

Rockfon[®] Spanair[®]

Torsion Spring and Torsion Spring Plus

Interior Installation Guide



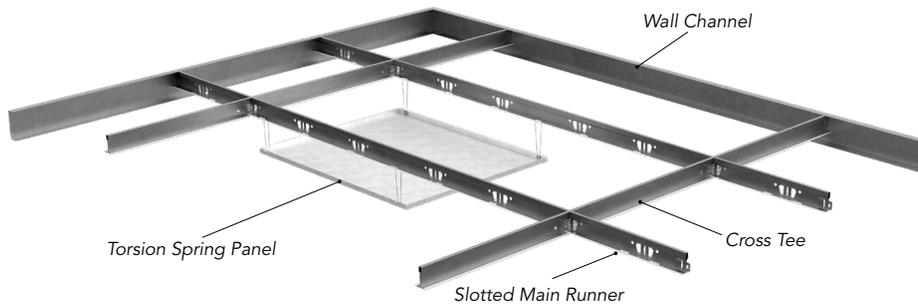
Project – Quinnipiac University School of Law In Hamden, CT
Product – Rockfon[®] Spanair[®] Torsion Spring

System Overview

Rockfon Spanair Torsion Spring and Torsion Spring Plus is a fully concealed system. The panels are butt edge and install into 1-3/8" wide torsion spring slotted main runners or slotted cross tees. The panels install from below the suspension and are 100% downward accessible.

[Download Torsion Spring Data Sheet](#)

[Download Torsion Spring Plus Data Sheet](#)



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
- Tech Services at 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 Spanair Torsion Spring/Torsion Spring Plus panels 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 panels, as the torsion springs are pre-installed within the panels during manufacturing. It is recommended to use clean gloves with a non-marking rubber/latex coating or polyethylene gloves when handling Rockfon metal ceiling panels to avoid contamination. For panels larger 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 (data sheets, shop drawings)

Other Documentation

- [Metal Panels and Planks Brochure](#)
- [Product Case study](#)
- [Product Perforation Options](#)

Tools Required

- Laser or leveling device
- Circular saw/jigsaw/electric shears
- Marking tool (pencil)
- Pliers
- Clean gloves
- Aviation snips
- Panel removal tool
- Tape measure
- Drill
- Screwdriver (Phillips, Flathead)

System Components



Torsion Spring Panel



Torsion Spring Plus Panel



Slotted Main Runner



Non-slotted Main Runner



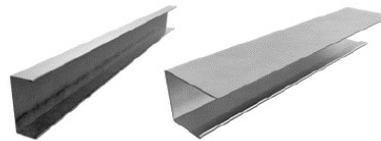
Slotted Cross Tees



Cross Tees -
Various Lengths



Bridging Yoke



Wall Channel



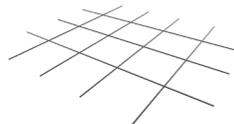
Infinity™ Trim



Wall Springs



Infinity Attachment
Bracket



Wire Grid Spacer



Hold Down Inserts



Acoustical Pads

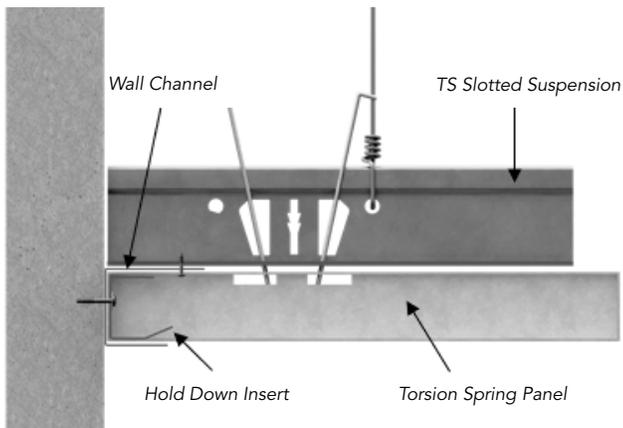
1. Suspension System Installation

All suspension must be installed per ASTM C636 including local building codes and standards. Special attention should be given to the squareness of the system. Unlike lay-in ceiling tiles, concealed ceilings 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 with misalignment in the corners and difficulty in installing the panels. It is also recommended to plan the layout for equal borders and that small perimeter panels less than 1/2 of a panel's width be avoided. Use minimum 12-gauge galvanized steel hanger wire per ASTM C636 for suspending the grid.

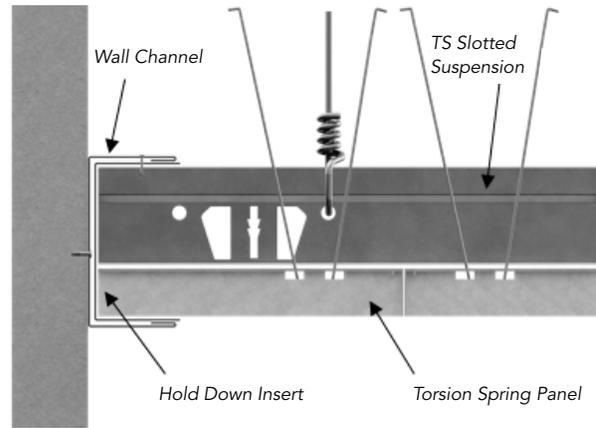
1.1 Secure the specified perimeter treatment (see options below) to the walls using appropriate fasteners. Reference any project documents for proper ceiling elevation. The perimeter treatment will support the torsion spring panels that terminate at the wall.

Panels installations that finish at the wall are trimmed out by wall channel. Floating installations are trimmed out with Infinity™ extruded aluminum trim.

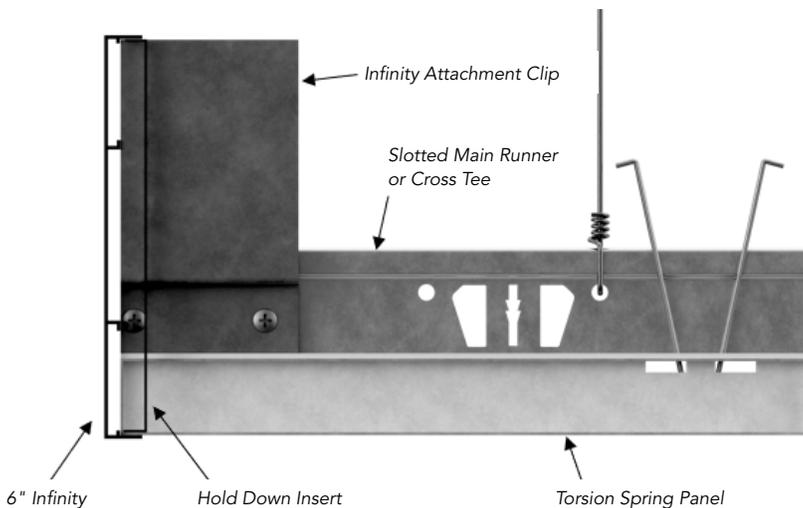
A. Wall Channel



B. Wall Channel



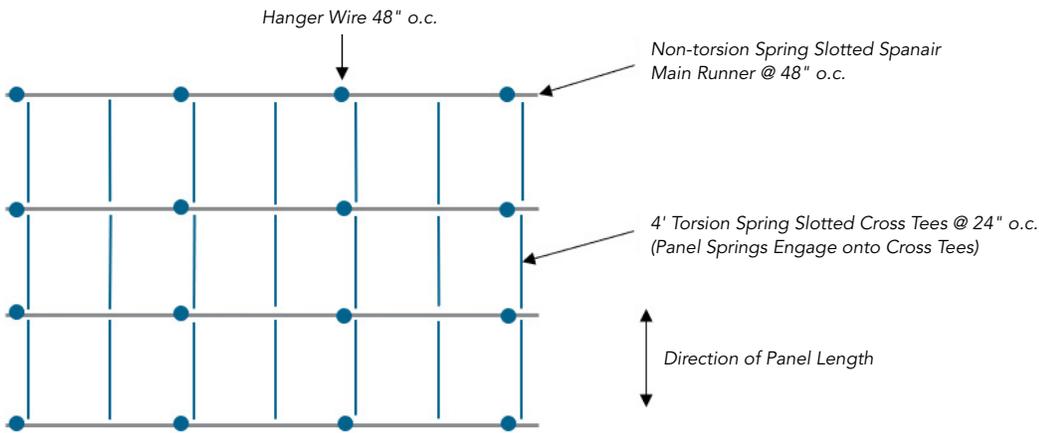
C. Infinity™ - 6" Recommended to Conceal Torsion Springs



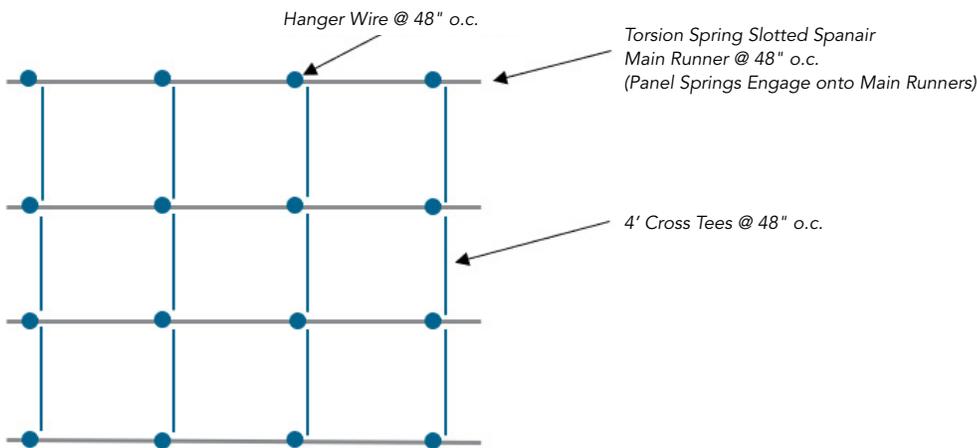
1.2 Main Runners and cross tees are both available with torsion spring punched slots in the grid face for flexibility in suspension layouts. The layout of the suspension is dependent upon the panel orientation and the placement of the TS springs on the panels themselves (torsion springs must line up with the torsion spring punched slots in the suspension). The installer should become familiar with the grid slotting prior to installation. Refer to project drawings for panel layout, if available. For standard installations, main runners are spaced at the industry standard of 4'. See recommended layouts for both Torsion Spring and Torsion Spring Plus below.

Note: Cross tee slots in spring slotted main runners and cross tees do not determine panel joint location. Cross tees do not need to align with panel joints as they are concealed from below.

2'x2', 2'x6', and 2'x8' Suspension Layout

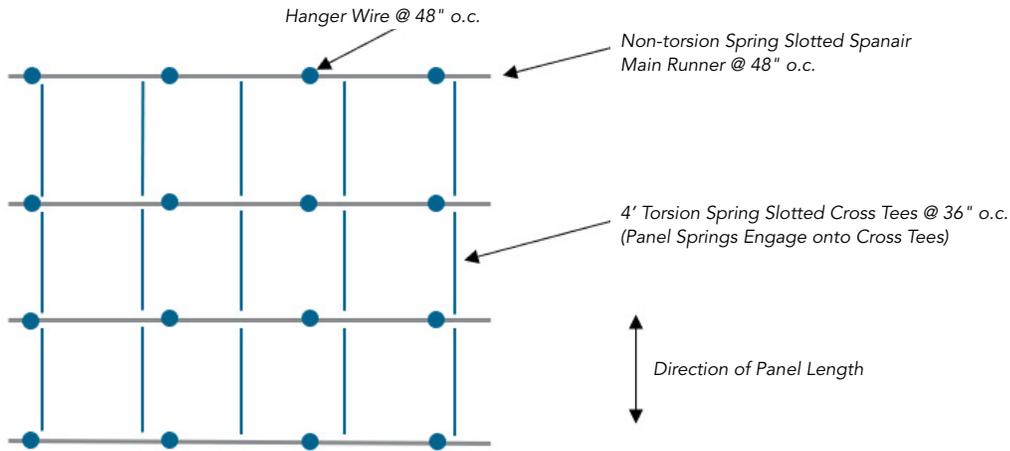


2'x4' Suspension Layout

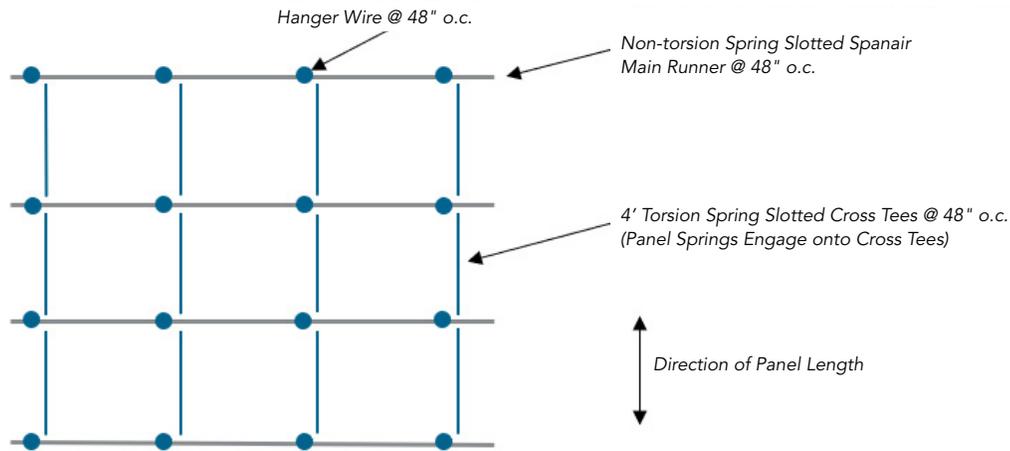


*Torsion springs will be on 2' side of the panel.
Panels springs engage onto the main runner.*

3'x3', 3'x6' Torsion Spring Plus Suspension Layout



4'x4', 4'x10' Torsion Spring Plus Suspension Layout

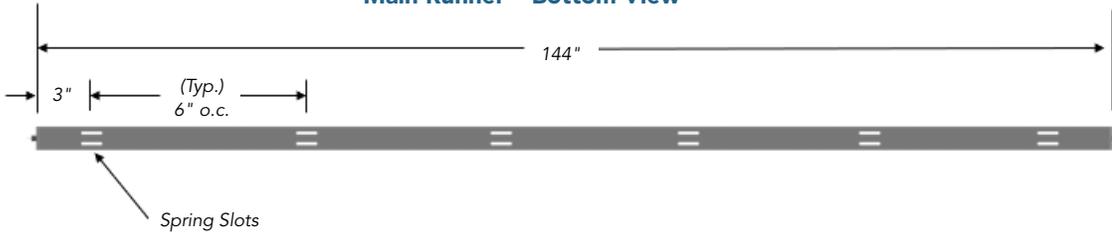


Torsion Spring Main Runner and Cross Tee Slotting

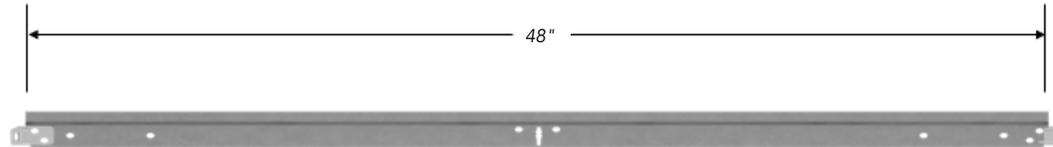
Main Runner – Side View



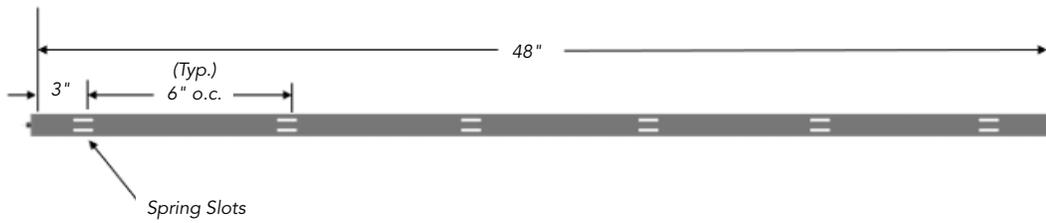
Main Runner – Bottom View



Cross Tee – Side View



Cross Tee – Bottom View



2. Panel Installation

Panels are shipped with springs compressed/engaged within the panel. USE CAUTION WHEN DISENGAGING DUE TO THE FORCE OF THE SPRINGS.

Panels are installed by first compressing and inserting one spring at a time into the pre-punched torsion spring slots. After all springs are inserted into the slots push upward on the panel face one edge at a time until springs engage.



2.1 Install corner pieces first and continue with the remainder of the perimeter panels. For cut panels, use hold down inserts to hold the cut edge of the panels in place along the bottom leg of the channel. Use a minimum of one hold down insert per foot of panel width to maintain uniform contact with trim edge. Once the hold down inserts are installed, the perimeter panels are not accessible until the hold down inserts are removed.

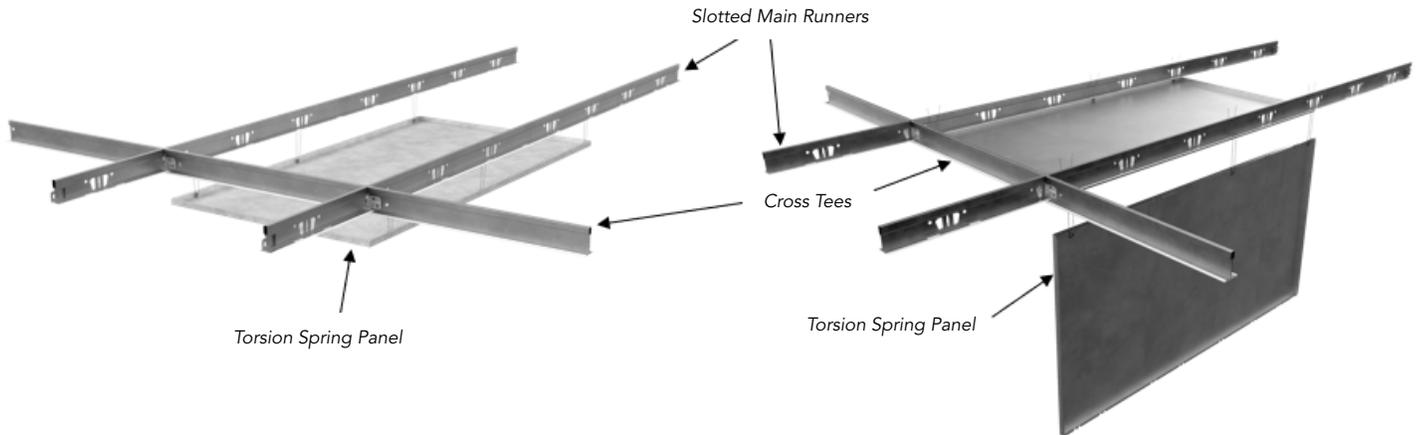
2.2 Continue with full size field panels. Verify panel joint alignment as installation progresses, adjust if necessary.

Note: Caution! The pulling force of the torsion springs is very strong; therefore, care must be taken when putting panels in place. Make sure that fingers are kept away from edges when panels are being snapped in place.

2.3 Cutting metal panels is often required at wall terminations where full size panels cannot be utilized. This is typically performed using a circular saw with an appropriate high quality metal cutting blade. Use all required personal protective equipment, as well as all appropriate safety precautions. Use properly sized backer material (foam, ceiling panel, wood etc.) inside the panel. Once the blade is at full speed, slowly cut the panel. Be aware, pushing the saw too quickly will result in sharp edges and a poor cut quality.

3. Panel Removal

Plenum access is often required to service HVAC, Plumbing, and Electrical. When disengaged properly, the panels can hang freely on one side without completely removing the panel from the suspension, thus eliminating the need for separate access panels. Panels can be removed with a pick and hook set, or suction cup.



- 3.1 Hook Tool** – Carefully insert a small hook tool between the panel joints and hook on to a recess in the panel leg. Pull down on one panel side to disengage the springs, allowing the spring legs to rest on the flange of the suspension. Repeat on the same panel side at other spring locations.



Hook Tool

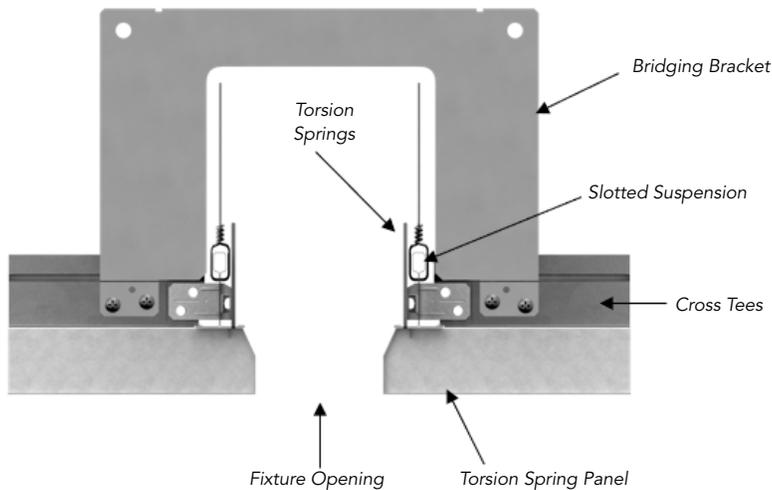
- 3.2 Suction Cup (Solid panels only)** – Remove foreign matter from the panel surface by gently washing the panels. Attach the suction cup to the panel corner, or near spring locations, with a firm and gentle force, pull down on the panel.



3" Suction Cup

4. Service Integration

Fire sprinkler, speaker holes, etc., can easily be cut with a drill and hole saw. For recessed fixtures, the preferred type for Torsion Spring panels are flange 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. In some cases, custom sized panels adjacent to the fixtures can be manufactured, however, approved fixture data sheets shall be provided to RFN for incorporation into the project shop drawings for customer approval. In other cases where time does not permit, fixture openings can be trimmed out with channel or angle. 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.



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.

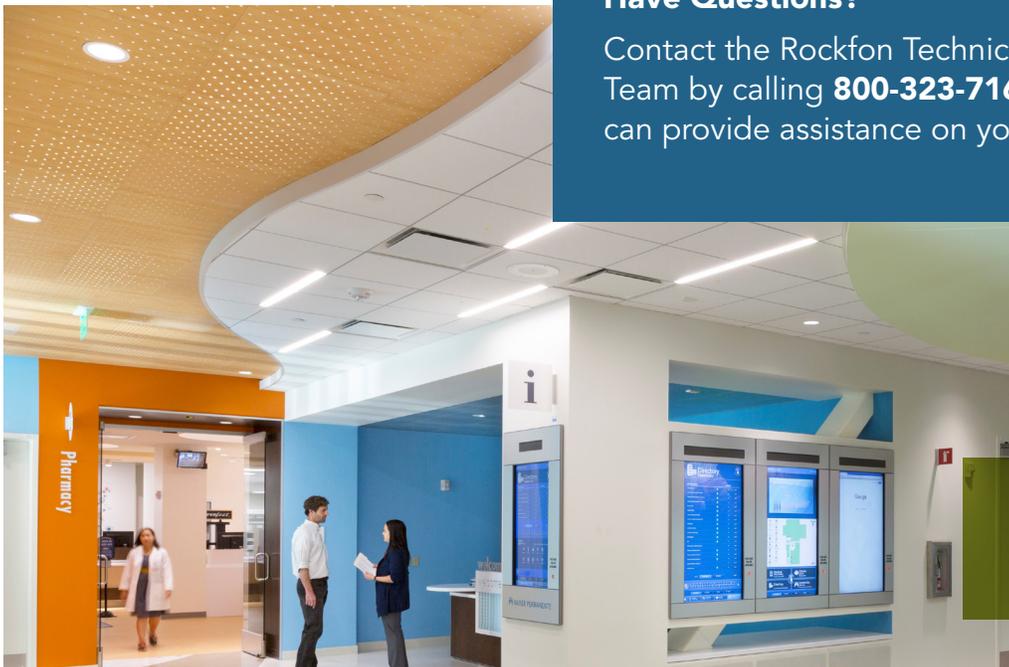
Any excess cleaning solution should be removed immediately so that the solution does not dry and possibly leave a residue. In the event a large area needs to be cleaned, it is advisable to break the area into smaller, more manageable sections, so that adequate time is available to complete each phase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