

Modena T24 Panel
/THU

The **Modena panel** is a technical ceiling panel system designed to be installed on T24, T-Decor 24 and T-Clip 24 structures, forming grids with nominal dimensions of 600x600 mm and 300x1200 mm. It is available in flush, bevelled-edge (V6) and straight-edge (V8) versions. This system can be removed easily, enabling quick access to lighting, cabling or air conditioning systems. The panels are made of **galvanised steel or pre-lacquered aluminium** and come in a variety of colours.

Kingspan | THU ceiling solutions

THU/ **Modena T24 Panel**

DOCUMENT INFORMATION

DOCUMENT VERSION
Version 03 / 28-10-2026

LATEST VERSION

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INFO/ **Modena T24 Panel**

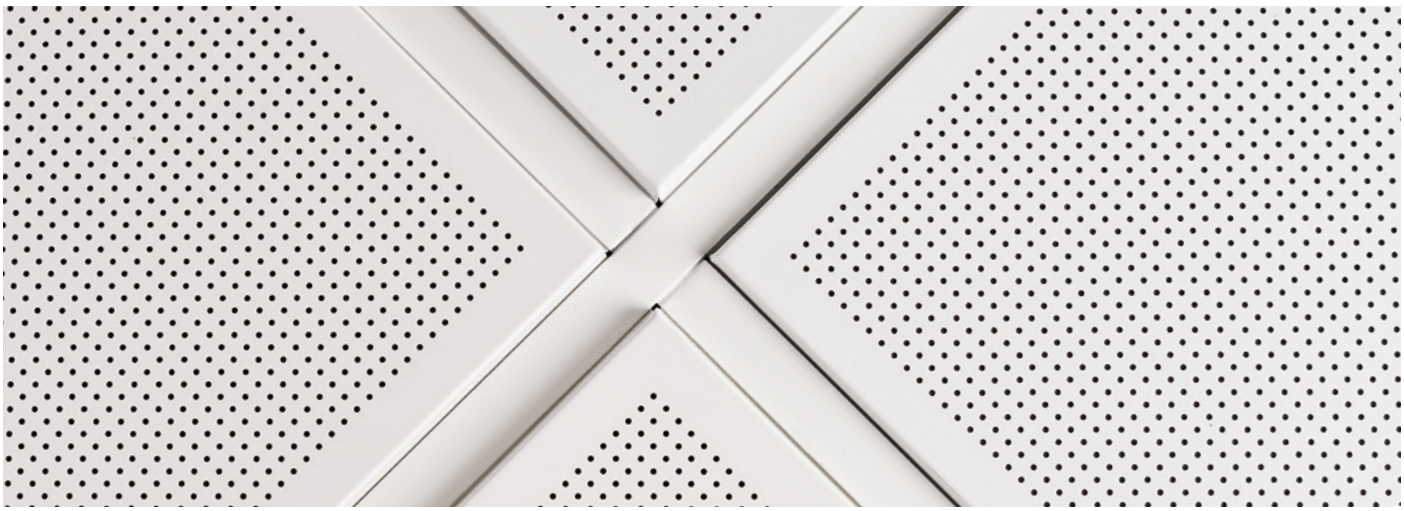
DESCRIPTION

Modena panels provide a modular and easily removable ceiling solution, thanks to their direct support installation system. The available sizes are 300x1200 mm and 600x600 mm (measured between profile centres), so they can be adapted to different cell modules. These panels are easy to remove to enable access to building services.

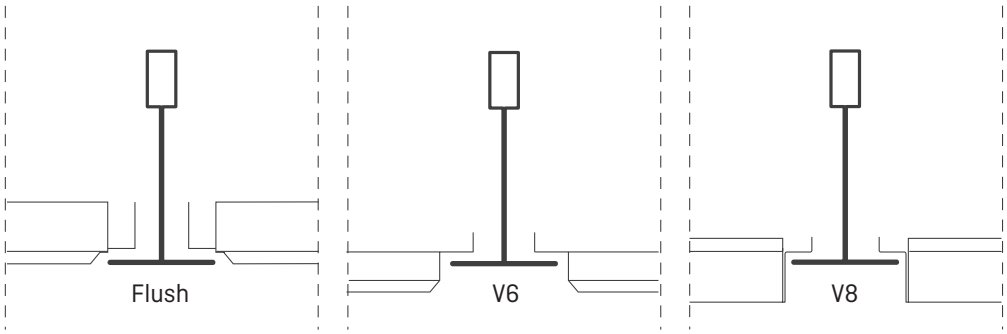
The panels are available in both smooth and perforated finishes, and in the standard colours: THU 9010 white, THU 9006 silver and THU 9005 black. Other finishes are also available on request in the various colours from the RAL colour chart (please enquire about colour, specifications, lead times and minimum order quantities).

The availability of perforated panels, combined with the option of adding an acoustic veil or mineral fibre to their upper surface, ensures the system's overall effectiveness in terms of sound absorption. These panels are made of highly resistant, durable, galvanised steel or pre-lacquered aluminium.

The results are settings with modern aesthetics.



Material	Thickness (mm)	Size (mm)	Type	Height (mm)	Regulations
St - Al	0.5 - 0.6	585x585	V6	9.9	Reaction to fire / UNE-EN 13501 Sound insulation / UNE-EN ISO 10140-2:2022 Thermal conductivity / UNE- EN 12667:2002
St - Al	0.5 - 0.6	585x585	V8	11.3	
St - Al	0.5 - 0.6	591x591	Flush	9.9	
St - Al	0.5 - 0.6	285x1185	V8	11.3	

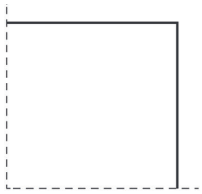


Custom panel sizes are available on request.

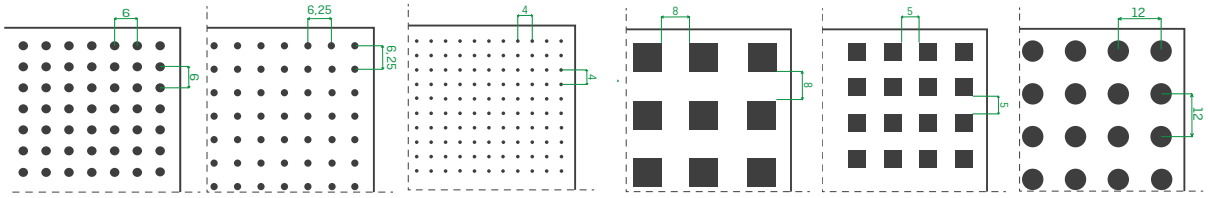


CUSTOMISATION

finishes



Smooth / no rim



Perforated Ø 2.5
U | 13% perforated
M | 25% perforated
ML | 6% perforated

Perforated Ø 2
U | 9% perforated
M | 19% perforated

Perforated Ø 1.5
U | 11% perforated
M | 21% perforated
ML | 5% perforated

Perforated 8x8
24% perforated

Perforated 5x5
23% perforated

Perforated Ø 6
17% perforated

standard colours



Other colours and perforation rates on request.

RAW MATERIALS

Finish features

Pre-lacquered panels with a coloured coating thickness of 25 microns. This type of finish is highly resistant to corrosion and offers excellent durability (gloss and colour retention).

Characteristics of the raw materials

The panels are cold-profiled and made of pre-lacquered steel sheets that are 0.50 mm thick or 0.6 mm-thick aluminium sheets. All panels are supplied with adhesive protective film that guarantees their quality during the manufacturing process. The panels have a pre-lacquered polyester finish with a coating thickness of 25 microns. This type of finish is highly resistant to corrosion and offers excellent durability (gloss and colour retention). Panels can be provided in any other colour under specific supply conditions.

Add-ons (options)

Mineral fibre (not supplied by THU)

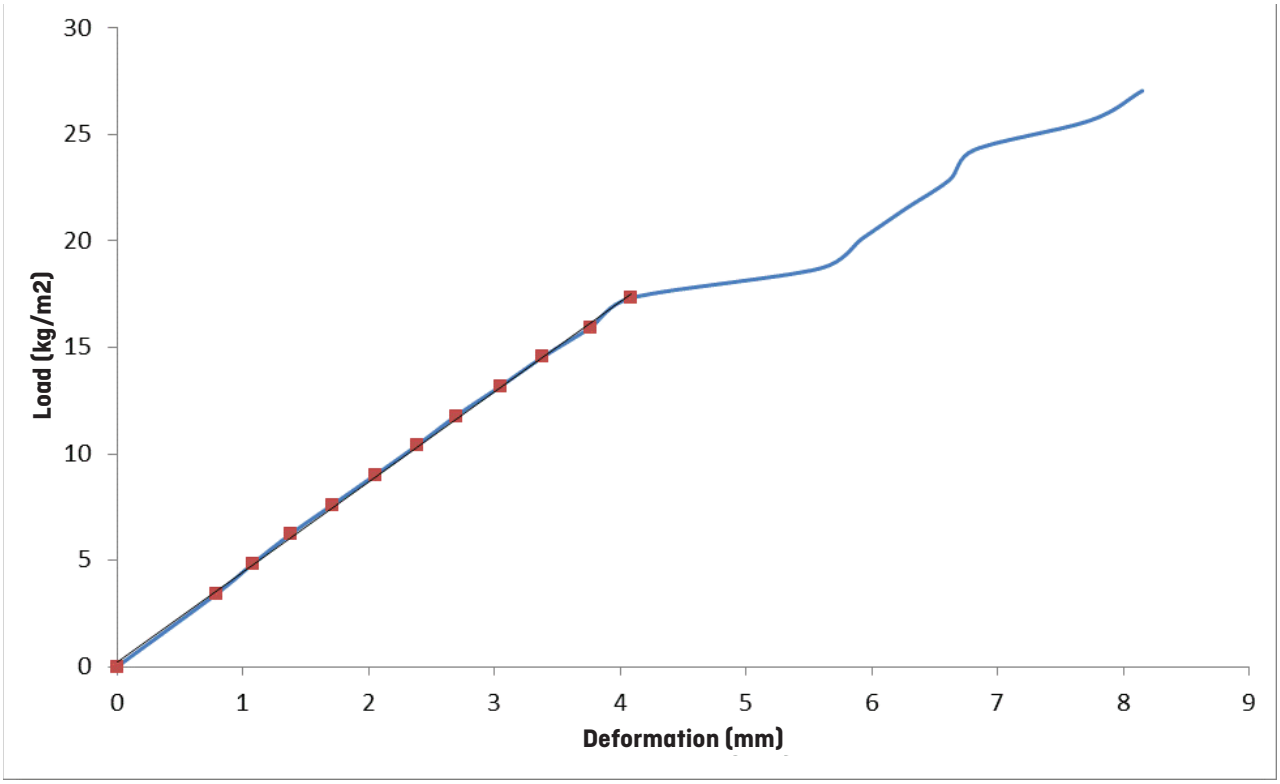
Perforated panels can be used in conjunction with mineral fibre (includes acoustic veil) according to sound absorption requirements. This is laid on the upper face of the panels for improved acoustic comfort.

PROPERTIES

Reaction to fire tests at AFITI (UNE-EN 13501-1:2019)
AFITI 4161T20-2 STEEL test and 4205T20-2 ALUMINIUM test. Result: Euroclass A1. Non-combustible product (no contribution to fire), with low quantity and speed of smoke emission and does not produce inflamed droplets or particles.

Acoustic absorption tests at Audiotec (UNE-EN ISO 354:2004)
"Modena T24" flush metal panel, 600x600 mm, with ø1.5 mm U-type perforations and standard veil + 400 mm plenum
α_w =0.6(L)
"Modena T24" flush metal panel, 600x600 mm, with ø2 mm U-type perforations and standard veil + 400 mm plenum
α_w =0.6(L)
"Modena T24" flush metal panel, 600x600 mm, with ø2.5 mm U-type perforations and standard veil + 400 mm plenum
α_w =0.65(L)

Load-bearing tests (UNE-EN 13964:2016)
Results from AIDIMME report no. 21906218 for "load-bearing capacity test 1" with a 600x600 mm Modena tray on a T24 primary profile. Graph showing measurements from the lower LVDT3 comparator, recording deformation at the mid-span of the tested assembly.



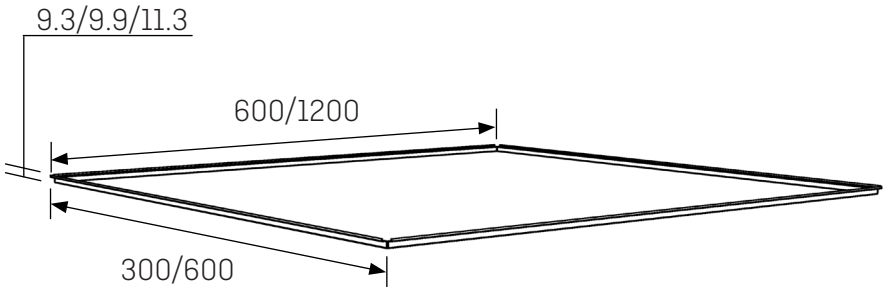
deflection limit L/500 - result 10.38 kg/m2 [2.4 mm of deflection]
deflection limit L/300 - result 17.13 kg/m2 [4 mm of deflection]

Reaction to fire of raw material of Royalin (DIN EN 13501-1) veil - 0.2 mm (Acoustic Nonwoven R6/40 FF)
Result Euroclass A1. Non-combustible product (no contribution to fire).

GEOMETRY

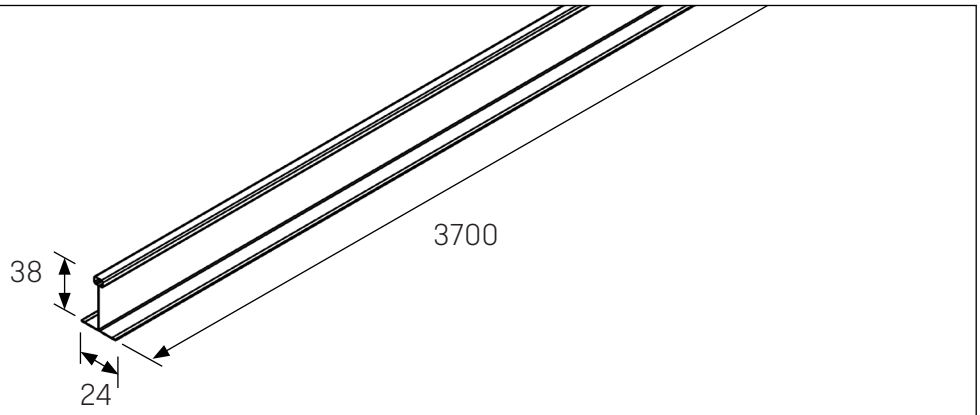
Bearing elements in standard mounting configurations

Modena Panel



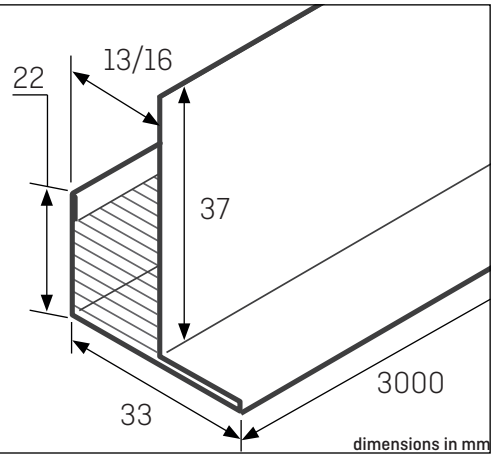
dimensions in mm

T24 profile



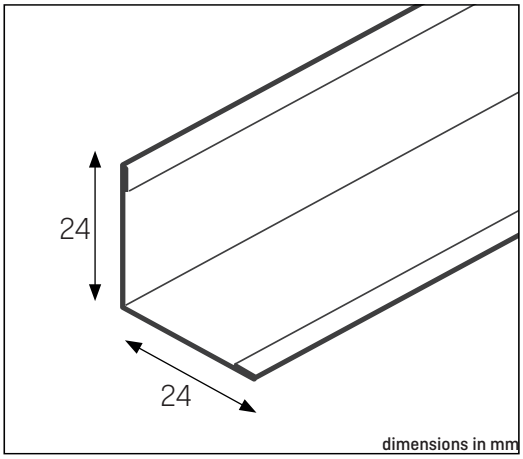
dimensions in mm

Cornice profile



dimensions in mm

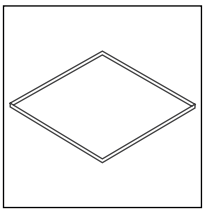
24x24 angle profile



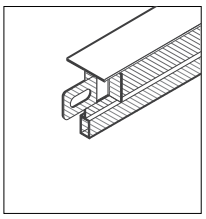
dimensions in mm

MATERIALS

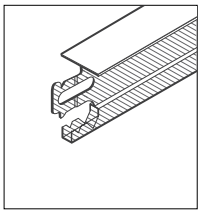
Bearing elements, add-ons and accessories in standard mounting configurations



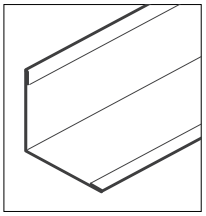
1) Modena panel
Main components of the ceiling, made of 0.5 mm pre-lacquered steel and 0.6 mm-thick aluminium with a nominal width of 300 or 400 mm.



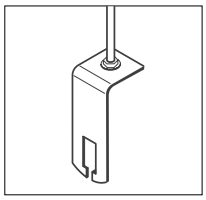
2) Primary profile
The primary profiles are the main elements of the structure as it is on these that the hanger parts and the threaded rods that are fixed to the upper framework are placed. They are 3.7 m in length and made of galvanised steel with a lacquered exposed surface. The approximate coverage of the primary profile per square metre of enclosure is 0.84 lm/m².



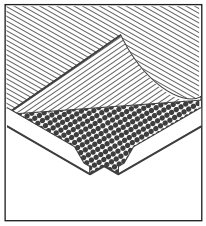
3) 1.2 m and 0.6 m secondary profiles
The 1.2 m secondary profiles are placed perpendicularly to the primary profiles while the 0.6 m secondary profiles are perpendicular to the latter, forming a 600x600 mm open cell grid structure. The approximate coverage of secondary profiles is as follows: 1.2 m secondary profile -> 1.67 lm/m² and 0.6 m secondary profile -> 0.84 lm/m².



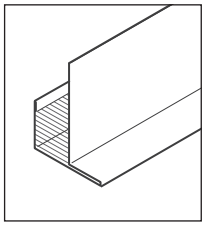
4) 24x24 angle profile
Additional profile for perimeter support, either used as a lateral starting profile or as a mounting support, around the entire perimeter of the enclosure at the installation height of the metal ceiling. Approximate coverage in lm is equal to the perimeter of the enclosure.



5) Hanging piece + hanging rod
This consists of a metal piece that is inserted into the primary profile. The assembly is completed with a threaded rod (M6) and nuts with washers for fastening and height adjustment. 1.25 units/m² are required for proper assembly.



6) Acoustic veil
Affixed using a heat-activated adhesive on the upper side of the panel, the acoustic veil prevents any build-up of dust and dirt caused by air currents inside the plenum, as well as slightly improving acoustic absorption. It is 0.2 mm thick.



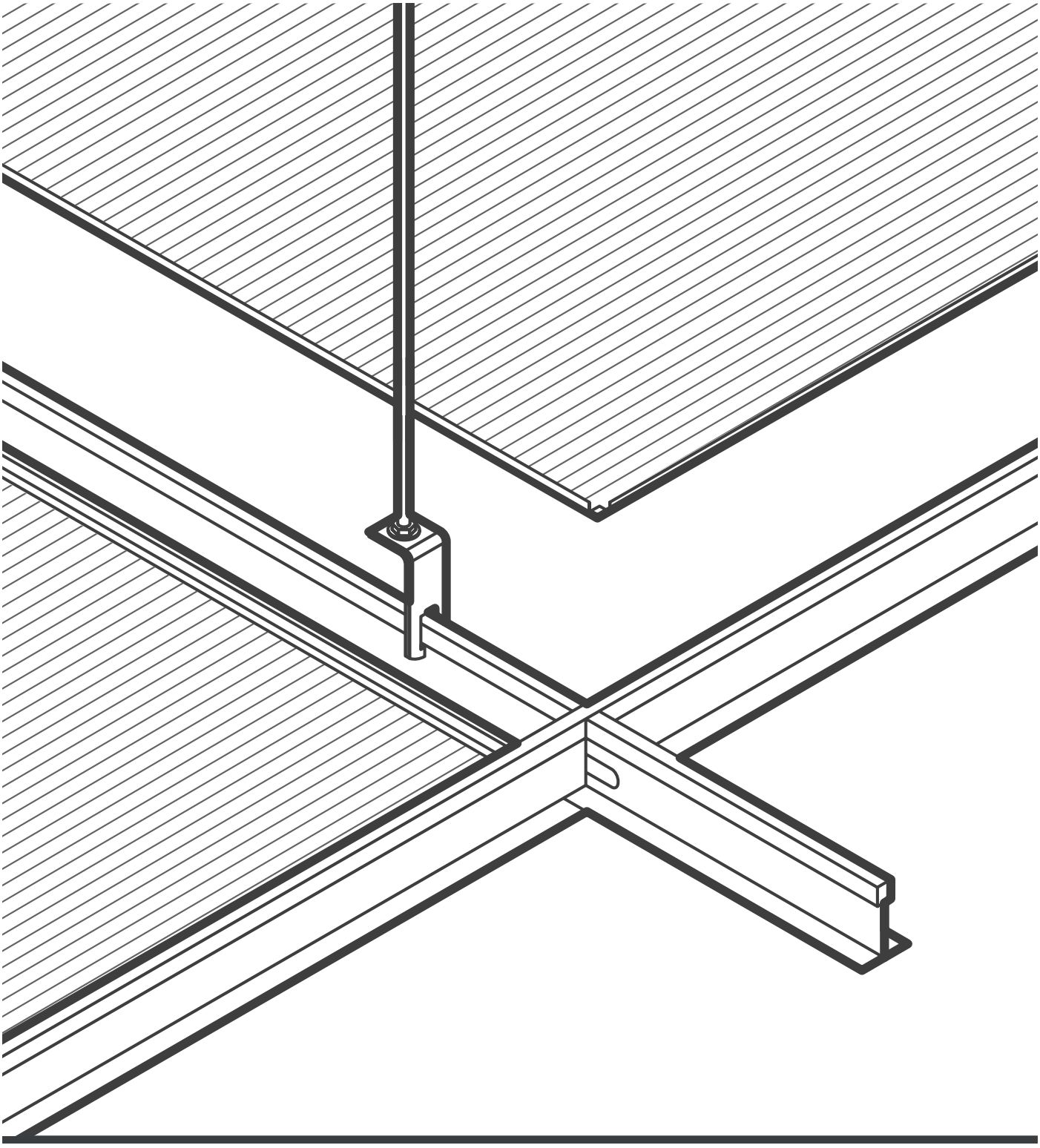
7) Cornice profile
Pre-lacquered galvanised steel profiles designed to marry vertical and horizontal spaces with greater ease. Cornice profiles have dimensions of 13x33 mm (cornice profile 13) and 16x36 mm (cornice profile 16).

ASSEMBLY/ **Modena T24 Panel**

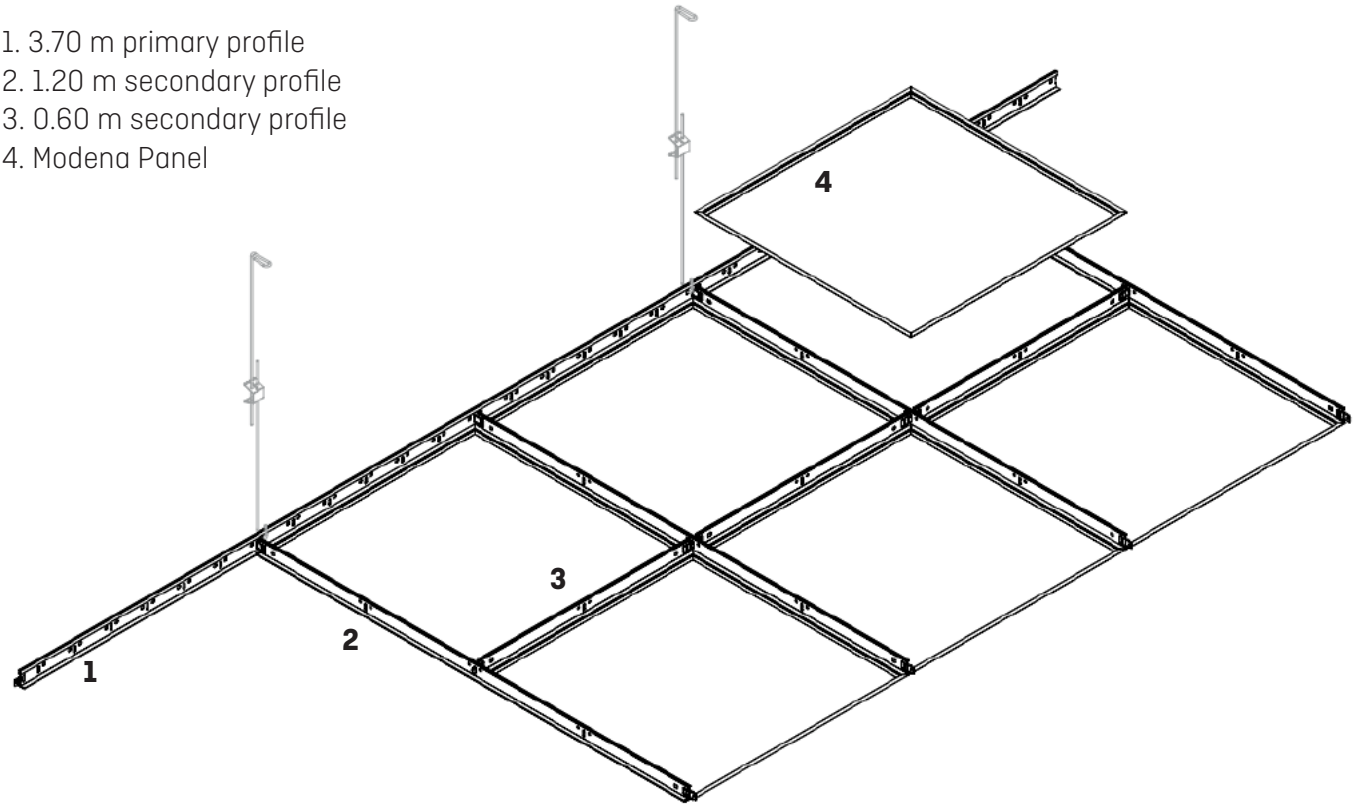
ASSEMBLY PROCESS

The Modena ceiling system is gravity-supported on a structure formed by T24 primary and secondary profiles, which create a framework that holds the ceiling panels in place. The whole ceiling system is removable at any point.

The secondary profiles are inserted over the primary profiles to form a modular structure that is supported over the framework via threaded rods that are joined to the primary profiles by the hanger parts. Depending on the panel model, these will be supported over the structure, either flush or tegular, 6 mm or 8 mm below the profile edges.

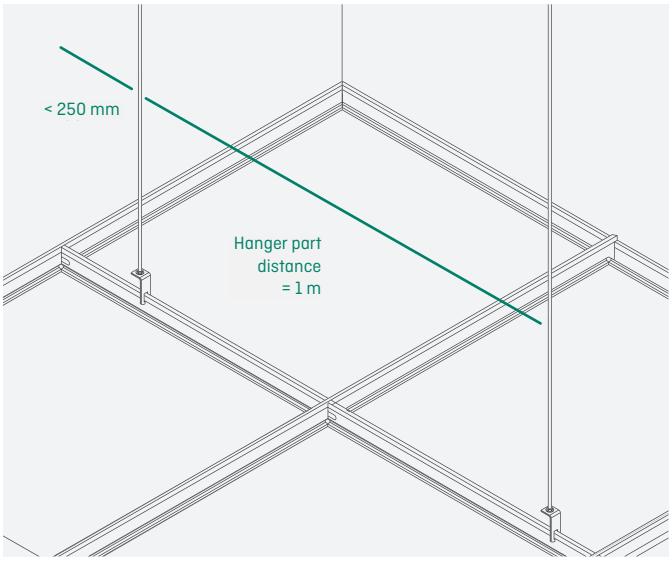


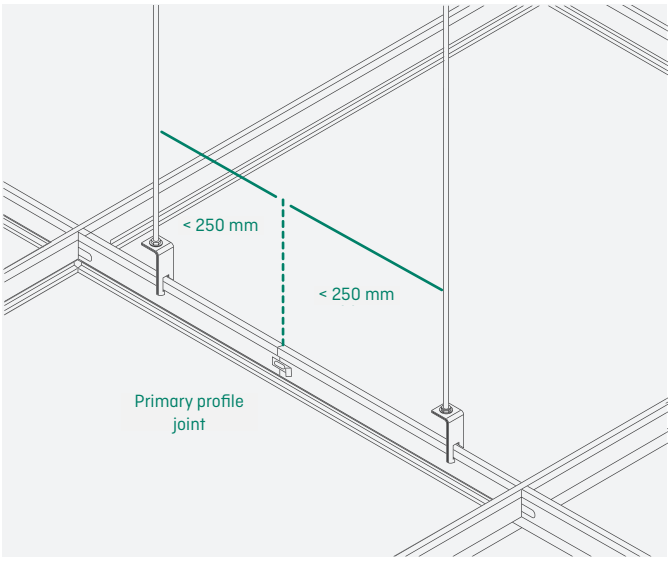
1. 3.70 m primary profile
2. 1.20 m secondary profile
3. 0.60 m secondary profile
4. Modena Panel



The primary profiles are the load-bearing elements of the T24 structure; they are connected to the horizontal support element (upper framework) using the hanger parts and threaded rods. They are 3.7 m long and placed along the longest span of the surface to be covered, with a spacing of 1.2 m between them. The hanger parts are placed on top of the primary profiles following the following rules:

- One hanger part less than 250 mm from a point where it meets the wall.
- Two hanger parts less than 250 mm from the joint between two primary profiles (one on each profile).
- The spacing between hanger parts must be less than 1.2 m. The recommended spacing is 1 m.



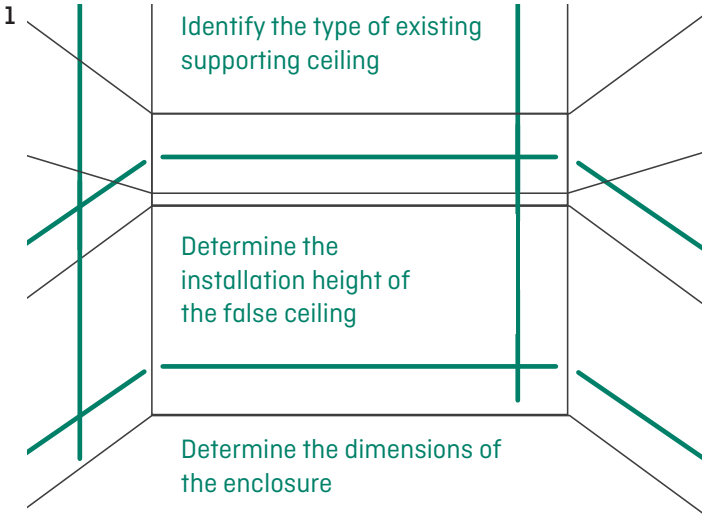


There are two types of secondary profiles: 1.2 m and 0.6 m. The 1.2 m secondary profiles are fitted perpendicularly to the ports (every 0.1 m) the primary profiles are provided with, and their spacing is 0.6 m. The 0.6 m secondary profiles are placed to form the 600x600 mm module open cell grid structure, that is, positioning them perpendicularly between two 1.2 m secondary profiles and parallel to the primary profiles.

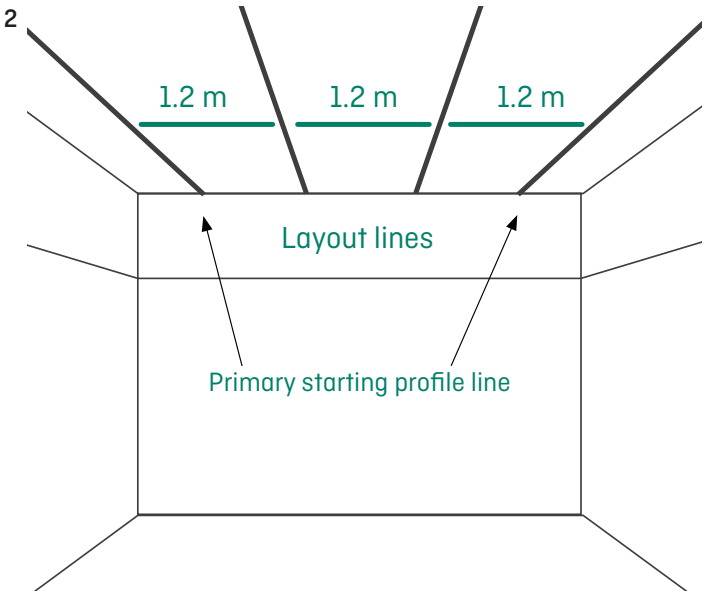
INSTALLATION PROCESS

Once the required installation conditions have been met (enclosures and other installations are complete and have been cleaned), the ceiling is installed by following the steps below:

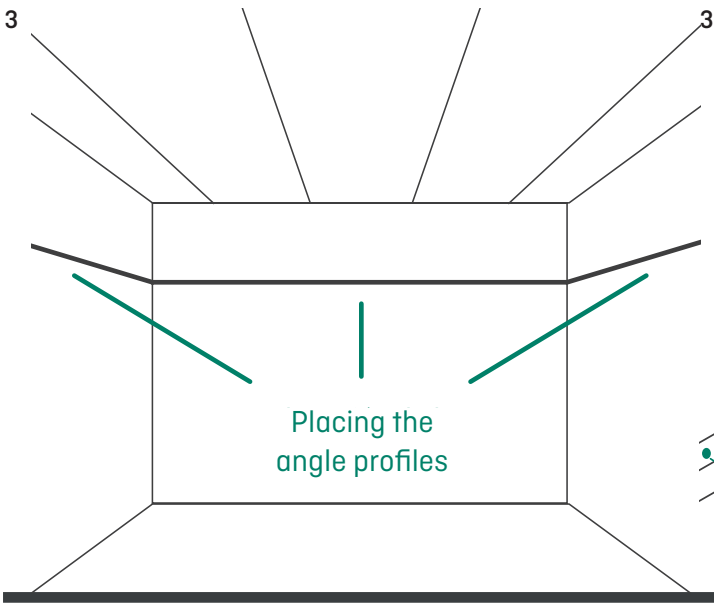
1) Identify the type of upper support used (concrete, steel, etc.) to adapt the fixing elements to it. Calculate the dimensions of the enclosure to be covered and determine the height at which the ceiling will remain. Mark the height at which you want to place the ceiling on the walls (along the entire perimeter of the enclosure). This can be done using a chalk line or any type of laser level.

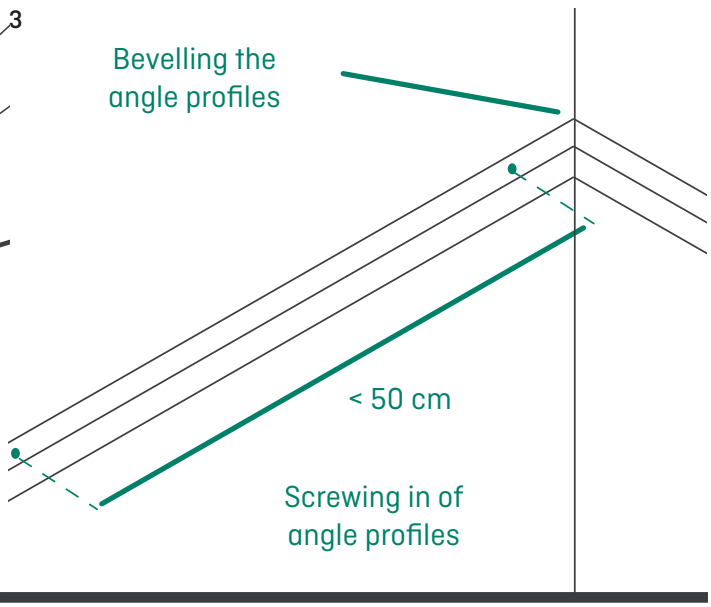


2) On the ceiling, mark the lines along which the primary profiles will run and therefore where the hangers will be installed to support them. A symmetrical layout with respect to the central axis of the enclosure is recommended, so that the end pieces can be cut to the same size. For this purpose, you should align the primary profile with the central axis.



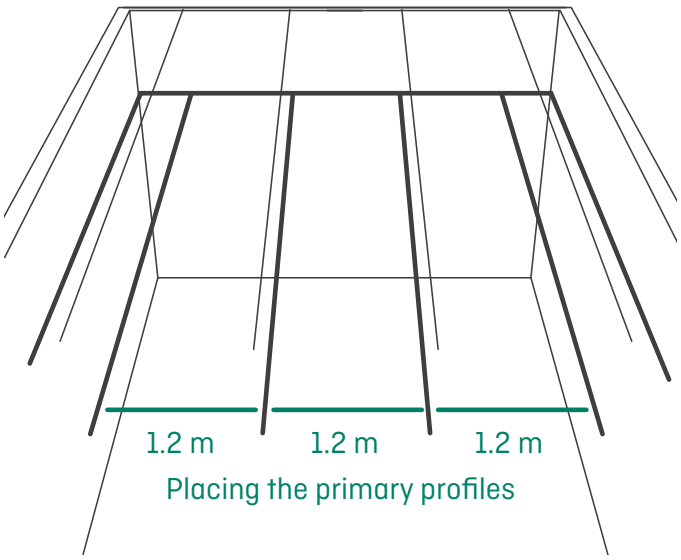
3) Installing perimeter profiles. Begin placing the angle profiles throughout the enclosure. This type of profile is screwed to the wall with a spacing between screws of up to about 50 cm. The meeting points between angle profiles can be finished by cutting the visible ends at 45 degrees.





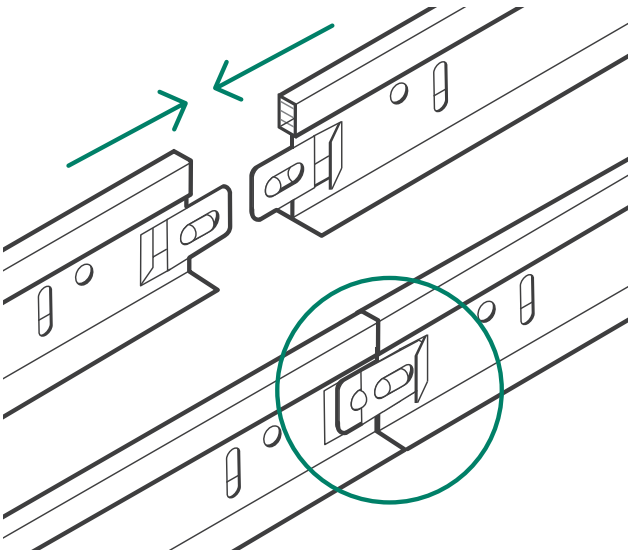
4) Installing primary profiles. Anchor the hangers to the upper support according to the type of fastening selected at the beginning. For each primary profile there must be at least one hanger part less than 25 cm from the wall or encounters between primary profiles. The spacing between hanger parts shall be 1 m.
The primary profiles are mounted following the layout lines. The hanger parts are used as a joint for the primary profiles with the anchors. Once mounted, the primary profiles are levelled.

4



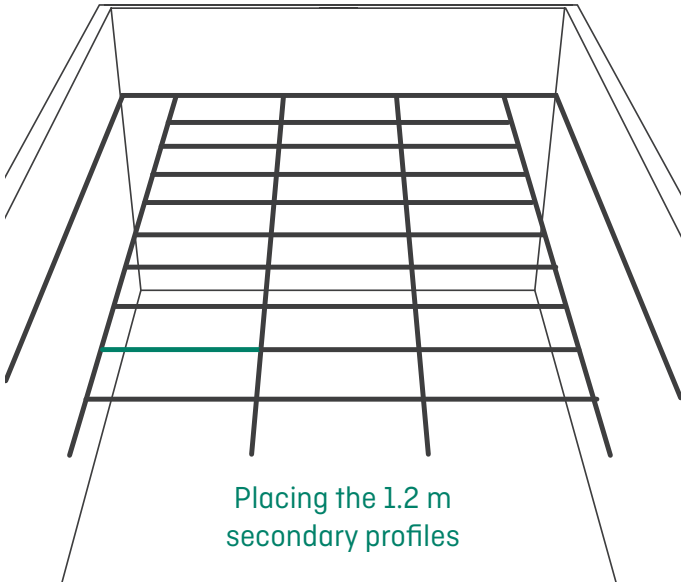
Placing the primary profiles

4

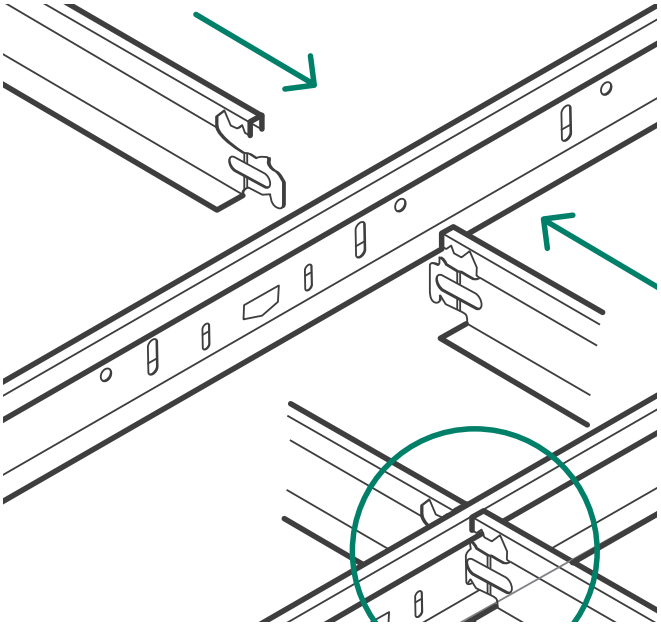


5) Installing secondary profiles. The 1.20 m secondary profiles are placed perpendicularly to the primary profiles with a spacing of 0.60 m between them. When inserting the secondary profiles in the primary ports, these must be placed on the left side to allow the insertion of the secondary profile, which will be subsequently placed on the other side.

5

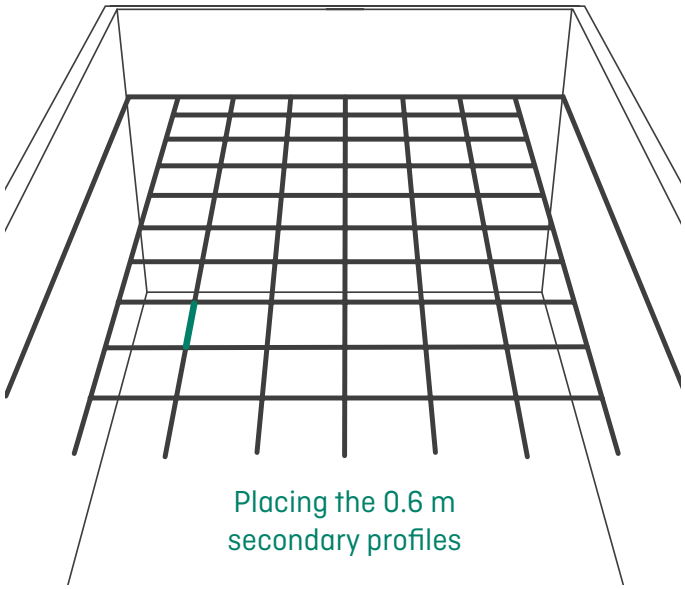

Placing the 1.2 m
secondary profiles

5



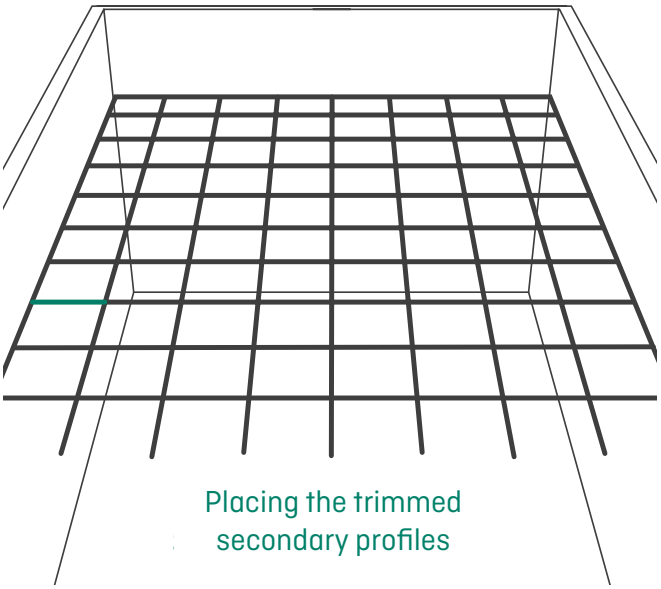
6) Installing 0.60 m secondary profiles. Place the 0.60 m secondary profiles following the same steps, in such a way that the final structure has a grid shape with gaps that are the size of the panels to be installed. Usually, the enclosure measurements will mean you have to trim the profiles that are supported on the angle profiles.

6



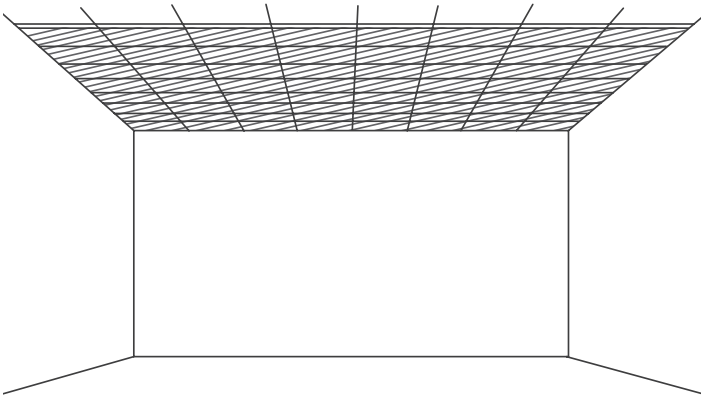
Placing the 0.6 m secondary profiles

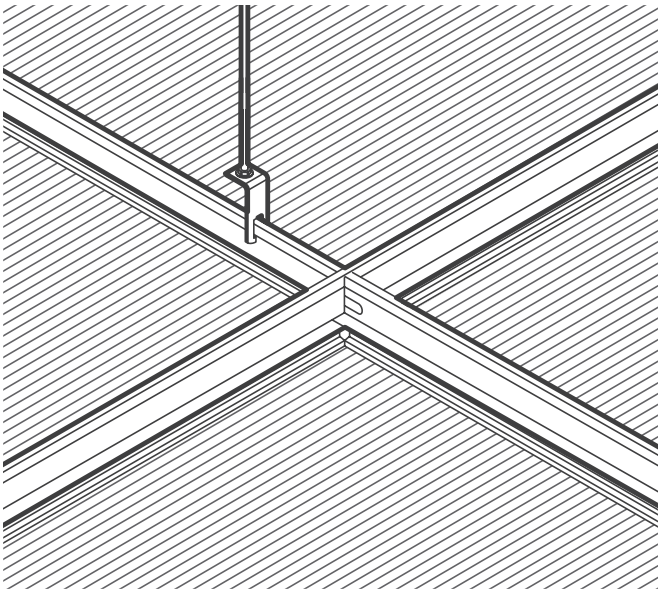
6



Placing the trimmed secondary profiles

7) Installing panels. Install the panels on the built structure, checking that they fit perfectly into the structure without the need for tightening and without too much slack. In general, the panels that will be installed on the edges of the structure (resting on the angle profile) must be trimmed depending on the remaining gap. To do this cut, the panel must be supported on a flat surface and then cut using a saw suitable for cutting metal. Sheet metal shears, a jigsaw with steel-cutting blade and a radial saw can be used (keeping in mind that the latter may burn the paint).





PREREQUISITES FOR INSTALLATION

- THU ceiling products must be stored indoors and must not come into direct contact with water. They must never be stored outdoors or partially outdoors.
- THU Profile removable ceilings are installed during the last phase of construction, once all enclosures and building services are in position.
- The area where the ceiling is to be installed must be clean and free from obstacles that might hinder the installation process.
- It is recommended that products NOT be kept in storage for more than 3 months.

STORAGE AND INSTALLATION

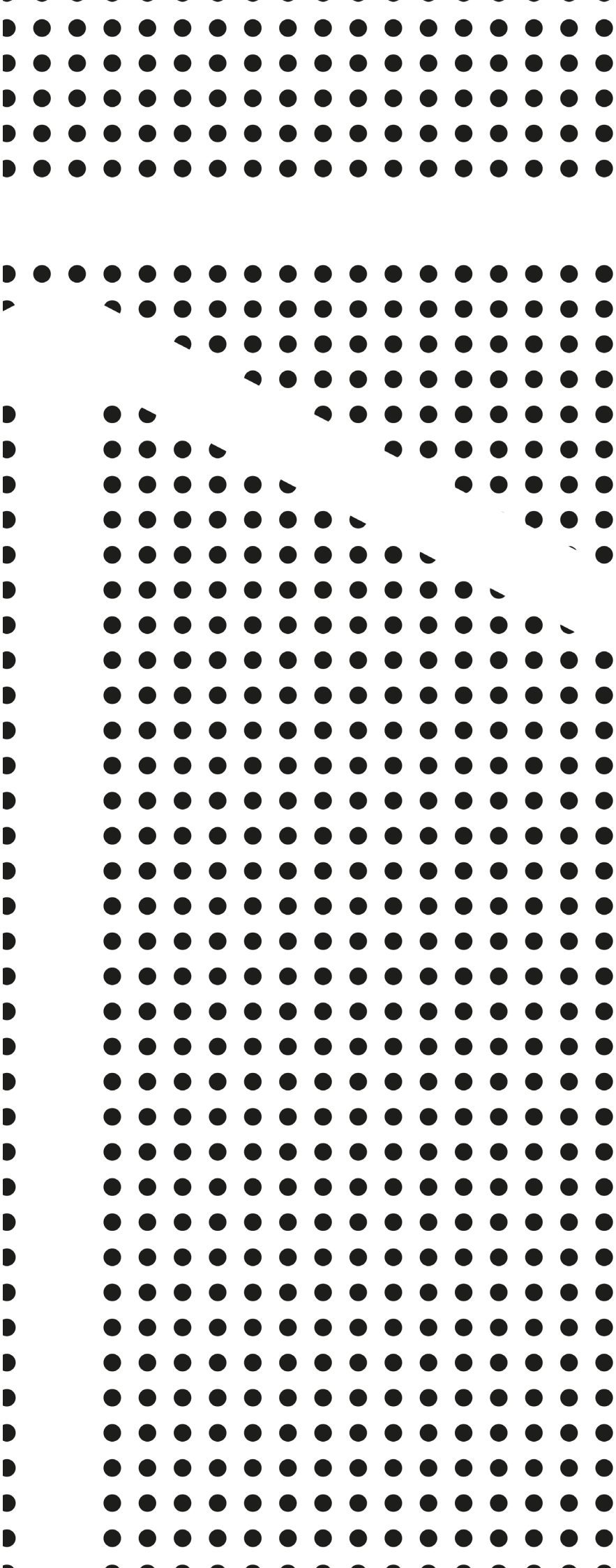
- The components of any THU system must be stored in dry, well-ventilated areas, away from heat sources and protected from direct sunlight and rain.
- THU products are tested and approved for indoor use, without direct exposure to the elements or to the fluctuations in temperature/humidity associated with the outdoors.
- Only install when the building (or the relevant area of the building) is wind and watertight, when all traces of moisture have disappeared, and when the environmental conditions are suitable, i.e. the temperature (15°C to 25°C) and the humidity (35% to 70%).
- Once installed, each element must be free of all traces of packaging, protective film, surface markings or handling marks.

MAINTENANCE AND CLEANING

- Only clean with soapy water (neutral soap without added waxes or polishes) and rinse.
- Do NOT use solvents or degreasers.
- Use a soft cloth to wipe any excess water from the surfaces, taking care not to damage the surface of the product.

WASTE MANAGEMENT

- To ensure the correct management of waste, contact an authorised waste management company, use the on-site storage points indicated by the site management and/or place the waste in the public waste containers provided for cardboard, plastic, glass and general waste.



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