

RECOMMENDATIONS FOR INSTALLING AIKKON EST OÜ PRODUCTS

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Remember!

This document has been compiled to provide builders with helpful information, including recommendations and tips, on the general principles and required conditions

for installing Aikkon Est OÜ (hereinafter also **Aikkon**) products in a suspension system/structure. Prior to installation, it is recommended to consult the installer and supplier of the grid system to ensure that the Aikkon products can be installed properly and safely.

Note that Aikkon Est OÜ cannot be held liable for any built or installed suspended ceiling

systems/structures that may result in damage, including property damage, damage to health, personal injury, and environmental damage. Aikkon Est OÜ also cannot be held liable for any defects or damage caused in the course of or by the installation of Aikkon products. Bear in mind that installation jobs, sites, and conditions are never identical, regardless of the product and the suspension system chosen for installation. Thus, the information contained in this document is based purely on Aikkon's general experience and best knowledge, and due to factors which are beyond Aikkon's control, but which may affect the installation and use of the products, Aikkon cannot guarantee the accuracy of the information provided. Always follow the latest instructions published by the manufacturer of the suspended ceiling system and/or structure via their communication channels!

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1. <u>Selecting a suitable grid system</u>

The exact requirements and load-bearing capacities are established by the manufacturer of the fasteners and/or the suspension system/structure and must always be complied with. To clarify the weight of Aikkon panels, please contact your Aikkon Est OÜ dealer or Aikkon Est OÜ directly.

Before you start building a suspended ceiling grid/structure, always check that the walls in the room where the grid/structure is to be installed are at right angles and parallel.

The suspended ceiling grid must be installed in accordance with the installation instructions of the grid manufacturer. Aikkon recommends using the Rockfon Chicago Metallic CLICK T-profile grid system.

https://www.youtube.com/watch?v=ex4ojBVYYY0

Rockfon Chicago Metallic suspension system basic installation scheme and load-bearing capacity.

Kg/m2				
T24 CLICK system	T24 CLICK system	Max bending		
Mainrunners distance (mm)	Panel size (mm)	2,5 mm	4 mm	
1200	1200 x 600	10,9 kg	17,9 kg	
600	1200 x 600	20 kg	25 kg	



Recommendation!

Crimp all hanger hooks shut using pliers, as uncrimped hooks can damage the panels as well as obstruct the installation of the panels and later disassembly of the ceiling.



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2. Installation of E15 and E24 edge panels

Note! The number following the letter 'E' indicates the type of T-profile. For example, E24 means an E-edged panel for a grid system with a T24 profile.

The photo shows a checkered ceiling of 600 * 600 mm panels.

It is possible to use a pre-installed T24 modular grid.

Suitable for the replacement of old 600 * 600 mm ceiling panels in a T24 modular grid system.

Also suitable for 600 * 1,200 mm panels.





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Aikkon's recommendations for installing an E-edged panel on the example of a T24 profile.

- 1. Determine the weight per square metre (m²) of the desired/suitable panel.
- 2. If you are replacing old panels, then remove the old panels.
- Note! Old panels must be disposed of in accordance with waste disposal instructions and laws.
- 3. Inspect the suspended ceiling grid and make sure that:
 - A. the hangers are not spaced more than 1,000 mm apart longitudinally and the first hanger is not positioned further from the wall than 300 mm;
 - B. at the main runner coupling points, hangers are installed no more than 200 mm from the coupling point on both sides;



- C. hangers are installed using the appropriate fasteners (in the case of a concrete ceiling: e.g., wedge anchor, concrete screw, metal impact anchor;
- D. the grid is installed in accordance with the grid manufacturer's instructions.

Note! Check the work done and make sure that there are no inaccuracies that make it difficult to install the product correctly in the grid!



- 4. Cut the panels as needed (see the section entitled **Panel cutting** below).
- 5. Install any recessed lights and ventilation following the same principle as applicable to panel cutting (as needed).
- 6. Fix all other panels into place.

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3. Ds ja Dx panels

Panels measuring 600 mm * 600/1,200/1,500/1,800 mm

The **Ds** and **Dx** edge types can be mounted on a standard T-profile modular grid. The main advantages compared to the GK grid with screws:

- T-grid systems are cheaper than GK grid systems;
- T-grid systems are easier/faster to install;
- the ceiling panels are easier to dismount later for maintenance.

Kg/m2				
T24 CLICK system	T24 CLICK system	Max bending		
Mainrunners distance (mm)	Panel size (mm)	2,5 mm	4 mm	
1200	1200 x 600	10,9 kg	17,9 kg	
600	1200 x 600	20 kg	25 kg	

Aikkon's recommendations for installing Ds- and Dx-edged panels:

- 1. Determine the weight per square metre (m²) of the desired panel.
- 2. Select the appropriate T-profile type based on the weight per square metre (m²) of the selected panel.
- 3. Then select the appropriate T-profile main runner layout:
 - a. main runners at every 1,200 mm;
 - b. main runners at every 600 mm.

The process for cutting panels and openings is identical for all edge types.





b. Main runners at every 600 mm.



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3.1. Ds edge

The ends of the lamellae are joined longitudinally, can be installed in T15 and T24 grids, and in exceptional cases also in a T35 grid.

The Ds edge type requires the installer to pay close attention!

During the installation of the T-grid, care must be taken to maintain the diagonals of the grid. If the grid is not installed correctly, the ends of the lamellae of the panels may not line up.



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3.2. Dx edge

The lamellae are spaced 5 mm apart longitudinally. Can be installed in T15 and T24 grids, and in exceptional cases also in a T35 grid. The Dx edge type is less demanding on the installer.

An even 5 mm line/gap masks minor installation errors, yielding a refined and visually appealing end result.



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4. <u>GK panels</u>

GUIDE UNDER DEVELOPMENT / COMING SOON.

5. HON suspended ceiling system

The HON suspension system is primarily intended for places where the suspended ceiling hides a number of different services and there is not enough space to construct a standard suspended ceiling. This includes, for example, corridors, where the suspended ceiling can conceal ventilation, sewerage, electrical cables, heating pipes, etc. For such cases, Aikkon has developed the HON suspension method, which ensures quick and easy disassembly of the ceiling for various maintenance tasks.

Find out more on Aikkon's Youtube channel:

https://www.youtube.com/channel/UCLF0gwm0gsoE 5vfmAAvpOg/videos?view=0&sort=dd&shelf id=1

Dismounting HON panels

- **1.** Identify the correct side for unfastening the panel. Use your fingers to locate the hook-shaped metal profile (HON JJ-profile) attached to the panel.
- **2.** Push the hook side up and pull the panel towards the wall - the edge of the panel should then come down/loose from the L-profile fixed to the wall.
- 3. Lift the other edge of the panel the metal profile attached to the panel (HON JU-profile). Push the edge towards the wall and lower the entire panel. When removing the panel, be careful not to graze the panel against the wall.
- To remount the panel, follow the same steps in reverse, 4. i.e. in the order: 3. -> 2. -> 1.

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Note! In the text below and in the figure, the numbers indicate the order of the actions.

Figure SECTION 1 – installation of HON suspension structures:

1. Install the HON L-profile at a suitable height, spacing screws and dowels 200 mm apart and making sure that they are fixed firmly in the wall.

2. Install the HON Z-profile – only for the first, i.e. <u>aligned side</u> (HON JJ-profile) of the ceiling panel Use a laser or chalk line to ensure a straight line.

3. Install the HON Z-profile on the side that will be supporting the other end of the ceiling panel (HON JU-profile)

Note! First install only one of the profiles indicated under step 3 in the figure, then perform measurements to check that the ceiling panel will not be placed under tension, but could be mounted and dismounted freely (we recommend using a ceiling panel to check the fit).

Only once you have performed the checks and found that everything fits correctly, install the rest of the HON Z-profiles indicated under step 3 in the figure.

Figure SECTION 2 – ceiling with a luminaire and figure SECTION 3 – ceiling with multiple luminaires:

1. Install the HON L-profile at a suitable height, spacing screws and dowels 200 mm apart and making sure that they are fixed firmly in the wall.

2. Install the HON Z-profile – only for the first, i.e. <u>aligned side</u> (HON JJ-profile) of the ceiling panel Use a laser or chalk line to ensure a straight line.

- 3. Install the hangers for the GK grid (we recommend using rigid hangers to ensure a more rigid and stable structure).
- 4. Install the GK grid, the height of the frame is the same as for the HON L-profile.

5. Mount the HON VAL300 steel plate to the GK grid (make sure that the screws will not obstruct the installation of the items listed under steps 6 and 7.

(Check that the structure is rigid and stable; if necessary, add diagonals to ensure rigidity.

The more rigid the structure is, the easier it is to mount and dismount the ceiling panels.

6. Install the HON Z-profile on the side that will be supporting the other end of the ceiling panel (HON JU-profile)

Note! First install only one of the HON Z-profiles indicated under step 6 in the figure, then perform measurements to check that the ceiling panel will not be placed under tension, but could be mounted and dismounted freely (we recommend using a ceiling panel to check the fit).

Only once you have performed the checks and found that everything fits correctly, install the rest of the HON Z-profiles indicated under step 6 in the figure.

7. Install the HON Z-profile – for the first, i.e. <u>aligned side</u> (HON JJ-profile) of the panel in the next row of ceiling panels. Use a laser or chalk line to ensure a straight line. Leave a gap of 100 mm between each row of ceiling panels (see the figure Section 2).

8. Install the HON Z-profile on the side that will be supporting the other end of the panel (HON JU-profile)

Note! First install only one of the profiles indicated under step 8 in the figure, then perform measurements to check that the panel will not be placed under tension, but could be mounted and dismounted freely (we recommend using a ceiling panel to check the fit).

Only once you have performed the checks and found that everything fits correctly, install the rest of the HON Z-profiles indicated under step 8 in the figure.

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Section 1. The HON suspended ceiling is suspended from wall brackets.

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Notes to self:







Section 2. HON suspended ceiling with wall brackets and a centred lighting solution

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Section 3. HON suspended ceiling with wall brackets and a centred lighting solution

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Aikkon® Less noise, better environment

6. Wall panels with J-profiles

The main advantages of mounting Aikon wall panels using J-profiles:

- enables hiding panel mounting screws from sight;
- easy to mount;
- easy to dismount;
- enables mounting directly onto the base wall (the wall must not be curved).



Installation:

6.1. Use a laser and install the bottom row of the J-profiles.



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6.2. Measure the cross bar on the back of the panel and install the rest of the J-profiles.



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6.3. Fix one panel into place and check that the J-profiles are pressed correctly into the groove on the back of the panel.







6.4. Install the rest of any panels that do not need to be cut. Cut all panels that need to be cut (see the section titled Panel cutting), then install the cut panels.



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7. Panel cutting

Tools needed: circular saw with a guide rail (Fine Cut blade), cordless drill, 3 mm drill bit, screws, tape, tape measure, pencil, plywood trim

(extra cross bar / part of additional grid)

- 1. Measure the width of the plate and mark the required width on the panel.
- 2. Fix the extra plywood cross bar to the back of the panel.
- 3-4. Drill 3 mm holes.

5–6. Fix the extra cross bar to the lamellae using screws. **Note!** Make sure that the holes and screws are positioned along the middle of the lamellae and do not go all the way through the lamellae, i.e. do not use screws that are too long.

7. Apply tape to the front of the panel to prevent damage to the panel during preparation/installation.

8. Cut the panel. (Note! We recommend always using a guide rail when cutting panels.)

9. Apply one to three layers of finish to the ends of the lamellae of the cut panel. Allow to dry completely.

10. Install the panel.









7.















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