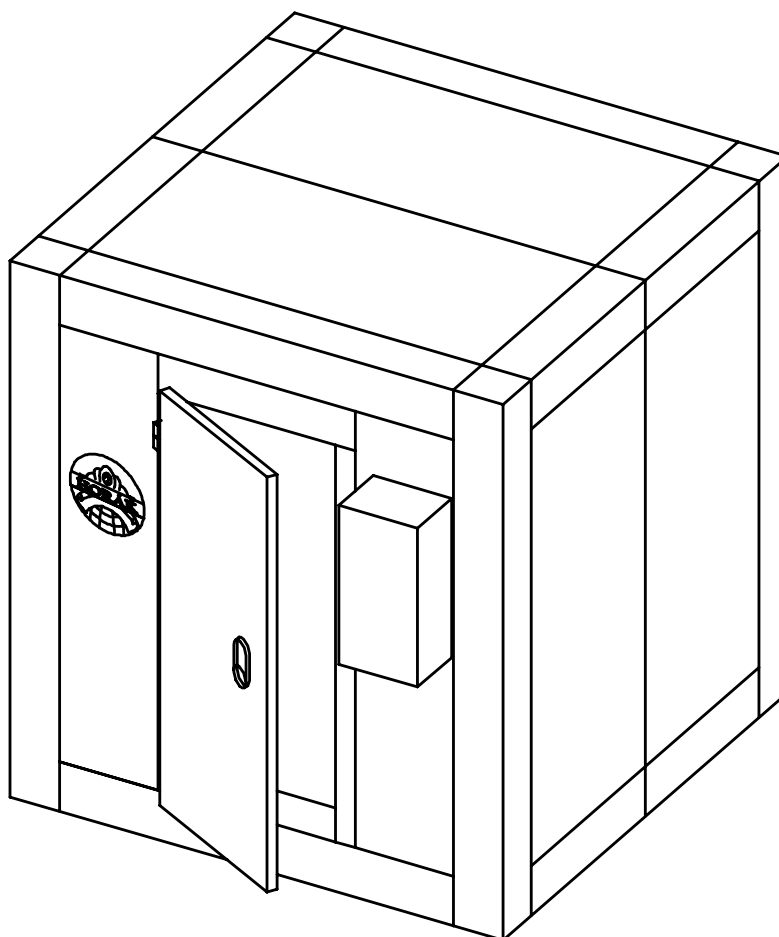


CHILL AND FREEZING COLDROOMS “KLASIK”

ASSEMBLY INSTRUCTIONS

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1. Storage in the place of installation

The panels, posts, doors and other components of the boxes are supplied mounted on pallets and wrapped in transparent foil and a belt.

The manufacturer recommends that the components are stored under a shelter, protected from direct sunlight. Exposure to prolonged sunlight may result in a photo degradation of the protective foil, which protects the coating of the panels, posts and doors. The foil may then be difficult to remove during the process of box installation.

2. Tools and equipment necessary for the installation of the PUR panels

2.1. Tools and equipment

- Original lock-handle for locking the panel locks (square spanner for metal locks, hexagonal spanner for plastic locks)
 - pasting pistol
 - rivet tool
 - portable electric circular saw, fine tooth
 - portable electric drill, which fits up to \varnothing 12 mm drill bits
 - a set of drill bits, particularly \varnothing 2.1 mm and \varnothing 4.1 mm
 - knife
 - plumb bob
 - tape measure, 3 or 5m
 - a set of screwdrivers
 - rivet tool for thread nut
 - brush and dustpan
- also recommended:**
- stepladder
 - two assembly stands
 - portable lights
 - water level

Auxiliary material:

- detergent
- degreasing agent (benzine, ethyl alcohol)
- acrylic spray paint in spray - 9010 grade
- wooden rivets

3. Main principles

Applicable to all types of "KLASIK" and "MINI" standard boxes with panel or construction floor.

3.1. Panel composition system

The panels are to be assembled from the inside of the box - i.e. the openings for the lock lock-handle are drilled in the panel inside coat.

System of the composition of panels for boxes with insulation width of 125 mm

From the inside of the box, there is a groove on the left and a tongue on the right side of each wall panel. There are locks (which install clockwise) on the side of the tongues and grooves of the first panel, and counterparts on the groove side and locks on the tongue side. The arrangement of the floor and ceiling panels is identical.

The face side of each panel of the freezing box is in the form of a groove, except for when the ceiling or the floor is composed of more layers of panels (in this case, there are grooves and tongues in turns).

System of the composition of panels for boxes with insulation width of 75 mm

Boxes with foamed posts: the system is identical to that of boxes, insulation width 125 mm

Boxes with plastic posts: the face side of the panels (see diagram), ceiling and floor panels are in the shape of tongues, for ceiling and floor panels composed of more layers, there are grooves and tongues in turns.

For the shape of individual panels, see the box layout drawing (for the sample of the assembly diagram, see figure 1)

3.2. Gap lengths

With respect to the necessary airflow between the panels and walls, the length of the gap between the panels and the walls must be at least 40÷80 mm for cooling boxes and 50÷100 mm for freezing boxes. Prior to the box installation it is necessary to check the dimensions of the premises, with respect to the gap requirements.

In addition, it is necessary to make sure that the distance from the box ceiling and any nearby construction is adequate in case of a suspended ceiling, prior to beginning installation.

3.3. Climatic conditions during installation

The installation works may be carried out at temperatures higher than +5°C. This is due to the temperature limits concerning the applicability of the paste for joint filling.

The installation premises must be protected from rain and the temperature inside the building should be maintained at least at a reasonable level.

3.4. Panel openings

The openings for doors, air vents, windows, etc. (unless included in the delivery) shall be made according to the drawings (see also the references within the layout drawing) using an electric circular saw with fine teeth. Spray the edges of the galvanised sheet with white acrylic paint or other anti-corrosion protection.

3.5. Protection of the foundation from freezing

The foundation of the freezing boxes must be protected from freezing. The manufacturer offers plastic strips and plastic plates which should be fitted under the box (see also figure 2). For further possibilities for protection, see the design documents. Additional materials are not supplied.

3.6. Panelling foundation

The base concrete under the floor panels must be mature, level and dust-free. The level deviation must not exceed ± 3 mm at a distance of 3 metres. **Any bigger deviations must be levelled with a paste finish. In the case of a building construction floor it may also be necessary to make an elevated concrete footstall under the entire panel floor and/or under the panel.**

3.7. Building construction floor

The box manufacturer does not deliver this option. For further possibilities, see the company's design documents.

3.8. How to ensure a steam-proof panels system

All the panel gaps and joints must be - on the **WARM – OUTER SIDE** – which is provided with a steam-proof layer. The kit of the freezing and cooling boxes contains a silicon sealant, and sealing tape as an option. The internal gaps shall be sealed in the same manner, due to hygienic purposes. A polyurethane paste is supplied for internal gaps of the floor with coated plywood.

All surfaces must be degreased before pasting. (Using ethyl alcohol, benzine, etc.)

For the application of paste in all types of gaps in panels and posts, see the appendix, drawings 16-40537 to 16-40540.

For boxes with **building construction floor**, the floor steam-proof floor layers and the outside walls of the box must be connected on the **WARM - OUTER SIDE** of the panelling.

The steam-proof layer of the floor must be connected to the door frame and the threshold on the **WARM - OUTER SIDE** of the panelling only.

3.10. Eccentric locks

3.10.1. Plastic locks

The holes for locks must always be made on the internal side of the panel!! The locks may be tightened with a square lock-handle, $s=10$ mm. Do not use other than the original lock-handle, as you may damage the lock.

All locks are supplied in the original position (charged)!!!

The locks in the panel right and face sides are tightened in the clockwise direction; locks in the left side of panels are tightened in the counter-clockwise direction.

Insert the lock-handle in the panel opening, with the rod in an upward position. Turn the lock-handle by

90° to the correct direction and the lock tumbler touches the counterpart pin in the adjacent panel. After turning an additional 90°, the tumbler moves inside the lock, thus tightening the lock and its counterpart against each other.

To unlock, reverse the procedure.

The angle of the lock-handle revolution between both the extreme limits of the lock is approximately 180°, but never less than 160°.

Tighten the locks carefully; do not widen the lock-handle hole. After installation, fit plastic cap to all (previously pasted, if necessary) lock openings.

For the lock diagram, see figure 3.1.

4. Installation preparation

- Check the floor at the place where the box is to be installed (flatness), remove any impurities/imperfections.

- Check the height of the installation, at multiple points – there must be an adequate space for the installation of the ceiling panels, or suspension of ceiling panels in case of a split ceiling. Usually at least 150 mm for coldrooms with positive temperature (CHB) and 250mm for coldrooms with negative temperature (MB) –specified in the Contract of Sale.

- Measure the ground plan of the installation area in order to ensure equal distance separation from the walls

- Check the installation of power supply for cooling units (provided that such a unit is supplied)

- Prepare the place where box components will be stored and check the transport route, in order to avoid any damage to box components

- Inspect visually, determine if the packaging is in good conditions

- Remove packaging and inspect the completeness of components according to the included list.

- Arrange the components within the installation area, according to the expected needs during installation

- Make sure that the lock tumblers are in the open (charged) position

- Gradually remove the protective foil from each panel on the mounting rack, either from the entire panel (i.e. panels which cannot be damaged during the installation process), or from the contact area (i.e. side and face sheets). All surfaces must be degreased before installation. (Using ethyl alcohol, benzine, etc.).

Freezing boxes with panel floor

- Check the protection of the box foundation from freezing

Cooling and freezing boxes with construction floor

- For freezing boxes, check the protection of the box foundation from freezing

- Check the steam-proof layer at the place where wall panels are to be installed

5. Installation procedures – box with panel floor

The box shall be installed by at least two people, according to the layout drawing. The panels and posts are identified according to the drawing.

General principles: in case of any connection between components with **pasted joints** check the position of both components before tightening the locks. Any irregularities should be levelled so as to ensure that the gaps between components are equal. **CONTINUOUSLY** check the verticality of the panels and horizontality of the upper front side of the panels.

After you connect two components together, rub away all the paste coming off the gaps **with a clean and moist cloth!!**

If there is not enough paste in the gap, fill it in as soon as possible, before the original paste fully vulcanises.

In case that there is no access to the panels during the installation from the outside, apply more paste on the outside joint, in order to ensure that the entire gap is filled in. Do not clean the excess.

If the box is sealed with a self-adhesive tape (on request of the client), the tolerance between the posts and panels must be thoroughly outlined.

Box Installation:**1. Floor assembly**

Proceed according to the instructions in figure 4.

- Place the rear floor panel on the floor (where it will be installed).
- Using pasting pistol apply paste on both sides of the adjacent floor panel tongue, and place the panel on the floor
- Level both panels (the face sides must be in one level) and lock up
- Install and lock all the remaining floor panels
- Proceed with the floor posts – apply paste on the connection area of the post and floor panel and lock the post to the panel.

2. Wall assembly

Proceed according to the instructions in figure 5. For complete design, see figure 6.

- Begin in the left rear corner of the box (in terms of installation end point)
- Apply paste on the lower end of the vertical post and mount the post
- Apply paste on both sides of the wall panel tongue and the connection points of the lower front side, and mount these components to the vertical post and lock (to both the vertical and floor post)
- Secure the panel with a post to keep from shifting
- Apply paste to the connection area of the lower front side and the panel groove, to be connected to the vertical post from the other side
- Install and lock the panel to both the vertical and the floor post
- Proceed in the same way, ending with the front right vertical post (**to be locked after the ceiling assembly**)
- Do not forget to fit in the safety flap into panels with openings for such a flap, before installing these panels.

3. Ceiling assembly

Proceed according to figure 7

- Apply paste on the connection points of the rear upper post
- Fix in the post and lock into wall panels
- Apply paste on the connection area of both front sides of the rear ceiling panel
- Install and cock the upper side posts to the ceiling panel
- Apply paste to the panel and side posts (both sides of the panel tongue and front sides of the posts) and install on the wall panels
- Level the panel with posts and lock to wall panels
- Proceed in the same way, ending with the front ceiling panel
- Prepare the last ceiling panel in the same way as the first one
- Install the panel and level the left vertical post
- Lock the ceiling panel and the vertical post to the wall panels.

4. Door assembly

The coldrooms are equipped with one or more doors right or left opening (type and dimensions are mentioned in the Contract of Sale). The frames of doors are equipped as standard with electrical heating against rubber freezing to the frame. Wings of sliding doors are equipped as standard with electrical heating, also. All doors are equipped with safety system for opening inside. All doors should be equipped with strip curtains as option for minimizing the thermal losses through opened doors

Assembly of door in a door panel frame

- The standard doors 800 mm in panel frame (w.1000 x h.2000/2200/2400 mm) are mounted in the producer factory. These doors have to be mounted without previous dismounting like wall panels acc. to chapter 2 (for positioning of the door see assembly drawing).

Assembly of door with "PU" or "P" frame

- Assembly of doors with polyurethane reinforced frame type "PU" and plastic board frames type "P" have to be done according to "Instructions for assembly of hinged door" and the "Instructions for assembly of sliding door"

5. Installation of partition wall

- Install the partition wall identically to the installation of the wall panels – from the first to the last panel, apply paste to the connection areas between the panels and lock the panels.
- The partition wall must be protected from falling.
- After the partition wall is installed, apply paste to the gaps between the partition wall panels and the wall, ceiling and floor panels of the box, from both sides of the partition wall
- Freezing box: disconnect the heating channel, according to figure 8 (drawing no. 16-40421)
- Fix the partition wall to box panels, edge covers (**apply paste previously**) and fix with rivets

6. Finishing

- Remove the protective foil from all panels and posts
- Fix the threshold (for doors fixed in a door frame) to the threshold post with self-drilling screws, Ø 2.9 x 6.5mm, into predrilled holes, Ø 2.1 mm
- It is also possible to rivet the threshold with stainless rivets.
- Install, adjust and test the cooling unit, according to the instructions in chapter 8
- Fit plastic caps on all lock openings (on wall, ceiling and floor plastic-coated panels, use white or grey caps with flat head; on the floor panels with AL sheet, use grey caps with cup head. Apply paste before fitting the caps.
- Check the adjustment of the door – Does the sealing fit when the door closes?
- Check the quality of paste used for the entire box and repair where necessary
- Remove any impurities from the panels, using a soft cloth
- Repair any damaged coating with spray paint
- Affix the manufacturer's label in an easily accessible place, and check the labels on the door and the blocking unit
- Clean the installation area and deliver the box over to the user, according to the instructions specified in Chapter 10

7. Freezing box

- Prior to the floor assembly distance profiles or plastic boards, which ensure that the box foundation does not freeze, must be placed within the installation area (unless designed otherwise)
- The refrigerator door is fitted with an electric heating cable for the heating of the door frame. The connection shall be according to the diagram of connections

6. Installation procedures – box with construction floor

Apply the same procedures as for the box with panel floor, and:

- Check the installation of the steam-proof layer and – according to the drawing documentation – its location within the installation area
- Mark the corners of the box to be installed
- Prior to the construction of wall panels, fix U-profiles in the floor, using a nail gun
- Fix the wall panels into these profiles (apply paste to the lower front side)

7. Installation procedure – rack system

- Begin the installation from the corner – fix in the rack post
- Mark the hole for the riveting nut on the panel
- Move the post to the side, drill a hole, □ 8mm, and fix in the riveting nut, M8
- Fix the post to the panel, using the M8x70 bolt and a thrust ring
- Place a square pad under the post and adjust the height
- Install the following post, according to the length of the rack
- Mark the hole for mounting hole and proceed according to the previous instructions
- For corner racks, the shelves are fitted using clamps fixed on the shelf in position

8. Installation of block cooling units

- Remove the unit carefully from the container
- Always handle the unit in a vertical position
- Check the size of the opening where the unit is to be installed, compare it with the size of the insulated part of the unit
- Fit the unit in the opening and secure from shifting (be careful with the lighting connection cable!)
- Drill holes for the sheet-metal screws in the outside flange

- Fix the unit
- Seal the gap inside the box, between the insulated part of the unit and the opening in the panel, using a silicon sealant

8.1. Connection of unit, heating of door and decompression flaps

- Proceed according to the type of the supplied unit and the service instructions
- Connection of the unit, door and decompression flaps may be carried out by a person qualified according to Section 6 of Edict no. 50 (in the Czech Republic, in other countries according to the corresponding qualification or licence)

9. Commissioning

- Before the device is handed over to the client, it is necessary to check the function of the door, decompression flap and the cooling unit.

10. Handing over to client

- A written Completion Certificate shall be issued for the purposes of handing the device over to the client.

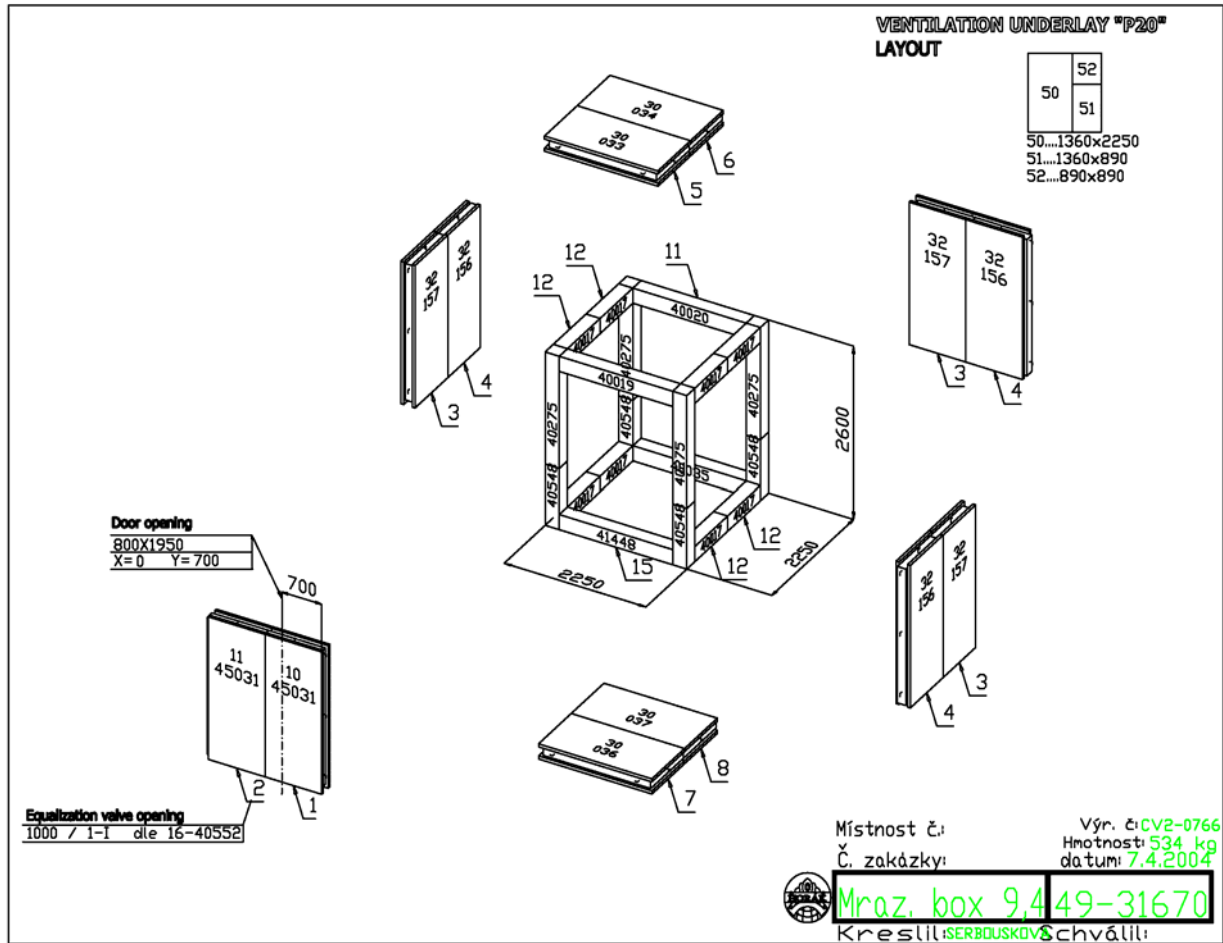
11. Instruction card distribution

- Photocopying, filing and distribution of the instruction card shall be ensured by the installation division.
- Copy no. 2 is for fitters and members of an external service organisation
- Copy no. 1 shall be filed at the technology department

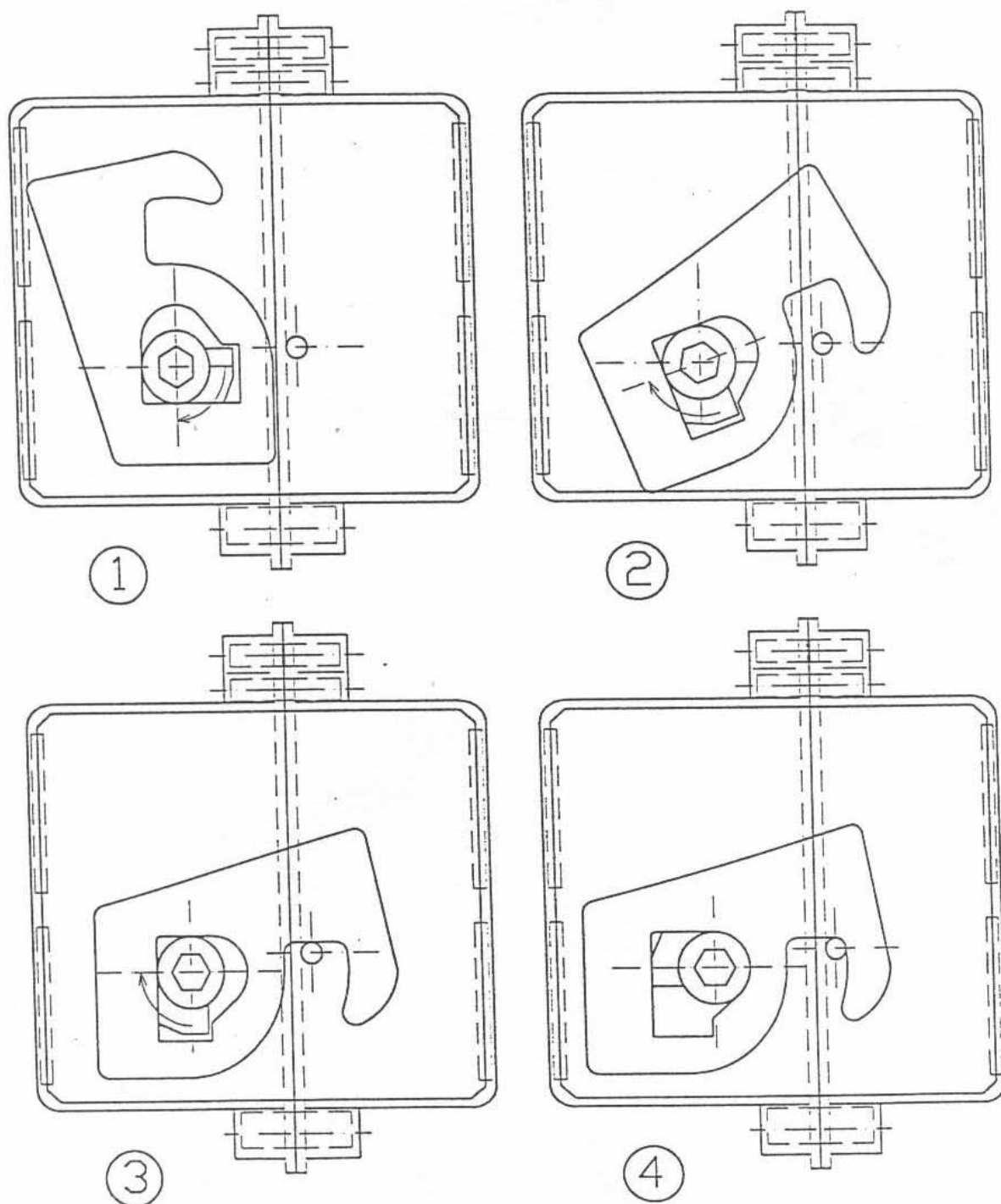
12. Appendices

- A sample of assembly diagram (figure 1)
- Position of bars under the freezing box (figure 2)
- Lock tightening scheme (figure 3.1 – plastic locks)
- Assembly of the box floor (figure 4)
- Assembly of the box walls (figure 5)
- Wall installation finish (figure 6)
- Assembly of the box ceiling (figure 7)
- Dividing wall to wall connection (figure 8 – drawing no. 16-40421)
- Panel to panel connection, sides (figure 9 - drawing no. 16-40537)
- M post to PUR panels 125 connection (figure 10 - drawing no. 16-40539)
- CH post to PUR panels 75 connection (figure 11 - drawing no. 16-40540)

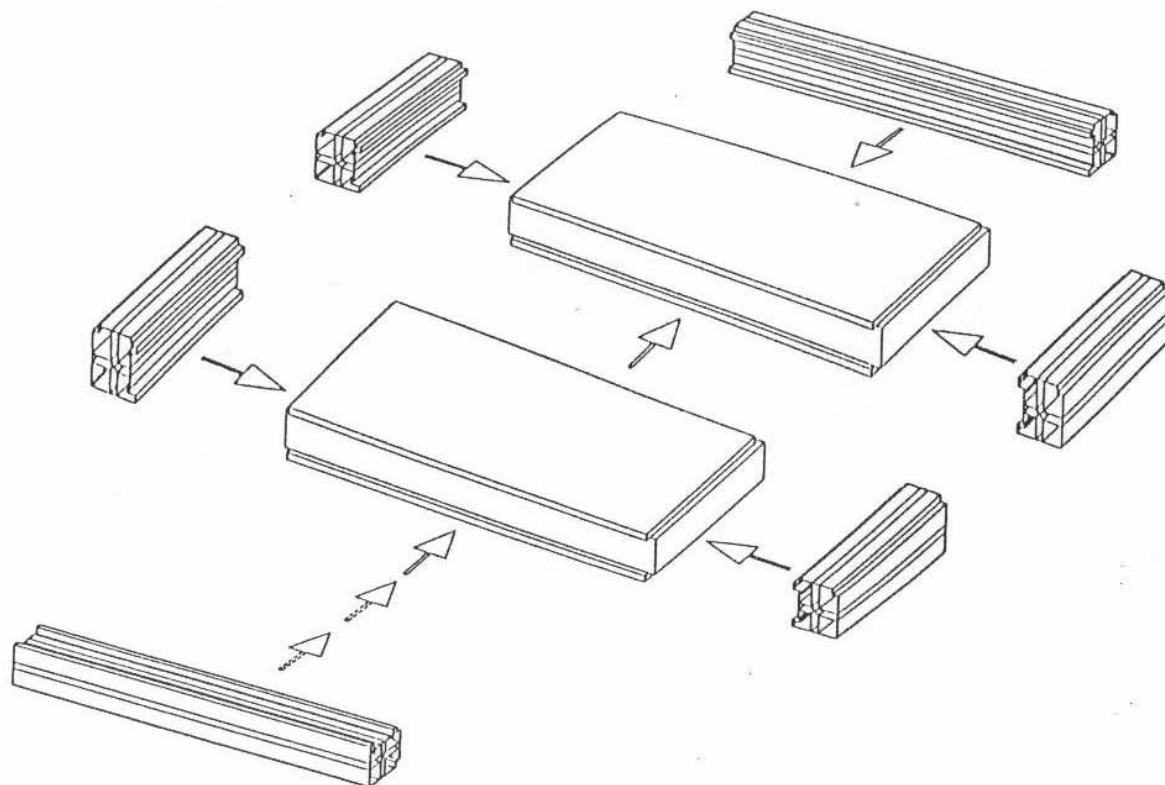
Sample of assembly diagram (figure 1)



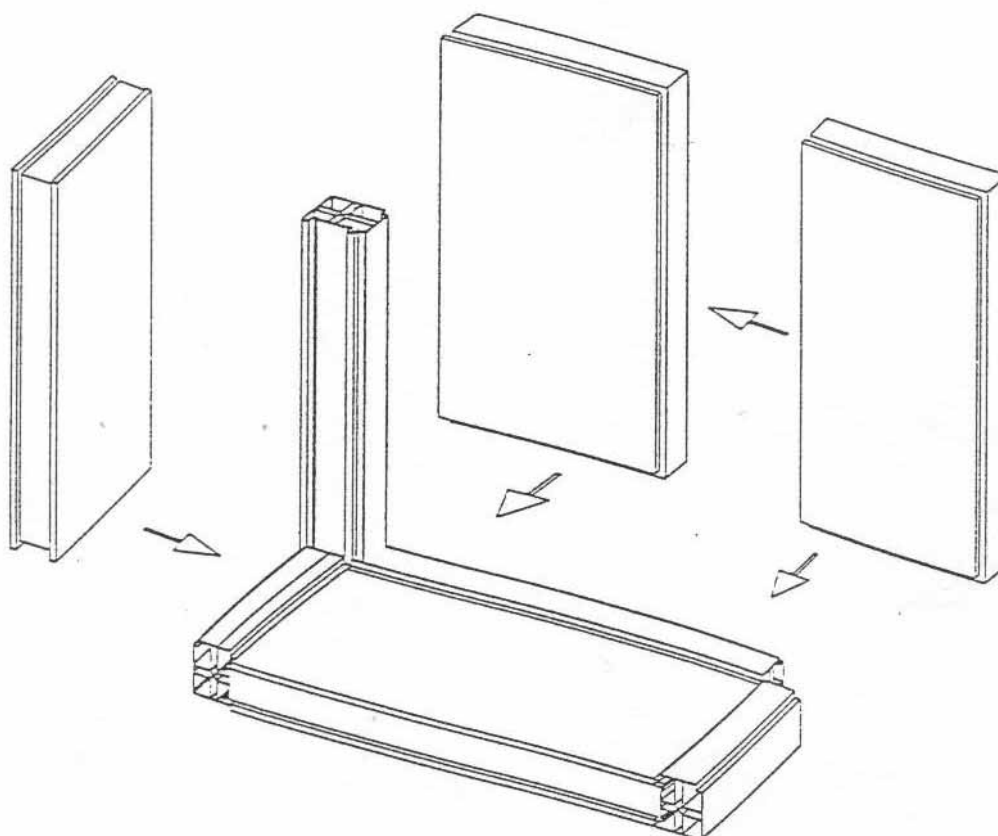
Lock tightening scheme (figure3.1 – plastic locks)



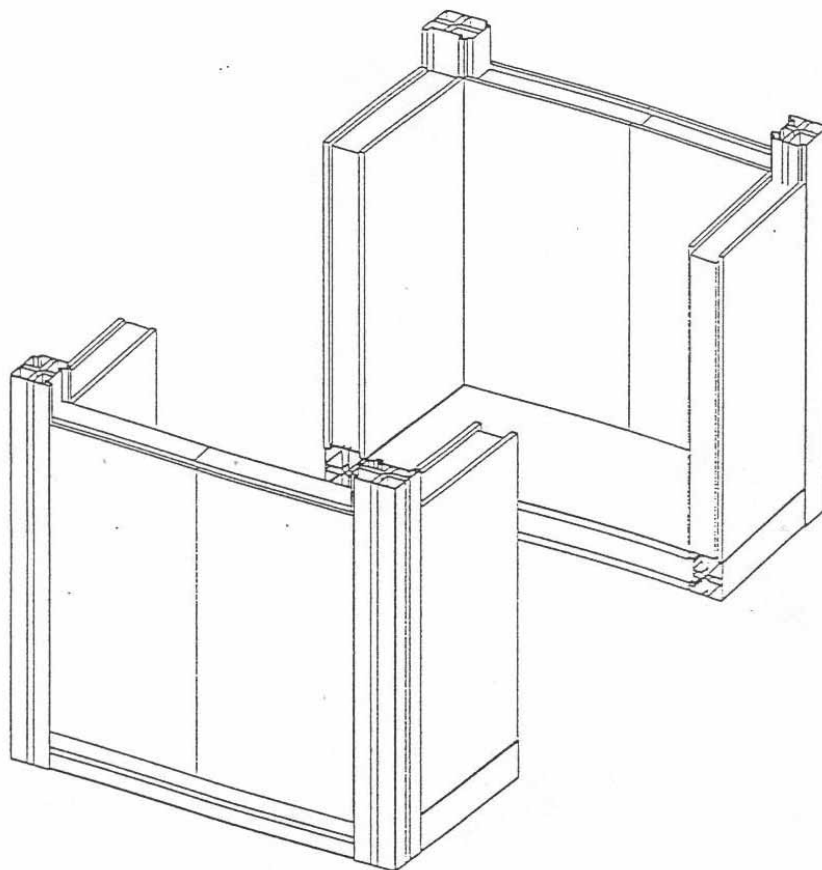
Assembly of the box floor (figure 4)



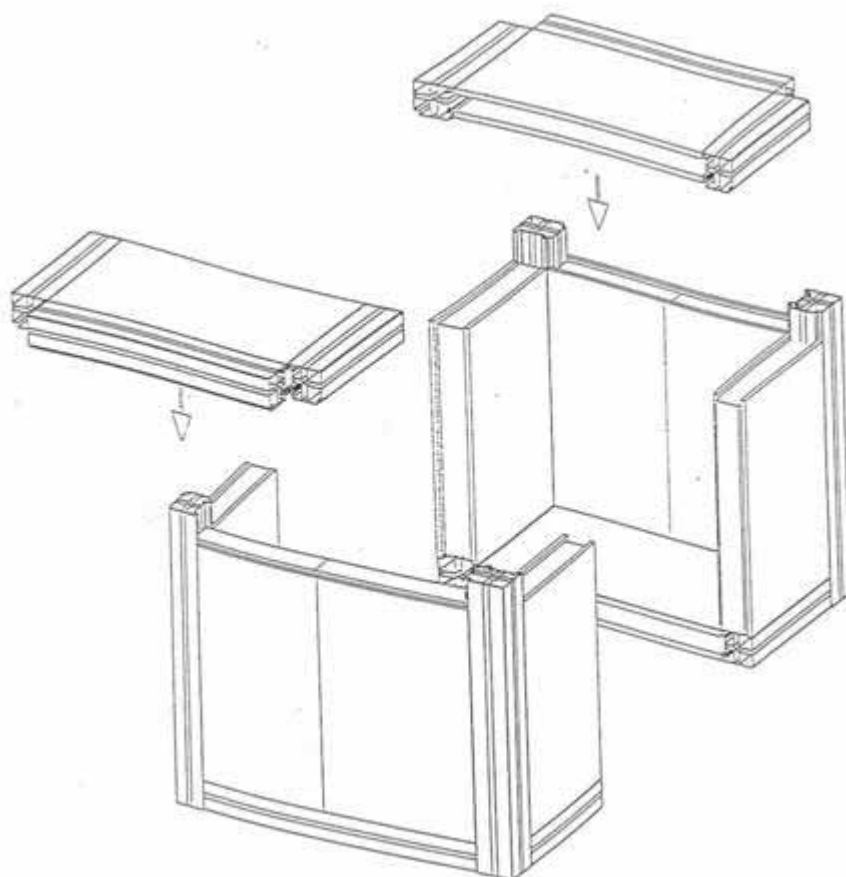
Assembly of the box walls (figure 5)



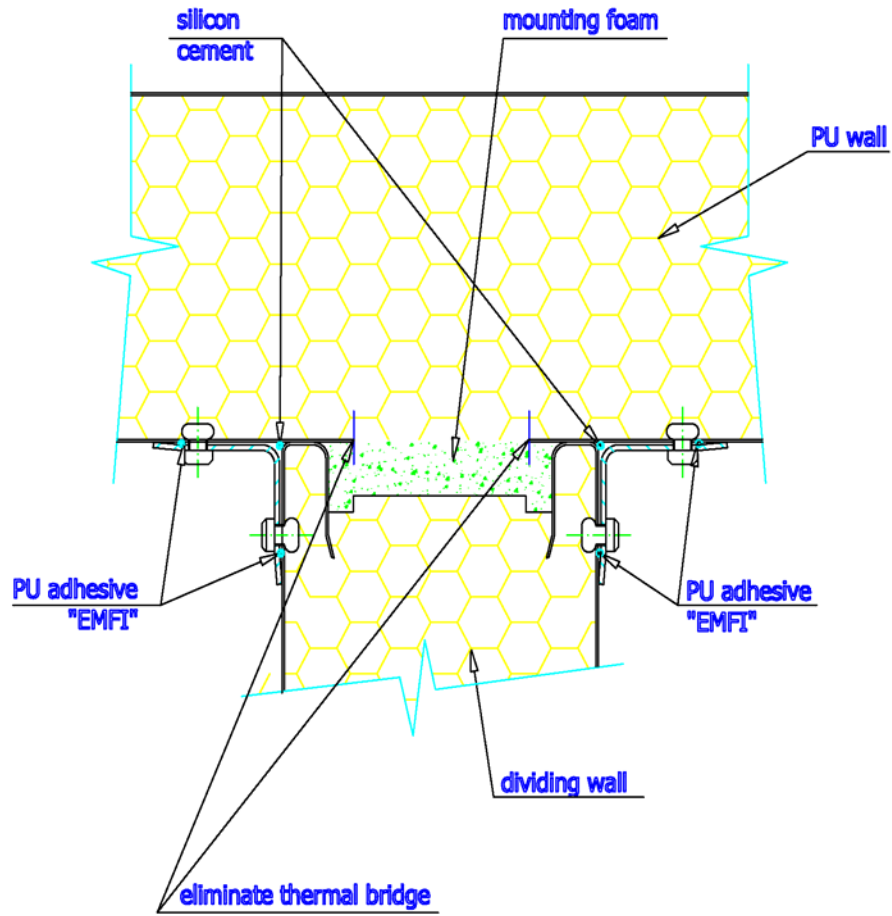
Wall installation finish (figure 6)



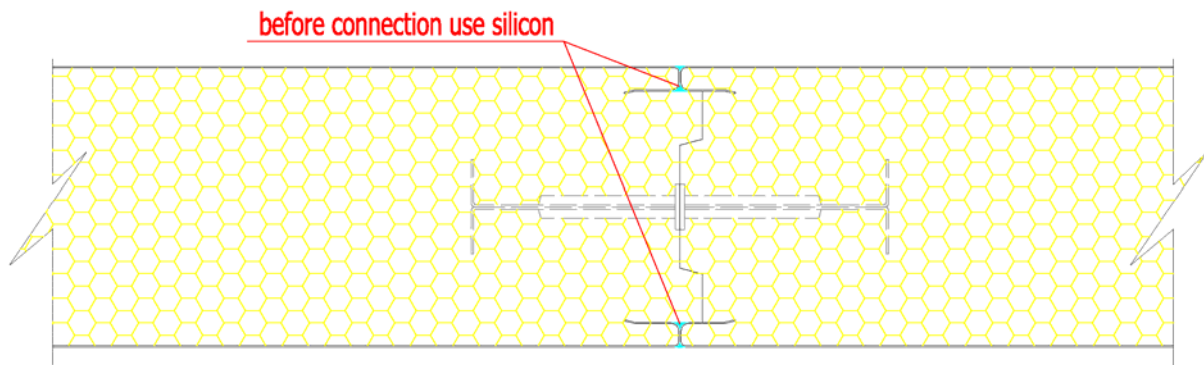
Assembly of the box ceiling (figure 7)



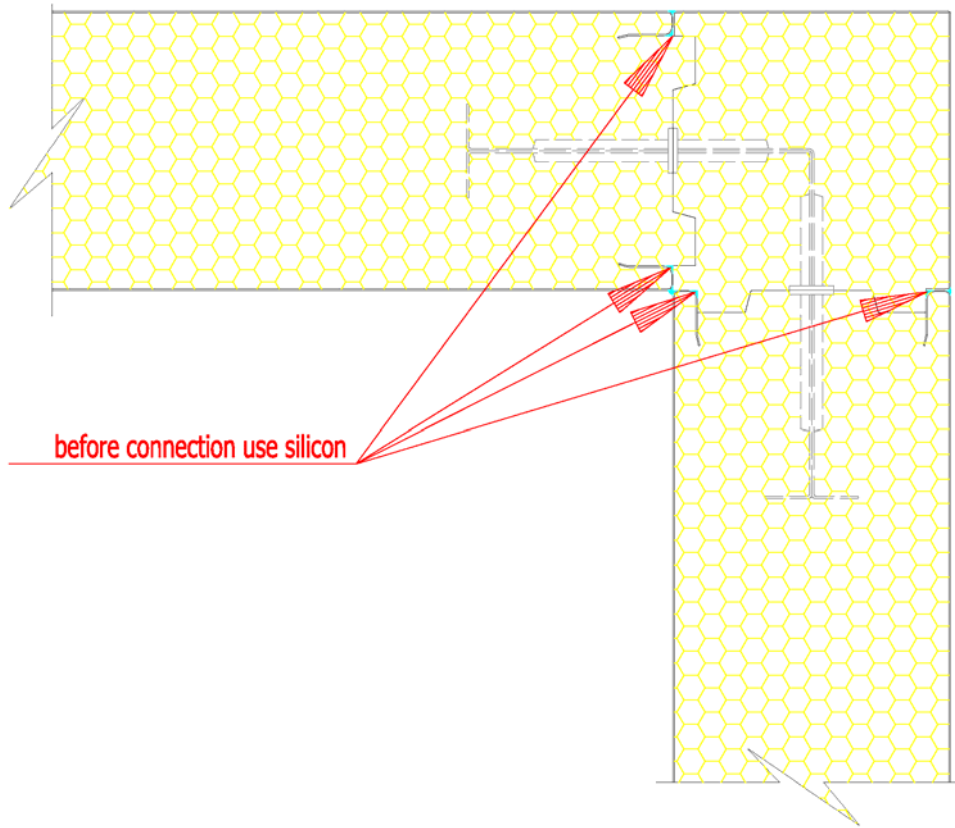
Dividing wall to wall connection (figure 8 – drawing no. 16-40421)



Panel to panel connection, sides (figure 9 - drawing no. 16-40537)



M post to PUR panels 125 connection (figure 10 - drawing no. 16-40539)



CH post to PUR panels 75 connection (figure 11 - drawing no. 16-40540)

