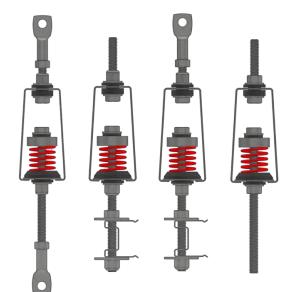


NOISE CONTROL SOLUTIONS

PAC RSIC®-SI-FF 3/8



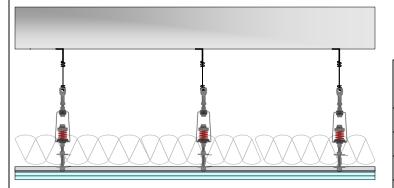


RSIC-SI-FF 3/8 WW, BC, WC, and BW

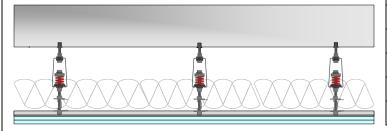
The RSIC-SI-FF 3/8 series is a high-performance spring and rubber isolator. This series of spring isolator can be attached directly to concrete (B_) or hung from a wire (W_) and can support cold-rolled channel (_C) or drywall grid (_W).

The RSIC-SI-FF 3/8 series is delivered precalibrated, pre-loaded, and pre-assembled for ease of installation.

RSIC-SI-FF 3/8 WC EZ



RSIC-SI-FF-BC EZ



Gyms/Fitness
Apartment
Retail
Conference Rooms

Condominiums
Recording Studio
Home Theater
Commercial Theater

RSIC-SI-FF 3/8 Sp	pecifications:
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Acoustical design load:	10 - 80 Lbs		
Total deflection	~1"		
Adjustable	Yes		
Cavity min	10"		
Cavity Max	Unlimited		
Adjustment limit	N/A		
Use on Ceilings	Yes		
Use on Walls	No		
New Construction	Yes		
Remodel	Yes		
T			

Tested, Engineered, Designed, and Calibrated In USA



GYPSUM BOARD ASSEMBLIES 09-21-16

PAC INTERNATIONAL, LLC.

1. Product Name

- RSIC®-SI-FF 3/8 Resilient Spring Isolation Clip System
 - RSIC®-SI-FF 3/8 BC
 - RSIC®-SI-FF 3/8 BW
 - RSIC®-SI-FF 3/8 WW
 - RSIC®-SI-FF 3/8 WC

2. Manufacturer

PAC International, LLC Las Vegas, NV 89130 Canby, OR 97013 Phone: (866) 774-2100 Fax: (866) 649-2710

Email: info@pac-intl.com

Web: www.pacinternationalllc.com

3. Product Description

RSIC®-SI-FF 3/8

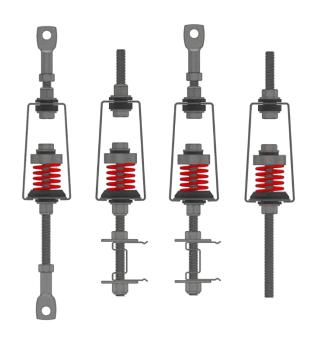
The RSIC-SI-FF 3/8 is designed for use with any wood-framed, steel-framed, or concrete ceiling system where noise control is needed. The RSIC-SI-FF 3/8 decouples and isolates the gypsum board or sheet goods from the structure increasing the acoustical performance of the system. The RSIC-SI-FF 3/8 stops the noise and vibrations that typically would be allowed to transfer through the structure.

Materials and Composition

The RSIC-SI-FF 3/8 clips are composed of galvanized or aluminum-zinc coated steel and are assembled in Canby, OR. The hanger assembly bracket shall be designed to allow up to fifteen (15) degrees of vertical alignment of the suspension member without making metal-to-metal contact between the suspension and hanger assembly members. The RSIC-SI-FF 3/8 shall be designed with an integral spring pre-load selected to minimize change in elevation once a load is applied to the hanger and to hold the isolator assembly steady during attachment of The hanger assembly bracket shall gypsum board. consist of a leveling rod with an attached RSIC-EZ Clip designed to accept 1-1/2" x 1/2", 16-gauge cold-rolled steel, or a threaded rod with Eye hanger for wire. The isolation hanger deflection shall be selected by the manufacturer to provide a maximum natural frequency of 4.2 Hz.

Sizes and Weight-bearing Information

RSIC-SI-FF 3/8 is available in 80 lb, 40 lb, 20 lb, and 10 lb acoustical load capacities.



RSIC-SI-FF 3/8

Product Limitations

For interior use only with operating temperatures of 40–100 degrees F (4.4–37.8 degrees C).

4. Technical Data

Applicable Standards

ASTM International (ASTM)

- ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- ASTM E413 Classification for Rating Sound Insulation
- **ASTM E492** Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine
- **ASTM E989** Standard Classification for Determination of Single-Number Metrics for Impact Noise

Environmental Considerations

The RSIC-SI-CRC-FF 3/8 may contribute to LEED points.

The steel recycled content is less than 10 percent.



World Leader in Noise Control Solutions



GYPSUM BOARD ASSEMBLIES 09-21-16

PAC INTERNATIONAL, LLC.

5. Installation

General installation: Follow manufacturer's specific installation instructions.

- Install resilient spring isolation clips, 1.5" CRC channel and drywall furring channels in accordance with manufacturer's instructions.
- Mechanically fasten RSIC-SI-FF 3/8 to structure with wire, screws, bolts, or expansion anchors, dependent upon structure.
- Space RSIC-SI-FF 3/8 at a maximum of 48 x 48 inches (1219 x 1219 mm) on center for ceilings.
- Do not exceed design load (pull and shear) of the stated load on each RSIC-SI-FF 3/8 Spring Isolator.
- •When possible, stagger the RSIC-SI-FF 3/8 hangers so the load is distributed across all support members.
- Splicing Drywall Furring Channels:
 - Splice drywall furring channels with minimum of sixinch (150 mm) overlaps.
 - Secure overlaps with two framing screws or 18gauge tie wire double wrapped.

Flanking Noise:

- Review installation details to prevent structure-borne flanking noise.
- Do not allow drywall furring channels or gypsum board to contact foreign materials, including floors, ceilings, or wall framing members.

•Gypsum Board:

- Install gypsum board on ceilings with a 1/4-inch (6 mm) gap around perimeter for acoustical sealant application or RSIC Perimeter Tape.
- Install gypsum board in accordance with ASTM C840 as specified in Section 09250.

RSIC Perimeter Tape:

 Install RSIC-Perimeter Tape to the areas where non-isolated areas will abut the RSIC-SI-FF 3/8 ceiling system. The RSIC-Perimeter Tape is not to be penetrated by fasteners.

Acoustical Sealant:

- Seal potential air leaks with acoustical sealant to achieve the best acoustical performance.
- Seal electrical outlets and penetrations with acoustical sealant.
- Seal over RSIC Perimeter Tape with non-hardening acoustical sealant.
- Putty Pad Sealant: In ceilings where the RSIC-SI-FF is used, acoustically seal electrical boxes with putty pads.

6. Availability and Cost

Please contact PAC International, LLC. for availability and pricing information.

7. Warranty

RSIC-SI-FF 3/8 clips have no warranty.

8. Maintenance

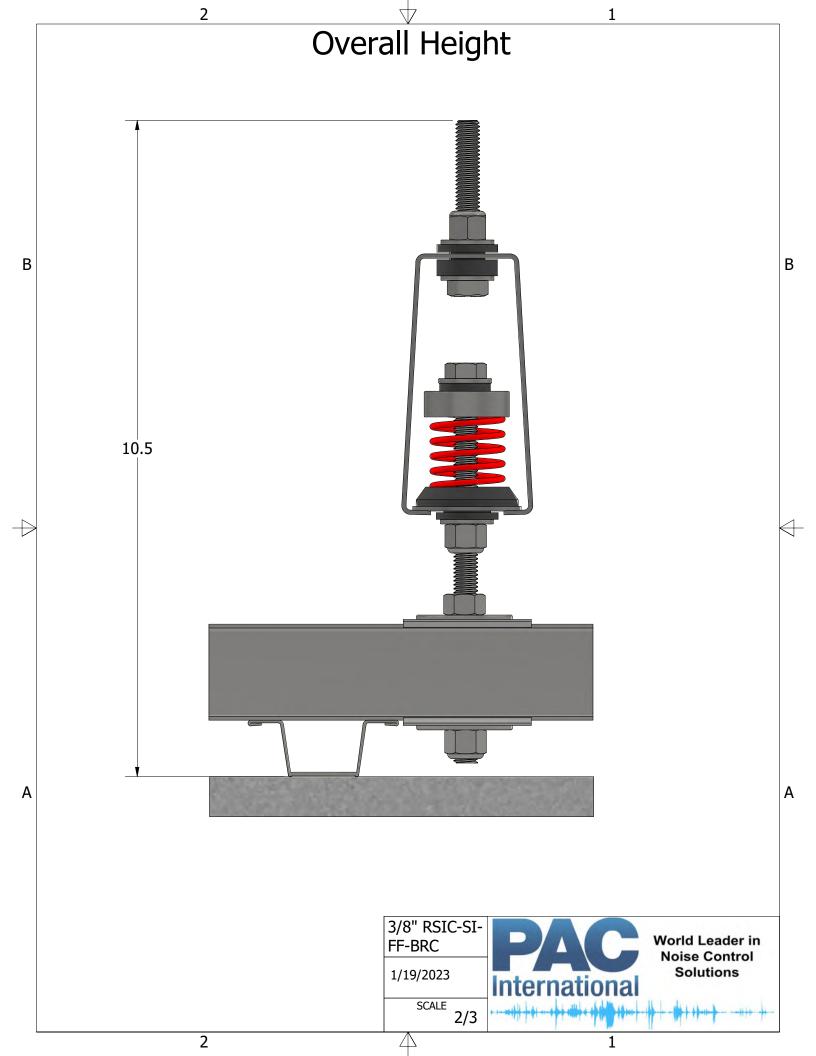
No maintenance is necessary.

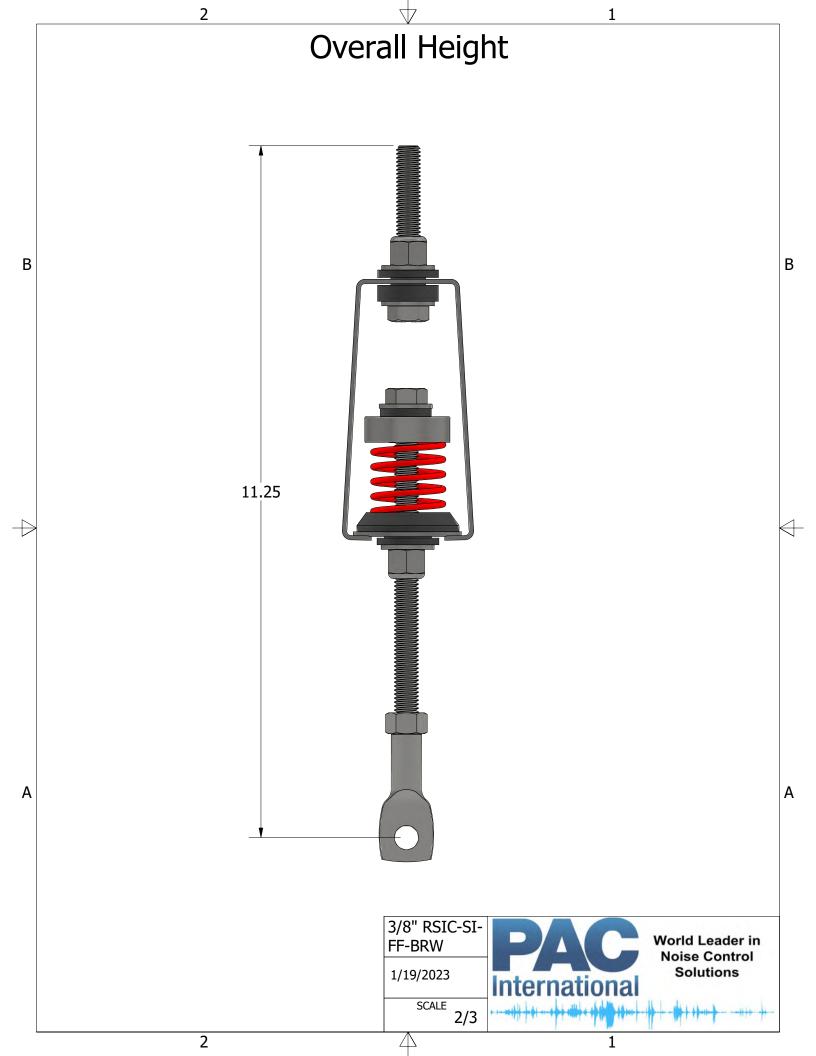
9. Technical Services

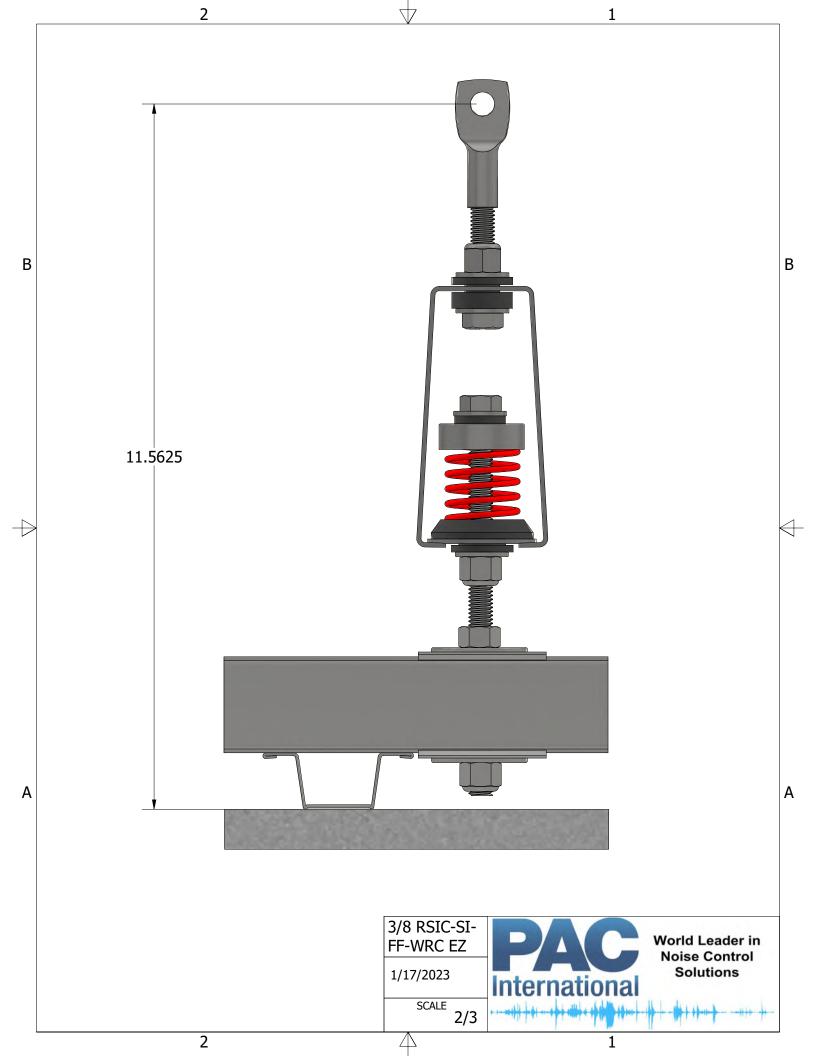
PAC International Inc. offers online product pages, installation guides, and specification sheets. Technical information can be found on the website, www.pacinternationalllc.com or by calling 866-774-2100, ext. 101 or 801. Fire ratings, sound test assemblies, CAD drawings, assembly drawings, and clip specifications are also on the website.

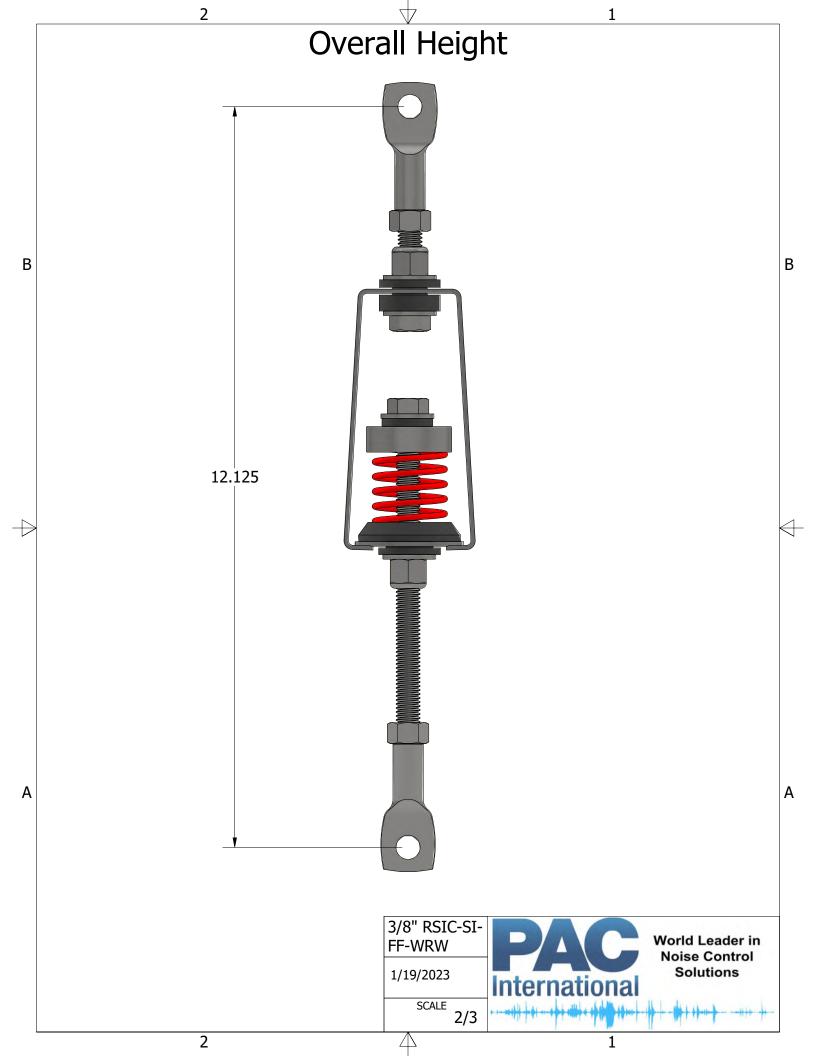
10. Filing Systems

Additional product information is available from the manufacturer upon request.



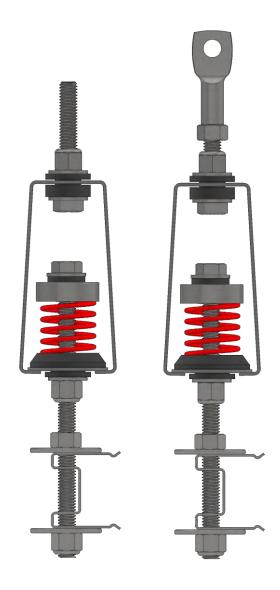






RSIC-SI-FF 3/8 EZ INSTALLATION GUIDE

RSIC-SI-FF 3/8 BRC and WRC



RSIC-SI-FF 3/8 EZ 10 LBS TO 80 LBS

SHIPPED FULLY ASSSEMBLED AND CALIBRATED

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RSIC-SI-FF 3/8 EZ SOUND ISOLATION CLIP



Fasteners: (By Others)

• **RSIC-SI-FF 3/8 EZ to Concrete:** Hanger wire, pencil rod, Drop in anchor, eye bolt, or direct mount.

RSIC-SI-FF 3/8 WRC

 RSIC-SI-FF 3/8 WRC is a Wire hung spring and Rubber isolation system that holds CRC channel for CRC and Hat channel ceiling framed systems.

RSIC-SI-FF 3/8 BRC

 RSIC-SI-FF 3/8 BRC is a direct mount spring and Rubber isolation system that holds CRC channel for CRC and Hat channel ceiling framed systems.

RSIC-SI-FF 3/8 Spring Isolator



- **Maximum Spacing:** 48" oc. with DW grid or Cold Rolled Channel. Designed for 2 layers of 5/8" gypsum board.
- Silver = 80 Lbs with Red Rubber Isolator
- Red = 40 Lbs with Green Rubber Isolaotr
- Green = 30 Lbs with Brown Rubber Isolator
- Blue = 20 Lbs with Blue Rubber Isolator
- White = 10 Lbs with Blue Rubber Isolator

General Information:

- Resilient Sound Isolation Clip Spring Isolator (RSIC-SI-FF 3/8), CRC channel, furring channel (hat track) and gypsum board shall not carry heavy loads such as Projectors, HVAC Ducting, Curtains, etc. For these items use additional RSIC products specifically designed for that purpose.
- Seal all potential air leaks with non-hardening acoustical caulking to achieve best noise control results. Use fire rated sealant where required.

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RSIC-SI-FF 3/8 48" INSTALLATION

Ceilings: RSIC-SI-FF 3/8 Ez clips installed 48" oc

- Resilient Sound Isolation Clips (RSIC-SI-FF 3/8) shall be max 48 inches on center.
- Layout the RSIC-SI-FF 3/8 clips according to general guidelines represented in this installation manual. Or follow the layout provided by the manufacturer.
- Any additional or non standard room dimensions need to be addressed by a professional engineer.
- Carefully remove RSIC-SI-FF 3/8 pre-assembled, and pre-calibrated clips from packaging.
- Be cautious to not rotate the RSIC-SI-FF 3/8 clips separate from the bracket. This may change the factory calibration of RSIC-SI-FF 3/8.
- Verify the correct quantity of each RSIC-SI-FF 3/8 isolator (weight / color) is included in the shipment.
- Layout the RSIC-SI-FF 3/8 clips on the floor (reflecting the ceiling above) Ensure there are no additional items required to complete the installation, IE: Additional blocking to support the RSIC-SI-FF 3/8 clips, or additional clips to support the ceiling system.
- Fasten the Resilient Sound Isolation Clip (RSIC-SI-FF 3/8) to the structure with fasteners approved for use on your project in your local jurisdiction. Verify load and shear values.
- Using a laser level, or tape measure set the height for all of the RSIC-SI-FF 3/8 brackets at the same height. Allow nom. 5/8" for the ceiling to settle when gypsum board is installed.
- At the perimeter, the distance between the wall and first support for the drywall shall be less than 8" unless wall angle is used.
- Snap the CRC channel into the Ez clip at the bottom of the RSIC-SI-FF 3/8 and screw the CRC channel to the Ez clip.
- Wire tie the drywall furring channel to the cold rolled channel @ 24" oc or 16" oc. (24" oc for 1 or 2 layers of gyp board, 16" oc for 3 layers of gyp board)

CRC and hat channel:

- If required add strong back consisting of 1.5" Cold Rolled Channel or 2 pieces of drywall furring channel nested together, on the top side of the standard CRC to assist in leveling the ceiling at or near the perimeter.
- The strong back shall be placed perpendicular to the CRC Channels
- Install the gypsum board to the drywall furring channel leaving a 1/8" to 1/4" gap around the perimeter of the entire ceiling.
- Caulk around the entire perimeter of the ceiling wall intersection.
- Use fire and smoke rated acoustical sealant where required.
- The RSIC-SI-FF 3/8 3/8 is engineered for use with 2 layers of 5/8" fire code CRSIC-SI-FF 3/8 clip, rotate the center screw attaching the RSIC-SI-FF 3/8 3/8 clip to the spring. Clockwise to raise. In converse rotate the screw counter clockwise to lower.
- The Pre-Calibration of the RSIC-SI-FF 3/8 clip is designed to deflect only 5/8" from its pre-loaded (pre-set) position after the 2nd layer gypsum board has been installed.

RSIC-SI-FF 3/8 SOUND ISOLATION CLIP

IMPORTANT! PLEASE READ FIRST:

These suggested installation guidelines represent generally accepted procedures for successful installation of PAC International, LLC RSIC-SI-FF 3/8 WRC and RSIC-SI-FF-BRC 3/8 Suspended Ceiling Spring Hanger isolation system. These suggestions may be followed, modified, or rejected by the owner, engineer, contractor, and/or their respective representative(s) since they, not PAC International, LLC, are responsible for planning and executing procedures appropriate to a specific application. PAC International, LLC reserves the right to alter these suggestions and encourages contact with the factory or its representatives to review any possible modification to these suggested guidelines prior to commencing installation.

1. Installation of an isolated spring hung ceiling system that uses PAC International, LLC RSIC-SI-FF 3/8 WRW and RSIC-SI-FF 3/8 WRC Suspended Ceiling Spring Hangers requires following materials (as specified by others and purchased separately):

1-1/2" x 1/2", 16-gauge cold-rolled channel.

7/8" 20- to 25-gauge drywall furring channel

Appropriate wire (per local code) Minimum: 12 gauge Annealed Galvanized

Anchors for mounting wire into non-isolated structural overhead support or substrate.

1/2" or 5/8" thick gypsum board.

Acoustical Caulking, Non-Hardening, Fire and Smoke Rated as required by local codes.

Appropriate tools and equipment for installation.

Please note: If submittal drawings have been prepared for the installation, review drawings for completeness and accuracy; otherwise, refer to Selection Guidelines for selecting ceiling hangers.

- 2. Mark grid pattern on existing non-isolated ceiling using the following criteria:
 - A. Isolators installed at the perimeter must be located not more than 8" from the edge of the isolated ceiling; maintain at least a three-inch clearance from the perimeter.
 - B. Isolators mounted mid-room (i.e., those isolators not at the perimeter) may be located up to 48" on center each way (o.c.e.w.); mid-room isolators should be spaced evenly in each direction.

Please note: Submittal drawings, if provided, override general location guidelines provided above.

RSIC-SI-FF 3/8 SOUND ISOLATION CLIP

3. Remove RSIC-SI-FF 3/8 WRW from the box/package. Confirm capacity of each isolator to ensure proper location in grid (See chart below). If provided, submittal drawings will identify location of specific hanger by capacity rating. After determining the direction the cold-roll channel will run (orientation is not important acoustically), locate the wire at the intersect points on the grid. Anchor wire to non-isolated ceiling using appropriate fastener and tie the wire through the eye nut that goes through the rubber element. Tie wire to cold-rolled channel to the other (bottom) eye nut. Position the cold-rolled channel to prevent contact at partition/wall/column or any other non-isolated structural component. Interconnect ends of cold-rolled channel using appropriate practices for ceiling grid installation.

RSIC-SI-FF 3/8 WRW	Color	Range (lbs.)	Deflection
	Capacity		Range (1nch)
10	White	5~10	0.50~1.00
20	Blue	10~20	0.50~1.00
30	Green	20~30	0.50~1.00
40	Red	30~40	0.50~1.00
80	Silver	40~80	0.50~1.00

- 4. Attach drywall furring channel to cold-rolled steel and inter-connect the ends of the furring channel using appropriate practices for ceiling grid installation. Furring channel cannot contact non-isolated structural components.
- 5. After assembling the ceiling grid, check for levelness. By loosening or tightening the hanger wire to adjusted the level.
- 6. Install Model RSIC Perimeter Isolation Tape at partitions/walls, columns, and around any non-isolated building components to create a 1/4" wide resilient layer that ensures the isolated ceiling remains decoupled from the non-isolated structure. As the gypsum board is attached to the grid, the springs will compress (1/2" to 1" nominally depending on spring capacity) allowing the ceiling system to lower into final position.

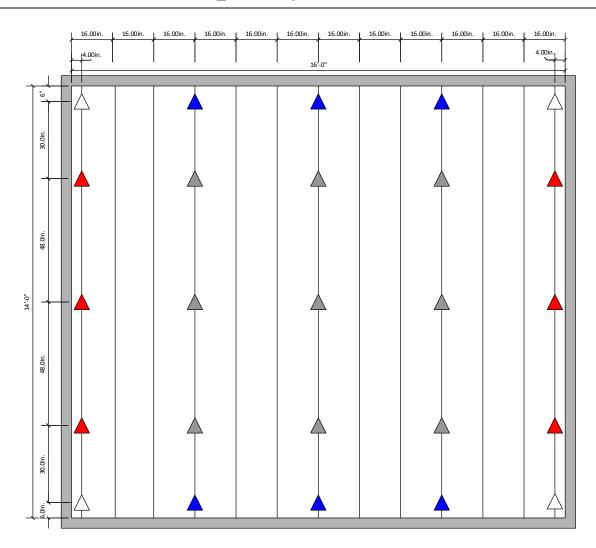
Position the Model RSIC Perimeter Isolation Tape to account for this change to final elevation.

Trimming the Model RSIC Perimeter Isolation Tape may be required following installation of the gypsum board. If an alternate method for ensuring that the isolated ceiling remains decoupled is employed (e.g., using Resilient Sound Isolation Clip RSIC-DC-04), be sure to maintain a 1/4" gap from non-isolated structural components.

RSIC-SI-FF 3/8 SOUND ISOLATION CLIP

- 7. Install the gypsum board using accepted practices for attaching to the grid system. Be certain to maintain a 1/4" gap between non-isolated structural components and the isolated ceiling to ensure that the gypsum board does not contact any non-isolated structural components. Do not allow gypsum board to rest on top edge of Model RSIC Perimeter Tape; it should abut the perimeter isolation tape. Do not allow the Model RSIC Perimeter Tape to become compressed against the non-isolated structure. In some cases, additional adjustment of the gypsum board may be necessary to achieve levelness, consult factory for procedures.
- 8. Trim Model RSIC Perimeter Tape as required and caulk gap using a resilient, non-hardening caulk.

Sample layout 48" oc.



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RSIC ® Safety Data Sheet

Article Statement (PAC International, LLC Wall and Ceiling Isolation Products)

This document is provided for clarification of the Safety Data Sheets that you have requested for our product(s). OSHA Hazard Communication Standard requires a SDS for hazardous chemicals; however, the standard exempts all articles from the requirement. The explanation of an article is described per OSHA definition below.

Pursuant to 29 CRF 1910.1200 (b) (6) (v) and (c), the product described herein is an "article" or is otherwise excluded from OSHA regulations requiring that a Material Safety Data Sheet be prepared for it.

An article defined: manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacturing; (ii) which has an end use function (s) dependent in whole or in part upon its shape or design during end use; and (iii) which does not release, or other wise result in exposure to, a hazardous chemical under normal conditions of use.

For technical information and additional resources covering these products please refer to PAC International published literature, e.g., data sheets, product drawings, and installation guidelines at www.PacInternationalLLC.com

As of the date of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state laws. However, no warranty or representation of law or fact, with respect to such information, is intended or given.



RSIC Product Warranty Disclaimer

WARRANTY DISCLAIMER AND LIABILITY LIMITATION LANGUAGE

WARRANTY AND DISCLAIMER AND LIABILITY LIMITATION LANGUAGE ONE YEAR WARRANTY Seller warrants to the original purchaser that its products are free from defects in material or workmanship for one year from the date of purchase from seller. Any allegedly defective product that is portable must be returned to seller prepaid. If upon examination it appears to seller's satisfaction that the product is defective, seller shall repair, replace, or return the purchase price of the product at seller's option. EXCEPT FOR THE FOREGOING, THERE IS NO OTHER WARRANTY, REPRESENTATION OR CONDITION OF ANY KIND; AND ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS EXCLUDED AND DISCLAIMED. Some states do not allow limitations on implied warranties, so the above limitation may not apply to you.

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NEVADA LAW APPLIES

SELLER AND BUYER AGREE THAT ALL ASPECTS OF THIS TRANSACTION INCLUDING THE APPLICABLE STATUTE OF LIMITATIONS SHALL BE GOVERNED BY THE INTERNAL LAW OF THE STATE OR NEVADA, AND NOT THE LAWS OF CONFLICTS.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state

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