

Rockfon® Planar® and Planar® Macro Linear Metal Systems

Interior Installation Guide: T-bar Carrier



Project – University of South Florida Marshall Student Center
Product – Rockfon® Planar®

System Overview

The Rockfon T-bar carrier is a grid based carrier for use with Rockfon Planar and Planar Macro systems for interior applications only. The carrier can be used with Planar/Planar Plus, and Planar Macro/Macroplus®. Two versions of the carrier are available, one for 4" and 8" panels, and one for 6" panels. Refer to our datasheets for suspension and panel finish options and accessories.

[Download Planar/
Planar Plus Datasheet](#)

[Download Planar Macro/
Macroplus Datasheet](#)



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
- 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.
For technical assistance, contact Technical Services at 1-800-323-7164, telephone option 2.*

Installation Conditions

Temperature and Humidity

Avoid installation in high moisture conditions where the space is not properly ventilated and acclimatized.

Rockfon Planar should be installed in a clean environment, free from construction dust and debris.

Handling

Panels 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 baffles. It is recommended to use clean gloves with a non-marking rubber/latex coating or polyethylene gloves when handling Rockfon metal ceiling products to avoid contamination. For panels longer than 4' it is recommended that two installers handle the panels 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 Metal Ceilings Technical Guidelines](#)
- [CISCA Ceiling Systems Handbook](#)

Project Specific Documentation

- Reflected Ceiling Plans
- Project Specifications
- Approved Project Submittals (Datasheets, Shop Drawings)

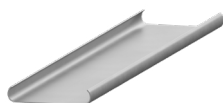
Other Documentation

- [Linear Metal Ceilings Brochure](#)
- [Product Case Study](#)
- [Product Perforations Brochure](#)

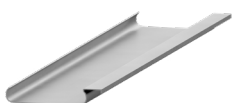
Tools Required

- Laser or leveling device
- Miter saw/circular saw
- Marking tool (pencil)
- Square nose side cutter
- Clean gloves
- Aviation snips
- Tape measure
- Slot screwdriver
- Phillips screwdriver
- Vinyl siding removal tool

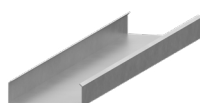
System Components



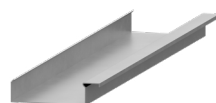
Planar Round Edge



Planar Plus Round Edge



Planar/Planar Macro
Square Edge



Planar/Planar Macroplus
Square Edge



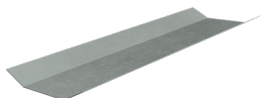
Recessed Filler Strip



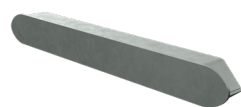
T-bar Carrier



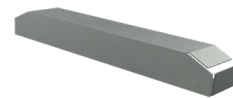
Cross Tee



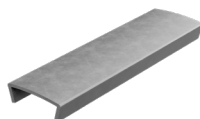
Panel Splice



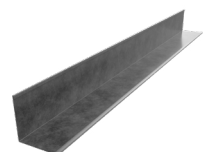
End Plug-round Edge



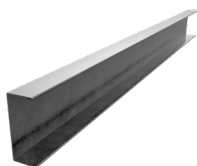
End Plus-square Edge



Retainer Clip



Wall Angle



Wall Channel



90-Degree Corner Clip

1. Suspension System Installation

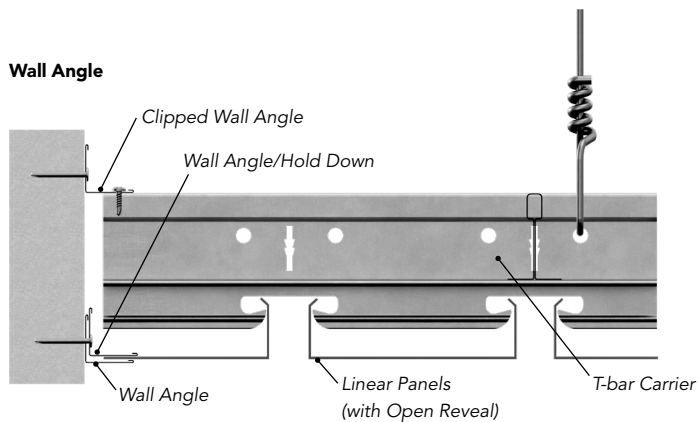
All suspension must be installed per ASTM C636 including local building codes and standards. Special attention should be given to the squareness and levelness of the system. Failure to have a square and level system will create a poor aesthetic appearance, misalignment with the carrier tabs, and difficulty in installing the linear panels. Use minimum 12 gauge galvanized steel hanger wire per ASTM C636 for suspending the grid.

Note: Make sure the correct T-bar carrier for the matching linear panel is on-site prior to installation.

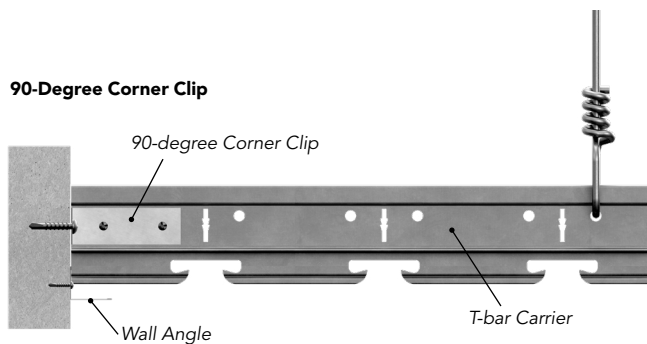
- 1.1** Secure the specified perimeter treatment to the walls using appropriate fasteners. Reference any project documents for proper ceiling elevation.

Wall Installation

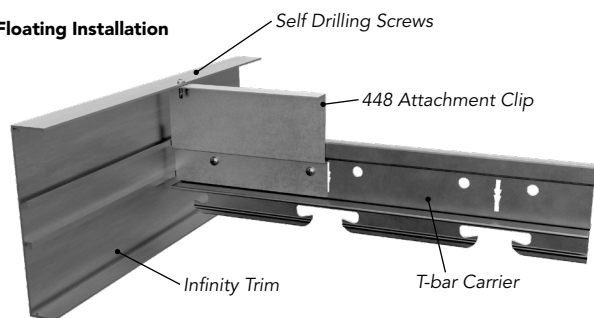
Wall Angle



90-Degree Corner Clip



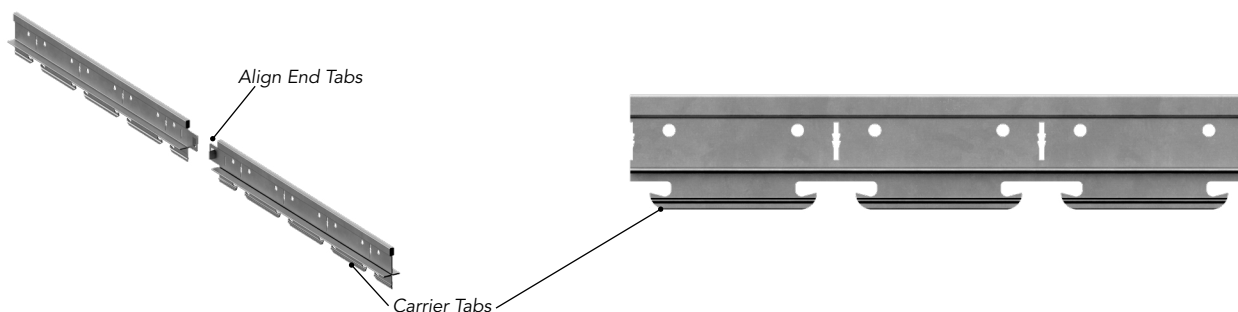
Floating Installation



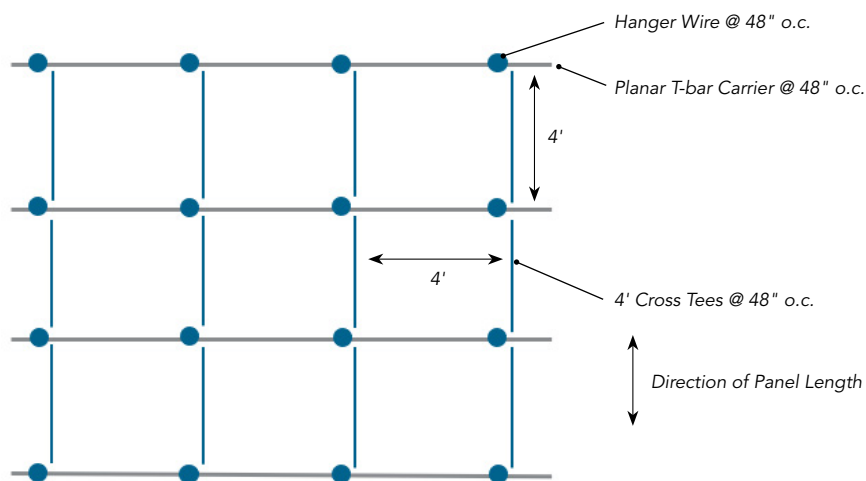
- 1.2** Determine panel direction and layout main runners perpendicular to the panel direction. Main runners are installed 48" o.c. with an additional main runner no more than 12" from the wall. Install cross tees 48" o.c. with additional cross tees to accommodate ceiling fixtures.

T-bar carriers install non-directionally and require no special splices. Simply align and insert the end tabs together and bend the tabs over to secure.

Note: Ensure carrier tabs are aligned and in the same plane from carrier to carrier. Install suspension members level and square.



Typical Suspension Layout For T-bar Carrier



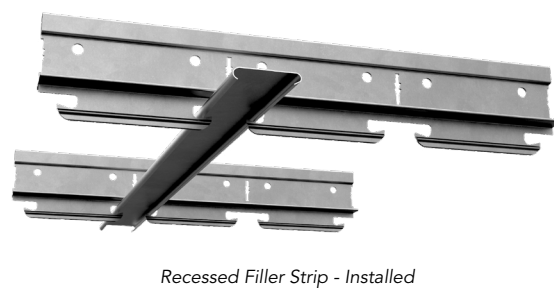
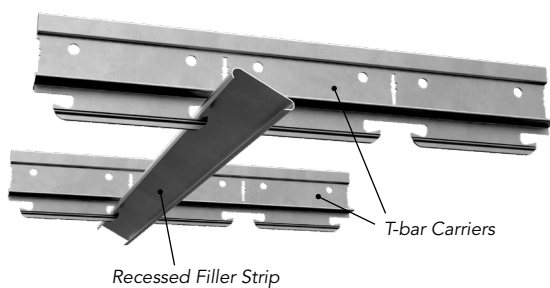
2. Panel Installation

Double check the suspension system is square and level and that carrier tabs are properly aligned prior to panel installation. For best aesthetics, plan panel layout so that panel joints/splices are staggered, and within 12" from carrier.

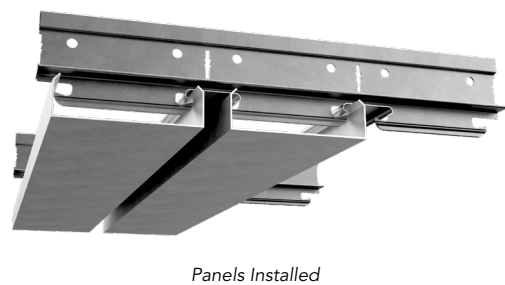
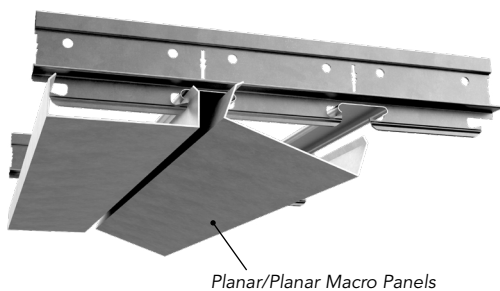
2.1 Open reveal or with separate filler strip (Planar, Planar Macro)

Panels can be installed with or without a filler strip between panels. If a separate filler strip is being used, install filler strip between the carrier tabs prior to installation of the panels. Space the filler strips according to panel width.

Engage one side of filler strip into carrier tab, and snap opposite side into opposing carrier tab. Center filler strip with space between carrier tabs.

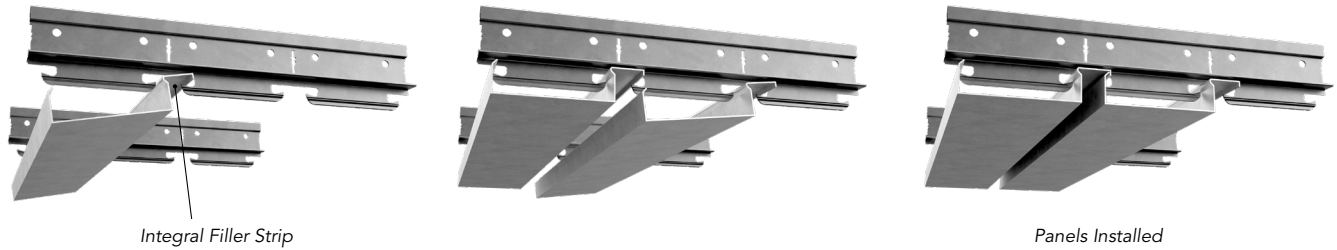


Install panels by engaging one leg of the panels onto carrier tabs. Snap the opposite panel leg onto the tab. Each panel should be supported by a minimum of 2 carriers. Avoid applying pressure to the center of the panels as this can cause deformation in the panels. Pressure should be applied to the panel legs only.



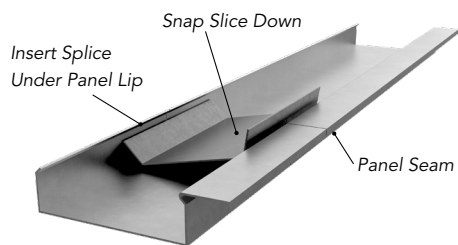
2.2 Panels with Integral Filler Strips (Planar Plus, Planar Macroplus)

Engage integral filler side first, snap onto carrier tab. Then, engage opposite side onto opposing carrier tab. Continue to install the next panel progressively.



2.3 Panel Splices

Install panel splices on the back side of the panels, panels snap into place. Splices cannot be located at carrier intersections. If perforated panels are installed, black panel splices are recommended to avoid seeing the splices through the panel perforations.



2.4 Panel Retainer Clips

Panel retainer clips should be used whenever there is a long section of cut panel along the perimeter to prevent the panels from walking out, or when added panel security is needed. The clear clips are 2-1/2" long and are inserted into the reveal between the panels at the point the panel engages with the carrier.

2.5 Cutting Linear Panels

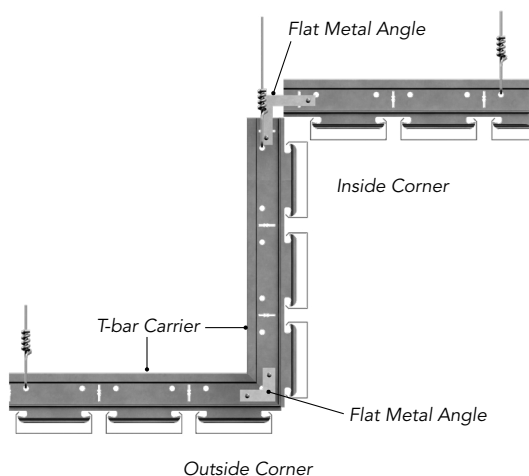
Cutting Planar and Planar Macro is easy with a miter or circular saw with an appropriate metal cutting blade for accuracy of cuts. Use all appropriate personal protective equipment, as well as all appropriate safety precautions. Use an appropriate sized block inside the panel. Place the panel firmly against the saw's back stop. Once the blade is at full speed, slowly cut the panel. Pushing the saw too quickly will result in sharp edges and poor cut quality.

Note: Maintaining a sharp blade is crucial to clean cuts. Be cautious of the cut edges as burrs and cuts are extremely sharp.

3. Soffits and Radius Applications

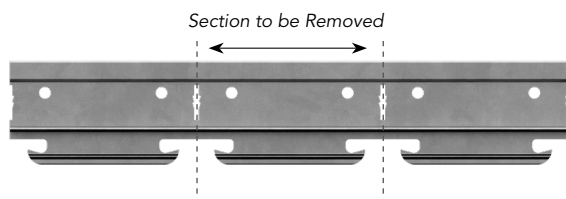
3.1 Soffits

Soffits can be created with the T-bar carrier to conceal or avoid mechanical equipment or other obstructions. See cutting options below.



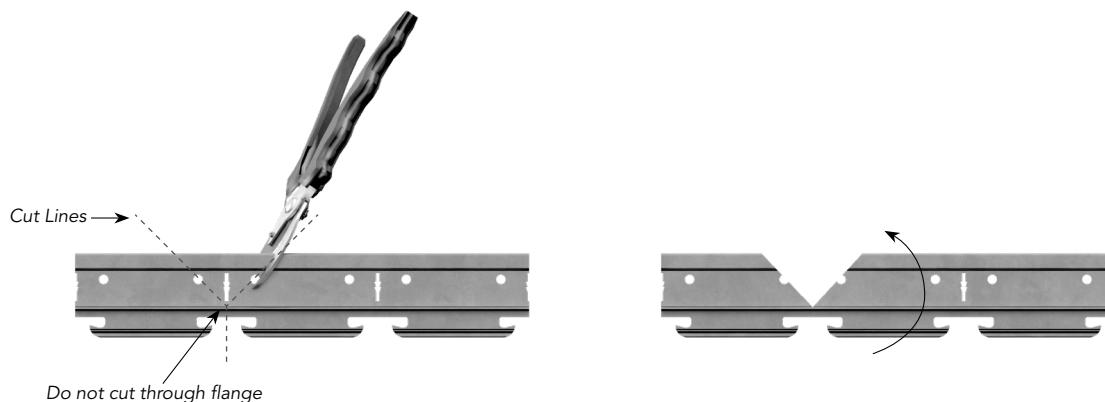
Inside Corner

Fully cut a section of the T-bar carrier in order to form a 90 degree corner. Pop rivet a flat piece of metal reinforcing angle to the vertical leg and then to the horizontal leg of the T-bar carrier. Support the vertical leg with hanger wire.



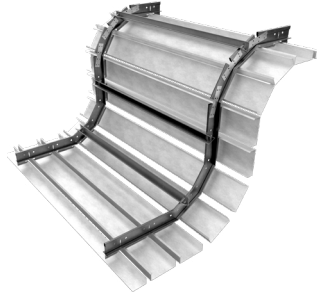
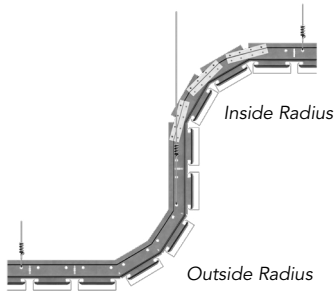
Outside Corner

Cut the T-bar carrier at a 45 degree angle on each side of the cross tee slot. Cut the carrier all the way through the bulb, web, and flange. The cut should be made with 1/2" face removed from the carrier. Pop rivet a flat piece of metal reinforcing angle to the vertical leg and then to the horizontal leg of the T-bar carrier.



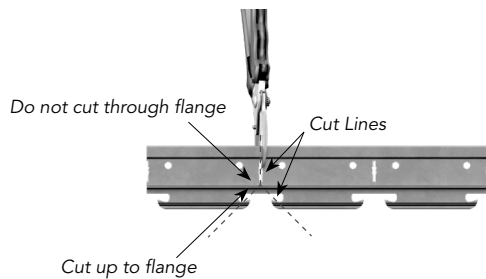
3.2 Radius

Curves in the ceiling can also be created by cutting and notching the T-bar carrier. See cutting options below. Only open reveal panels or panels with a separate filler strip should be used for curved installations.



Inside Radius

Vertical cuts are made through the bulb and cross tee slots of the carrier, but not through the flange face of the carrier. Increase or decrease the amount of cuts according to the severity of the radius. Cuts are also required at the carrier tab, at a 45 degree angle, but not through the flange face of the carrier.



Outside Radius

Cut the T-bar carrier at a 45 degree angle on each side of the cross tee slot, but not through the flange face of the carrier. A vertical cut is required just below and up to the flange face of the carrier.



Once all cuts are completed (inside radius shown below), the carrier will be flexible enough to conform to a desired radius. Reinforce the curve with 435.00 clips or other metal bracket to prevent misalignment in the carriers. For further stabilization, bridge the T-bar carriers with spacer bars.



4. Panel Removal

Plenum access is often required to service HVAC, Plumbing, and Electrical. In order to access the plenum, individual panels must be removed. First locate the area requiring access and disengage the panels accordingly.

For Planar and Planar Macro

Panels with open reveal can be removed at any point using a standard vinyl siding removal tool.

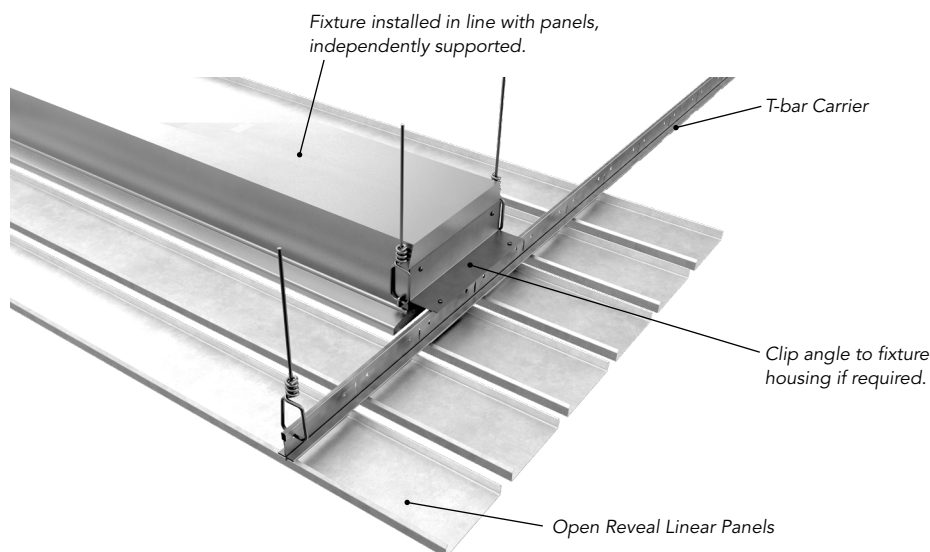
For Planar Plus and Planar Macroplus

To avoid damaging panels, the Planar Plus and Planar Macroplus panels must be carefully removed starting with the full panel side. Loosen the full panel side, pivoting the integral filler upward. Carefully adjust the adjacent panel, allowing for the release of the integral filler from the carrier, and the panel to be removed. Continue with this procedure until the proper opening has been created.

5. Service Integration

Unlike standard ACT tile and exposed grid, Planar panels install from below and conceal the suspension. Careful consideration should be given to the fixtures and the desired look.

Fire sprinkler, speaker holes, etc., can easily be cut with a drill and hole saw. For recessed fixtures, the preferred type for linear panels are flanged style fixtures. These types of fixtures are trimmed and hide the cut edges of the metal panels. Linear, trim-less light fixtures and diffusers can be installed, however, proper planning is required early in the shop drawing/ submittal phase of a project. Fixture width selected by the architect/designer of record should be coordinated with the panel width (4", 6", or 8" panels). This allows a panel run to be left out, allowing a fixture to be installed within the opening, eliminating the need to cut the panels lengthwise. Cut panel ends can be capped off with end plugs. Fixtures shall not be installed in line with main runners or cross tees. For longer fixtures that disrupt the suspension, "bridge" the suspension with bridging yokes.



6. 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.

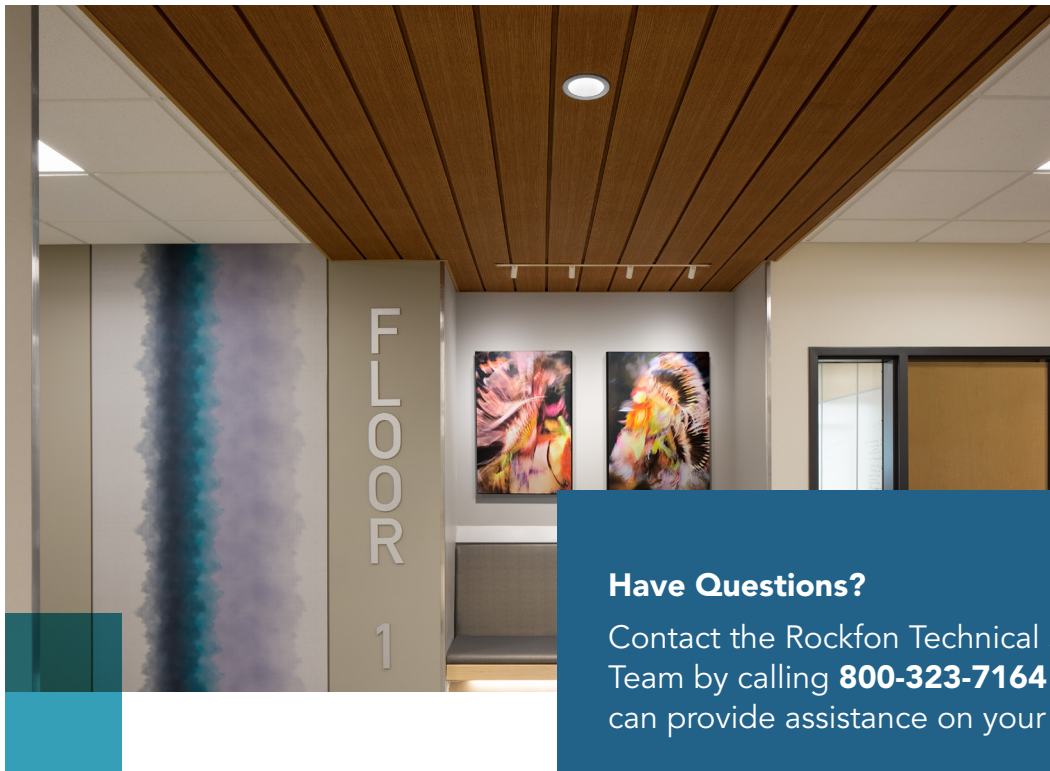
Once an appropriate cleaning solution has been selected, care should be taken to use only the amount which is necessary. Do not soak the ceiling components with the solution.

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 in contact with any moisture or damaged from the cleaned materials. For additional cleaning information, please refer to our technical datasheet "[How to Clean Painted & 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.

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