

## I. INTRODUCTION

BANCO wall panels system is supplied in accordance to customer design drawing and material specification list.

BANCO company can prepare and supply, on special customer request, lining and ceiling arrangement.

All BANCO lining and ceiling products are packed carefully in sets. The weight is each in not more than 500 kg. Every moduls and profiles are protected against the damage.

Sets can be stored on height, but only 3 full size sets one on another.

Each set is labelled. The labels give the following information:

- Customer orde number and name of project
- delivery address
- BANCO internal order number
- content
- panels' dimensions in mm [LxWxH]
- additional remarks with deck and cabin number (special customer requirements).

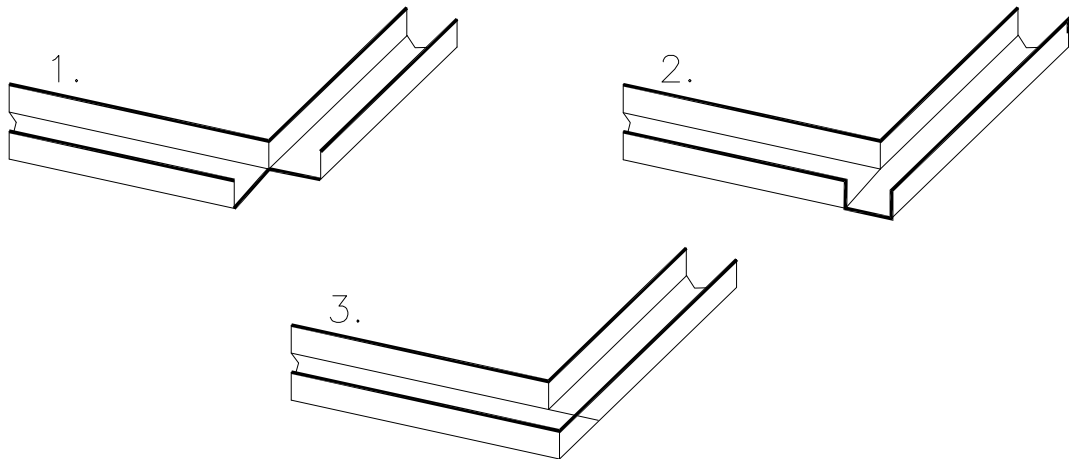
## II. WALL PANELS INSTALLATION GUIDE

Lining and partition panels are assembled according to designed drawings which contain panel code and location coordinates.

The first step is marking by loftsmen with chalked string position of bottom profile. Next step is sign the top profiles support location above bottom profiles.

## 2.1. BOTTOM PROFILES INSTALATION

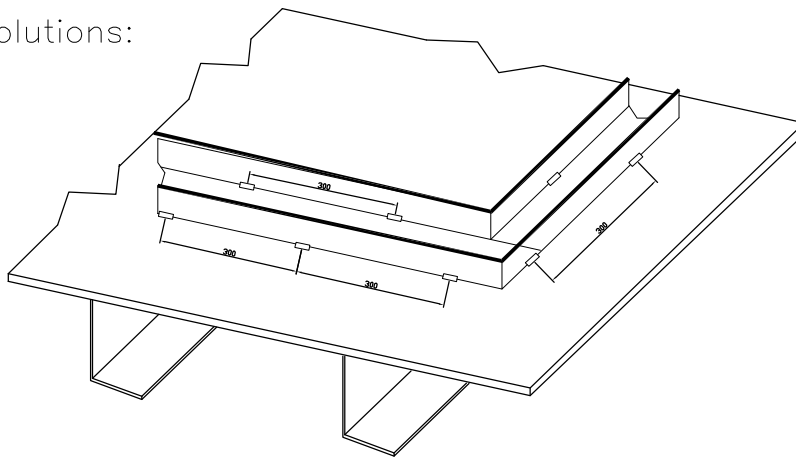
After marking by loftsman with chalked string positions of the bottom profiles, if it is necessary, cut profiles to suitable lengths. The corner connections shall be fitting according to below shown feasible solutions:



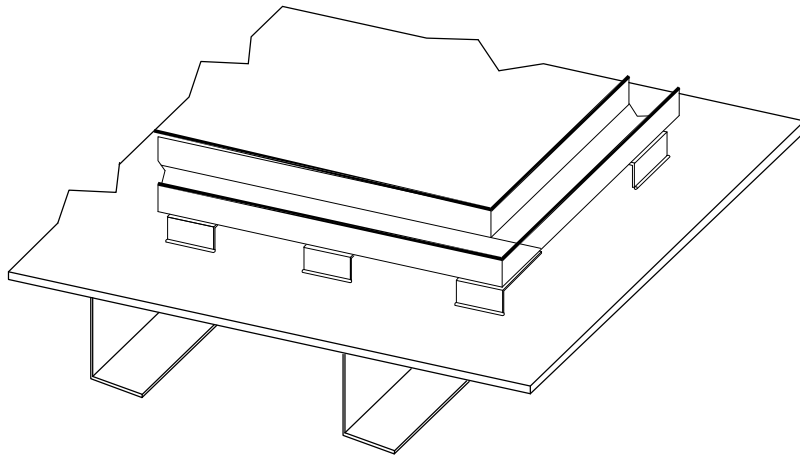
Before fixing bottom profiles to the deck, covering surface shall be checked all diagonals, angles and lining distances from bulckhead or ship sides.

Depend on deck covering surface, there are different bottom profile fixing types.

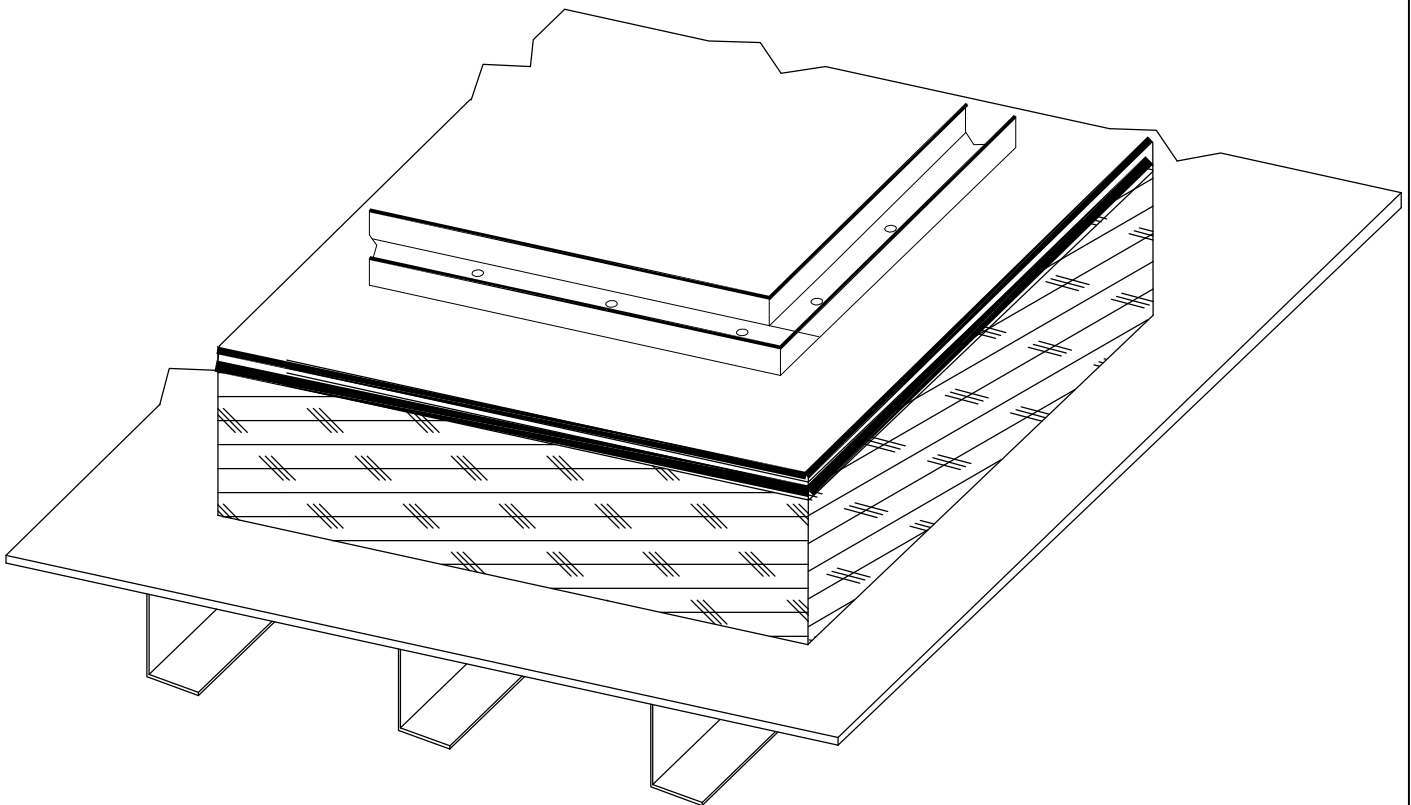
Bottom profile connections shall be rigging according to below shown feasible solutions:



1. Profiles are zigzag welded direct to the deck. Speses between weldings shall be aprox 300 mm on each side of the profile.



2. Bottom profiles fixed by pop-rivets to angle bars welded direct to the deck. Distance between angle bars shall be approx 300 mm.



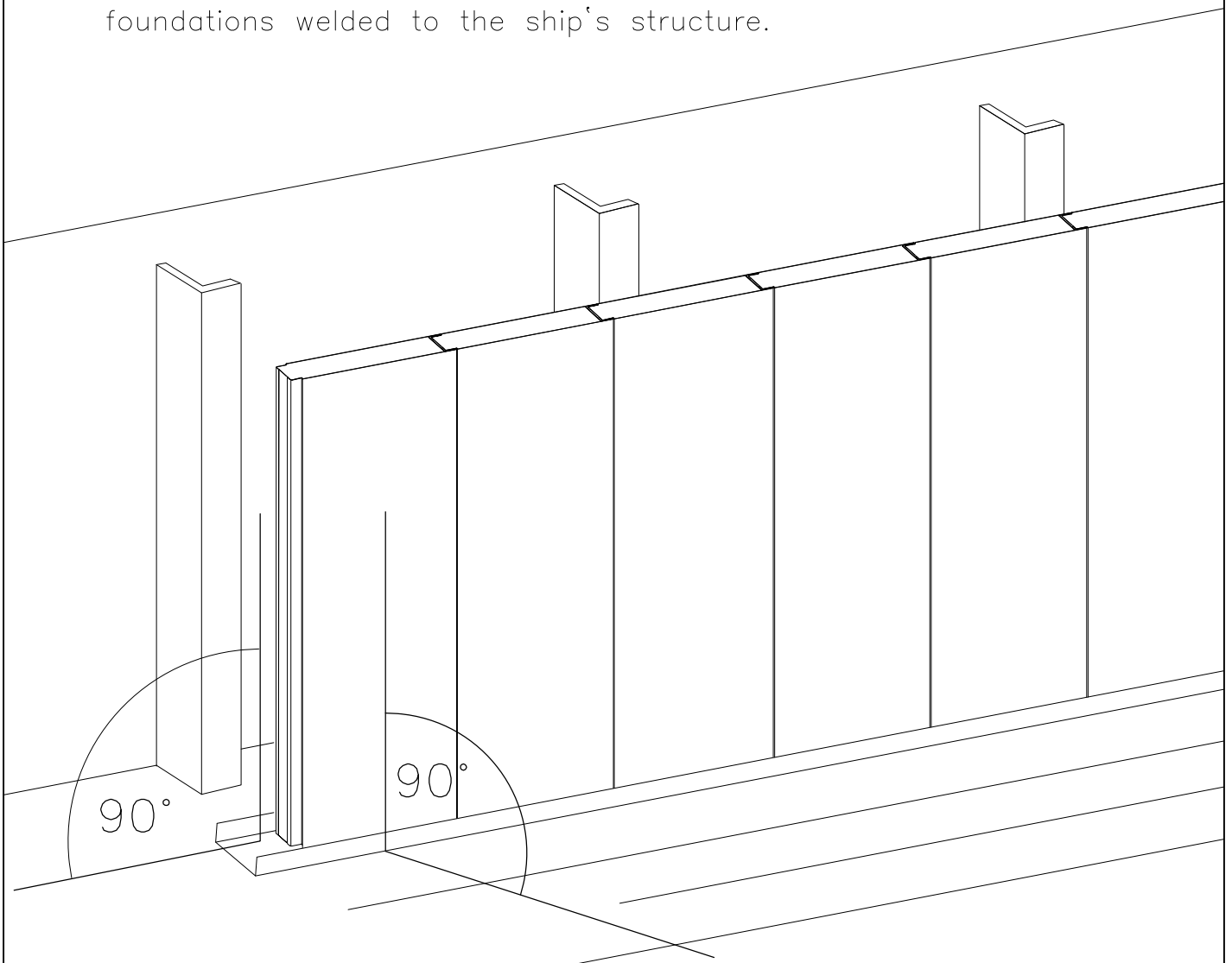
3. Bottom profiles fixed by pop-rivets direct to the floating floor. Distance between pop-rivets shall be aprox 300 mm. Another way is welding bottom profiles direct to the floating floor surface by zigzag welds spaced aprox 300 mm each side of the profile, similar like in 2-nd bottom profile fixing type.

## 2.2. PANELS INSTALATION

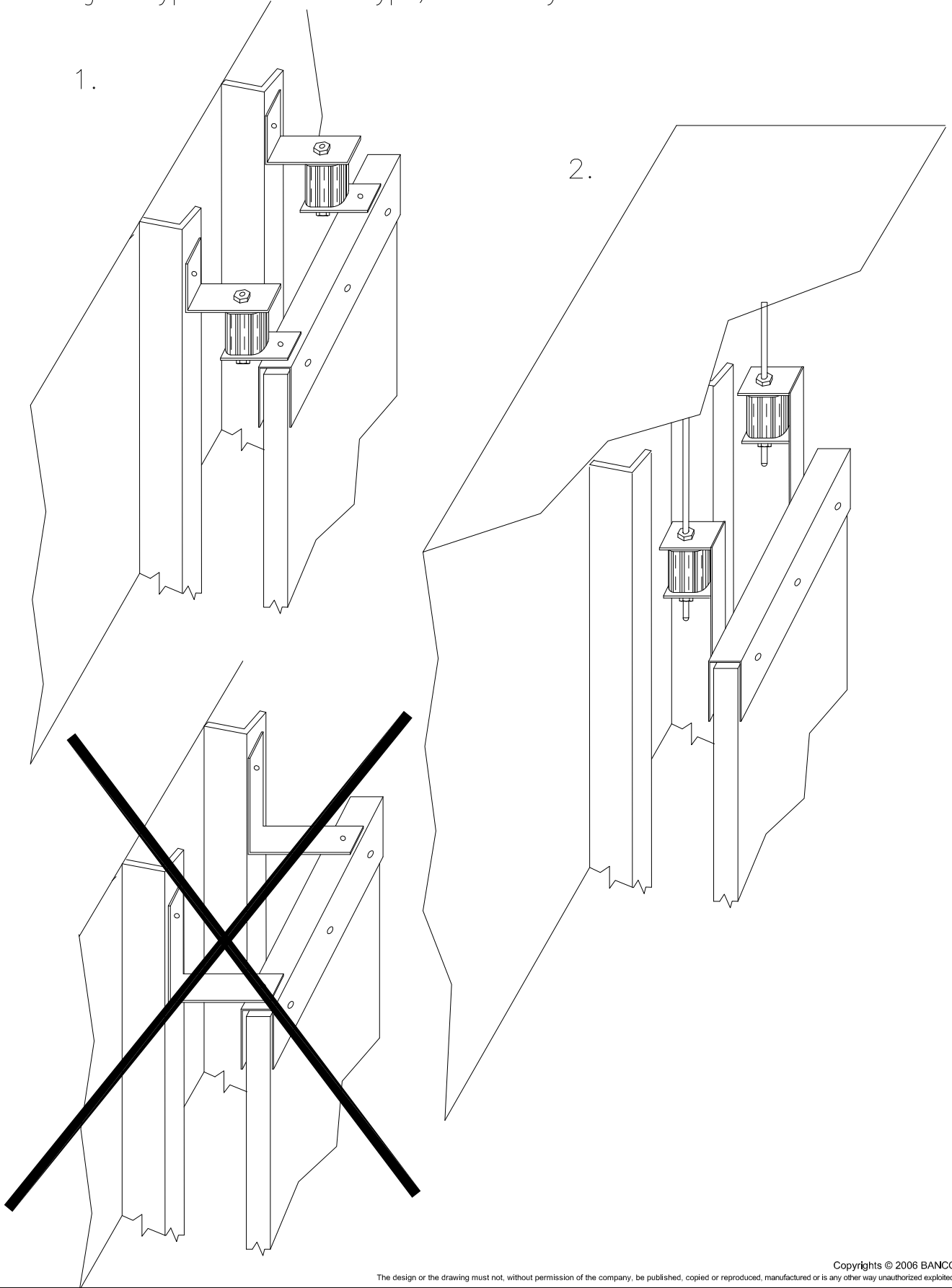
In the case when supervisors or another authority doesn't require otherwise – panels shall be fitted as free standing, with hangers from deck above, spaced aprox 500–600mm (depend on distances between stiffeners) or with flexible connectors fixed to bulkhead stiffeners. This type of fitting reduce structural vibrations transmitted from the hull into cabins.

Before panels fitting, shall be removed the protection foil from the panel surface.

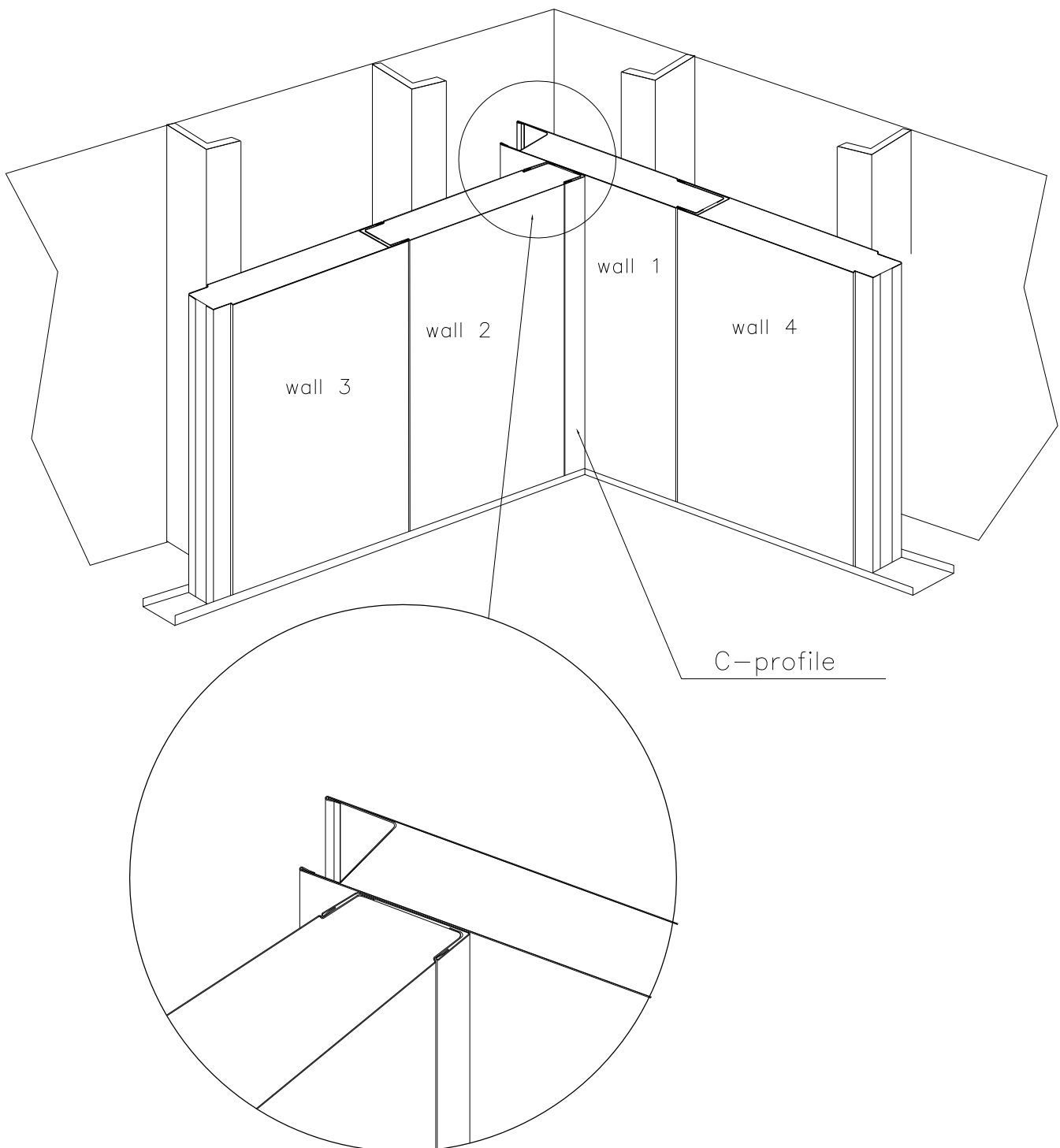
Panels shall be "generally" vertically fitted i.m. perpendicular to deck surface, parellel to the ship's centre line. If lining is fitted not vertically to the deck – panels shall be supported by additional foundations welded to the ship's structure.



The lining bulkheads shall be stabilised with stays. Stays can be hangers type or another type, but every shall be flexible connections.

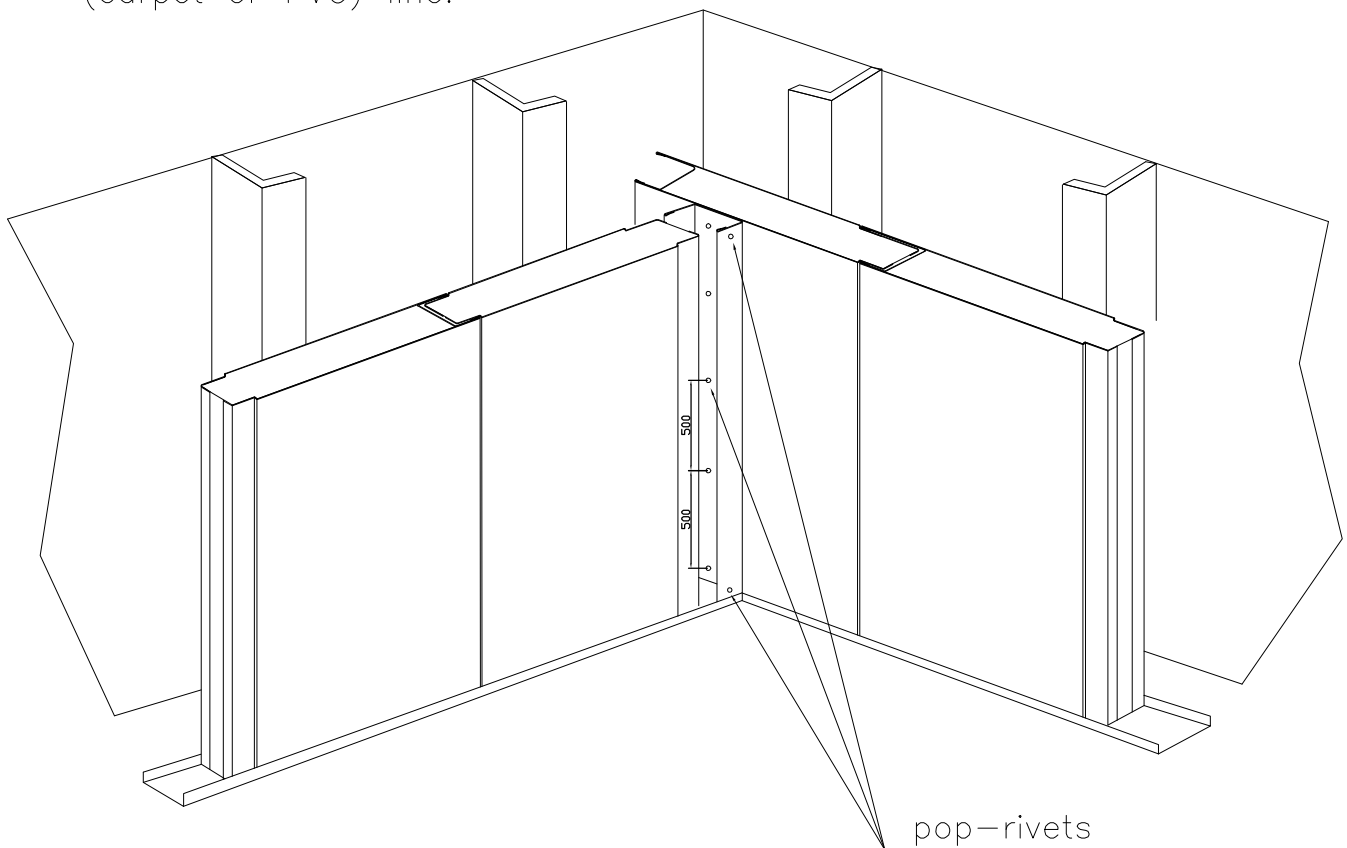


All panels in standard system are delivered as 600mm width modules. The standard system allows to cut panels in compartment's corners. The width of cut panel depends on situation on the board and design. The modular system allows to apply different width panels offered in this catalogue. The width of used panels depend on design. Panels location and lining direction is according to designer drawing.



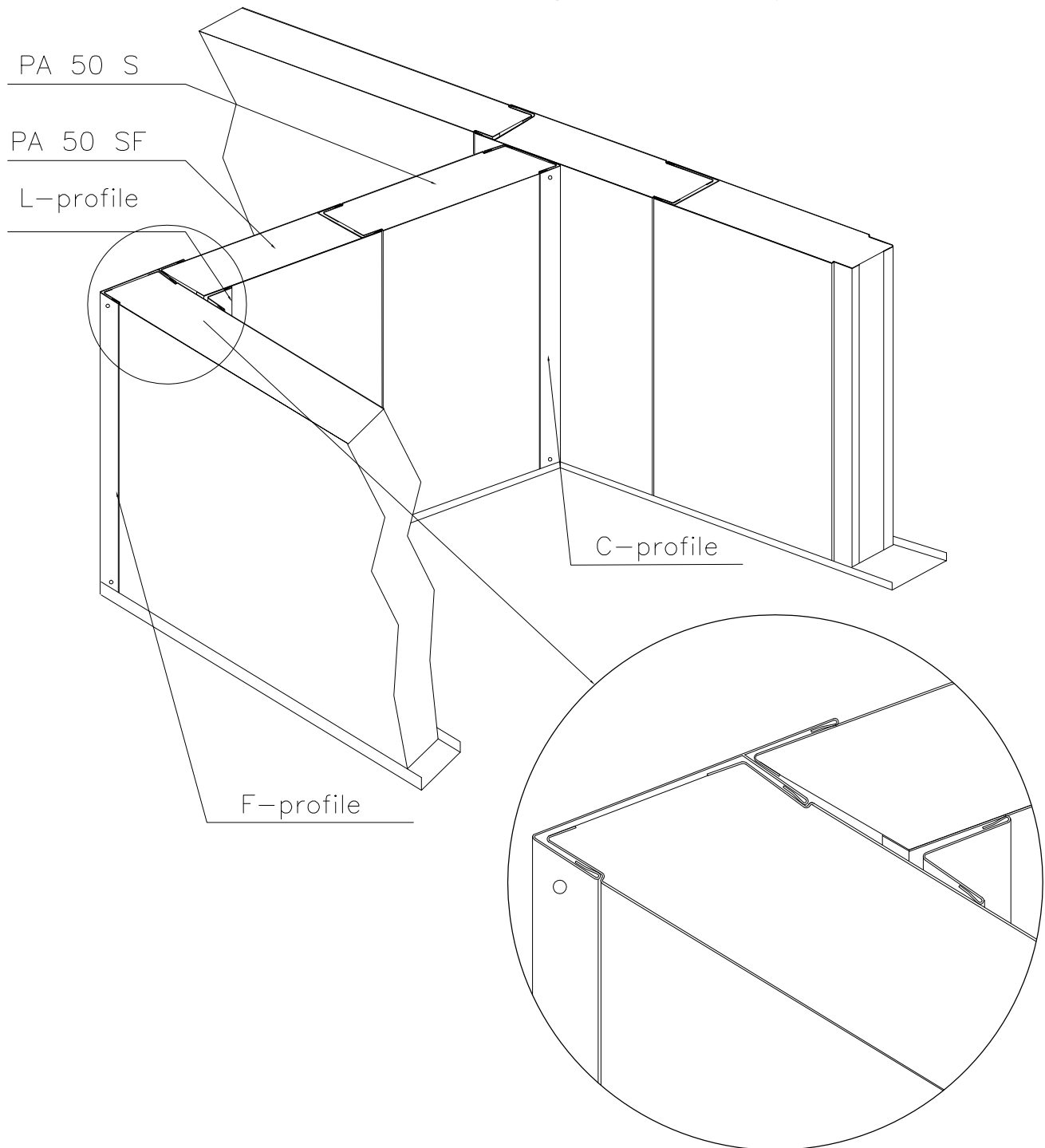
Start with wall panel No1 – in the compartment corner. Next fix C-profile to the wall panel with pop-rivets along and inside the profil. The third step is fixing wall panel No 2 (as is shown on the previous page). Build the wall along bulkhead. Next walls will be build according to design drawings.

Connect C-profile with wall panel by pop-rivets fastening inside the profile. Rivest shall be spaced aprox 500mm. Connect the wall panel with C-profile by using pop-rivets in the top of wall above bottom ceiling line and in bottom part, in the place below floor covering (carpet or PVC) line.



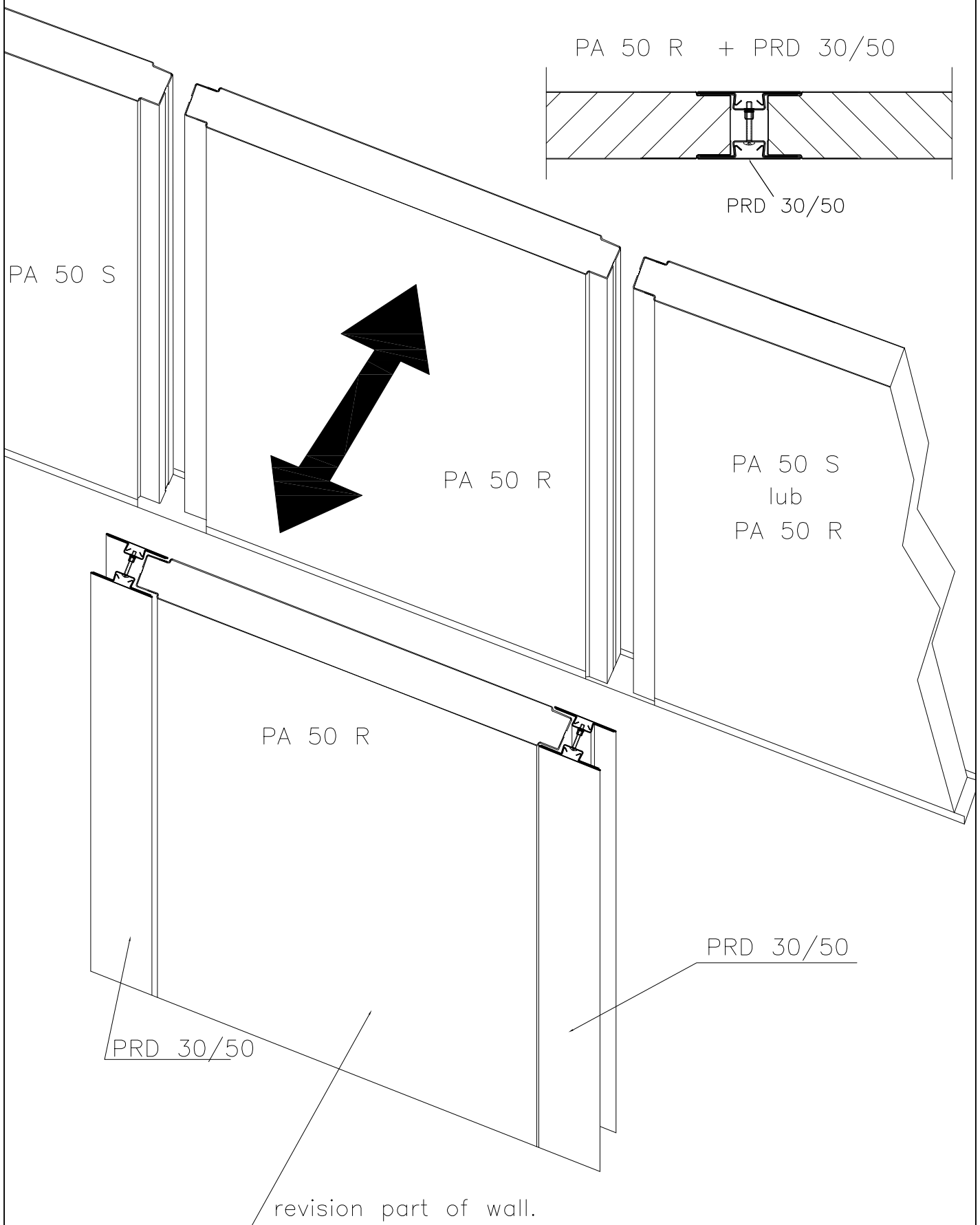
Standard and modular systems allow to apply wall panels with one end without joint part. This is useful for door frames fitting or F-profile using for connecting wall angles. There are two types of wall panels : PA 25 –50 SF and PA 25–50 SM. They can be apply according to situation on the board or according to design.

Partition fitting in standard system.

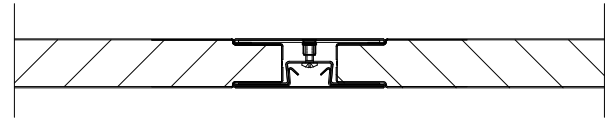


PA 25 R i PA 50 R wall panels are designed with integrated joint part for rapid assembly, adapted for fixing PRD 30/50 profiles for 50mm thick partition, and PRD 31/25 profiles for 25 mm thick lining for revision part of wall.

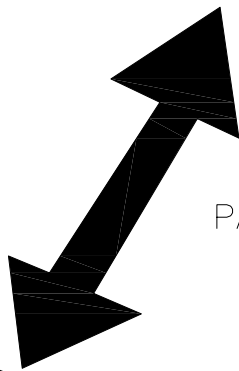
This way of panel fitting gives possibilities for later dismounting of adjoin panels for pipes or electric cables lines inspection etc.



PA 25 R + PRD 31/25



PA 25 S



PA 25 R

PA 25 S  
lub  
PA 25 R

PA 25 R

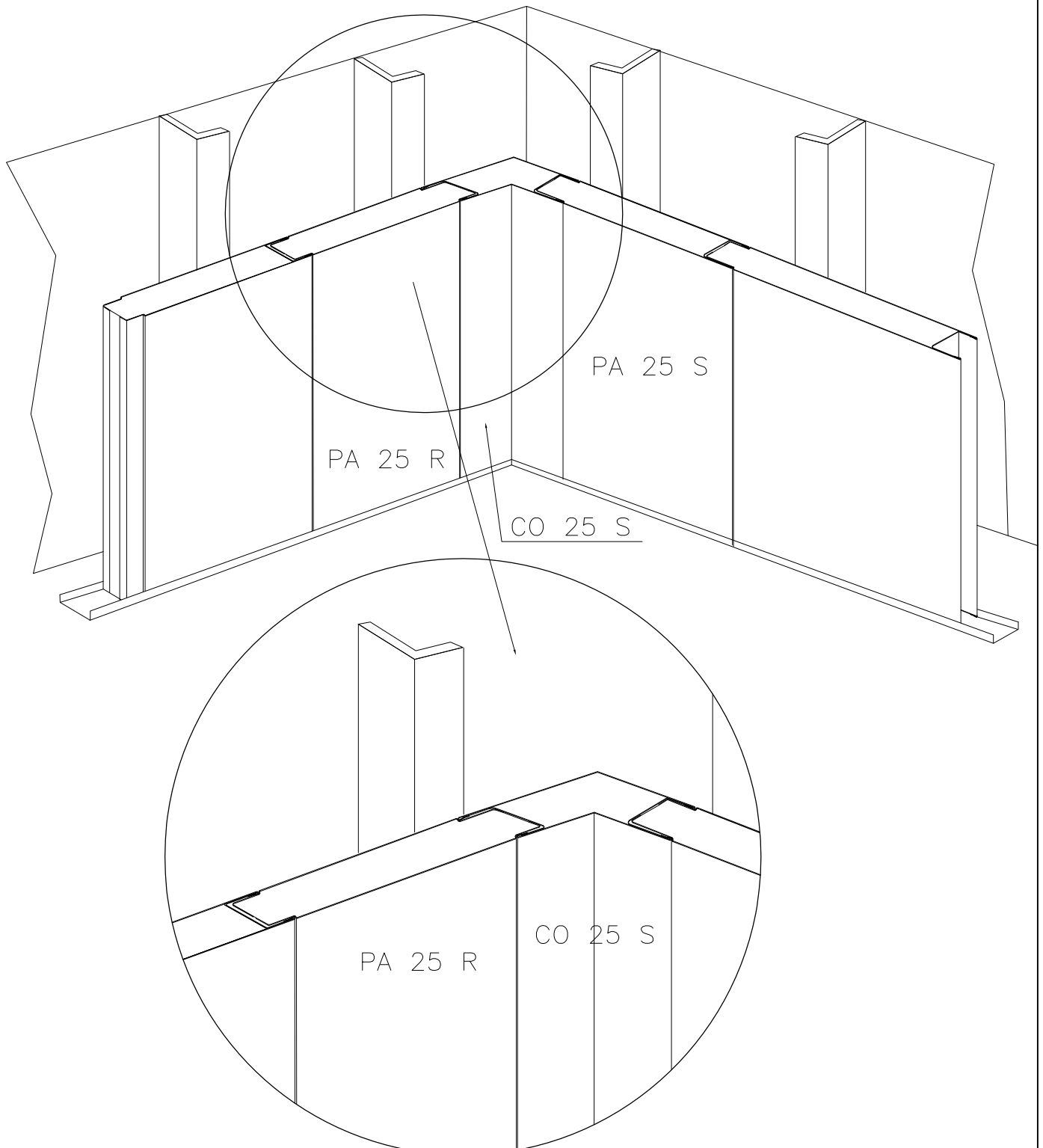
PRD 31/25

PRD 31/25

revision part of wall.

## 2.3. CORNER PANELS INSTALATION

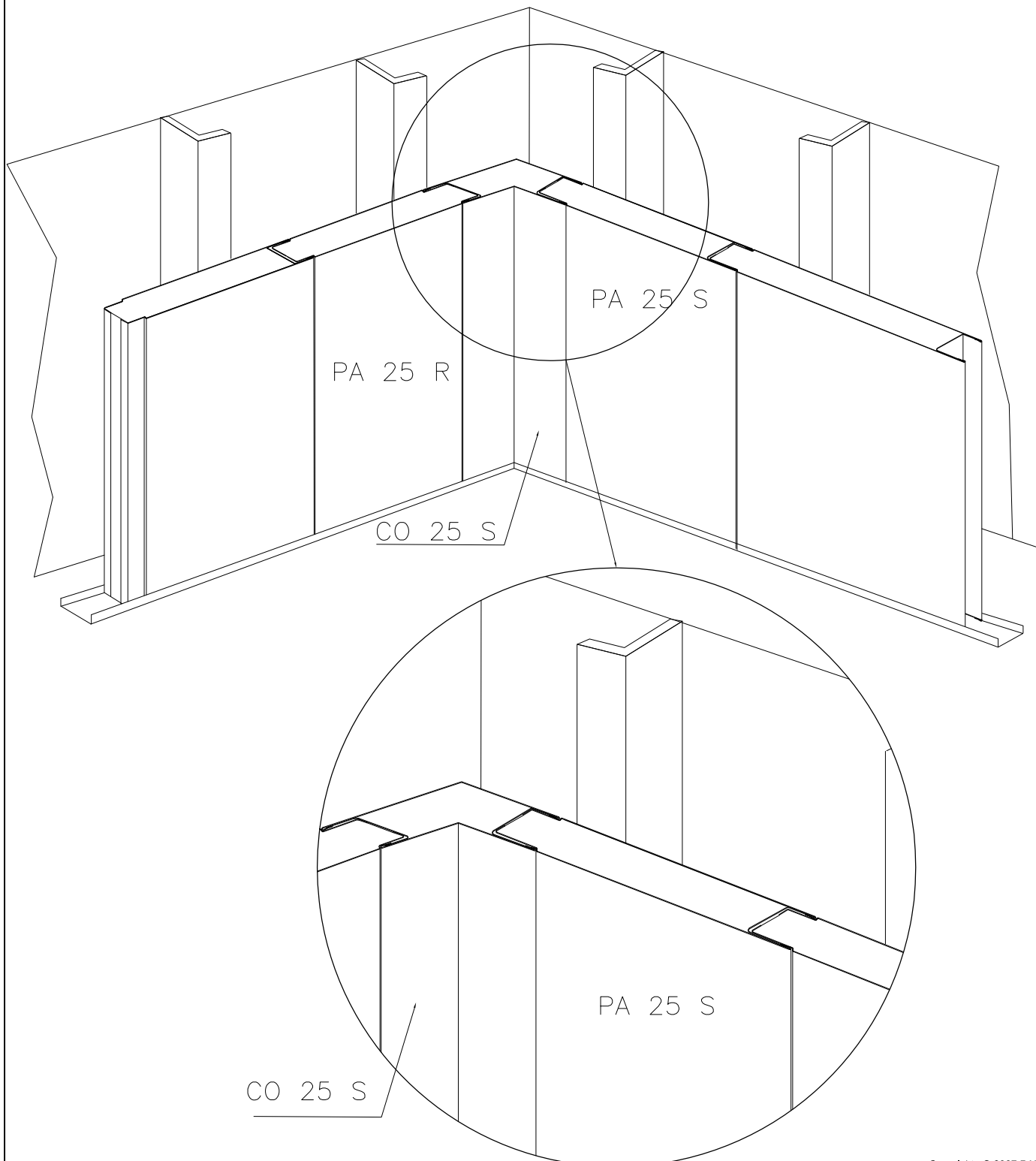
Corner panels C025S and C050S allow to finish compartment corners without decorative profiles as a part of lining/partition. This type of fitting gives stronger wall system connection.

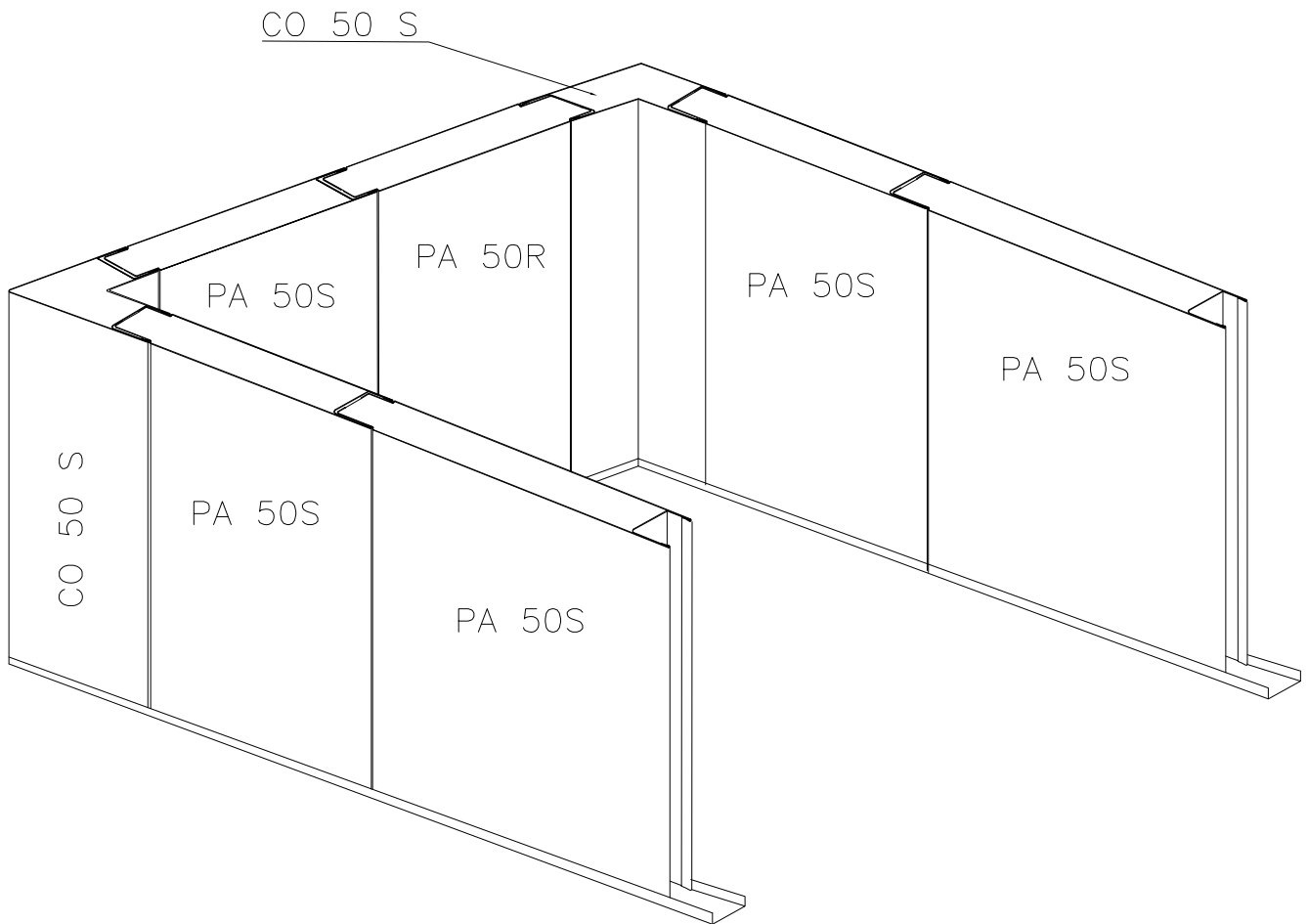


There are two possibilities to apply connect CO 25 S panels with wall modules:

- (1) with PA 25-50R,
- (2) with PA 25-50S.

In the same way is fitted CO 50 S panel (see page 6-B.13).





Corner panels C025S and C050S can be apply in standard and modular systems.

Corner panels COD25–50 can be apply in modular system for covering sanitary moduls or connect compartments without rectangular shapes. There are commercially available panels with different angles depend on design.

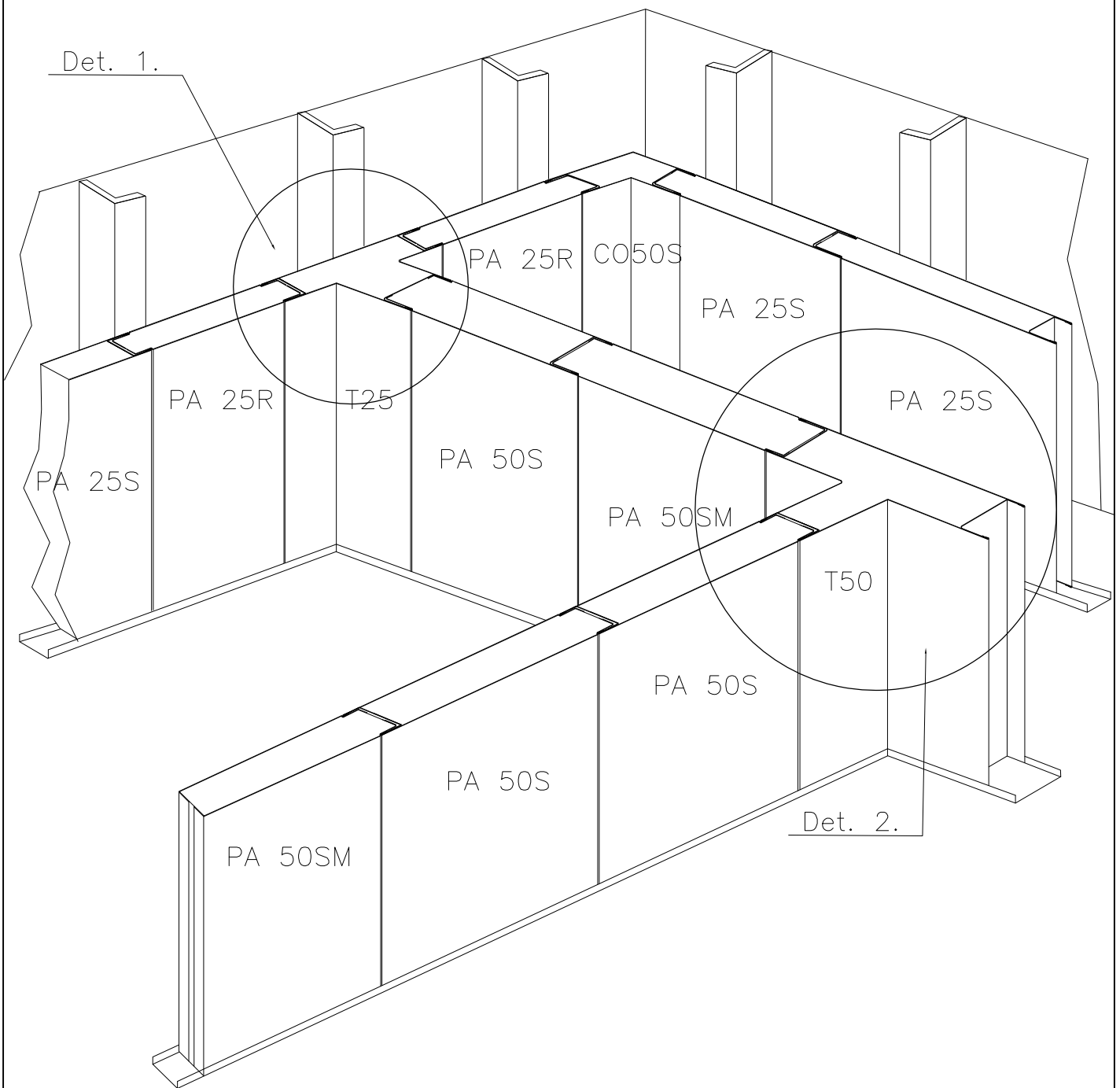
#### 2.4. T-JOINT PANELS INSTALATION

T-joint panels T 25 and T 50 allow to connect two compartments without decorative profiles as a part of lininig/partition. This type of fitting gives stronger and looking good wall system conection.

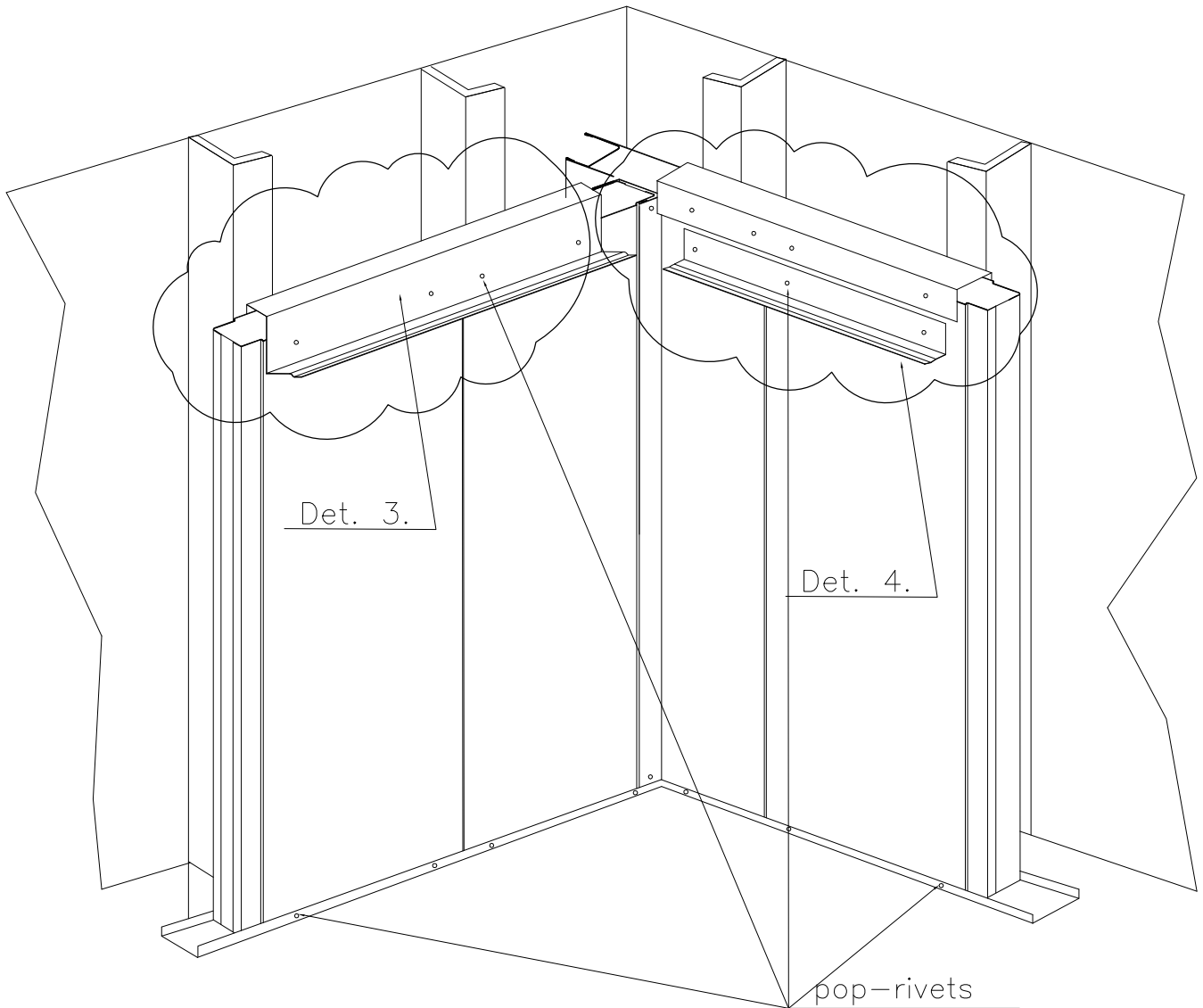
See examples on the page 6–B.14.

T25 panel allows to connect 25mm thick wall with 50mm thick wall. See Det.1 on the page 6–B.14.

T50 panel allows to connect 50mm thick wall with 50mm thick wall. See Det.2 on the page 6–B.14.



When wall panels are in correct places in bottom profiles, next step is fixing bottom profiles to wall panels by pop-rivets spaced approx 300mm. Then shall be fixed top profiles to wall panels by pop-rivets, spaced approx 300mm, the same like bottom profiles – minimum two rivets for one panel.

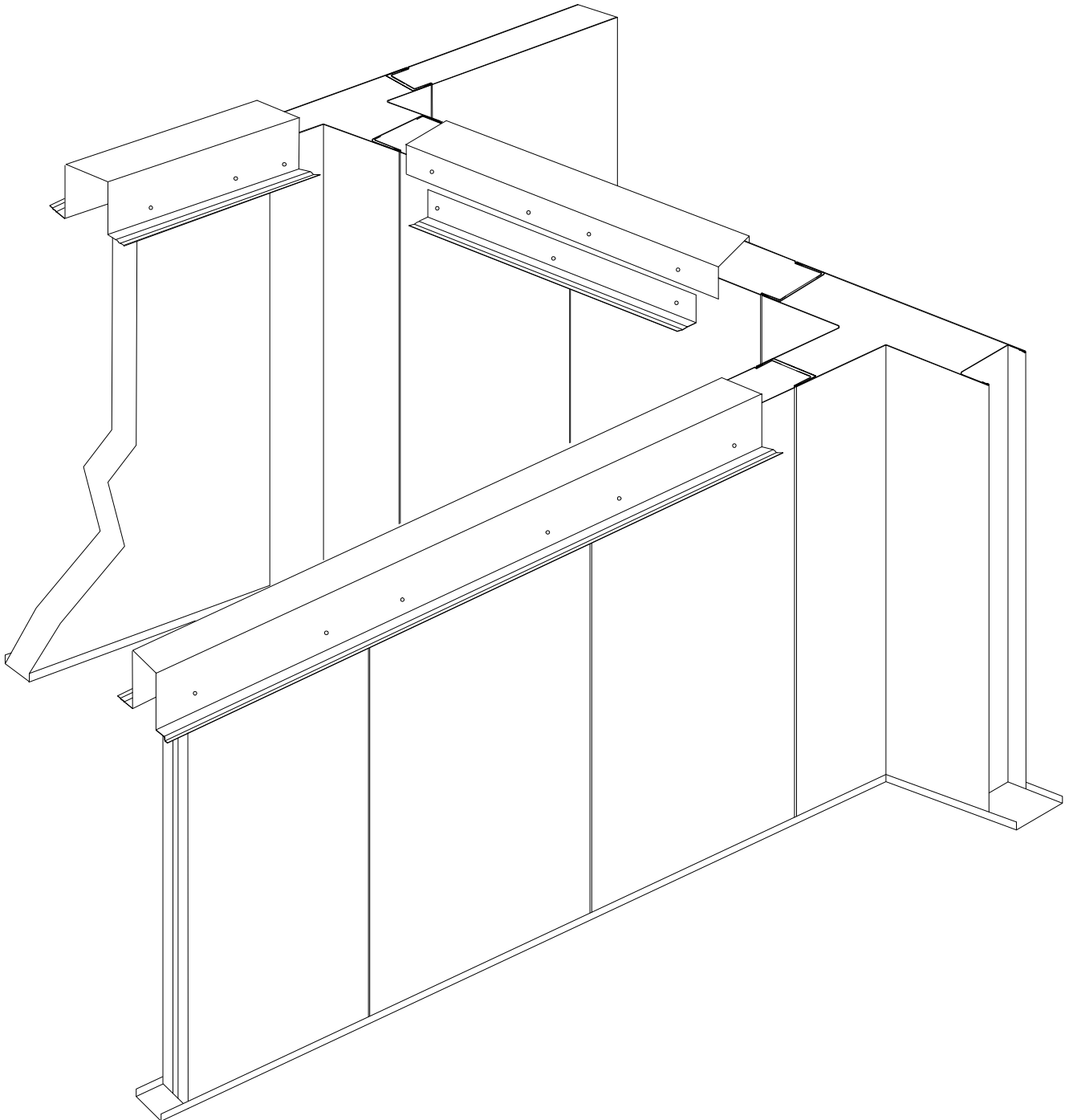


There are two types of top profiles: with angle bar for ceiling supporting integrated with C-bar (Det.3.) and set consists of C-bar and angle bar mounted separately (Det.4).

The set consists of C-bar and angle bar mounted separately (Det.4) is applied in places where is impossible to use integrated profile.

The profile exists as integrated profile (C-bar+angle bar) is simultaneously supporting for wall and for ceiling. Additional profiles are not necessary.

The type of top profile depends on the designer choice and situation on the board.



### III. CEILING PANELS INSTALLATION GUIDE

Ceiling panels CP 50 S are self-supporting modules.

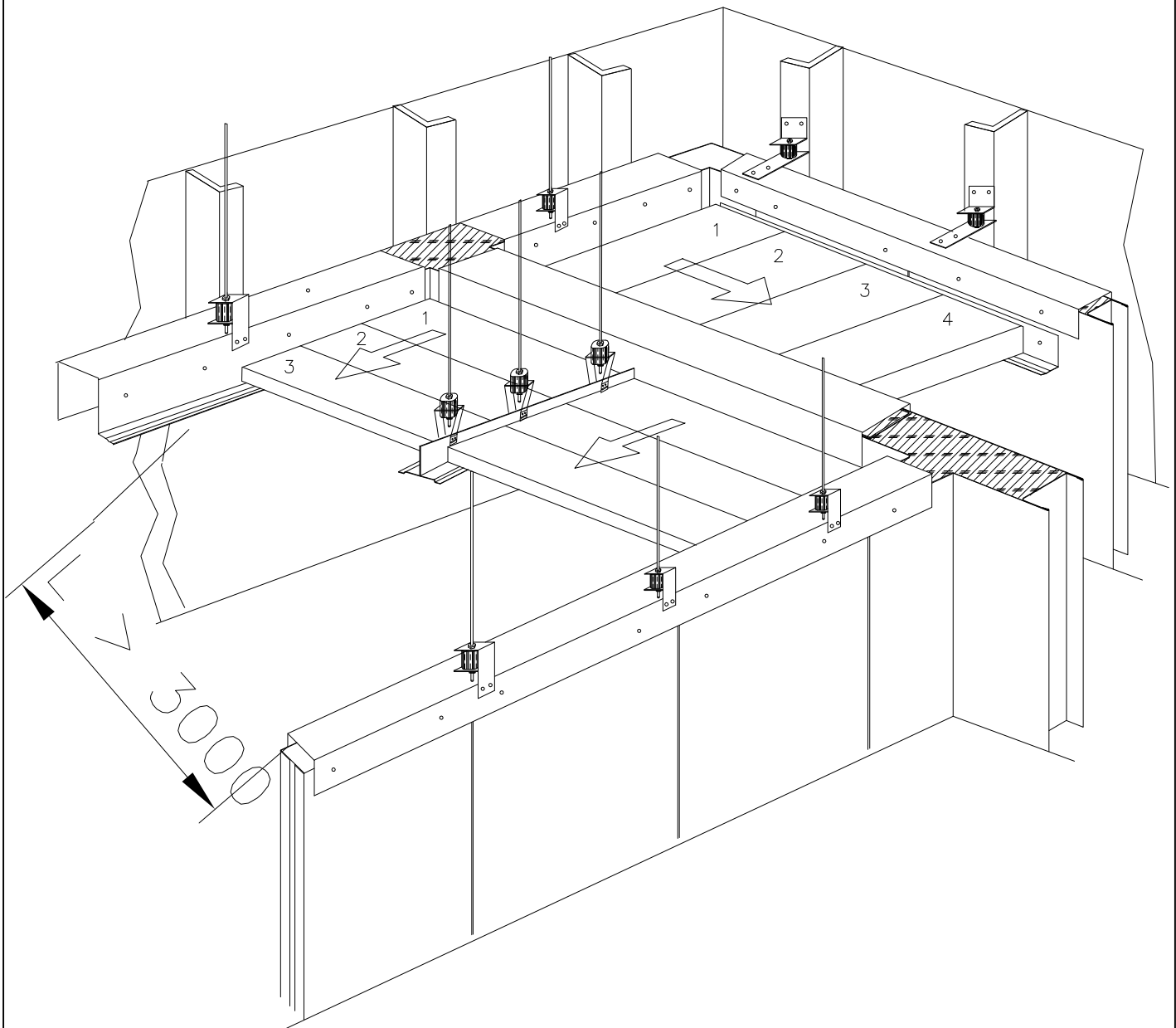
Sketch below shows direction of ceiling panels laying.

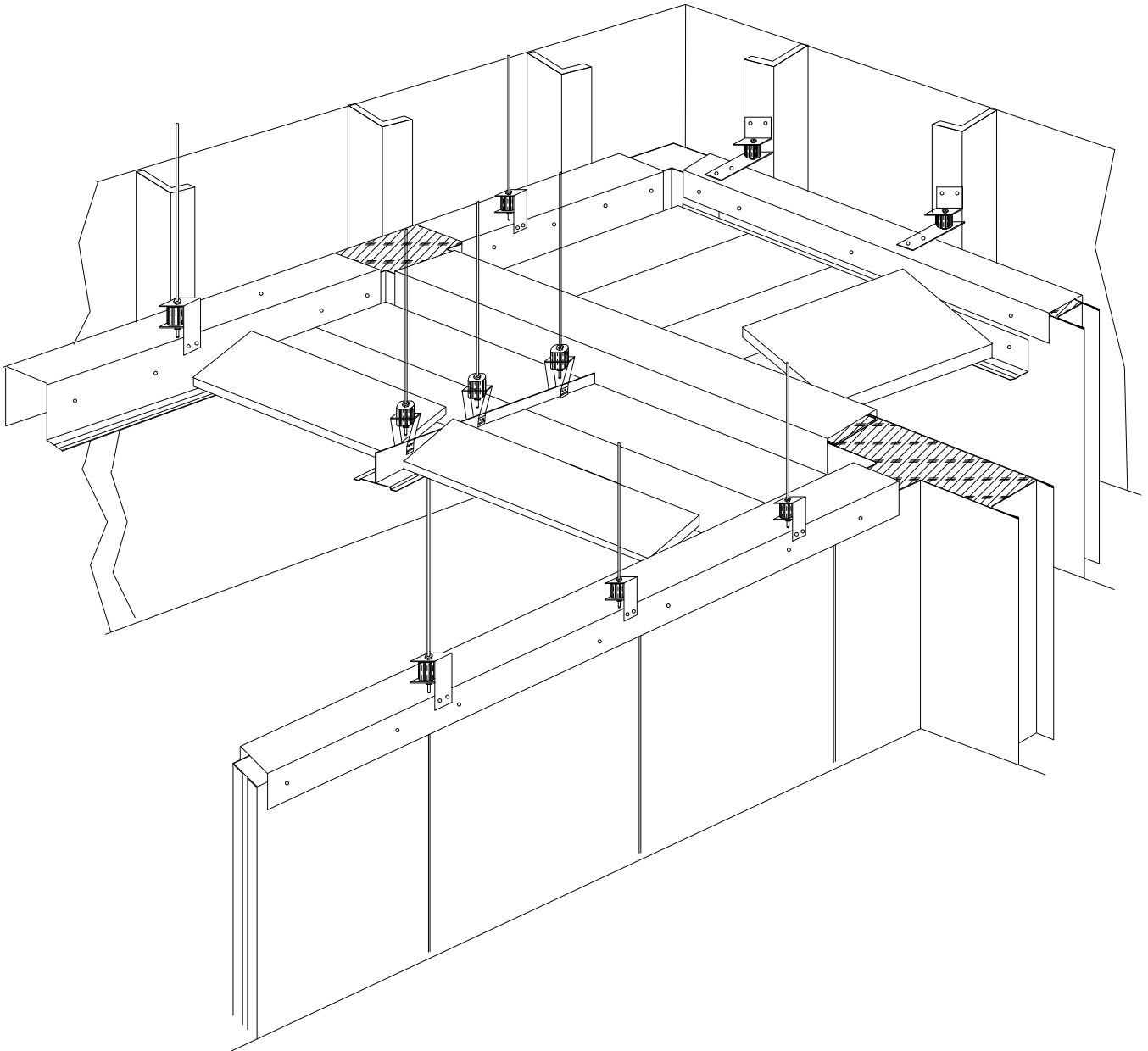
The type of ceiling panel is described in the design drawing.

Above the ceiling shall be minimum 50–70 mm free space for modules fitting.

There is recommended flexible type of ceiling hangers fixing.

The type of hanger depends on situation on the board and the designer choice.





#### IV. INSPECTION HATCHES INSTALLATION GUIDE

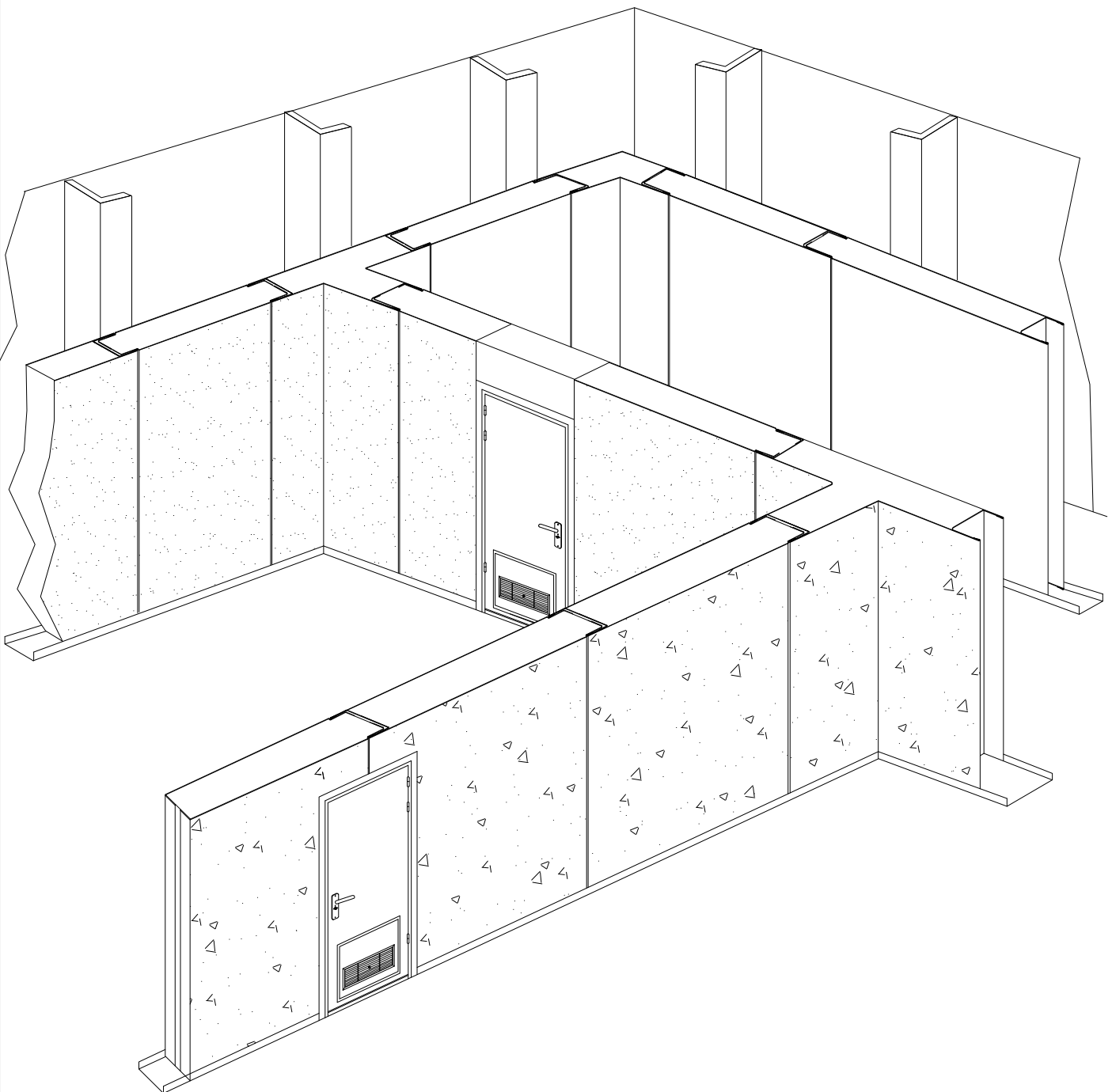
Position of inspection hatches is arranged according to situation on the board and authorities requirements. They are integrated part of lining. They are installed similar like door frames.

## V. DOOR INSTALLATION GUIDE

Doors positions are determined by the designer on the drawing.

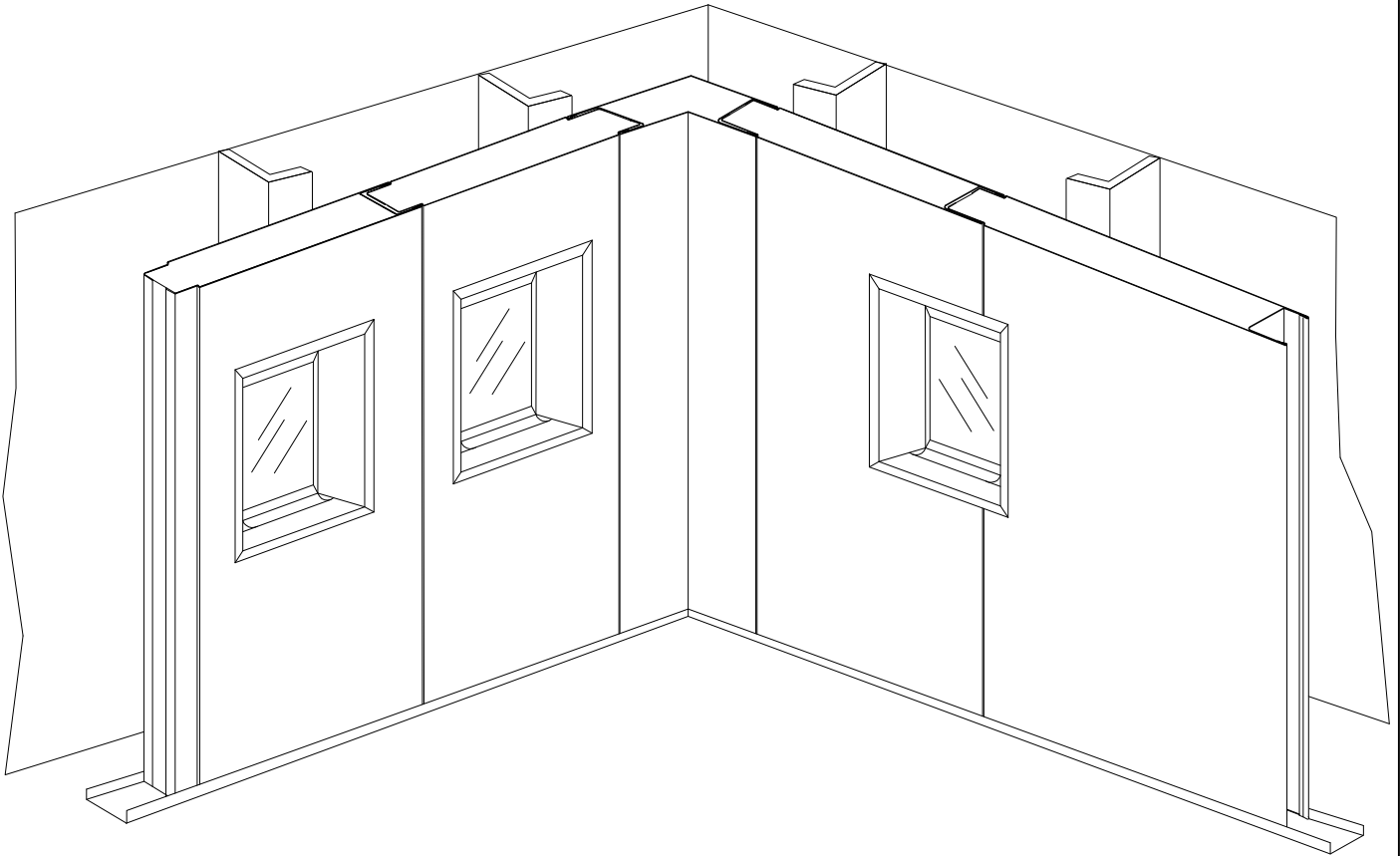
The door frame height can be the same like wall panels height or standard height determined in the producer catalogue.

The width of adjoining panels depends on the situation on the board. If there are applied standard height door, frame can be lower than adjoining panels. In that case door frame shall be fitted with cut panels above the frame – see examples below.



## VI. WINDOW BOXES INSTALLATION GUIDE

Window boxes are fixed into standard panel. The hole for box has to be cut in the lining panel directly opposite window welded or screwed to the ship's bulkhead. See examples below.



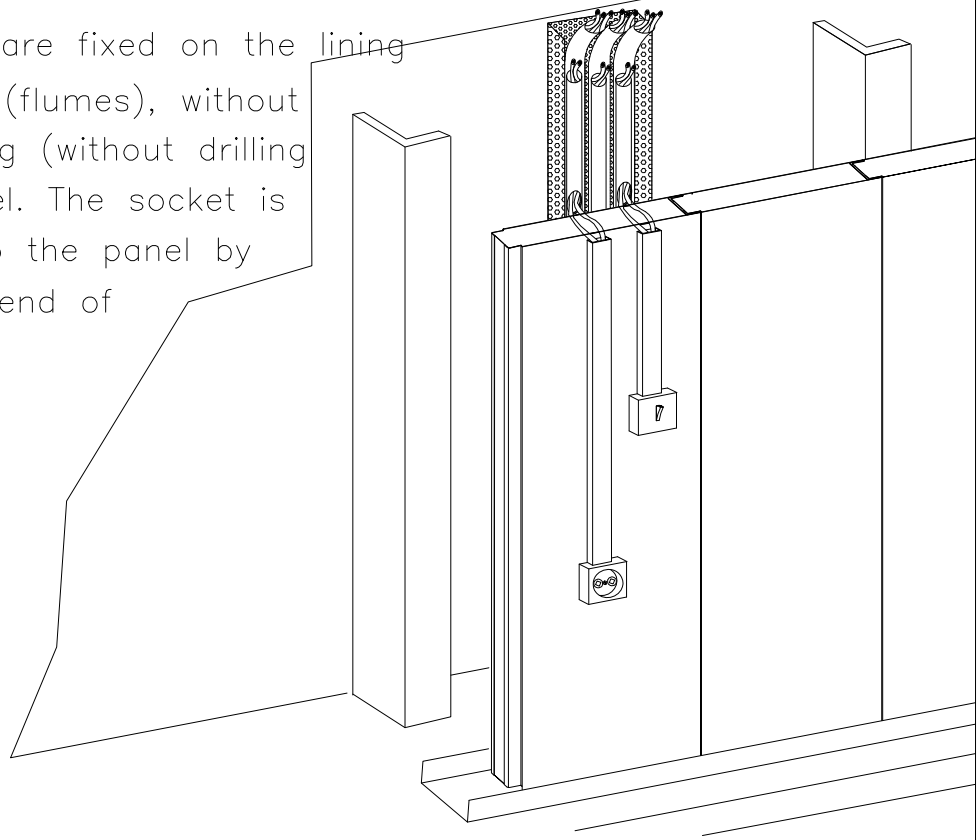
## VI. ELECTRIC WIRES INSTALLATION GUIDE

Electric cables normally are fixed in cable trays welded to the ship's side or ship's bulkhead. Wires ways in cabins can be visible, (cables are fixed in electric cables boxes (flumes) going on a panel surface) or invisible (inside the panel or behind wall panel).

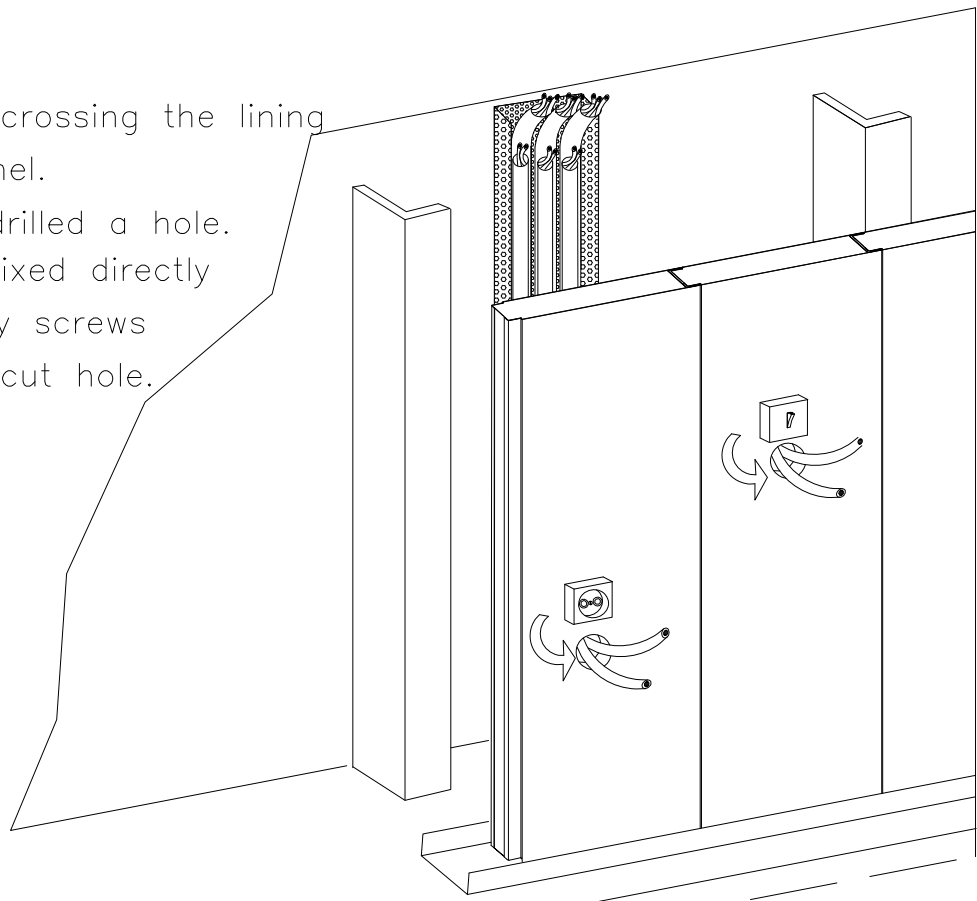
Visible or concealed cables fitting variant depends on Authorities or Owner requirements. Cables concealed solution has two variants too. For both solutions corresponding holes shall be drilled through the panel for socket fixing. The hole diameter depends on socket dimensions. For invisible electric cables one solution is when wires are fixed behind the panel and the end of cable crossing the panel for connecting with socket; next solution is when cables passing the wall panel inside the panel, in special cables ducts. See examples on the pages 6-B.21 and 6-B.22.

VARIANT I

Electric cables are fixed on the lining in cable boxes (flumes), without necessity cutting (without drilling holes) the panel. The socket is fixed directly to the panel by screws at the end of flumes.

VARIANT II

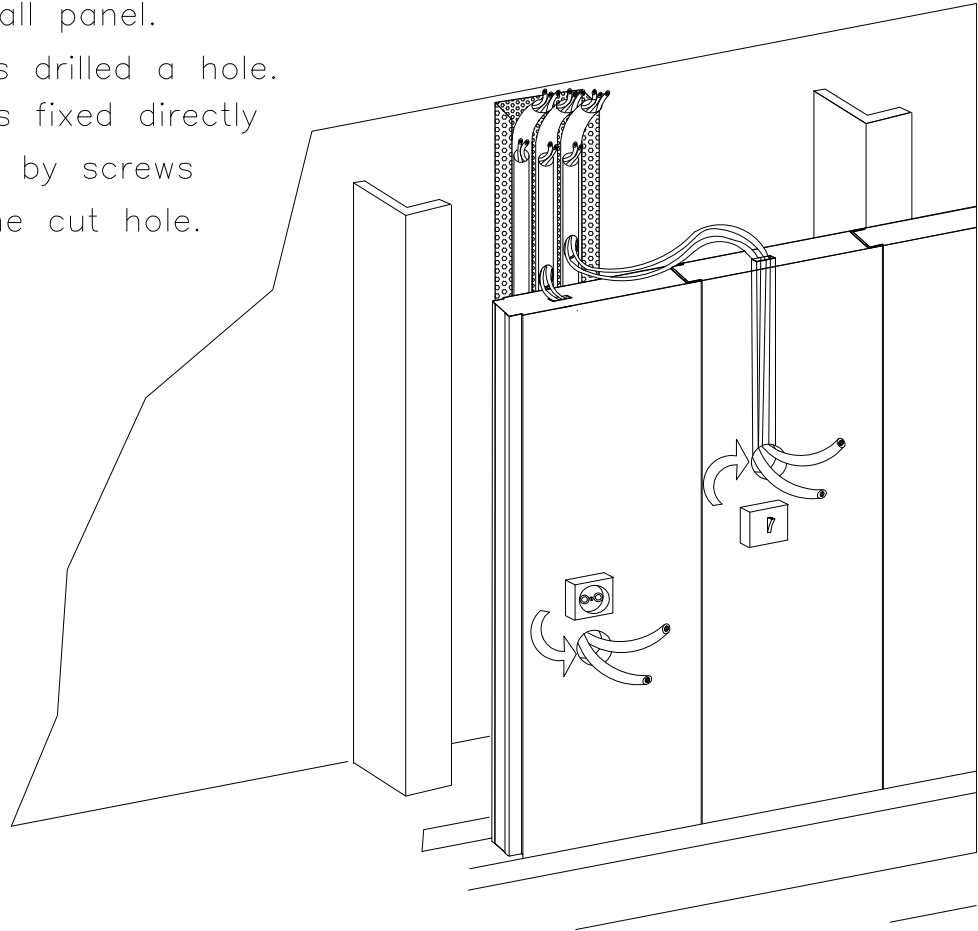
Electric cables crossing the lining by the wall panel. In the wall is drilled a hole. The socket is fixed directly to the panel by screws and cover the cut hole.



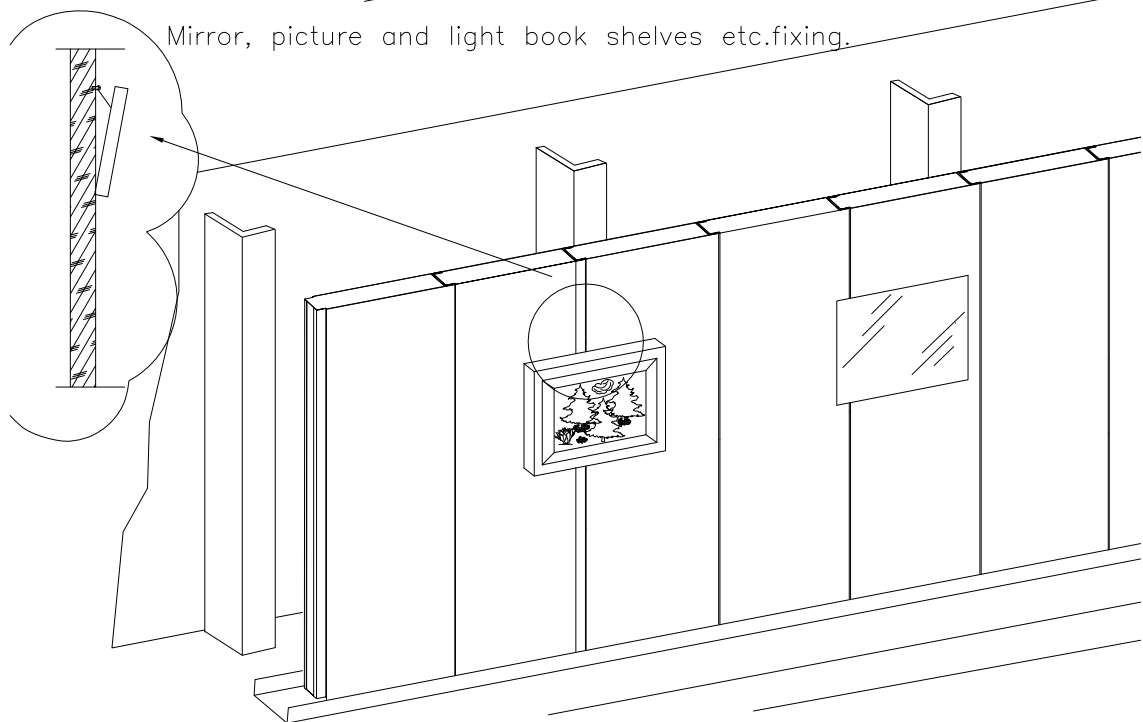
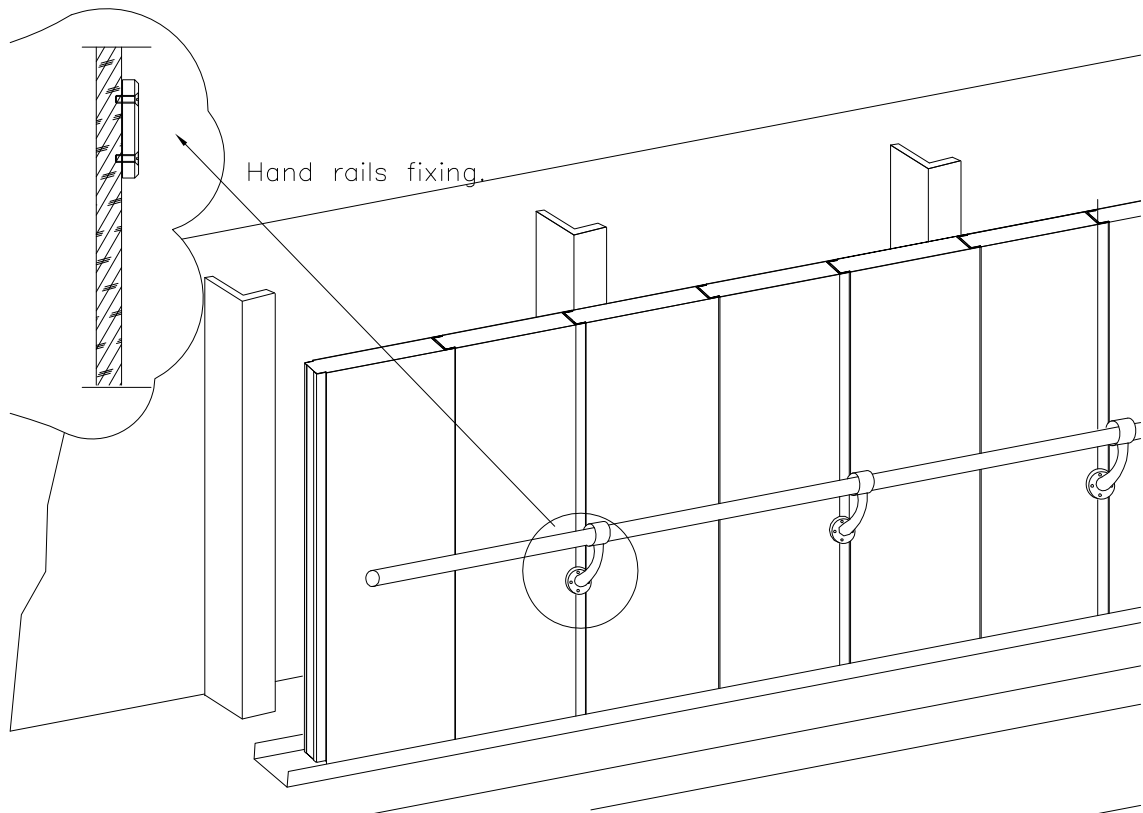
VARIANT III

Electric cables passing the lining inside the wall panel.

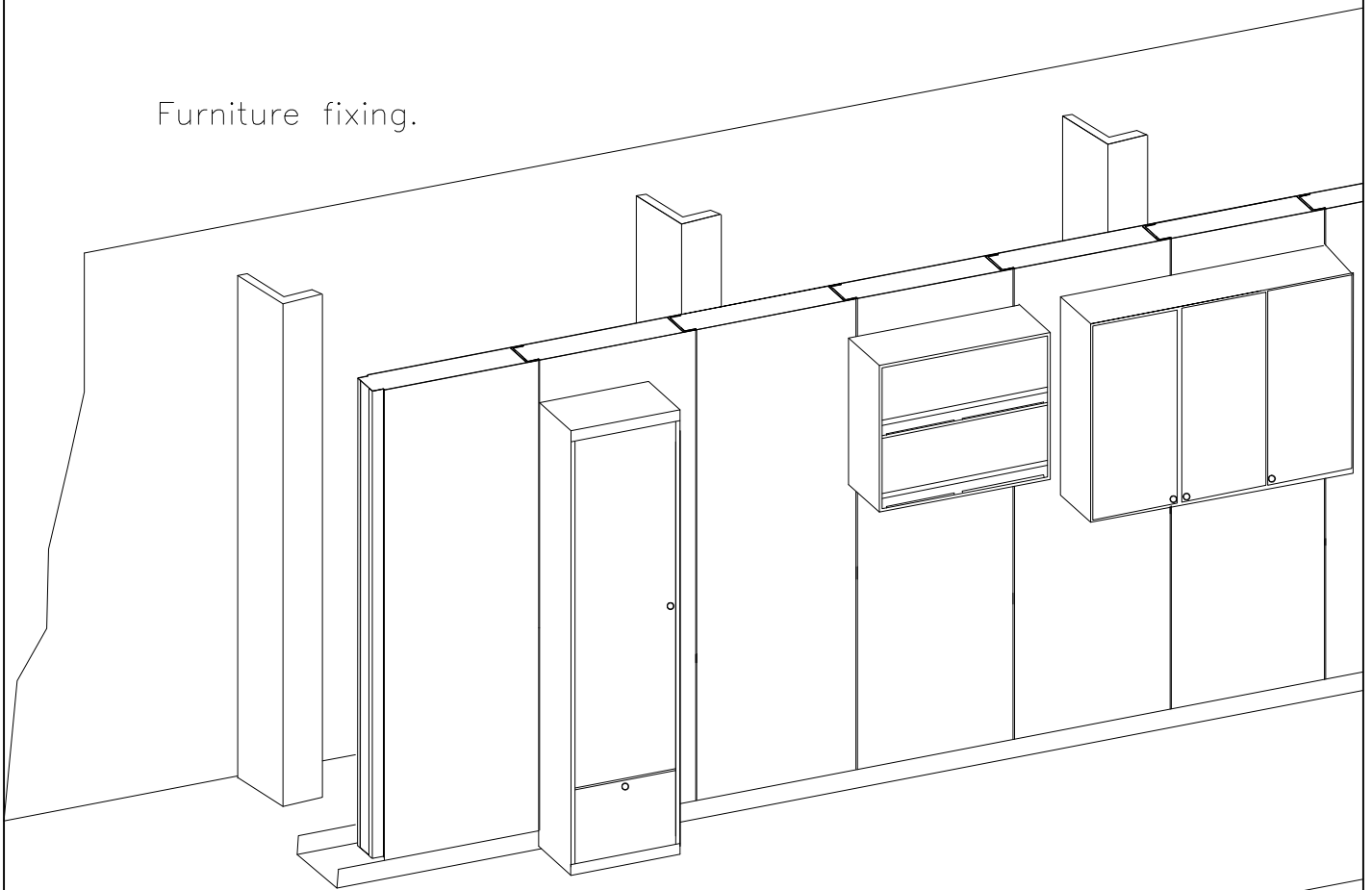
In the wall is drilled a hole. The socket is fixed directly to the panel by screws and cover the cut hole.

VII. COMPARTMENT'S EQUIPMENT INSTALLATION GUIDE

The equipment such as hooks, mirrors, pictures, light, book shelves, hand rails etc. can be fitted easily directly to the wall panels with screws. Heavy equipment requires special reinforcement inside the wall panel or behind the panel. Special foundations behind the panel are fixed by shipyard according to designer drawings and specifications. Fixing of the light equipment shall be by screw in panels' joining area. There are the strongest places of lining/partition. Wardrobes, berth, writing tables are screwed directly to the wall panel too. See examples on the page 6-B.23 and 6-B.24.



Furniture fixing.



Hand washing basin fixing.

