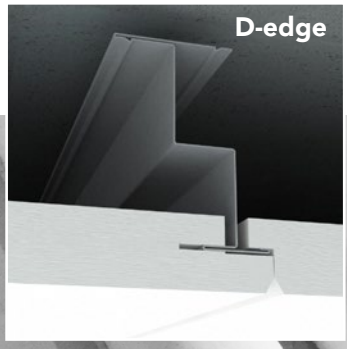
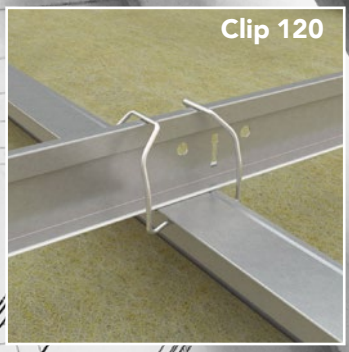
Rockfon®

Part of the ROCKWOOL Group

Rockfon® System T24 Stepped Z D™

System Description





Concealed ceiling system
Continuous expression

- Elegant, continous ceiling expression
- Every single tile is demountable for access to services
- Suitable system for large format tiles

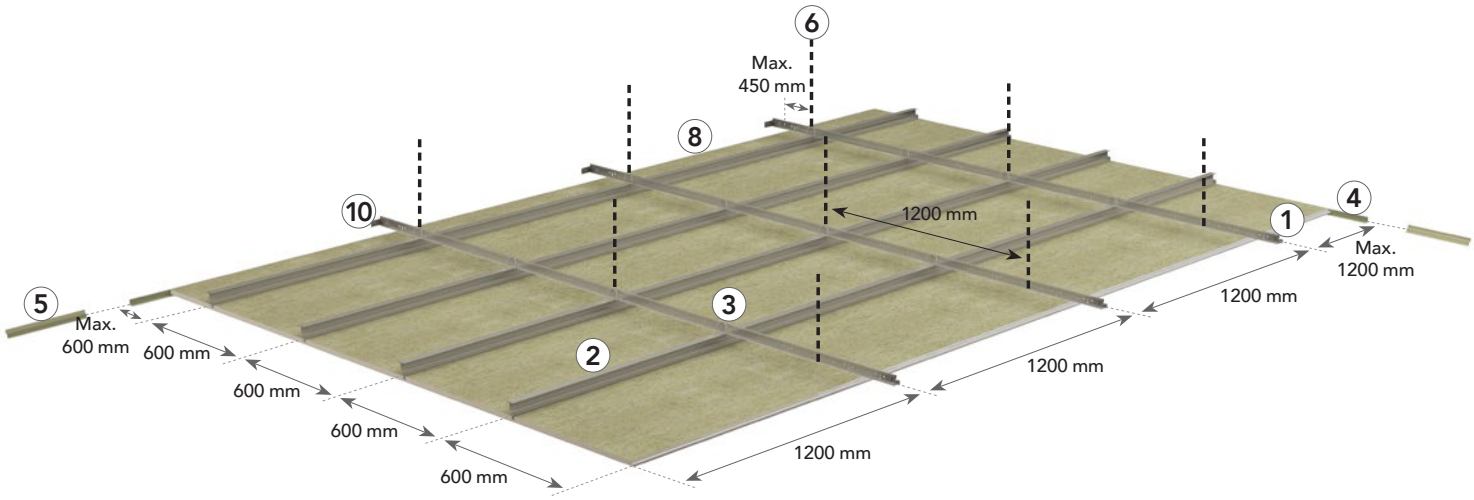
Sounds Beautiful

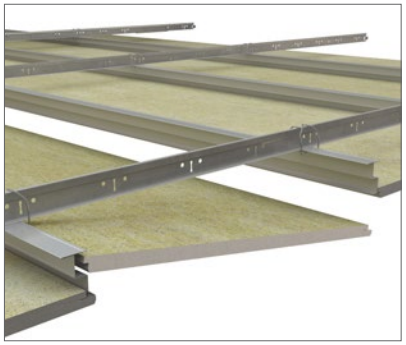
Description

Rockfon System T24 Stepped Z D is a galvanised concealed grid system which can be used to install Rockfon tiles with the D edge detail.

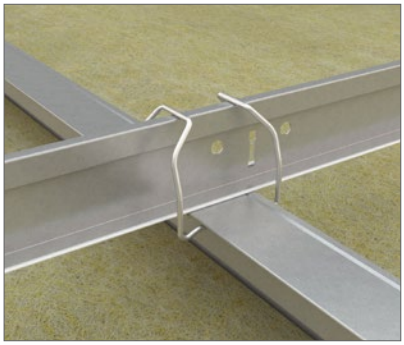
The system comprises main runners/primary channels and stepped Z sections. Rockfon tiles with D edges up to 25 mm thickness can be easily installed and subsequently demounted from this system, thereby providing an aesthetically pleasing fully concealed and accessible ceiling.

Rockfon System T24 Stepped Z D can be either suspended or directly fixed to the soffit using a variety of hangers.

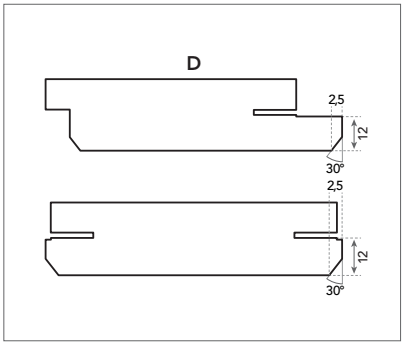




Tiles can be easily installed and subsequently demounted from this system.



Specially designed wire clips are used to lock the Stepped Z profile against the T24 without any tools.



D edge detail.

System components and consumption guide

Tile		Chicago Metallic T24 Stepped Z			Wall angles		Accessories				
		1	2	3	4	5	6	7	8	9	10
-		Main runner T24 Click/Hook 3600	Stepped Z 4000	Clip 120	Perimeter wall angle trim	W shadow moulding wall angle	Rigid angle hanger	Direct fixing bracket	Wall spring fixt	Spline	Wall & bridging bracket
Dimension (mm)	**Consumption/m²**										
600 x 600	2.78 pcs/m²	0.83 lm/m²	1.66 lm/m²	2.77 pcs/m²	1)	1)	0.70 pcs/m²	0.70 pcs/m²	2)	-	1)
1200 x 300	2.78 pcs/m²	0.83 lm/m²	0.83 lm/m²	5.53 pcs/m²	1)	1)	0.70 pcs/m²	0.70 pcs/m²	2)	-	1)
1200 x 600	1.39 pcs/m²	0.83 lm/m²	1.66 lm/m²	2.77 pcs/m²	1)	1)	0.70 pcs/m²	0.70 pcs/m²	2)	-	1)
1500 x 300	2.22 pcs/m²	0.83 lm/m²	0.83 lm/m²	5.53 pcs/m²	1)	1)	0.70 pcs/m²	0.70 pcs/m²	2)	-	1)
1800 x 300	1.85 pcs/m²	0.83 lm/m²	0.83 lm/m²	5.53 pcs/m²	1)	1)	0.70 pcs/m²	0.70 pcs/m²	2)	-	1)
1800 x 600	0.93 pcs/m²	0.83 lm/m²	1.66 lm/m²	2.77 pcs/m²	1)	1)	0.70 pcs/m²	0.70 pcs/m²	2)	-	1)
1200 x 1200	0.69 pcs/m²	0.83 lm/m²	0.83 lm/m²	1.38 pcs/m²	1)	1)	0.70 pcs/m²	0.70 pcs/m²	2)	1.67 pcs/m²	1)

1) Consumption depends on room size.
2) Edge springs (wall spring fixt) should be used between the wall and perimeter tiles.
Ensure there is enough space between the tile and the wall to insert the spring. Use one spring per perimeter tile.

Tile - D Edge

Chicago Metallic T24 Stepped Z

1. Main runner T24 Click/Hook 3600

2. Stepped Z 4000

3. Clip 120

Wall angles

4. Perimeter wall angle trim

5. W shadow moulding wall angle

Accessories

6. Rigid angle hanger

7. Direct fixing bracket

8. Wall spring fixt

9. Spline

10. Wall & bridging bracket

Performance

System load bearing capacity

-		Max. Load (kg/m²)	
Hanger distance (mm)	Dimensions (mm)	Max. 2.5 mm deflection	Max. 4.0 mm deflection
1200	600 x 600	10.7	17.9
1200	1200 x 300	10.2	17.8
1200	1200 x 600	10.7	17.9
1200	1500 x 300	10.2	17.8
1200	1800 x 300	10.2	17.8
1200	1200 x 1200	10.3	16.9
1200	1800 x 600	10.7	17.9

The system's load capacity is determined from a max. deflection of the individual components corresponding to 1/500 of the span or the cumulative deflection of all structural components which does not exceed 2.5 or 4 mm. The load bearing capacity is given as regularly distributed load in kg / m², the weight of the tile is not included.

Corrosion resistance

Class B (EN13964)

Demountability

Tiles mounted in Rockfon System T24 Stepped Z D 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.

Compatible Tiles Overview

Rockfon System T24 Stepped Z D is available with the following Rockfon tiles:

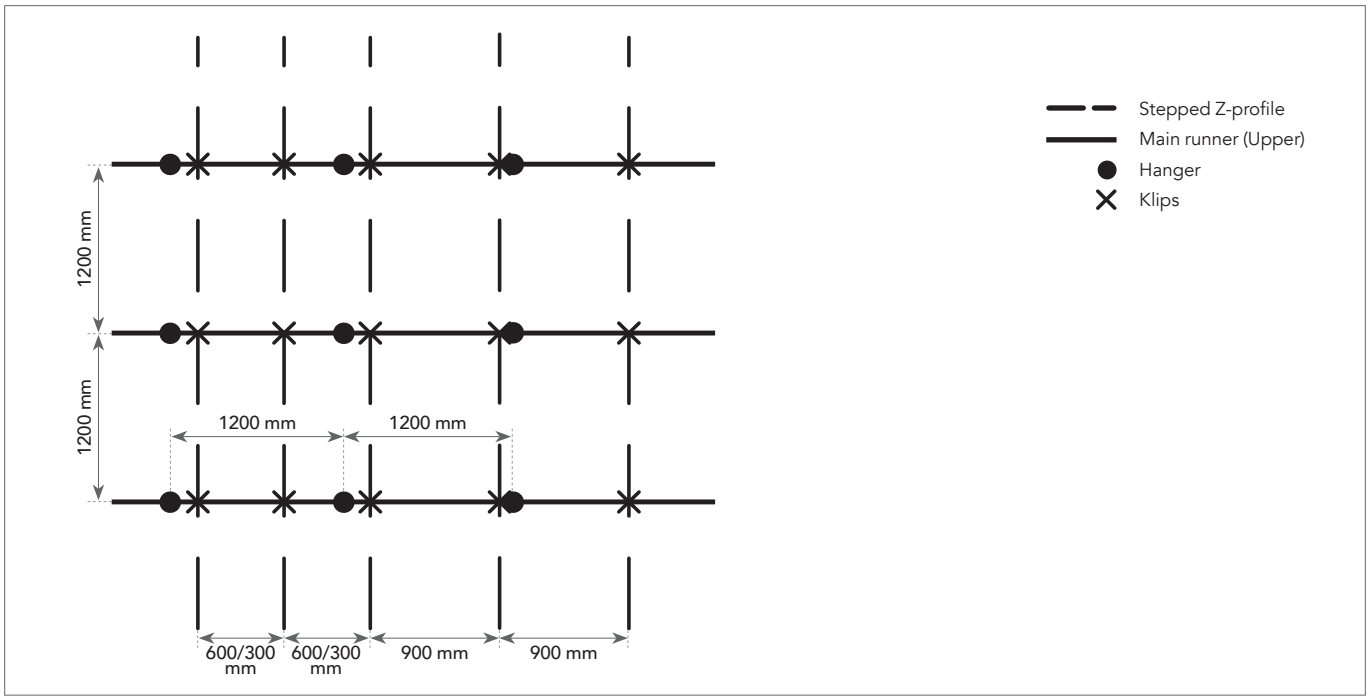
-		Dimensions (mm)						
Tiles	Thickness (mm)	600 x 600	1200 x 300	1200 x 600	1500 x 300	1800 x 300	1200 x 1200	1800 x 600
Rockfon Blanka®	20	•	•	•	•	•		•
Rockfon Blanka®	25						•	

Other dimensions can be installed in Rockfon System T24 Stepped Z D. Please contact Rockfon for details.

Grid Installation

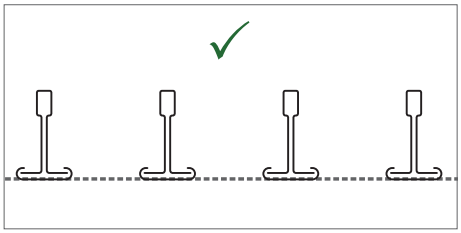
Grid layout and hanger location

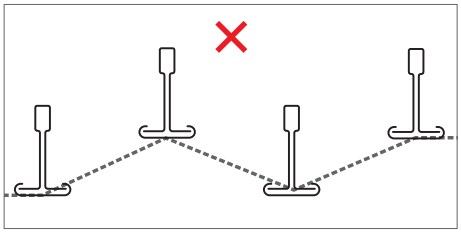
Rockfon D-edge tiles can be installed in Rockfon System T24 Stepped Z D.
Some layout options are shown below depending on the size of the tile.



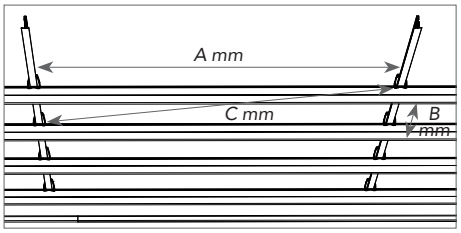
Installation requirements

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



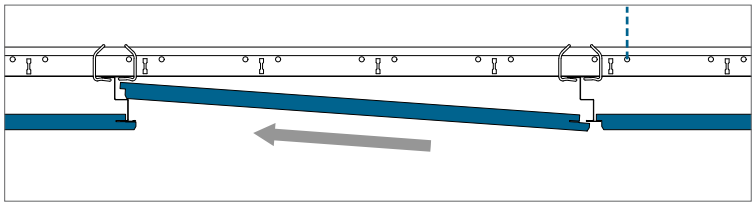


It is also important to check the squareness of the angles between the main runners and cross tees. This can be done easily by comparing the measurements of the two diagonals. See recommended tolerances on the drawing below.

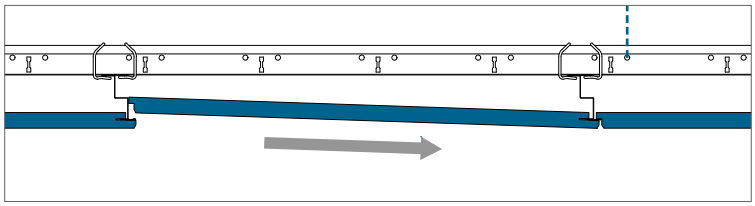


Dimensions (A x B)	Diagonal (C)	Tolerance
	mm	
600 x 600	1305.11	
1200 x 300	1205.71	
1200 x 600	1305.11	
1500 x 300	1205.71	+/- 1.0
1800 x 300	1205.71	
1200 x 1200	1704.62	
1800 x 600	1305.11	

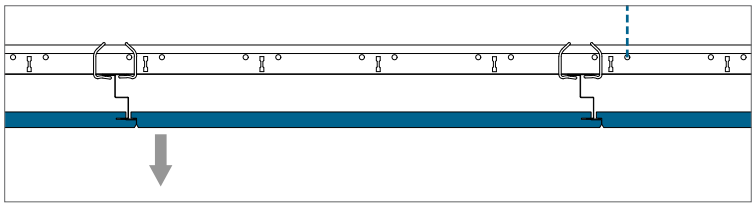
Tile Installation



Mount the tile by sliding the D1 edge into the gap of the stepped Z profile.



Slide the D2 edge into the stepped Z.



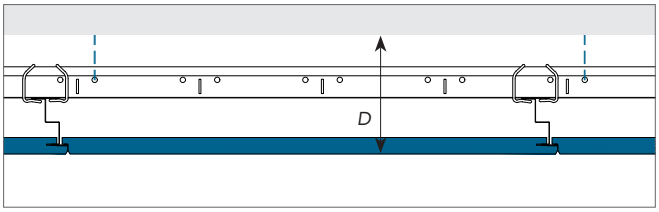
Drop carefully into position.

Minimum installation depth (mm)

Tiles installed in Rockfon System T24 Stepped Z D are fully demountable. The system is characterised by symmetrical, fully independent tiles.

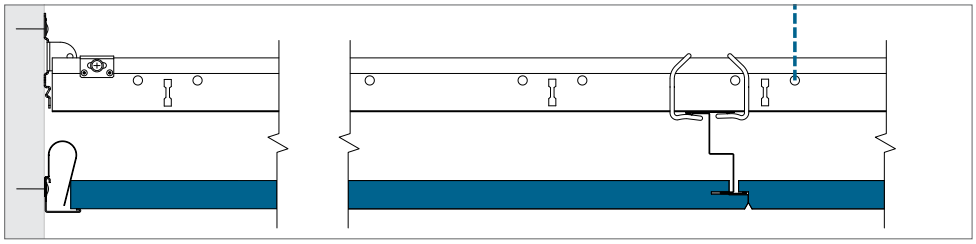
The installation depth is defined as the distance from the underside of the tile to the underside of the substrate, where the hangers are fixed. D represents the minimum installation depth that allows for easy tile installation and demounting.

Thickness	Dimensions	D
	mm	
20	600 x 600	120
	1200 x 300	
	1200 x 600	
	1500 x 300	
	1800 x 300	
	1800 x 600	
25	1200 x 1200	120

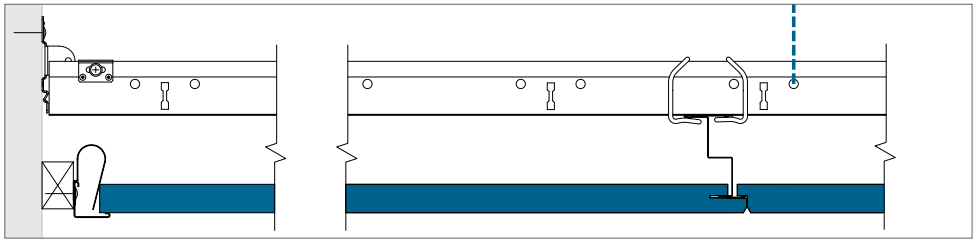


Perimeter Finish Options

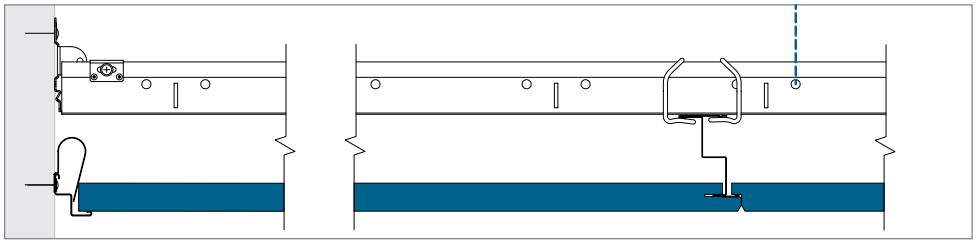
Below are examples of perimeter finishing. Further details can be found on **www.rockfon.co.uk**



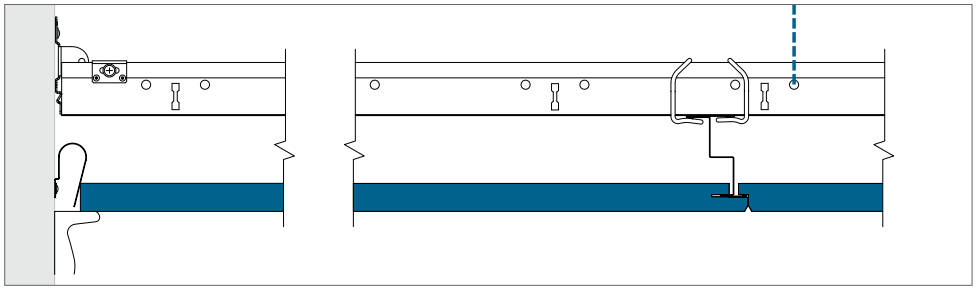
Angle trim.



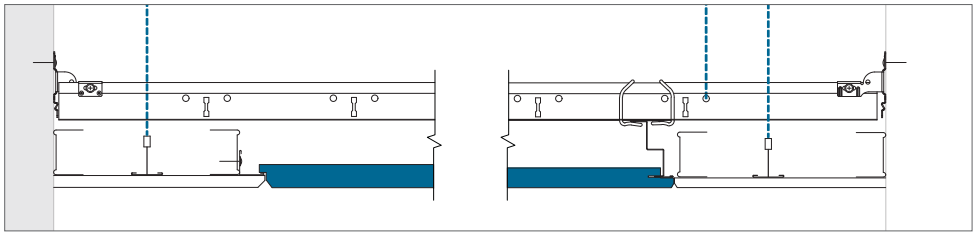
Shadow batten and angle trim.



W shadow moulding wall angle.



Timber moulding.



Plain gypsum border.

Service integration

Rockfon ceiling tiles are easy to cut and therefore it is very easy to integrate service installations in our ceiling tiles. Cutouts can be made with a simple utility knife.

When the system is load bearing we recommend using a yoke or extra support arms that spreads the weight of the service installation. Please be aware that, when installing a yoke or support arms, the tile is supported by the grid on only two sides. The size of the yoke should not be bigger than the module size 600 x 600 mm and the use of extra hangers to overcome deflection in the ceiling system is strongly recommended. When using support arms to spread the weight of the installation, we recommend spanning a maximum 600 mm.

When integrating (recessed) modular luminaires please take note of the D edge tile design and its relationship to the grid. Because of the ceiling tile design, a special type of luminaire should be chosen in order to create an aesthetically pleasing and level ceiling surface. The actual size of the ceiling tile is nearly its module size and the front surface of the ceiling tile sits approx. 11 mm below the face of the T-grid.

Planning

A thorough project plan will result in less re-work and less ceiling tile damage. Rockfon recommends discussing the installation 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 reduced, which reduces costs on site.

Overview load bearing capacity

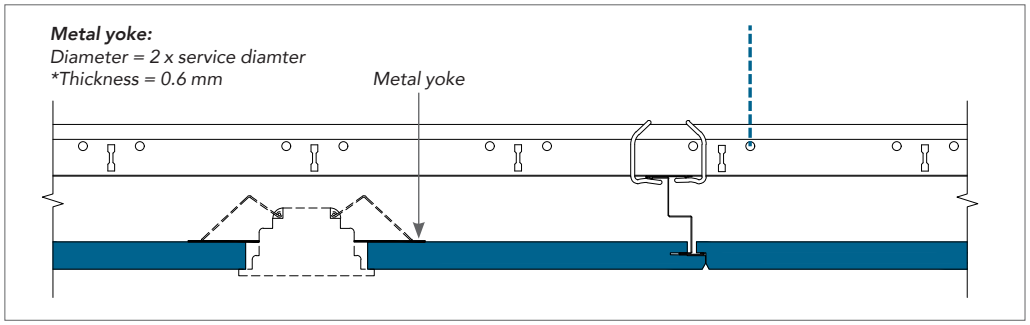
-	Weight of installations		
-	< 0.25 kg/pcs	0.25 ≥ 3.0 kg/pcs	> 3.0 kg/pcs
Small service integration; Spotlight or downlight, speaker, ventilation etc.	Drawing A	Drawing B	Independently suspend
Large service integration; Downlight, speaker, ventilation, etc.	Drawing A	Drawing B	Independently suspend

When installing services in Rockfon System T24 Stepped Z D you should always follow the local building regulations. If the constraints are stricter than the load-bearing capacity, please find our recommendations in the above table.

Contact your local Rockfon customer service for more information on suitable lighting fixtures, accessories and the availability of CAD drawings for the different services integrated in Rockfon System T24 Stepped Z D. Special solutions with integrated services are, if available, shown on page 10 of this document; in the Tools section.

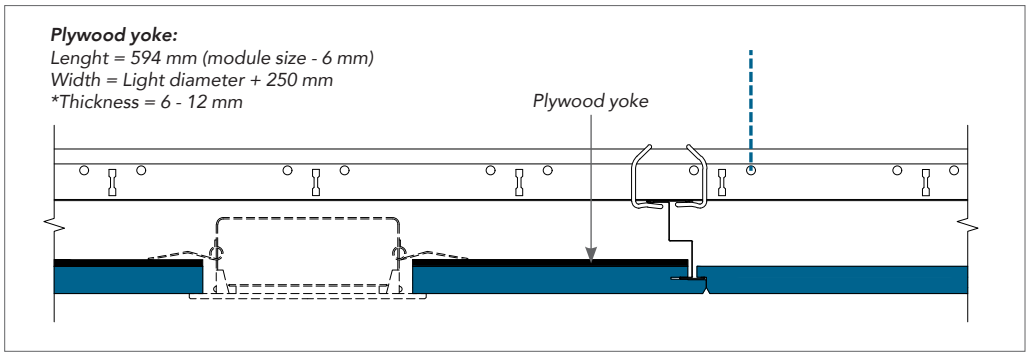
Drawing A

The integration of a spotlight, smoke detector, speaker, etc. (weighing < 0.25 kg/pcs).
Rockfon recommends installing spotlights and downlights centralised in the tile.



Drawing B

The integration of a downlight, spotlight, smoke detector, loud speaker, etc. (weighing 0.25 ≥ 3.0 kg/pcs).
Use of an appropriate yoke to spread the load to the grid (as shown in the detail) or use of support arms to spread the load to the grid system is strongly recommended. The use of additional hangers to reduce excess deflection and a centralised 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.*

General installation recommendations

Junction between ceiling and wall or other vertical surface

The perimeter trim should be fastened to the vertical surfaces at the required level, using the appropriate fixings every 300-450 mm. Ensure that butt joints between adjoining lengths of trim are neat and that the trim is free from kinks and that it 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 for 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 to the main runner at every 1200 mm centres, or less with a greater load.

Main runners / primary grid should be positioned at 1200 mm centres.

For proper grid installation, ensure 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

We recommend the use of clean nitrile or PU coated gloves when installing Rockfon tiles in order to avoid fingerprint marking on the surface.

Cutting is made easy with a sharp utility knife.

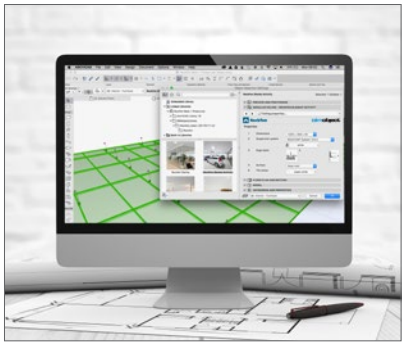
For an optimum work environment, we recommend installers always observe common work practices and follow the installation advice as shown on our packaging.

Installation of 1800 x 600 mm tiles is recommended to be carried out by two people.

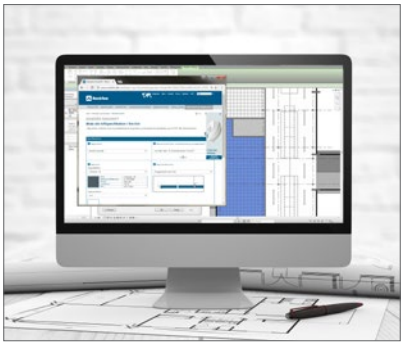
Note! Certain smooth matt surfaces are directional. To ensure consistency of the finished ceiling, it is important that all tiles are installed in one direction indicated by the arrow printed on the back of each tile.

Tools

Rockfon has developed specific tools that are available on **www.rockfon.co.uk**



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



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