

UPM ProFi Decking Installation Instructions

Part 3: Advanced Installation Guidelines

Please note: These guidelines can only be used as additional information to the UPM ProFi installation instructions Part One and Two at www.upmprofi.com.

Sub-Structures

For general instructions on substructures, please see UPM ProFi Installation Instructions **Part 2, chapter 3**

The design of the deck should be determined in advance as the substructure is depending on the design pattern. To use the cleaning effect of the rain water: install boards in direction of water flow with about 1–2% incline.

The substructure should not hinder the drainage of ground surface water. If the rails are positioned at 90 degrees to the direction of the water flow, the substructure can be supplemented with UPM ProFi rubber pads laid underneath. This allows water to drain around the profile base. The amount of pads per joist depends on the type of the substructure.

Heavy items (such as big flower pots, spa baths etc.) are to be taken into account at the planning stage: reduce the distance of the Support Rails.

Elevated terraces must be built with UPM ProFi Alu Support Rail Large or timber joists (hardwood, durability class 1).

UPM ProFi Alu Support Rail Large

The UPM ProFi Alu Support Rail Large is designed as a static load-bearing element. When it is used as the substructure for UPM ProFi decking boards, the centre to centre support distance under the aluminium substructure is ≤ 1.10 m.

When the support rail is laid on special or welded bituminous sheeting, the UPM ProFi Alu Support Rail with rubber pads provides downward structural protection. When laid on PVC surfaces, an impervious material should be placed between the rubber pad and the sheeting to prevent plasticiser migration (if necessary, consult the PVC sheeting manufacturer for more information). The rails can be extended as far as required. They can be cut to size using a cross-cut hacksaw with a carbide-tipped blade. To extend the length of Alu Support Rail Large, it is recommended to use UPM ProFi Connectors.

Slide the connector into one Alu Support Rail Large. When half of the connector is inside, fix both together with a screw. Slide the next Alu Support Rail Large over the extended half of the connector until the gap between both joists is closed. Fix this side with a screw also.

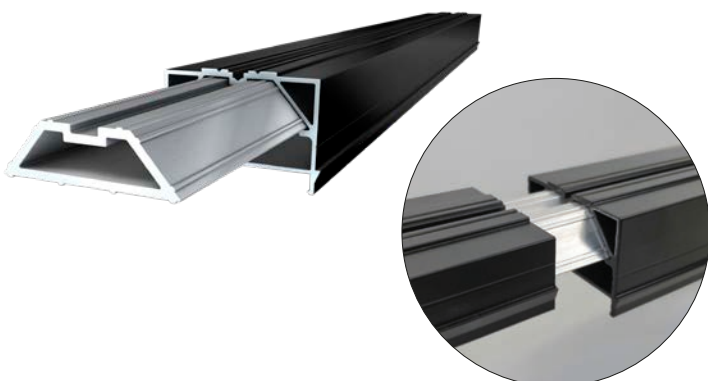
UPM ProFi® Alu Support Rail Small

The UPM ProFi Alu Support Rail Small is laid on hard surfaces such as an existing hard landscape or balconies with tiling, paving, exposed aggregate finishes or concrete slabs. As this product is usually used with existing hard surface or balcony areas, there are almost always height restrictions that require mounting height to be kept to a minimum. Factors such as the height of the structure in relation to railings or terrace doors must be considered.

With railings, the safety height must also comply with regulations. The UPM ProFi Alu Support Rail Small, with its low mounting height of only 23 mm incl. Rubber Pad, is ideal in these situations.

Ensure that the substructure does not hinder the drainage of surface water. Therefore the rubber granulate layer can be supplemented with additional rubber pads laid underneath (preferably 8 mm). This allows water to drain around the profile base. The spacing of the support points should not exceed 350 mm (centre to centre).

When the aluminium rail is laid on special or welded bituminous sheeting, the UPM ProFi Alu Support Rail will provide downward structural protection thanks to the built-in rubber pads. When laid on PVC surfaces, an impervious material should be placed between the rubber pad and the PVC to prevent plasticiser migrating from the PVC and degrading the pad (if necessary, consult the PVC sheeting manufacturer for more information). The UPM ProFi Alu Support Rail Small cannot be used in combination with UPM ProFi Foot.



UPM ProFi Foot

UPM ProFi Foot allows you to even out variations in the height of the ground and inclinations up to 8%. Particularly quick and easy is the installation using UPM ProFi Alu Support Rail Large.

The adjusting feet are available in 3 sizes — small 35–70 mm, medium 65–155 mm and large 145–225 mm and are used to align height levels by simply twisting the unit to the right or left. The rounded foot plate protects the base surface, such as flat roof waterproofing, from damage.

Each foot is capable of supporting the following flat load per foot:

- 831 kg Foot Small
- 839 kg Foot Medium
- 1195 kg Foot Large

Feet must be placed on a load-bearing, compression-proof ground (e.g. concrete slabs). The Alu Support Rail Large are clipped onto the feet.

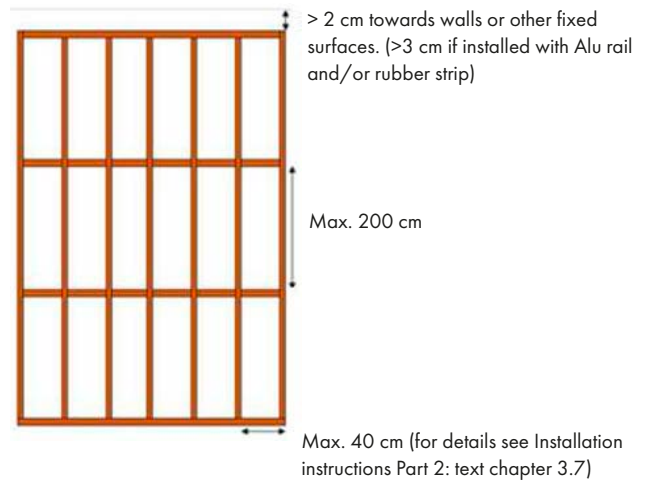
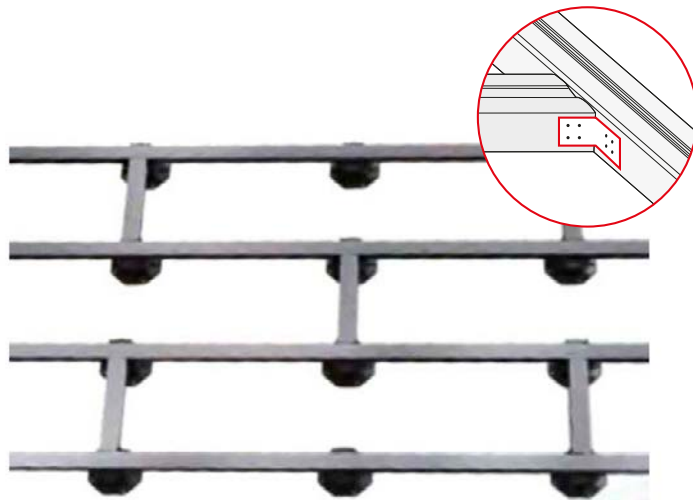
The spacing of the UPM ProFi Foot depends on the type and strength of the substructure. The spacing of the support points (centre to centre) is a maximum of 110 cm for the UPM ProFi Alu Support Rail Large and 100 cm for the UPM ProFi Click Alu Support Rail Large.

It is recommended to screw the joists to the feet through the holes in the lug of the feet.

Roof Terrace

In general, fixation of support rails to the roof surface is not possible and differences in height need to be compensated. Therefore a rigid framework with cross-members made of Alu Support Rail Large in combination with UPM ProFi UPM ProFi Foot and/or Rubber Pad needs to be created. The maximum distance of cross-members must not exceed 2 m (centre to centre).

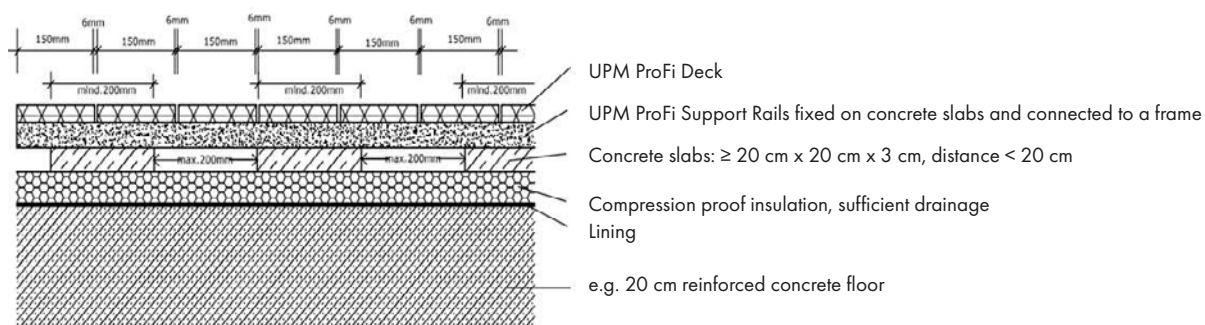
Other options: rigid framework constructed from timber or UPM ProFi Support Rails. The joists must be connected to each other with L brackets for example.



If building height is limited, UPM ProFi Support Rail Small can be used and interconnected as well.

Please note that UPM ProFi Support Rails must only be installed on hard flat surfaces. Any raised deck must be built on UPM ProFi Alu Support Rail Large or timber frame (hardwood, durability class 1).

Additional weighting can be positioned if necessary: Attach the substructure onto concrete slabs or at limited building height fix metal sheets on the support rails and place concrete slabs on it.





Please always note particular local conditions and ensure that you meet the requirements of the local building regulations.

Stairs

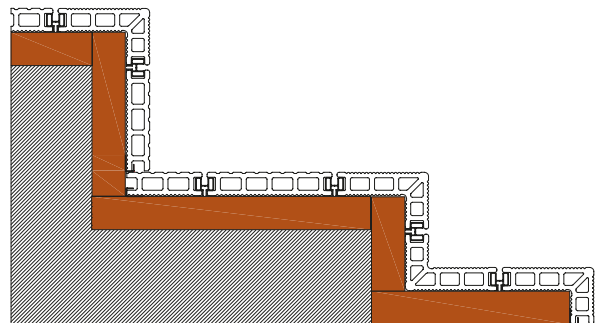
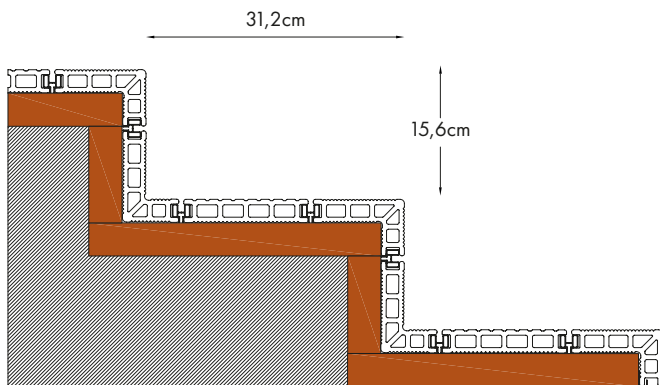
For general instructions of stair using UPM ProFi Rail Step please see UPM ProFi Installation Instructions **Part 2, chapter 7** and **Part 1, chapter 6**

Building stairs with UPM ProFi Rail Step

Support Rails to be attached on flat surface, like concrete stairs.

Decking boards must be installed with UPM ProFi Alu Rail (instead of T-Clips) for more stability.

If the existing construction cannot be changed to match the dimensions of UPM ProFi profiles, best is to use UPM ProFi Rail Step at the front stair edge and UPM ProFi Deck boards in the internal corners. If needed, the deck boards can be cut lengthwise to fit the dimensions of the stairs.



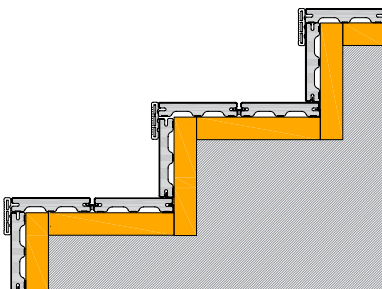
Please ensure that you meet the requirements of the local building regulations. UPM ProFi Support Rails must only be installed on hard flat surfaces. Any raised Deck must be built on UPM ProFi Alu Support Rail Large or on a timber frame. UPM ProFi Deck boards must not be used above ground floor applications, unless built on a solid load bearing surface: e.g. concrete steps.

Building stairs out of UPM ProFi Piazza One.

To build stairs using Piazza One, there are two options.

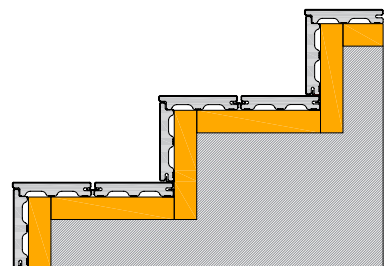
Option One

The easiest way to cover stairs using Piazza One is to install deck boards vertically under horizontal boards and use the Cover Strip to cover the edges, as shown.



Option Two

Another way to build stair using Piazza One is to cut off the bottom tongue on one side of two boards and install them as shown.



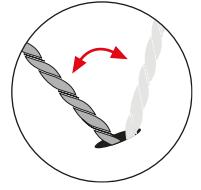
In both cases the Alu Rail must be used instead on Clips to fix the boards to the substructure.

Using Piazza to cover deck sides

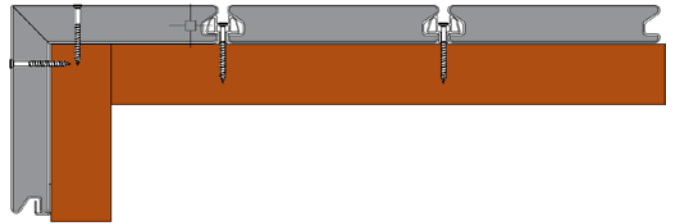
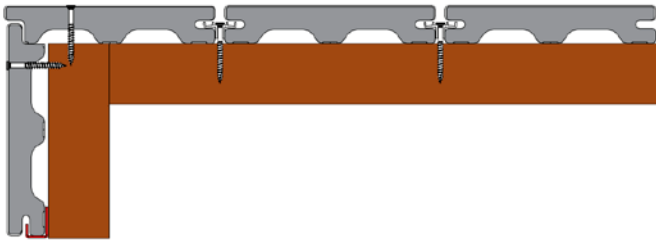
Piazza One and Pro boards can be used to cover open deck sides.

A good way to cover open deck edges by using Piazza boards is to cut off the bottom tongue on one side of two boards for Piazza One and install them as shown for **laying direction A**. For Piazza Pro a 45° cut should be done on one side cutting of the groove of the boards and install them as shown.

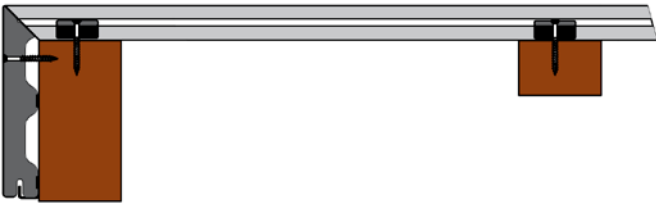
In both cases the edge boards need to be directly screwed through their surface. To allow thermal expansion of the boards, oval holes need to be predrilled. Please note that if boards are installed in **laying direction B**, expansion gaps must be planned, for details see Installation instructions Part 2, chapter 5.2.



Laying direction A



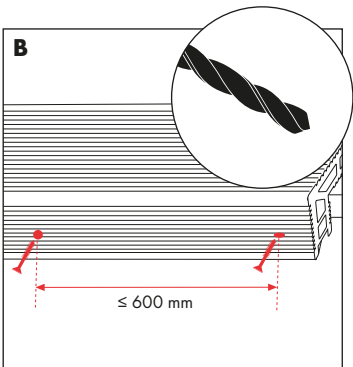
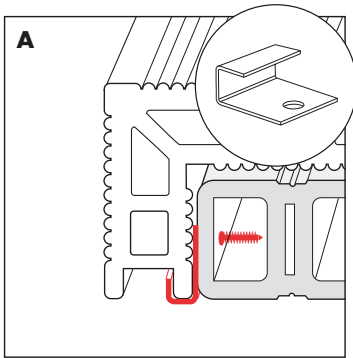
Laying direction B



Railing / Glazing

When installing Railings or Glazing around or on your deck, please ensure that no elements are screwed directly onto the deck boards. Posts should be fixed below the deck construction and boards cut out accordingly. This provides good railing stability and prevents damage to the boards. Always follow the manufacturer's installation instructions.

Fixing Options



UPM ProFi Rail Step is a good solution to cover pool edges, as shown in the below picture.

For full details on Rail Step installation please see UPM ProFi installation instructions **Part 1, chapter 5** and **Part 2, chapter 6.2**.

Please note the importance of good drainage around pool edging.

