with plenty of water.
2. Paints, cement, concrete mix - stains must be removed from the glass as soon as possible, i.e., before they dry, with plenty of clean water.
3. For small and difficult-to-remove dirt residues, a razor blade can be used with extreme caution, keeping it at a right angle to the glass.
4. The stains cannot be removed by sandblasting from frosted and satin glasses, because the surface of the glasses is permanently damaged and needs to be replaced.