



Isolamin

**INSTALLATION
MANUAL**

BUILDING / INDUSTRY

**ISOLAMIN FLEXIBLE
WALL SYSTEM**

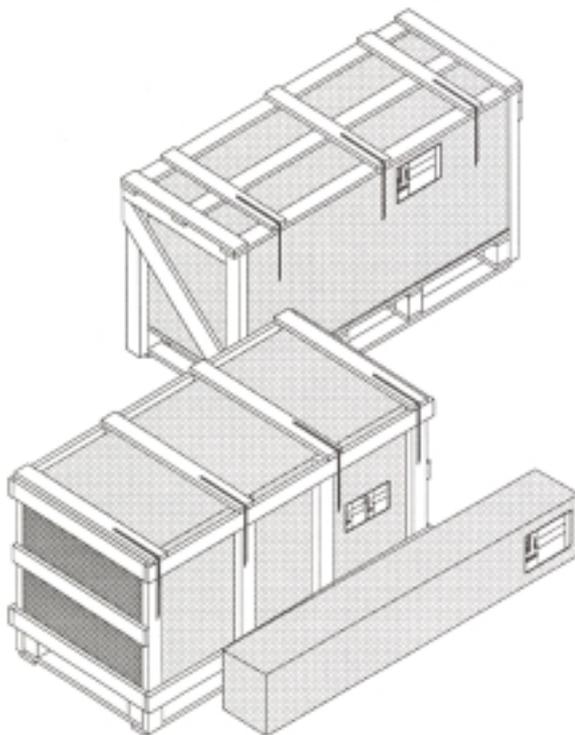


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INSTALLATION MANUAL ISOLAMIN FLEXIBLE WALL SYSTEM

The **Isolamin** order acknowledgement with accompanying specifications and markings in conjunction with the design drawings and packing list from the basis of the assembly work.

Packing.



Panel Packaging.

Crates containing Isolamin panels. The size and quantity of the panels/crates corresponds to the thickness and length of the contents.

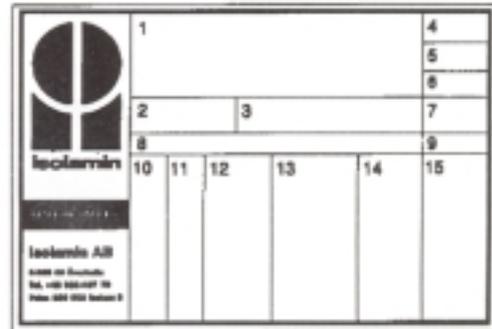
Profile Packaging.

Paper boxes with or without wooden reinforcements depending upon the number of profiles per box.

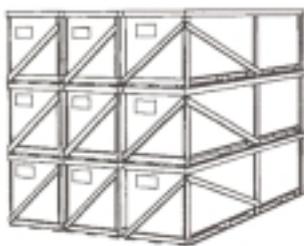
All Isolamin panels are packed in crates. Profiles are packed in paper boxes with wooden reinforcements. The maximum load on such box is normally 700 kg.

Smaller quantities of profiles are supplied in paper boxes and paper postal tubes.

This manual contains technical information that is based upon years of experience in the field of element structure. The information in this manual is intended to assist our customers and allow them to make full use of the advantages offered by the quick and easy installation of our products.


Storage.

The crates should be stored indoors and handled with a forklift truck.


Right!

Wrong!

A maximum of three full-size crates may be stacked on top of each other. Avoid stacking crates of different lengths on top of each other. Each crate is labelled on one short and one long side.

Marking.

The label contains the following Information:

- Customer order No.
- Delivery address.
- Isolamin order acknowledgement No.
- Exact contents.
- Special markings upon request e.g. section No. Or Wall No.

The fields on the label are as follows:

- 1) Consignee.
- 2) Customer marking.
- 3) Dimensions (LxBxH).
- 4) Package No.
- 5) Gross weight.
- 6) Net weight.
- 7) Contents.
- 8) Volume.
- 9) Order No.
- 10) Item.
- 11) Number of items.
- 12) Product.
- 13) Dimensions (mm).
- 14) Colour.
- 15) Notes.

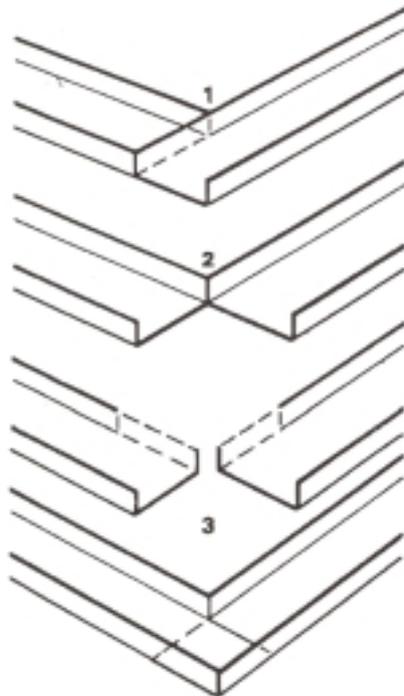
Tools and implements.

In addition to the tools that are normally available at a construction site, the equipment listed below may be useful during the installation phase:

Fork-lift truck (2-3 tonnes)	Nibbling machine
Profile rack	Vacuum handles
Spirit level	Drilling machine
Level	Sheet-metal shears
Measuring tape	Rubber mallet
Chalked string	Popriveter and pop rivets
Nailgun and nails	Folding tongs
Jig saw	Mitre box
Small band saw or circular saw	Screw driver

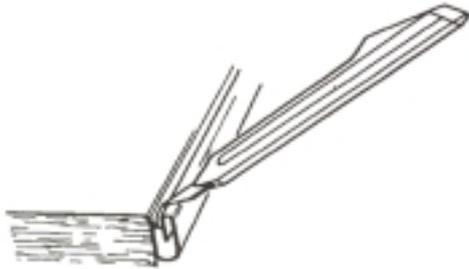
Preparation.

The position of the element, measurements and such like are shown on the design drawings. We recommend that you have a cutting station close at hand at the construction site. Unpack all the profiles and place them on a rack.

**Floor profiles.**

Use a chalked string to mark the positions of the floor profiles. Cut the profiles to suitable lengths with end pieces tailord to fit the corner connection as required in accordance with the diagram or the drawings in question.

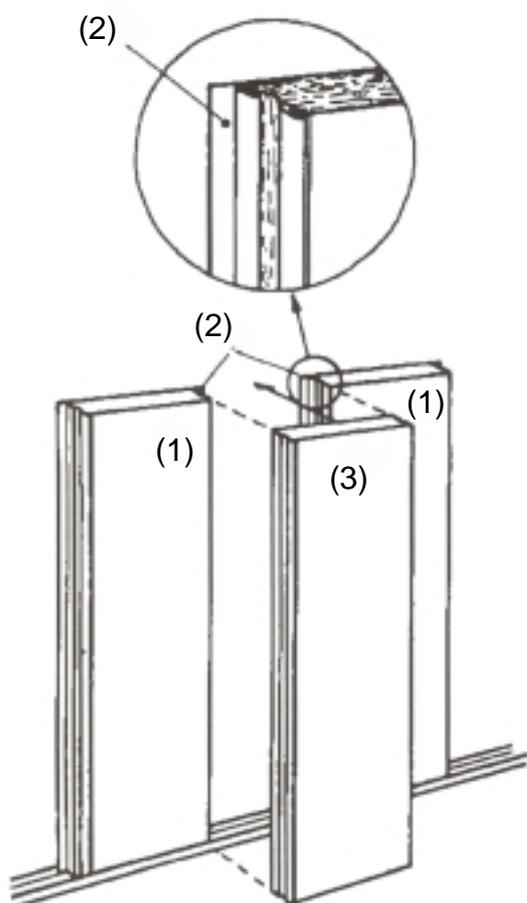
Before fixing the profile to the floor be sure to check all angles and measurements carefully.

**Panel erection, C-joint panels.**

Panel dimensions, colours and such like can be found on drawings and specifications. We recommend that you remove the protective foil from the C-joint before installing the panels. This should be done by cutting the foil with a sharp knife and a light touch. Cut on the inside of the joint and make sure that the cutting line is below the bend. The protective foil should be removed before the PR11 joint profile is locked into place. The joint profile may cause the foil to be pinched and there may be foil left in the joint after installation. Use the top of the C-joint as a support for the cutting blade. The foil should be removed immediately when erection takes place in bright sunlight. Sunlight may cause the foil to adhere to the panel surface and will be very difficult to remove.

**Lining up the panels.**

The C-panels should normally be mounted vertically. We recommend that you use a spirit level to get the panels as upright as possible.

**Installing a C-panel when its back is not accessible.**

A PR11 joint profile cannot be used when the back of a panel is not accessible during installation. Two PR12 profiles should be attached to every other panel if either 50 or 80 mm panels are used as lining. The following installation instructions apply to 50 and 80 mm panels with a C-joint on the back as well.

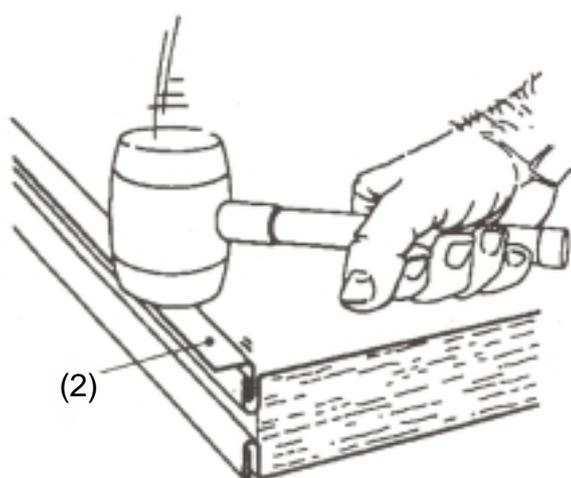
Begin by erecting two panels (1) with PR12 (2) profiles mounted on the back of each long-side edge.

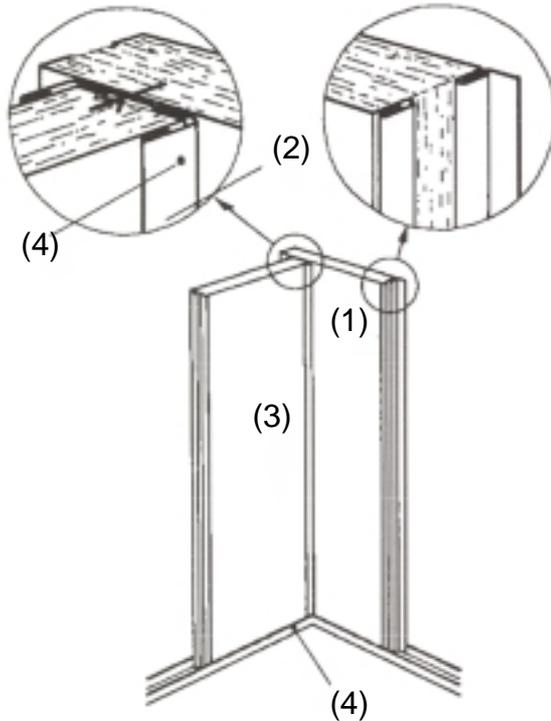
Leave a space large enough for one panel in between the panels. Mount a panel (3) without using PR12 (2) profiles in between the first two panels.

Fix the panels with the mounted PR12 profiles to the floor profiles using pop rivets.

Follow the same procedure for the entire wall and then mount the PR11 joint profile on the visible side of the panel.

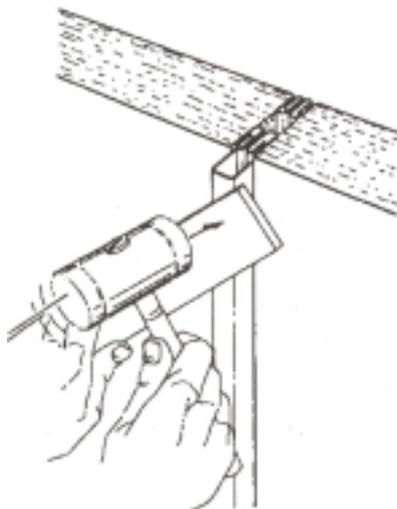
Erecting panels in this manner permits the dismantling of every other panel for inspection and other purposes.



**Attachment.**

Start with a lining panel (1) in a corner and fix the actual corner profile(s) (2) with either pop rivets or selftapping screws. Continue with the next panel (3) on the adjacent perpendicular wall. Fix the perpendicular panel to the first panel by means of pop rivets or screws through the profile(s) into the panel.

Locate the fixing points at the top and the bottom (4). This will allow you to create a free-standing corner. Continue with the next panel, which is installed with a PR11 joint profile.

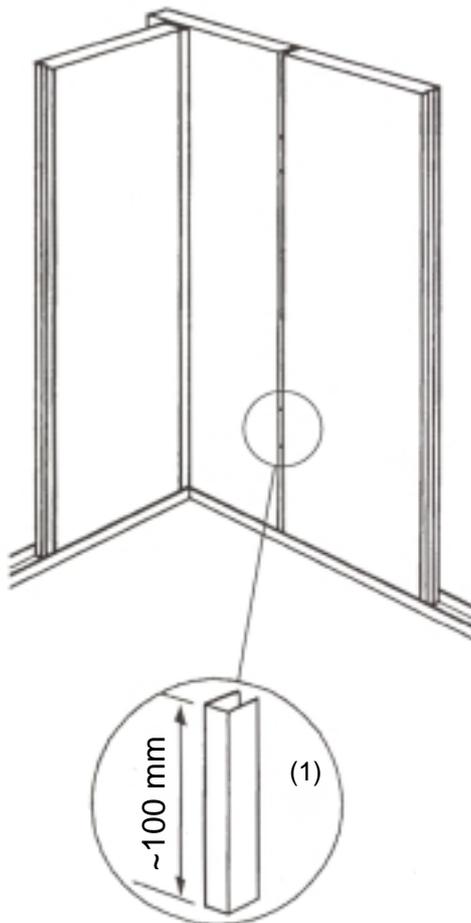


The entire length of the PR11 joint profile should be tapped into position from the top on downwards with a rubber mallet. Make sure that the surface of the mallet head is smooth and that it does not leave any marks.

Use a straight-edged piece of wood for protection when tapping the PR11 joint profile into place.

Installing a wall fast.

Using a temporary PR11 (1) measuring 100-120 mm in length can be an alternative instead of directly installing the full length PR11 when erecting panels.



By using the short pieces of PR11 during installation, the panels will be correctly positioned and a panel can also be easily removed in order to facilitate pipe inspection and other necessary work later.

It is also possible to make minor adjustments to the position of individual panels in a row before the full length PR11 is installed.

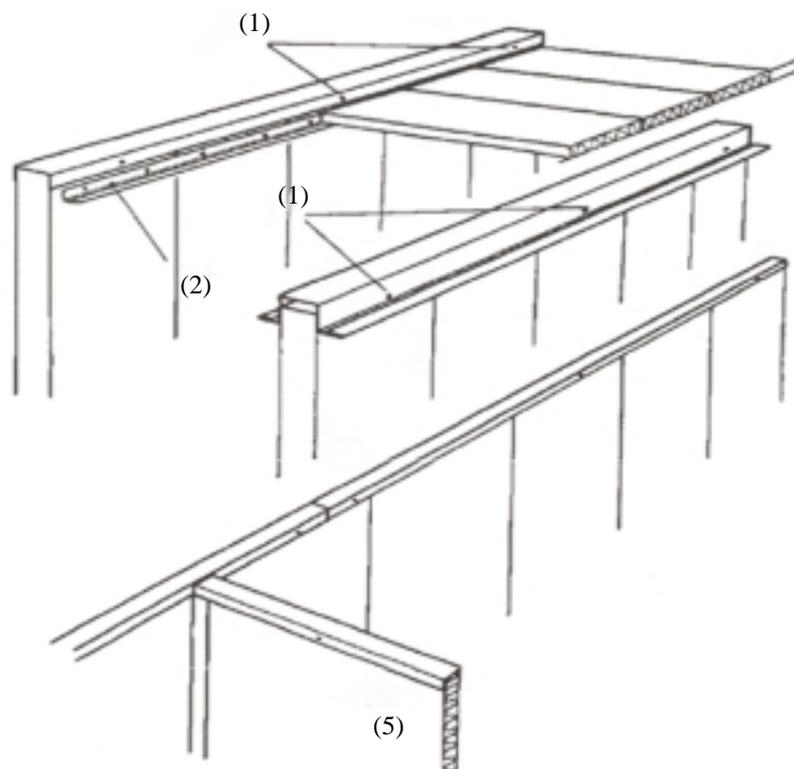
The temporary PR11 makes it possible to erect panels in a very short period of time. After the panels have been installed, remove the shortened PR11 pieces and install the full length profiles in the manner described earlier.

Important !

For correctly position of panel during installation.

Top profiles.

When five panels have been erected in a row, the top profile should be fitted and fastened with a pop rivet or self tapping screw (1) in every second panel. The type of ceiling determines the type of top profile. The design drawings will contain this data. The PR21 in the illustration (2) is an example of a ceiling-support profile that can be used advantageously when ceiling heights dif'.

**Connecting a partiton.**

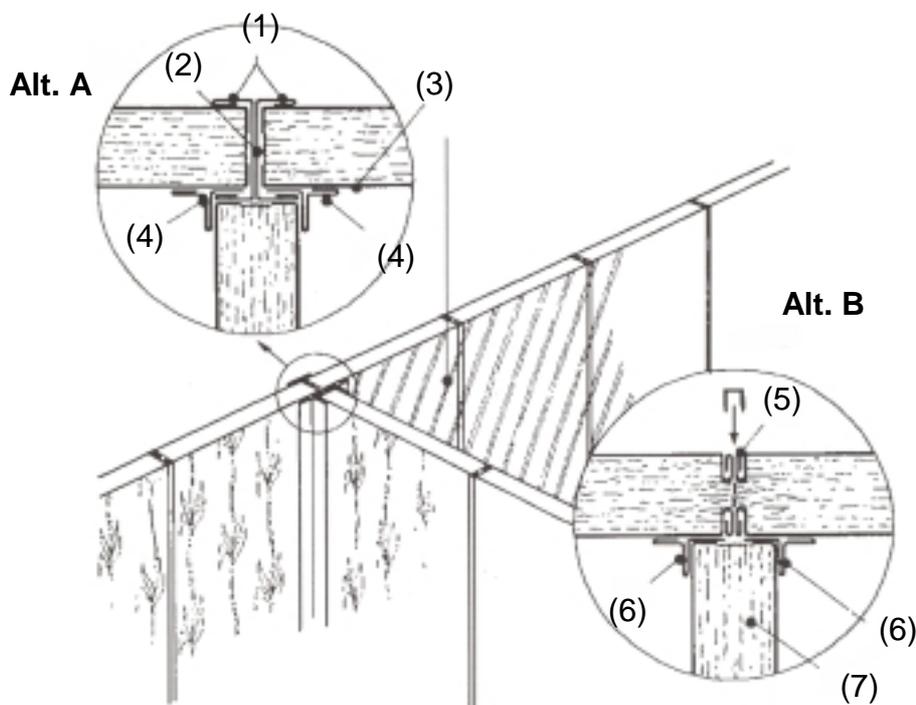
Continue with the erection of the panel until you pass the point where a connecting crossing partition (5) is to be erected. Erect one panel of the connecting wall (5) in order to stabilise the external wall. Look and see if the colour of the room is different on the other side of the crossing partition. If it is, refer to alternative A or B in the chapter entitled "*Alternative arrangements when decor changes from room to room*".

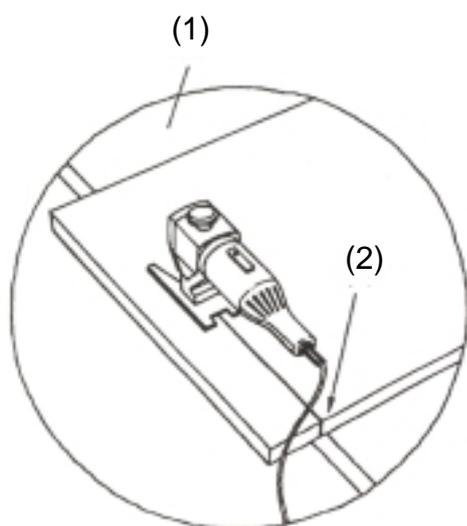
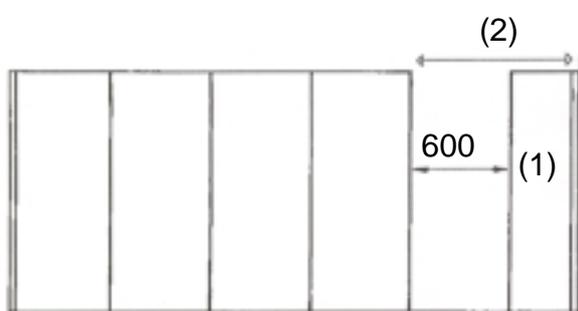
Alternative arrangements when decor changes from room to room.
Alternative A.

Fix two PR36 (1) back to back. Cut the panel where the centre of the partition will be located (2). Install the two PR36 profiles on the cut surface and continue with the panel that has a different decor (3). Use PR32 profiles (4) on each side of the perpendicular wall. The décor should correspond to the respective room. Press the flanges of PR32 profiles between the flanges of each PR36 profile and the panels. Fix the PR32 with pop rivets through the PR36 profiles, the PR32 profile and surface sheet of the panels. Erect the first panel of the dividing wall by inserting it into the opening between the two PR32 profiles.

Alternative B.

If the decor changes it can be located at a standard C-joint (5). Simply fix the PR32 profiles (6) with matching decor on each side of the joint. In both cases, the first panel of the dividing wall (7) can either be a cut or a whole panel. With a little planning and by using a partition wall cut to a prescribed width, the joints of the partition wall can be adjusted so they line up with the ceiling joints providing that the ceiling is mounted perpendicular to the partition wall and that the ceiling conforms to standard measurements.





Connecting a standard wall.

All the panels that belong to a standard system are available in standard widths. This usually means that the last wall panel has to be cut. The width of the last panel (1) will most likely be indicated on your design drawing. However, we recommend that you double check the measurements on site. This should be done before the last full-width panel is installed, i.e. the building measurements (2) should be greater than the width of the module. Please note that a building measure is arrived by measuring from the centre point to the centre point of the joint profiles designated as PR11. The next to be last panel must be installed after it has been cut to the right width and erected prior to installing the last full-width module panel.

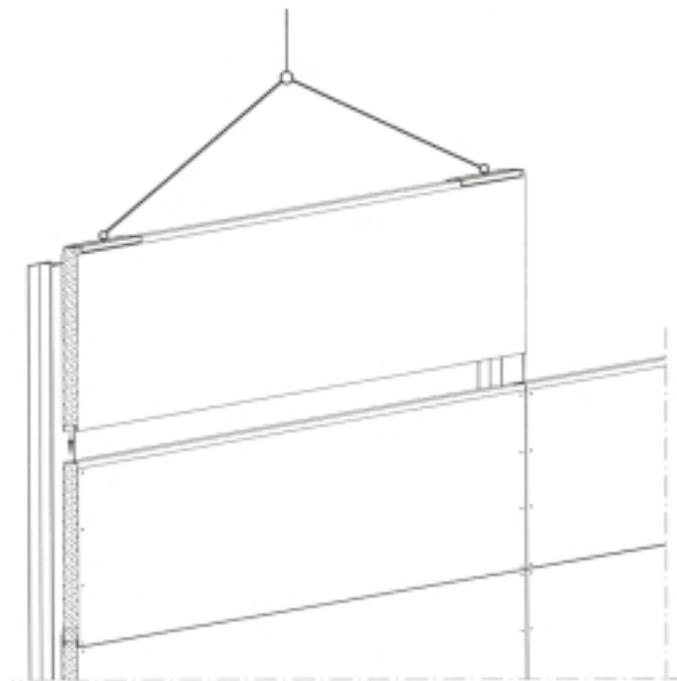
We recommend the use of vacuum handles, similar to the kind used for transporting panels of glass (3), when installing the final full-width panel.

Panel cutting.

Always use a stable bench (1) when cutting a panel. Cut the panel as close to the bench as you can (2) because this will ensure the best possible support underneath the panel.

Installing a panel with a P-joint.

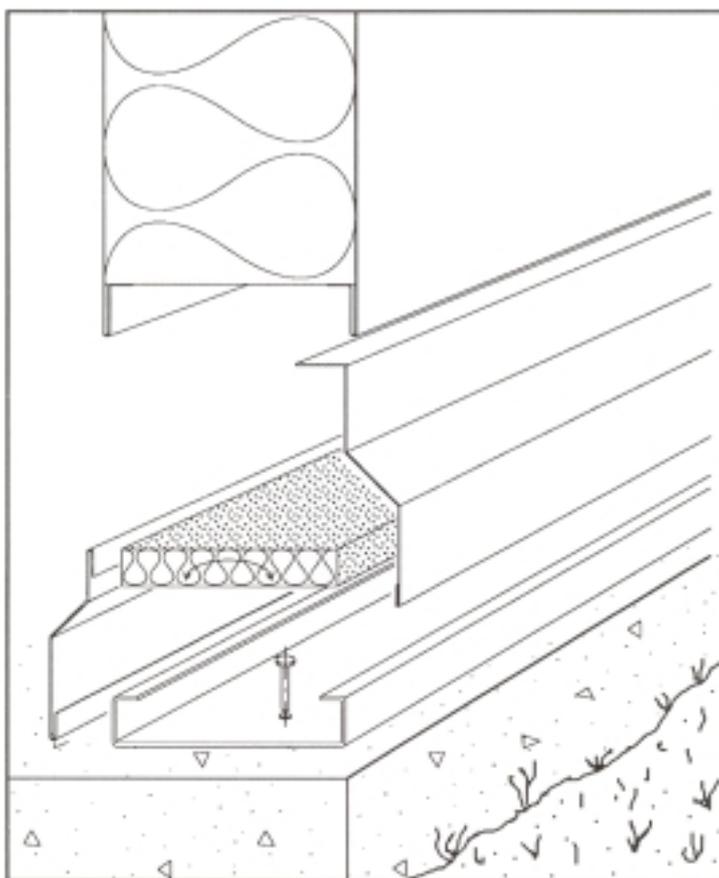
The dimensions, colours and other relevant details concerning panels are indicated on design drawings and included in specifications. A P-joint panel is generally erected in a horizontal position, but vertical installation is also possible in special circumstances. However, the P-joint panel is not designed for vertical installation and such installations involve difficulties in terms of erection and getting the joints completely straight and tight..

**Installation tools.**

Apart from the tools needed to erect C-panels, Isolamin can also provide special lifting yokes fitted with hoisting lugs. This type of equipment makes it much easier to put heavy panels into place. Be aware that the hoisting lugs are specially designed for P-joint panels. Maximum lift capacity/yoke: 250 kg.

Determining height.

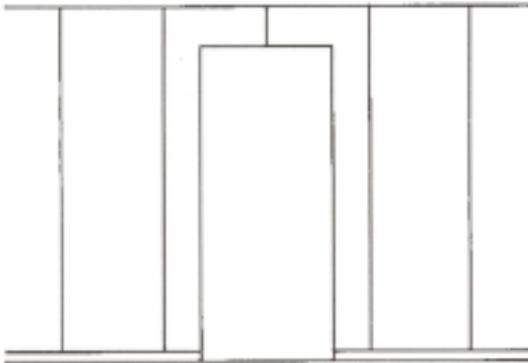
It is important to erect the elements vertically. Use a level to find the highest point on the base and mark that point on the outer side of the shank. The marking will come in handy when the elements are erected.

**Floor attachment.**

The first step is to calculate where the bottom profile should be. This will depend on the ground plate and the type of wall involved. Continue by placing an S-bead against the floor material for extra sealing. The S-bead should be placed directly under the bottom profile. The next step is to nail or screw down the bottom profile to the floor (centre distance ca: 600 mm). The base flashing should either be screwed down or riveted to the bottom profile or fastened to the exterior-wall panel. If the ground plate consists of a bottom profile (C-profile), fill it with mineral wool caulking. A ground-plate plank can be used as a substitute for a bottom profile in certain cases.

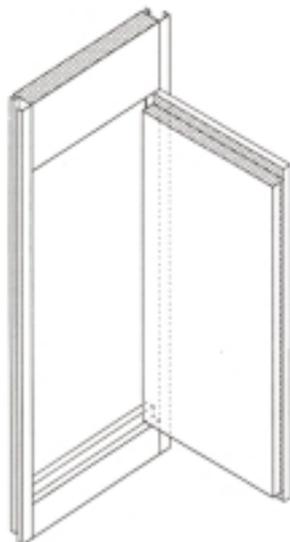
**Installing doors.**

There are two types of door frames, a full-height one and a standard one. The full-height frame is the same height as the partition panels and it is considered as a part of the wall system. Door placement is determined by the design drawings.



The width of the surrounding panels is dictated by the actual width of the door and the door frame. Some doors require bottom profiles, others stand directly on the floor.

Standard doors are lower than partition panels and consequently the surrounding panels must be cut to fit the door frame. The surrounding panels can be cut either before or after the panels are installed.

**Inspection panels.**

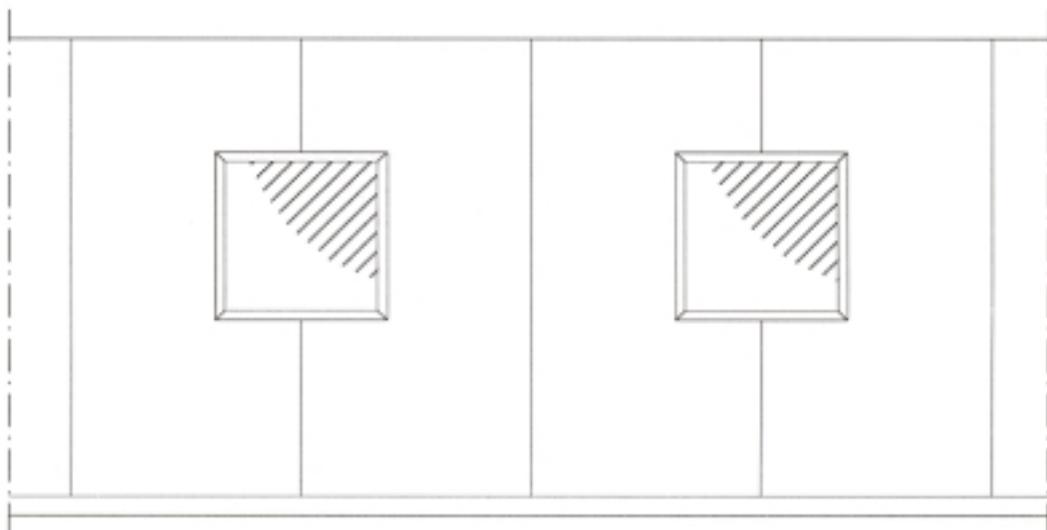
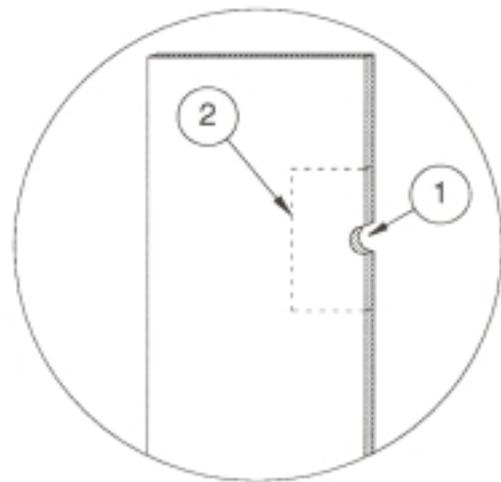
ISOLAMIN inspection panels are designed to fit into the layout. They are installed more or less like a standard panel.

Installing windows.

The final hole for a small window can be cut after the lining has been completed. Simply cut away a part of the edge of the panel (1) where the window is supposed to be. This should be done while the wall panels are being erected. When it's time to attach the window, use a master and mark the spot (2) out for the window on the panel. Use a jigsaw to cut out the hole. Begin sawing at the cut near the edge that was made earlier.

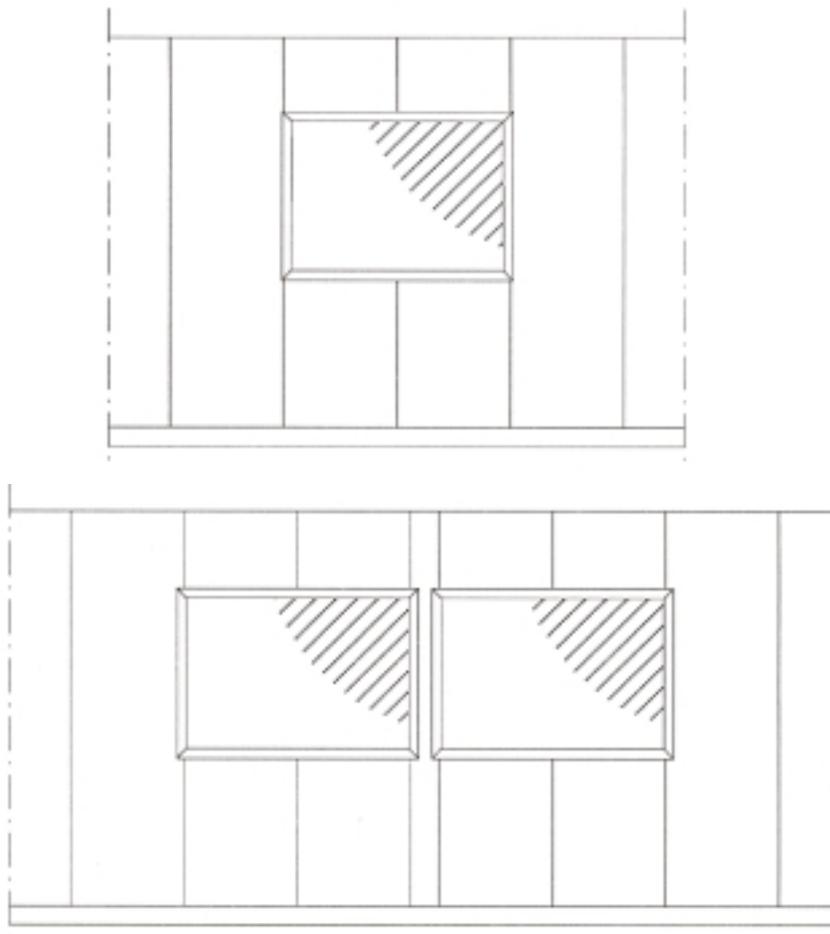
It is difficult to get support from behind an erected panel. One has to be very careful to avoid as much vibration as possible while using the jigsaw. If it is impossible to find a panel joint in the selected area, drill a hole in the panel to provide the initial starting point for the jigsaw.

Follow the above instructions.



Installing wide windows.

In order to be able to have windows that are wider than one or two panels, the panels have to be cut in lengths that correspond to the distance above and below the window. Be sure to check the design drawings and the order specification before starting to cut the panels.



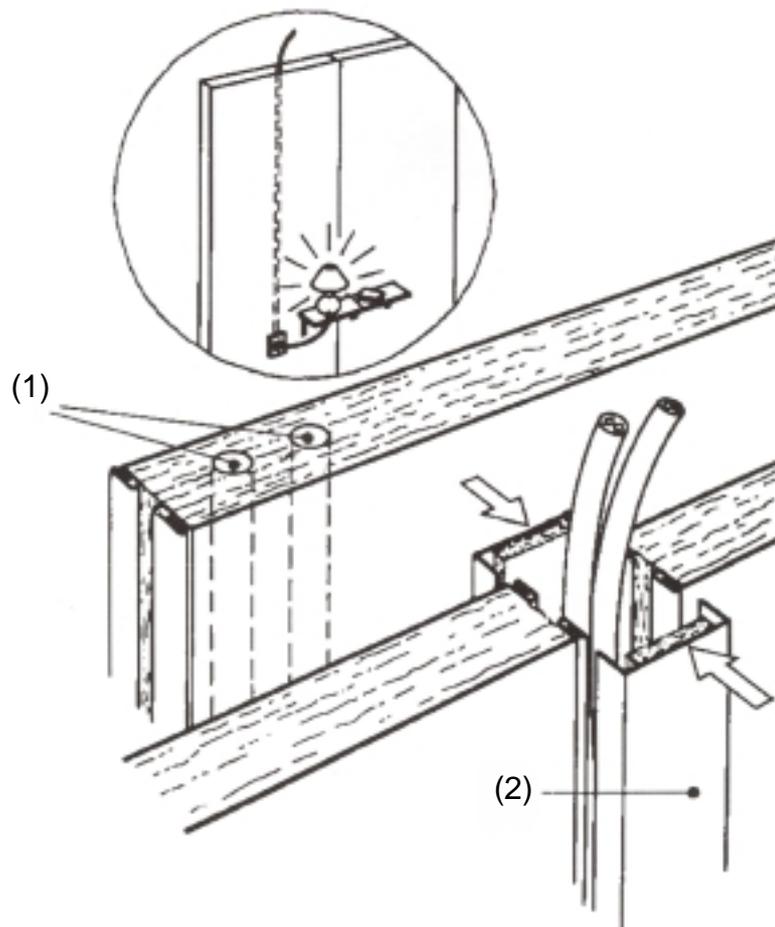
We recommend that you reinforce the top and the bottom of the opening in areas where a window is wider than one panel in width. Reinforcement can be provided by either a PR25 for a 50-mm wall or a PR725 for 80-mm walls. Fasten the profiles to the panel using pop rivets. One rivet on the front and back of each panel is sufficient. We make the assumption that the window frame has a flange wide enough to cover the flange of the profile on the visible sides of the panel.

Electrical wiring.

Electrical cables are normally installed on cable trays hanging down above the ceiling. The room wiring can either be visible or concealed depending upon the requirements specified by local authorities or the customer.

Corresponding holes must be drilled for the cables through the top profiles in both cases. ISOLAMIN can provide 50 and 80-mm panels with one or two 25-mm holes in diameter (1) per panel.

In areas where wiring can be placed at the C-joint of a panel, an alternative arrangement of concealed wiring can be used. ISOLAMIN can provide a special cable duct profile, PRCDC, for this purpose (2). When these cable-duct profiles are in use, the adjacent panels have to be moved away from each other. The distance apart must correspond to the width of the CDC profiles.



Electrical wiring after panel mounting.

When wiring is done after the panels have been installed, the cables have to be attached to the outside of the panel.

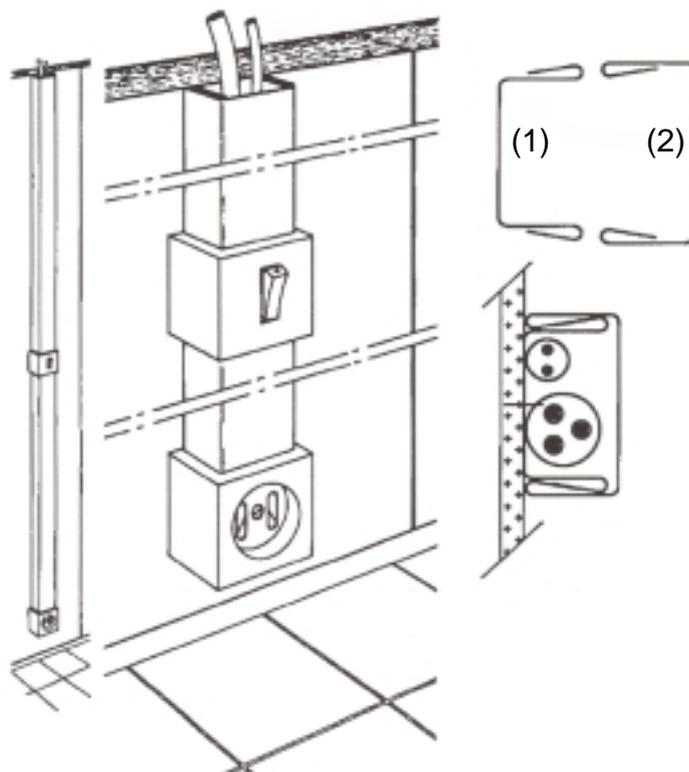
If a customer wants to make an installation as invisible as possible, ISOLAMIN also offer a third alternative, namely cable-duct profile PR40

In fact, the PR40 is really two profiles in one , PR40a and PR40b.

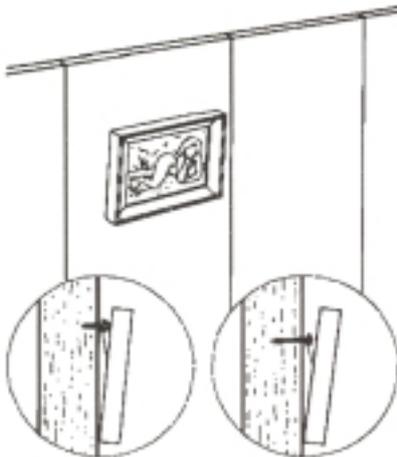
When our cable-duct profiles are used, PRCD40 can be manufactured to contrast with the panel surface. It is available in the same decor as the decorative surface of the panel.

Begin with the PRCD40a (1), a galvanized profile with pre-drilled holes for fixing to a partition. This profile can be attached with pop rivets in the area where cables will be located.

Complete the wiring by snapping on the PRCD40b cover profile (2), a PVC-coated profile or painted with the same decorative surface as the panel.

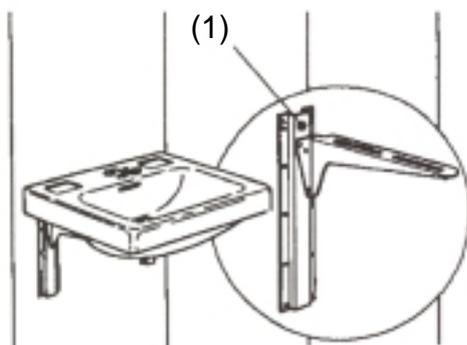


Fastening and installing miscellaneous accessories.



Equipment, such as hooks, mirrors, lighting fixtures, small bookshelves and other similar items can be easily fastened with self-tapping screws or pop rivets directly into the panel.

Heavier items, such as wash basins, need special reinforcement profiles (1). ISOLAMIN offers a reinforcement profile known as the 1 mm thick PVC-coated or painted PR24.



Panels with factory assembled reinforcements can be obtained by placing a special order.

The preferred position for fixing points is at the C-joint of the panel(2).

