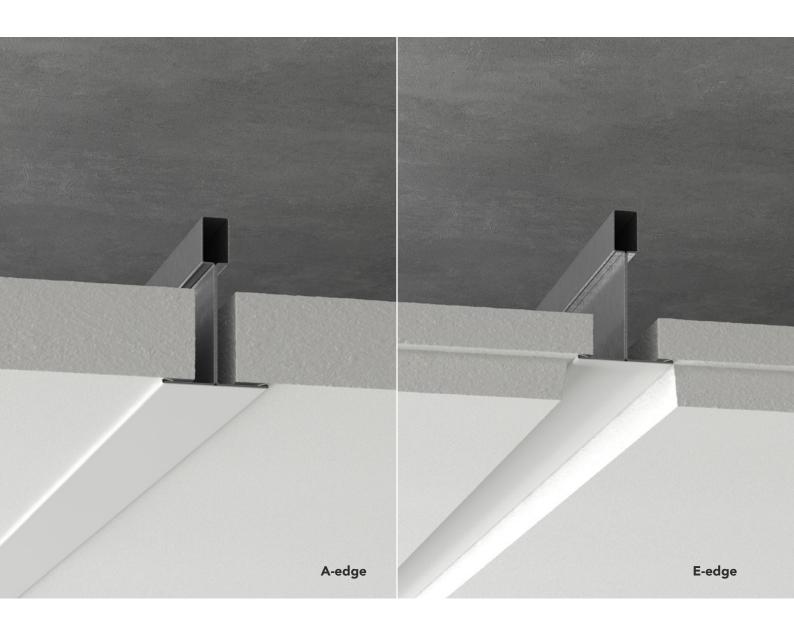


# INSTALLATION GUIDE Rockfon<sup>®</sup> System T24 A, E<sup>™</sup>



# Visible/Semi-concealed ceiling system Standard

- Ceiling system with a 24 mm wide visible grid with A edge tiles or recessed with E edge tiles

- Easy and quick installation

- Ease of service integrations due to 38 mm equal height main runners and cross tees
- Every tile is demountable and fewer hangers allow easy access to the plenum

### **Sounds Beautiful**

### Description

**Rockfon System T24 A, E** is used – depending on the choice of tile – to create a semi concealed (E-edge) or visible (A-edge) grid ceiling system.

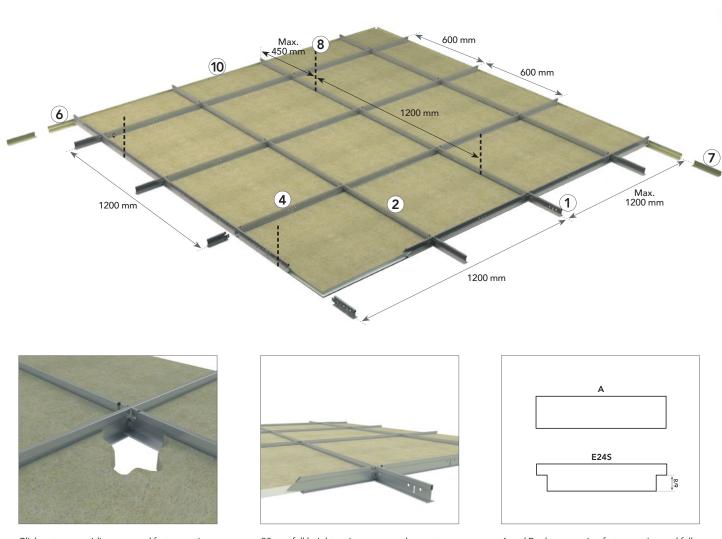
The system can be either installed as a suspended ceiling at the desired height using **Chicago Metallic T24 3830** or mounted directly to the soffit using direct fixing brackets.

In Rockfon System T24 A, E the Chicago Metallic T24 3830 grid comes with a click system providing easy and fast mounting and demounting.

The T profiles have a width of 24 mm, and all components are made of galvanised steel with a smooth, white surface.

The system includes main runners, cross tees, hangers and other necessary components. The main runners and cross tees have a uniform height of 38 mm, ensuring stability and easier integration of services. The system provides a full demountability of all mounted tiles. Rockfon A-edge and E-edge tiles are available in different module sizes (see overview on page 3).

The grid layout to be used depends on the choice of the module size (see layout possibilities on page 5).



Click system providing easy and fast mounting and demounting.

38 mm full height main runners and cross tees for stability and easy service integration.

A and E edges ensuring fast mounting and full demountability.

## System components and consumption guide

| Tile               |                            | Chicago Metallic T24 3830        |                               |                                | Wall angles                    |                                    | Accessories                     |                         |                          |                     |                               |
|--------------------|----------------------------|----------------------------------|-------------------------------|--------------------------------|--------------------------------|------------------------------------|---------------------------------|-------------------------|--------------------------|---------------------|-------------------------------|
|                    |                            | 1                                | 2                             | 4                              | 5                              | 6                                  | 7                               | 8                       | 9                        | 10                  | 11                            |
| A, E               | edge                       | Main runner<br>T24 Click<br>3600 | Cross tee<br>T24 Click<br>600 | Cross tee<br>T24 Click<br>1200 | Cross tee<br>T24 Click<br>1800 | W Shadow<br>moulding<br>wall angle | Perimeter<br>wall angle<br>trim | Hanger                  | Direct fixing<br>bracket | Wall<br>spring fixt | Wall &<br>bridging<br>bracket |
| Dimensions<br>(mm) | Consumption/m <sup>2</sup> |                                  |                               |                                |                                |                                    |                                 |                         |                          |                     |                               |
| 600 x 600          | 2,78 pcs/m <sup>2</sup>    | 0,83 lm/m <sup>2</sup>           | 0,83 lm/m <sup>2</sup>        | 1,67 lm/2                      | -                              | 1)                                 | 1)                              | 0,7 pcs/m <sup>2</sup>  | 0,7 pcs/m <sup>2</sup>   | 1)                  | 1)                            |
| 1200 x 600         | 1,39 pcs/m <sup>2</sup>    | 0,83 lm/m <sup>2</sup>           | -                             | 1,67 lm/2                      | -                              | 1)                                 | 1)                              | 0,7 pcs/m <sup>2</sup>  | 0,7 pcs/m <sup>2</sup>   | 1)                  | 1)                            |
| 1800 x 600         | 0,93 pcs/m <sup>2</sup>    | 0,56 lm/m <sup>2</sup>           | -                             | -                              | 1,67 lm/m <sup>2</sup>         | 1)                                 | 1)                              | 0,46 pcs/m <sup>2</sup> | 0,46 pcs/m <sup>2</sup>  | 1)                  | 1)                            |
| 2400 x 600         | 0,69 pcs/m <sup>2</sup>    | 1,67 lm/m <sup>2</sup>           | 0,42 lm/m <sup>2</sup>        | -                              | -                              | 1)                                 | 1)                              | 1,39 pcs/m <sup>2</sup> | 1,39 pcs/m <sup>2</sup>  | 1)                  | 1)                            |

1) Consumption depends on room size.



### Performance



#### System load bearing capacity

| •                    | Max. Load (kg/m²)      |  |  |
|----------------------|------------------------|--|--|
| Hanger distance (mm) | Max. 3,3 mm deflection |  |  |
| 1200                 | 11                     |  |  |



#### **Corrosion resistance**

Chicago Metallic grids are manufactured from high quality hot dip galvanised steel with a coloured capping of pre-painted hot dip galvanised steel. It resists corrosion and it can be used in standard humid environments.



#### Demountability

Tiles mounted in Rockfon System T24 A, E are fully demountable.



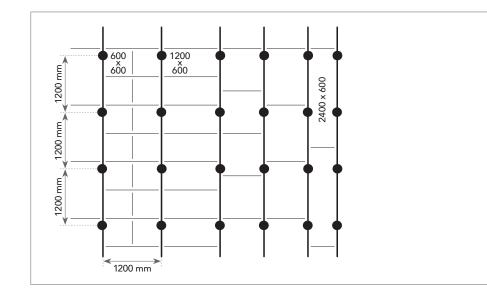
#### Fire resistance

Some Rockfon ceiling systems have been tested and classified in accordance with European norm EN 13501-2 and/or national norms. Please contact Rockfon.

### **Grid Installation**

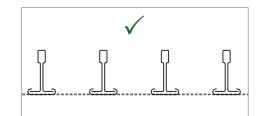
#### Grid layout and hanger location

Rockfon A and E edge tiles can be installed in Rockfon System T24 A, E. Some layout options are shown below depending on the size of the tile.



During and after grid installation, it is important to check that T profiles are perfectly aligned horizontally. A maximum level difference of +/- 1 mm is recommended between

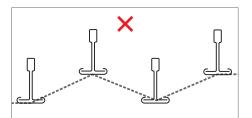
profiles and should not be added. This tolerance is valid for all directions.



Main runner

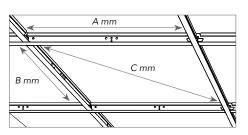
Cross tee

Hanger



It is also important to check the squareness of the angles between the main runners and cross tees. This can be easily done by comparing the measurements of the two diagonals.

Installation requirements



| Dimensions (A x B) | Diagonal (C) | Tolerance |  |  |  |  |
|--------------------|--------------|-----------|--|--|--|--|
| mm                 |              |           |  |  |  |  |
| 600 x 600          | 814,6        |           |  |  |  |  |
| 1200 x 600         | 1309,5       | . / 10    |  |  |  |  |
| 1800 x 600         | 1867,1       | +/- 1,0   |  |  |  |  |
| 2400 x 600         | 2444,8       |           |  |  |  |  |

# **Compatible Tiles Overview**

All Rockfon A and E edge tiles available in dimensions mentioned in the "System load bearing capacity" table on page 4 can be installed in Rockfon System T24 A, E.

|                         |       |           | Dimensions (mm) |            |            |            |  |
|-------------------------|-------|-----------|-----------------|------------|------------|------------|--|
| Tiles                   | Edge  | Thickness | 600 x 600       | 1200 x 600 | 1800 x 600 | 2400 x 600 |  |
|                         | A24   | 20        | •               | •          | •          | •          |  |
| Rockfon Blanka          | E24S8 | 20        | •               | •          |            |            |  |
| Rockfon Blanka Activity | A24   | 40        | •               | •          | •          |            |  |
| Rockfon Boxer           |       | 20        | •               | •          |            |            |  |
| ROCKTON BOXER           | A24   | 40        | •               | •          |            |            |  |
|                         | A24   | 15        | •               | •          |            |            |  |
| Rockfon Color-all       | E24S8 | 20        | •               | •          |            |            |  |
| Rockfon MediCare Air    | A24   | 25        | •               | •          |            |            |  |
| Rockfon MediCare Plus   | A24   | 20        | •               | •          | •          |            |  |
| Rockton MediCare Plus   | E24S8 | 20        | •               | •          |            |            |  |
|                         | A24   | 12        | •               | •          |            |            |  |
| Rockfon Pacific         | E24S6 | 12        | •               |            |            |            |  |
|                         | A24   | 20        | •               | •          | •          |            |  |
| Rockfon Sonar           |       | 25        |                 |            |            | •          |  |
| -                       | E24S8 | 20        | •               | •          |            |            |  |
|                         | A24   | 15        | •               | •          |            |            |  |
| Rockfon Artic           | E24S8 | 15        | •               | •          |            |            |  |
|                         | A24   | 15        | •               | •          |            |            |  |
| Rockfon Tropic          |       | 20        |                 |            | •          |            |  |
| ·                       | E24S8 | 15        | •               | •          |            |            |  |
|                         | A24   | 15        | •               | •          |            |            |  |
| Rockfon Koral           | E24S8 | 15        | •               | •          |            |            |  |
| Rockfon MediCare        | A24   | 15        | •               | •          |            |            |  |
| Standard                | E24S8 | 15        | •               | •          |            |            |  |
| Rockfon Sonar Activity  | A24   | 40        | •               | •          |            |            |  |

# Minimum installation depth (mm)

Tiles mounted in Rockfon System T24 A, E give full demountability.

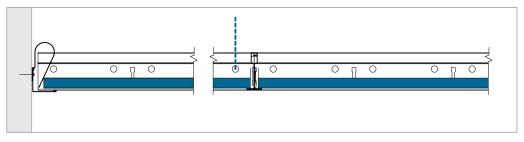
The installation depth is defined as the distance from the visible side of the tile to the underside of the substrate, where the hangers are fixed. D is the minimum installation depth for easy tile installation and demountability.

| Tile thickness | Dimensions               | D   |  |  |  |
|----------------|--------------------------|-----|--|--|--|
|                | mm                       |     |  |  |  |
| 15-20          | 600 x 600<br>2400 x 600  | 100 |  |  |  |
| 40-100         | 1200 x 600<br>1800 x 600 | 200 |  |  |  |

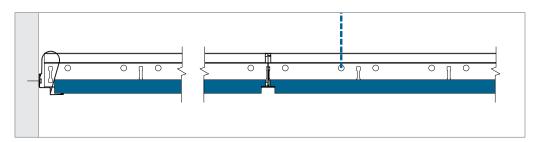


## **Perimeter Finish Options**

Below are examples of perimeter finishing. Further details can be found on **apac.rockfon.international** 



A-edge - Perimeter finish with wall angle trim.



E-edge - Perimeter finish with shadow wall angle trim.

### Service integration

Rockfon ceiling tiles are easy to cut and therefore it is very easy to integrate services in Rockfon tiles. The cut-outs can be made with a simple utility knife.

When the ceiling system is installed to bear load, Rockfon recommends using support arms or a yoke that transfers the weight of the service to the grid. The size of the yoke should not be bigger than module  $600 \times 600$  mm and the use of additional hangers to

overcome deflection in the ceiling system is strongly recommended. When using support arms to spread the weight of the installation, Rockfon recommends spanning a maximum of 600 mm and where necessary the use of additional hangers to counteract potential ceiling deflection. For more information on the load bearing capacities of this Rockfon System T24 A, E please refer to the table below.



#### System load bearing capacity

| •                    | Max. Load (kg/m²)      |  |
|----------------------|------------------------|--|
| Hanger distance (mm) | Max. 3,3 mm deflection |  |
| 1200                 | 11                     |  |

#### Planning

A thorough planning and installation scheduling of the project/ site will result in less re-work and less ceiling tile damage Rockfon recommends discussing the installation planning thoroughly and well in advance with other installers that have to work in or near the suspended ceiling. By doing so damaged ceiling tiles and dirty spots on the finished ceiling surface can be avoided, which reduces project costs.

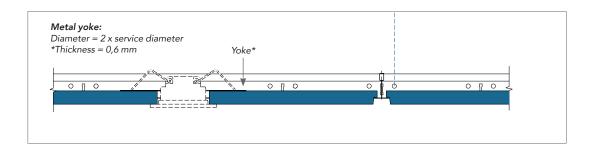
#### Overview load bearing capacity

| •   | Weight of installations  |                                 |                    |  |  |
|---|--|---------------------------------|--------------------|--|--|
| -   | < 0,25 kg/pcs  | < 0,25 kg/pcs 0,25 ≥ 3,0 kg/pcs |                    |  |  |
| Small service integration;<br>Spot- or downlight, speaker, ventilation etc. | Drawing A  | Drawing B                       | Suspend separately |  |  |
| Large service integration;<br>Downlight, speaker, ventilation, etc.         | Drawing A  | Drawing B                       | Suspend separately |  |  |
| Modular lighting- or ventilation fixture                                    | Drawing C; System load bearing capacity (if evenly distributed over grid in kg/m²) |                                 |                    |  |  |

When installing services in Rockfon System T24 A, E you should always follow local building regulations if more strict than the load bearing capacity constraints Rockfon recommends in the above table. Contact your local Rockfon technical service for more information on suitable lighting fixtures, accessories and the availability of CAD drawings of the different services integrated in Rockfon System T24 A, E. Special solutions with integrated services are, if available, shown on page 18 of this document; 'Tools'.

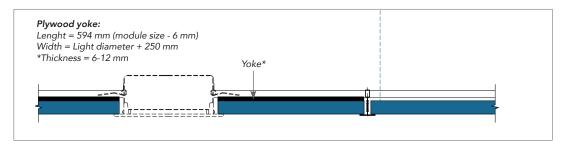
#### **Drawing A**

The integration of a spotlight, smoke detector, speaker, etc. (weighing < 0,25 kg/pcs). Rockfon recommends installing spotlights and downlights centralized in the tile.



#### **Drawing B**

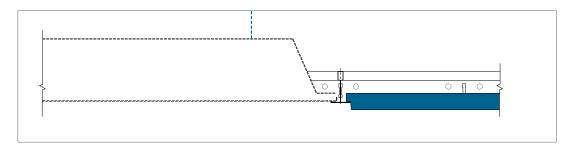
The integration of a downlight, spotlight, smoke detector, loud speaker, etc. (weighing  $0.25 \ge 3,0 \text{ kg/pcs}$ ). Usage of an appropriate yoke to spread the load to the grid (as shown in the detail) or usage of support arms to spread the load to the grid system is strongly recommended. The use of additional hangers to avoid excess deflection and a centralized installation of the lighting in the tile is strongly recommended.



\*The thickness of the plywood or metal yoke needs to be adapted in function of the weight, size and position of your service integration (e.g. downlight or speaker). The Plywood or metal yoke itself may not deflect after installing your service integration.

#### Drawing C

The integration of a modular luminaire or air vent (evenly distributed over grid), weighing max. the system loading capacity. If the load capacity of the system is likely to be exceeded it is strongly recommended to suspend the service independently. Alternatively use services equipped with supporting arms on minimum two opposite sides to transfer the weight of the service to the top of the bulb of the grid. This is safer and reduces the likelihood of T rotation.



### General installation recommendations

#### Junction between ceiling and wall or other vertical surface

The perimeter trim should be fastened to vertical surfaces at the required level using appropriate fixings at every 300-450 mm centres. Ensure that butt joints between adjoining lengths of trim are neat and that the trim is free from kinks and remains true and level. For the best aesthetics, use as long a length of trim as possible. The minimum recommended cut length is 300 mm.

#### Timber trims, timber shadow battens and metal

Shadow mouldings should not be used with fire resisting/protecting ceilings.

#### Junction between ceiling and curved vertical surface

The use of a preformed curved perimeter trim is the most appropriate method. Rockfon can provide details of curved perimeter trims on request.

#### Corners

Perimeter trims should be neatly mitred at all corner joints. Overlap mitres are acceptable on metal trims on internal corner joints unless specified otherwise.

#### Suspension grid

Unless specified otherwise, the ceiling should be set out symmetrically and where possible, perimeter tiles should be greater than 200 mm in width. The hangers should be fastened with appropriate top fixings and to the main runners at 1200 mm centres (or less with greater load). Main runners should be positioned at 1200 mm centers at all times. A/A distance of the cross tees depends on the module size of the tiles.

For proper grid installation, make sure the T profiles are perfectly aligned horizontally and diagonals of modules are equal (see requirements and tolerances on page 5). Main runner joints should be staggered and there should be a hanger positioned within 150 mm of the fire expansion element/cut-out and within 450 mm of the end of the main runner where it terminates at a perimeter.

Additional hangers may be necessary to support the weight of ceiling services. When using direct hangers, a fixing nail should be used to lock the hanger on to the bulb of the main runner.

#### Tiles

It is recommended to use clean nitrile or PU coated gloves when mounting Rockfon tiles in order to avoid finger prints and pollution of the surface.

For an optimised work environment, we recommend installers always observe common work practices and follow the installation advise as shown on our packaging.

Cutting is made easily with a sharp knife. All off-cuts and holes must be treated according to local Building Regulations. Mounting of 1800 x 600 mm tiles is recommended to be done by two persons.

**Note!** Certain smooth matt surfaces are directional. To ensure consistency of the finished ceiling, it is important that all tiles are mounted in one direction indicated by the arrow printed on the back of each tile.

### Tools

Rockfon has developed specific tools that are available on apac.rockfon.international



Visit our online CAD Library or BIM portal to assist you in your project design.



Generate specification texts for our products on our website.



Explore our vast library of reference projects on our website.

# Sounds Beautiful

