

**Table of Contents:**

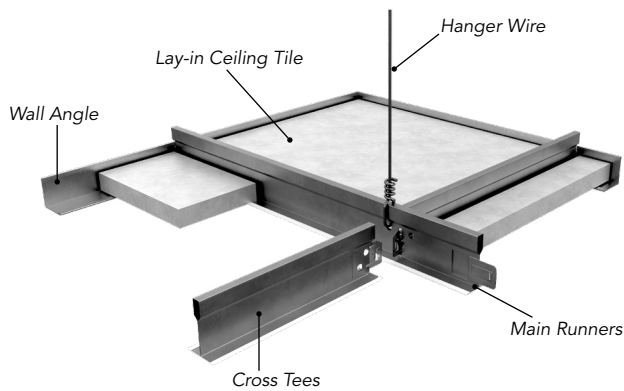
▪ System Overview.....	2	▪ Suspension System Installation.....	6
▪ Installation Conditions.....	3	▪ Panel Installation.....	10
▪ Reference Documentation.....	3	▪ Service Integration.....	10
▪ Tools Required.....	4	▪ Seismic Considerations.....	10
▪ Clips and Accessories.....	4	▪ Cleaning.....	11
▪ Pre-Planning.....	5		

# Interior Installation Guide: For Chicago Metallic® Standard 15/16" and 9/16" Exposed Grid Systems



## System Overview

This guide covers the basic installation steps for Chicago Metallic standard 15/16" and 9/16" exposed face grid systems. The basic framework includes main runners, cross tees and wall angle. Installed properly, the suspension system supports lay-in and reveal edge ceiling tiles.



## Best Practices

Always follow good safety practices when installing ceilings. Prior to beginning installation ensure that all materials are received and in good condition. Record any shipping damage on the carrier's bill of lading and contact Rockfon immediately to order replacement material:

- Email: [cs@rockfon.com](mailto:cs@rockfon.com)
- Fax: 866-211-3824
- Customer Service: 800-323-7164

*If there are any issues with your order, contact Customer Service at 1-800-323-7164, telephone option 1.  
E-mail replacement material orders, including your purchase order number on document, to [cs@rockfon.com](mailto:cs@rockfon.com).  
For technical assistance, contact Technical Services at 1-800-323-7164, telephone option 2.*

## Installation Conditions

### Temperature and Humidity

Chicago Metallic suspension systems must be stored or used in a fully temperature controlled building. In addition, Rockfon tiles and grid should be installed in a clean environment, free from construction dust and debris.

### Handling

Tiles and grid come shipped in cartons and should be stored in a dry location. Prior to installation, inspect the cartons for damage. Use care in handling and removing the tiles and grid components. It is recommended to use clean gloves with a non-marking rubber/latex coating or polyethylene gloves when handling Rockfon ceiling tiles and grid to avoid contamination. For ceiling tiles larger than 4' it is recommended that two installers handle the tiles when moving or installing into the ceiling plane.

## Reference Documentation

Several industry standards are published and available. Acoustical and metal ceiling installers should familiarize themselves with the installation methods and best practices recommended for ceiling systems.

Prior to installation, it's imperative the installer become familiar with any project specific documentation available. These items will confirm ceiling layout, panel sizes and finish, ceiling accessories, ceiling fixture layout and orientation, and any special edge conditions.

### Industry Standard Documentation

- ASTM C636 (Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels, <https://www.astm.org/Standards/C636.htm>)
- [CISCA Ceiling Systems Handbook](#)

### Project Specific Documentation

- Reflected ceiling plans
- Project specifications
- Approved project submittals (data sheets, shop drawings)



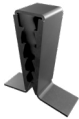





### Other Documentation

- [Using 12-gauge Hanger Wire](#)
- [Plank Panels](#)
- [Seismic Relief Brochure](#)

## Tools Required

- Laser or leveling device
- Cutting knife/blades
- Marking tool (pencil)
- Pliers
- Clean gloves
- Aviation snips
- Tape measure
- Drill
- Screwdrivers (Phillips, Flathead)

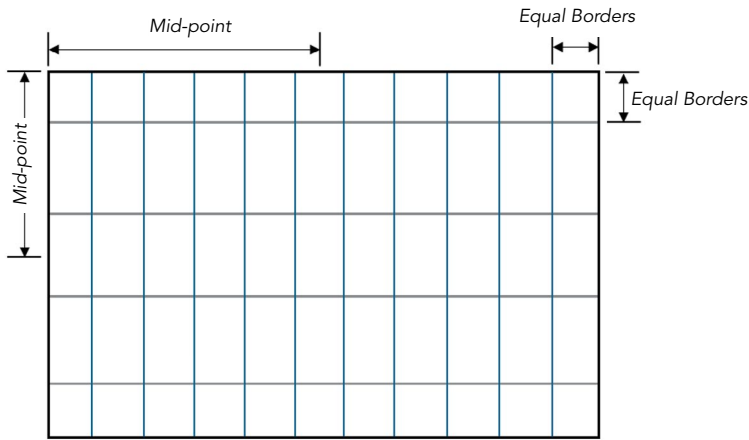
## Clips and Accessories

Detail	Rockfon Part Number	Product Name	Product Description
	1499.00	Perimeter Clip	Used as an alternate method to secure grid to wall
	479.00	90 Degree Corner Clip	Can be used to secure grid to wall or for field cut grid connections
	935.00	Universal Hold Down Clip	Used to secure acoustical panels in grid suspension up to 5/8" thick
	Varies	Spacer Bar	Spaces grid suspension for 2' and 4' dimensions
	1320.01 (9/16") 1321.01 (15/16")	Cover Sleeve	Covers and connects the gap in field cut grid flanges when used with seismic separation clip
	839.01	Expansion Coupling	Covers and connects field cut grid flanges for 15/16" grid
	Varies	Corner Caps	Used to finish off inside and outside corners
	816.01H (2') 817.01 H (4')	Variable Placement Tee	Can be used to support off module acoustical ceiling tiles for 15/16" grid

## Pre-Planning

Proper planning is essential to a good installation. The following guidelines should ensure a successful ceiling installation.

- Refer to the projects reflected ceiling plan for proposed ceiling layout and follow these centerlines and border widths.
- If a reflected ceiling plan is not available, plan the layout for equal borders or that small perimeter tiles less than 1/2 of a tile's width are avoided.
- For equal borders, measure the length and width of a room and mark the midway point on all walls. The mid-point will either be the center of a ceiling tile or the center line of a main runner or cross tee. Once this point is established, the layout can be shifted to achieve layout balance or accommodate light fixture placement.
- Plan the installation so that main runners are installed perpendicular to ceiling joists.



Example 2 x 4 Layout

**Calculating basic grid quantities** - If a physical count or take-off is not performed, calculating grid quantities can be accomplished by knowing the square footage (SF) of the ceiling area and type in consideration. Once the SF is determined, the lineal footage (LF) of any grid component can be calculated once the spacing of that component is known. For example - If main runners are spaced every 4', then 4 would be divided into the SF to determine LF of main runners, and so on.

Module Size	Description	Main Runners	4' Cross Tees	2' Cross Tees
2' x 2'	MR - 4' o.c.	SF / 4 = LF	SF / 2 = LF	SF / 4 = LF
	4' CT - 2' o.c.			
	2' CT - 4' o.c.			
2' x 4'	MR - 4' o.c.	SF / 4 = LF	SF / 2 = LF	-
	4' CT - 2' o.c.			
4' x 4'	MR - 4' o.c.	SF / 4 = LF	SF / 4 = LF	-
	4' CT - 4' o.c.			

## 1. Suspension System Installation

All suspension must be installed per ASTM C636 "Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels", including local building codes and standards. Special attention should be given to the squareness of the system. This is especially true for reveal edge and concealed ceiling tiles. Reveal edge and concealed tiles are more sensitive to a system being out of square. It is recommended that a system be square within 1/16" over an 8' diagonal. Failure to have a square system will create a poor aesthetic appearance with misalignment in the corners and difficulty in fitting ceiling tiles. It is also recommended to plan the layout for equal borders and that small perimeter tiles less than 1/2 of a tile's width be avoided. Use minimum 12-gauge galvanized steel hanger wire per ASTM C636 for suspending the grid.

### 1.1 Install wall angle - Secure the specified perimeter treatment (see options below) to the walls using appropriate fasteners.

Reference any project documents for proper ceiling elevation and ensure perimeter treatment is installed level. If using Rockfon Infinity perimeter trim for a floating installation, please refer to the [Rockfon Infinity Installation guide](#).

Typical wall to wall installations are trimmed out by wall angle or shadow mold. Floating installations are trimmed out with Infinity extruded aluminum trim, see Rockfon Infinity Installation guide.



Wall Angle

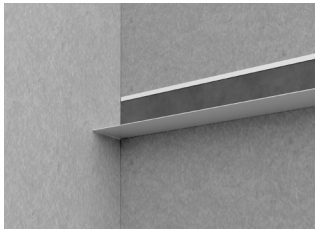


Shadow Molding

## Mitering Corners

Inside and outside corner caps are available for 15/16" and 9/16" wall molding. If these are not readily available for installation, mitered corners can be accomplished by following the guidelines below.

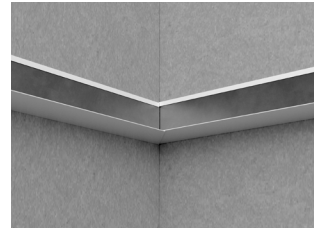
**Inside Corners** - To fit wall molding at inside corners, trim one molding end flush to butt against the wall, then, miter the adjoining molding (bottom leg only) at a 45-degree angle - this mitered leg molding is positioned below the straight cut molding. Pop rivet corner if required.



1. Butt cut wall molding attach to wall

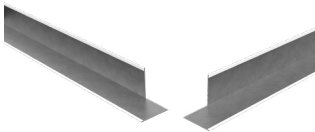


2. Miter adjacent molding

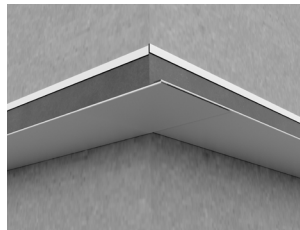


3. Install mitered molding underneath butt cut molding

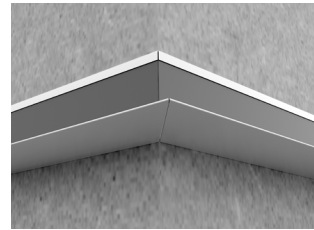
**Outside Corners** - To make outside corners, trim one end at a 45-degree angle, next, lap-cut the top molding as depicted. Pop rivet if required.



1. Trim wall moldings as shown



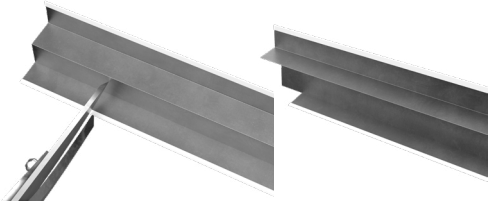
2. Overlap moldings and miter bottom leg only



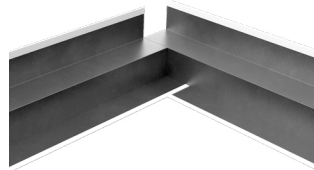
3. Pop rivet molding if required

## Cornering Shadow Moldings

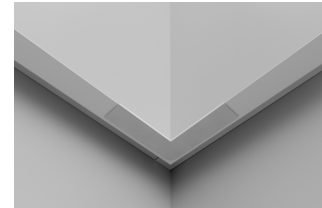
**Inside Corners** - Cut and remove a section off of both the bottom flange vertical return of the shadow mold as shown below. The dimension of the cuts should match the profile of the adjoining shadow mold. The adjoining molding must have a straight end. The trimmed molding now fits the contour of the straight-end molding. Both pieces can be covered by the appropriate inside corner cap.



1. Notch molding

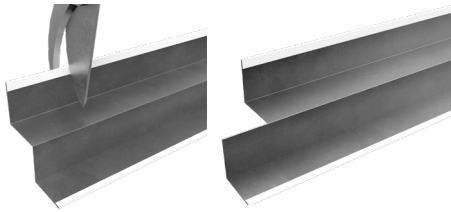


2. Butt adjoining molding to notched molding

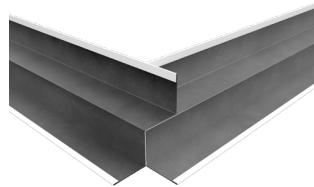


3. Install inside corner cap onto bottom flange

**Outside Corners** - Cut and remove a section off of both the top flange and horizontal return of the shadow mold as shown below. The dimension of the cuts should match the profile of the adjoining shadow mold. The adjoining molding must have a straight end. The trimmed molding abuts the straight end molding. An outside gap is left in the outside corner. This can be covered with the appropriate outside corner cap.



1. Notch molding



2. Butt adjoining molding to notched molding



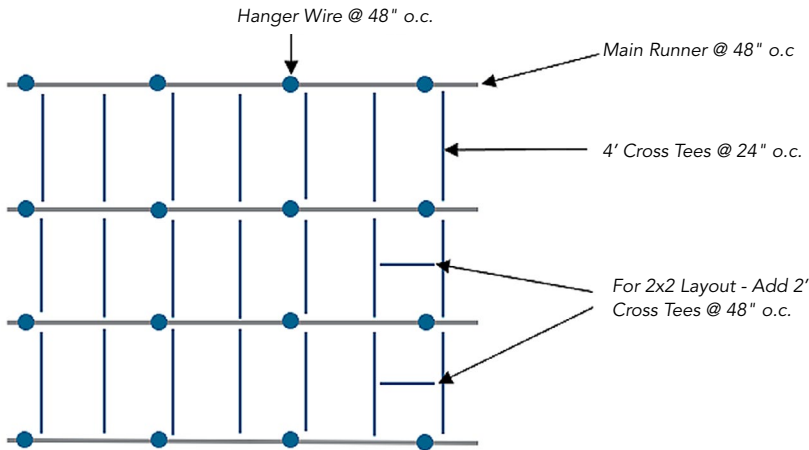
3. Install outside corner cap onto bottom flange



**1.2 Install grid suspension** - The installation of 9/16" and 15/16" grid suspension should follow industry standard layouts for 2x2 and 2x4 grid modules. The grid modules should match the panel sizes of 2x2 or 2x4. Main runners are installed at the industry standard 48" o.c. Refer to project drawings for panel layout, if available.

Once the layout and border widths are confirmed, attach two intersecting dry lines (one for the cross tees and one for the main runners) to the wall angle. The dry lines should be perpendicular to each other. Use a laser device if available, especially for larger rooms.

### Suspension Layout - 2x2, 2x4

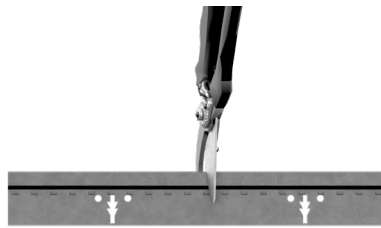


Note - Cross tees install to the right of intersecting cross tees.

**1.3 Cutting Main Runners and Cross Tees** - When cutting suspension components, the cross tee slots should line up with the dry lines in the ceiling layout. Measure the distance from the dry line to the end of the wall (allow room for adjustment and squaring). From the appropriate cross tee slot, transfer this measurement to the grid and make the cut.



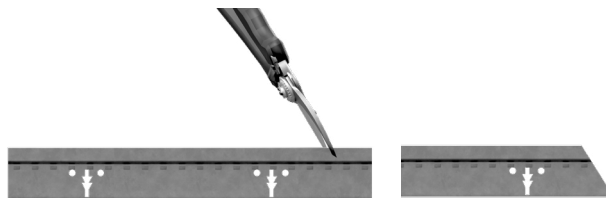
1. Measure and cut grid accordingly



2. Using tin snips, cut through bulb and web of grid



3. Bend and cut through flange of grid



4. Back cut grid through bulb and web

## 2. Panel Installation

Note - Prior to panel installation, double check squareness of the suspension system. In order to keep panels free from smudges and fingerprints, wear clean white installation gloves during installation.

- 2.1 Check the directionality of the ceiling tiles. All Rockfon ceiling tiles are directional with the exception of Sonar and Koral.
- 2.2 Cut in border tiles. Border tiles can be easily cut with a utility knife. Maintain a sharp blade as required. For tegular edges, tiles can be reveal cut or the grid can be raised so the tiles rest on the wall angle with a straight cut.

[See cutting ceilings tiles video](#)




- 2.2 Finish with field tiles ensuring tiles lay in flat. Install panel hold down clips if required.

## 3. Service Integration

Fire sprinkler, speaker holes, recessed can lights, etc., can be easily cut in with a compass and keyhole saw. For light fixtures, the preferred type for lay in suspension systems are lay in Type G fixtures that sit in the 2x2 or 2x4 module.

## 4. Seismic Considerations

For installation in Seismic design categories C, D, E, F, several factors need to be taken into account. Among these factors include the use of the appropriate duty rating in the main runner (intermediate duty or heavy duty), the connection strength of the cross tees (hook vs stab), lateral bracing, and perimeter treatments. Please refer to [Rockfon® Seismic Relief Brochure](#) for more information.

Seismic Clips Detail	Rockfon Part Number	Product Name	Product Description
	1496.00	Seismic Perimeter Clip	Used with standard wall angles as an alternative to 2" wall angle.
	1493.00	Unopposed Tee Clip	Required to secure and meet pull out strength requirements of unopposed cross tees.
	1494.00	Seismic Separation Clip	Provides a simpler, alternate method for seismic separation joints.

## 5. Cleaning

Select a mild, non-abrasive cleaning agent typically used for cleaning painted or reflective surfaces. Never use abrasive cleaning agents, as they may scratch, mar, alter, discolor and/or remove the finish.

Before cleaning the finish, perform a trial test on a section of the finish which will be hidden from view once installed. This will ensure that the cleaning agent selected is appropriate and will not damage the finish in question.

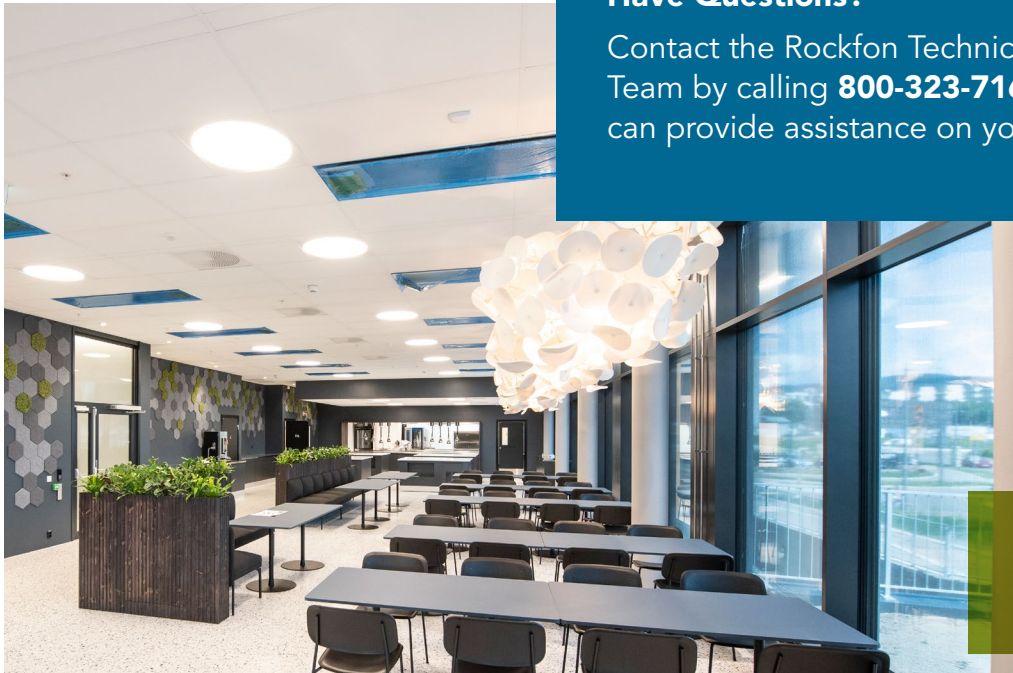
Once an appropriate cleaning solution has been selected, care should be taken to use only the amount which is necessary. Do not soak the ceiling components with the solution.

Use a clean soft sponge or cloth when applying the cleaning agent in order to ensure the applicator does not contain any abrasive elements which may damage the finish.

Any excess cleaning solution should be removed immediately so that the solution does not dry and possibly leave a residue. In the event a large area needs to be cleaned, it is advisable to break the area into smaller, more manageable sections, so that adequate time is available to complete each phase of the cleaning process.

After cleaning the soiled or smudged area, wipe the surface with a dry soft cloth to remove any residual cleaning solution and to dry the area. Use a clean damp cloth to remove any residue that cannot be removed with the dry cloth. Repeat the drying process.

After the components are clean, allow a few minutes for air drying before installation. It is important that the clean components are dry to ensure that other materials, such as insulation, which may be susceptible to damage from moisture does not come contact any moisture or damage from the cleaned materials. For additional cleaning information, please refer to our technical data sheet "[How to Clean Painted and Reflective Ceiling Component Surfaces.](#)"



### Have Questions?

Contact the Rockfon Technical Services Team by calling **800-323-7164** and we can provide assistance on your project.

Rockfon® is a registered trademark  
of the ROCKWOOL Group.

2022 | Subject to alterations in range and product technology without prior notice. Rockfon accepts no responsibility for printing errors.  
© ROCKWOOL IAVS 2022. All rights reserved. ® denotes a trademark that is registered in the United States of America.

082922

**Rockfon**

4849 S. Austin Ave.  
Chicago, IL 60638 USA

Tel. +1-800-323-7164  
cs@rockfon.com  
rockfon.com

