



RSIC-U

The **RSIC-U** is designed for use with any wood, steel or concrete application where noise control is required. This includes, wood framed, and steel framed wall systems that need Vibration and Noise Isolation from the structure below. The RSIC-U Clip decouples the framed structure from the Floor it is mounted to at the floor-wall intersection stopping the transfer of noise. The RSIC-U clip has an Acoustical design load rating of 144 lbs per isolator when used at the floor.

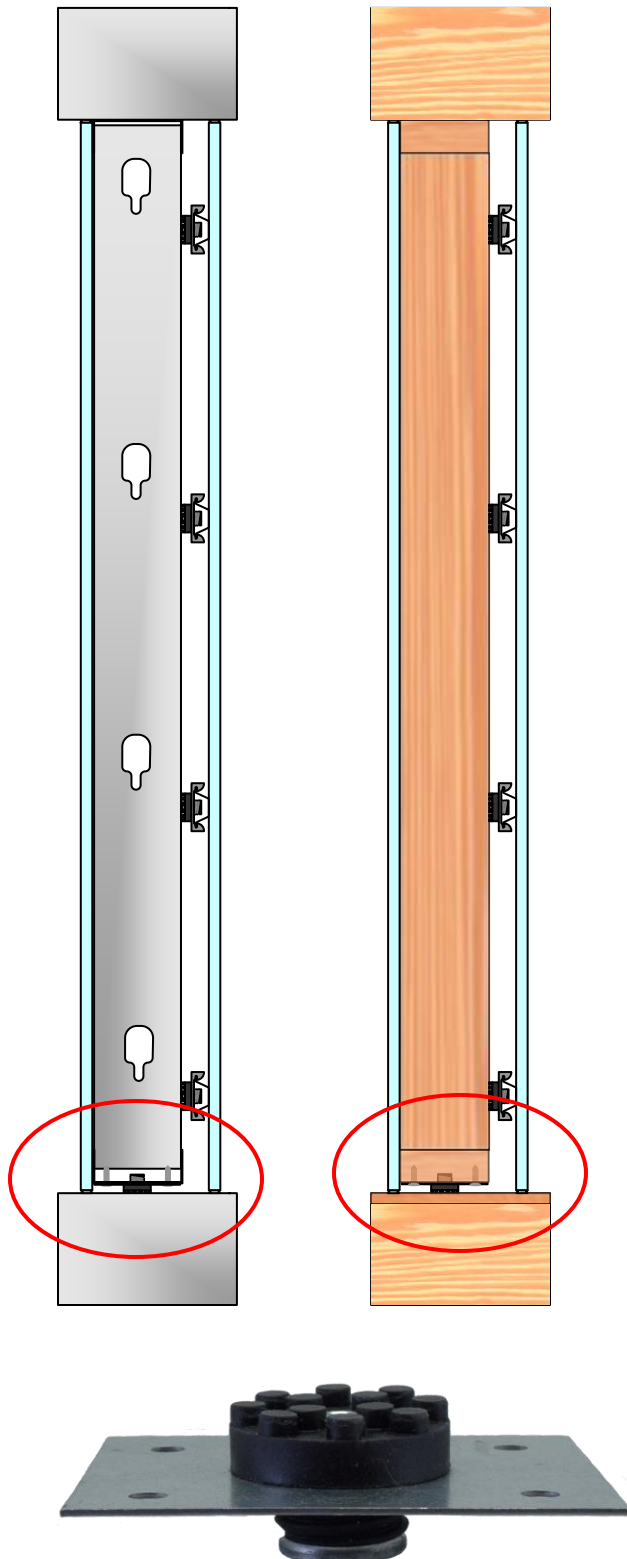
RSIC is the Low Cost, High Performance, Noise control Solution

Wood
Steel
Metal deck

Concrete
Condo
Commercial

Apartment
Retail
Conference Rooms

Recording Studio
Home Theater
Commercial theater

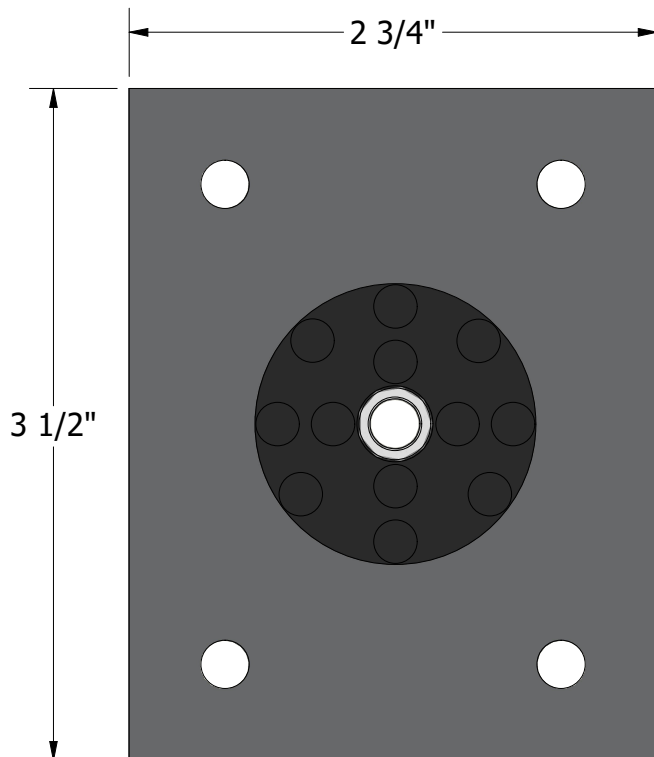
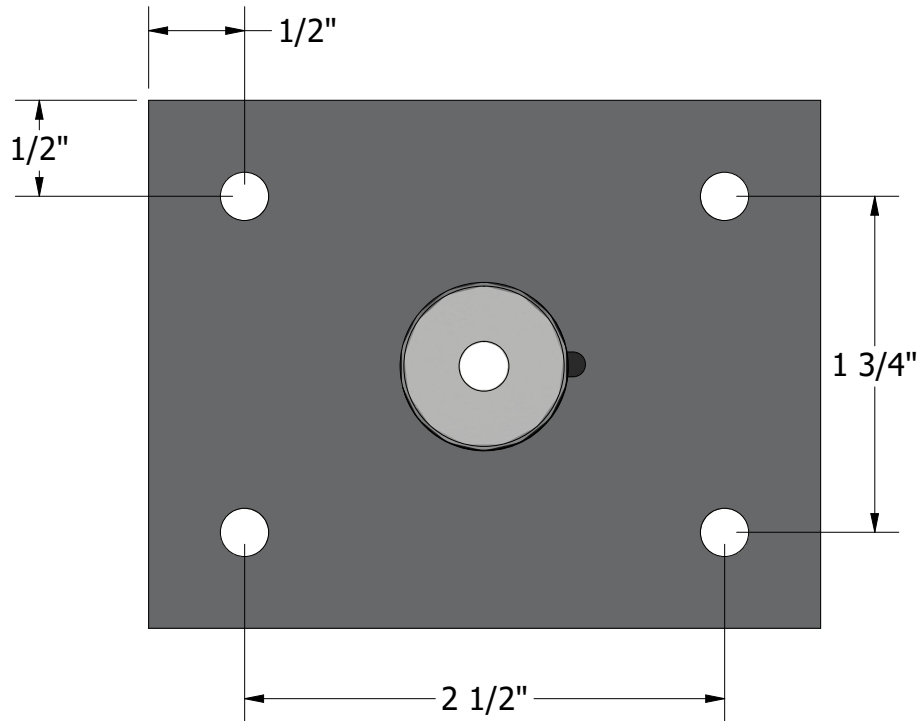


RSIC-U specifications:

Acoustical design load:	72 Lbs
Total deflection	3 mm
Double deflection	Yes (1.5 mm)
Made with Recycled content	Yes
Low VOC treated	Yes
Adjustable	No
Cavity min	1/2"
Cavity Max	1/2"
Adjustment limit	N/A
Use on Ceilings	No
Use on walls	Yes
New Construction	Yes
Retro Fit	Yes
Assembled In USA	Yes

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RSIC-U

2/3/2023

SCALE
1 : 1**PAC**
InternationalWorld Leader in
Noise Control
Solutions

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Toll Free: (866) 774-2100
Fax: (866) 649-2710
Web Site: <http://www.pac-intl.com>
E-Mail: info@pac-intl.com

Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, contained in the *CSI Manual of Practice*.

The section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the drawings.

Delete all "Specifier Notes" when editing this section.

SECTION 13085

SOUND ISOLATION

Specifier Notes: This section covers PAC International, Inc. "RSIC-U" Resilient Sound Isolation Clip installed at the base of walls for acoustical separation (de-coupling) of the walls from the floor structure. Consult PAC International for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Resilient sound isolation clips installs between the floor and steel or wood framing, mechanical items, or other mounting methods for noise control (de-coupling) in walls, floors, ceilings, and other spaces.

1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as required for the project. List other sections with work directly related to this section.

- A. Section 05400 - Cold-Formed Metal Framing.

- B. Section 06110 - Wood Framing.
- C. Section 07210 - Building Insulation.
- D. Section 07920 - Joint Sealants.
- E. Section 09110 - Non-Load-Bearing Wall Framing.
- F. Section 09250 - Gypsum Board.
- G. Section 09260 - Gypsum Board Assemblies.
- H. Section 96500 – Resilient Flooring
- I. Section 09820 - Acoustical Insulation and Sealants.

1.3 REFERENCES

Specifier Notes: List standards referenced in this section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. AISI Specifications for Design of Cold-Formed Steel Structural Members.
- B. ASTM B 633 - Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel.
- C. ASTM C 645 - Standard Specification for Nonstructural Steel Framing Members.
- D. ASTM C 754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.
- E. ASTM C 840 - Standard Specification for Application and Finishing of Gypsum Board.
- F. ASTM C 1002 - Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
- G. ASTM D 412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension.
- H. ASTM D 573 - Standard Test Method for Rubber-Deterioration in an Air Oven.
- I. ASTM D 2000 - Standard Classification System for Rubber Products in Automotive Applications.
- J. ASTM D 2240 - Standard Test Method for Rubber Property - Durometer Hardness.

1.4 DESIGN REQUIREMENTS

Specifier Notes: The "RSIC-U" Resilient Sound Isolation Clip acoustic assembly is a proprietary product used for fastening wall framing to a supporting structure, while simultaneously isolating it from vibration. This significantly reduces the flanking path of impact and airborne sound filtering from rooms above, below, and alongside.

To maximize the noise control capacity and potential of the RSIC-U, a professional acoustical engineer should be consulted. PAC International offers computer modeling for STC and IIC to assist in your design.

To maximize the acoustical performance of the RSIC-U, it is recommended the dead or shear load not exceed 144 pounds per RSIC-U.

- A. Dead or Shear Load: Maximum design load of 144 pounds per each resilient sound isolation clip (RSIC-U).

1.5 SUBMITTALS

- A. Comply with Section 01330 - Submittal Procedures.
- B. Product Data: Submit manufacturer's product data and installation instructions.
 - 1. Resilient sound isolation clips.
- C. Samples: Submit manufacturer's samples.
 - 1. Resilient sound isolation clips (RSIC-U)
- D. Warranty: Submit manufacturer's standard warranty for resilient sound isolation clips.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage: Store materials in clean, dry area indoors in accordance with manufacturer's instructions.
- C. Handling: Protect materials during handling and installation to prevent damage.

PART 2 PRODUCTS

2.1 SOUND ISOLATION

- A. Sound Isolation Clips: Resilient Sound Isolation Clip (RSIC-U).
 - 1. Manufacturer: PAC International, Inc., Las Vegas, NV. Toll Free (866) 774-2100. Phone (503) 649-7700. Fax (503) 649-2710. Web Site <http://www.pac-intl.com>. E-Mail info@pac-intl.com.
 - 2. Steel and Rubber manufactured and assembled in the United States.

3. Rubber Isolator:
 - a. Natural organic rubber compound, virgin and recycled, with fire-inhibiting compounds.
 - b. Molded to isolate ferrule from clip.
 - c. Minimum of 12 micro-vibration controlling pedestals at point of contact with structure or framing member.
 - d. Manufactured in the United States to ASTM D 2000, M2 AA 510 A13, which includes:
 - 1) Hardness, ASTM D 2240, Shore A: 45.
 - 2) Modulus 300 Percent, ASTM D 412, Die C: 5.3 MPa.
 - 3) Tensile Strength, ASTM D 412, Die C: 11.2 MPa.
 - 4) Elongation at Break, ASTM D 573: 454 percent.
3. Clip: Galvanized or aluminum-zinc coated steel, 18 gauge.
4. Ferrule: Zinc-electroplated steel.
5. Projection: 1/2 inch from supporting structure.

Specifier Notes: The following materials are not furnished by PAC International.

- B. Mechanical Fasteners:
 1. Type: Self-drilling, self-tapping screws. Steel, ASTM C 1002. Galvanized coating, plated, or oil-phosphate coated, ASTM B 633, as needed for required corrosion resistance.
 2. Resilient Sound Isolation Clip Connections:
 - a. To Wood Framing Members: Screws 2-1/2 inches (63 mm) minimum length, #8 minimum shank, Type W (course thread), bugle- or hex-head screws of equal or greater size.
 - 1) Minimum allowable Pullout and Shear: 144 pounds.
 - b. To Steel Framing Members (20 Gauge through 12 Gauge): Screws 1-1/2 inches (38 mm) minimum length; #8 minimum shank; Type S (fine thread); self-drilling tip; bugle-, wafer-, or hex-head screws of equal or greater size.
 - 1) Minimum allowable Pullout and Shear: 144 pounds.
 - c. To Concrete: Anchors 1-3/4 inches (44 mm) minimum length, 3/16-inch to 1/4-inch diameter. Mushroom head or screw-in type anchor in accordance with fastener manufacturer's instructions. Powers Fasteners or approved equal.
 - 1) Minimum allowable Pullout and Shear: 144 pounds.
- C. Insulation: Mineral wool insulation Minimum 2.5 pounds per cubic foot density 1/2 inch thick cut to fit directly under framing member supported by RSIC-U clip.
- D. Acoustical Sealant: Flexible, non-hardening. As specified in Section 07920.
- E. Fire/Smoke Sealant: Flexible, non-hardening. Classified as an acoustical sealant. As specified in Section 07920.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive materials. Notify Architect if areas are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

3.2 INSTALLATION - GENERAL

- A. Install resilient sound isolation clips in accordance with manufacturer's instructions.
- B. Mechanically fasten resilient sound isolation clips to structure with screws, bolts, or expansion anchors, dependent upon structure.
- C. Fire-Resistive Design Assemblies:
 - 1. Do not arbitrarily add resilient sound isolation clips to fire-rated assemblies.
- D. Space resilient sound isolation clips at maximum of 24 inches (600 mm) on center for walls.
- E. Do not exceed design load (pull and shear) of 144 pounds per isolation clip.
- F. Space RSIC-U clips under or near vertical framing members.
- G. Flanking Noise:
 - 1. Review installation details to prevent structure-borne flanking noise.
 - 2. Do not allow framing to come in contact with floor or walls to reduce flanking paths for noise
- H. Ensure metal ferrule of resilient sound isolation clips is in firm contact with structural member.
- I. Acoustical Sealant:
 - 1. Seal potential air leaks with acoustical sealant to achieve best Field Sound Transmission Class (FSTC).
 - 2. Seal electrical outlets and penetrations with acoustical sealant.
 - 3. Apply fire-rated acoustical sealant at locations where fire-rated assembly is required.

3.3 INSTALLATION - WALLS

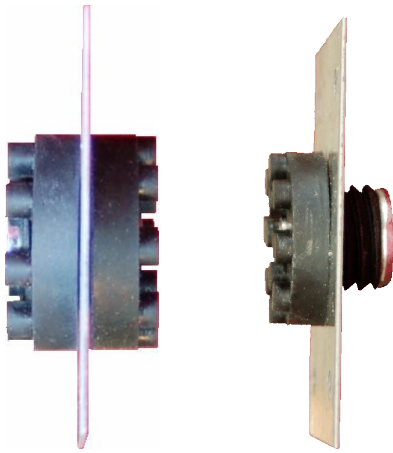
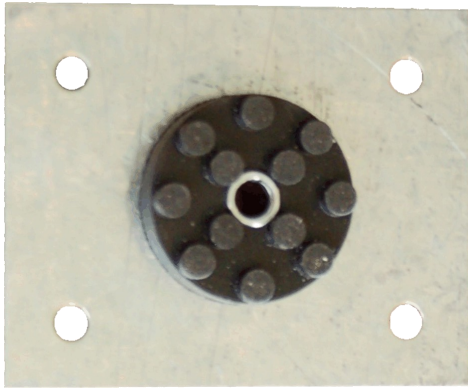
Specifier Notes: Special consideration should be given to concentrated and uniform load conditions, such as cabinets. Special consideration should be given to all penetrations to ensure the control of STC noise transfer. Consult PAC International for additional information.

- A. Install RSIC-U clips to underside of framing member and attach to floor structure using above referenced fasteners.
- B. Drill a 1-1/8" hole in the wall bottom plate near each stud location. Secure the RSIC-U mounting plate to the underside of the bottom plate using a minimum of four (4) #6 nails (for wood framing) or four (4) #6 x 7/16" screws (for steel framing).
- C. Secure the RSIC-U to the floor below using the proper fasteners as defined above, by fastening through the 1/4" hole in the center of the RSIC-U.

D. Be certain the head of the RSIC-U center ferrule does NOT contact the framing. This will may create a flanking path for noise transmission.

END OF SECTION

THE RSIC SOUND ISOLATION CLIPS



RSIC-U RSIC-U HD

- LOWEST LABOR COST
- HIGH PERFORMANCE
- WALL ISOLATION
- WOOD
- STEEL
- CONCRETE
- CMU
- CONDOS
- TIME SHARE / FRACTIONAL OWNERSHIP
- ASSISTED LIVING
- APARTMENTS
- HOTELS / MOTELS
- SINGLE FAMILY HOMES
- HOME THEATER
- COMMERCIAL THEATER

RSIC-U (Universal)

The **RSIC-U** and **RSIC-U HD** are designed for use with various wall and floor designs. The RSIC-U decouples the wall framing from the floor and ceiling structure. The RSIC-U system eliminates flanking paths normally caused by a wall directly connected the floor or ceiling.

When combined with the RSIC-1 wall system the highest possible noise control can be achieved by preventing noise from passing through wall framing into the adjoining structure. The RSIC-U works directly with the RSIC-1 to achieve total decouple walls from the structure.

RSIC-U, the Low Cost, High Performance, Noise Control Solution

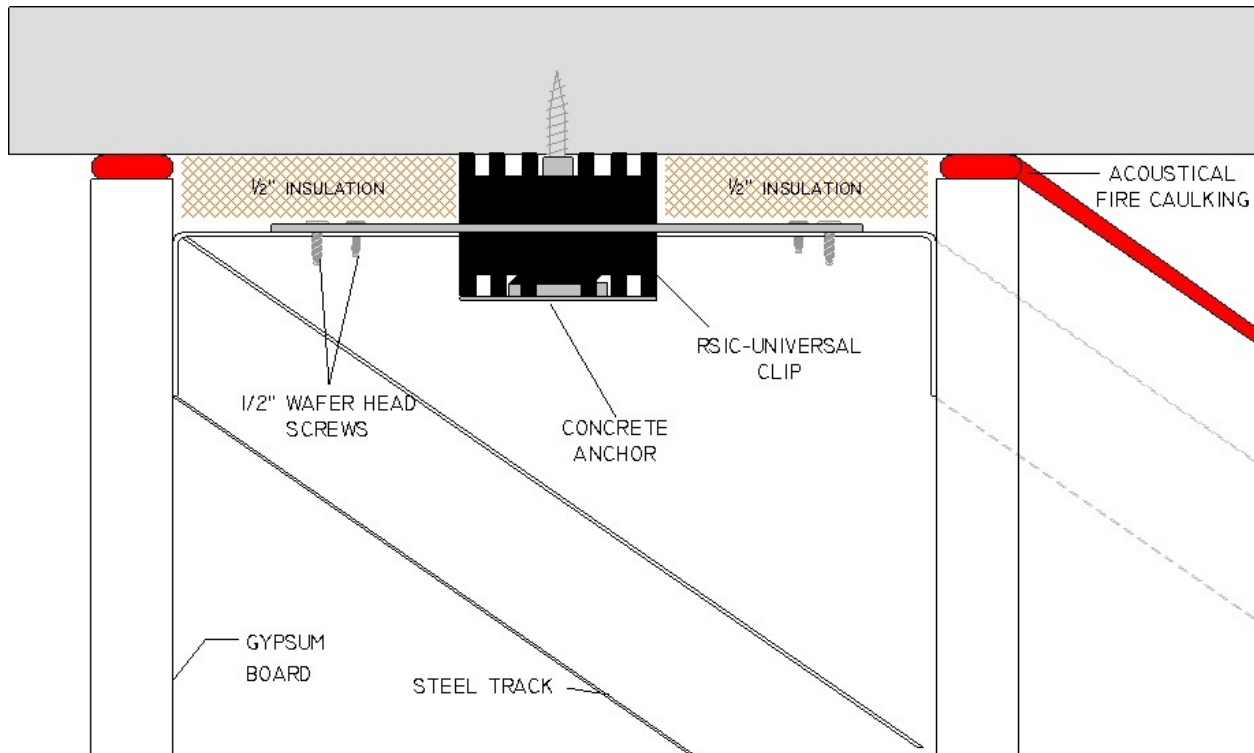
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THE RSIC SOUND ISOLATION CLIPS

Installation Instructions for Steel Framing:

- Drill 1" (minimum) hole in center of steel track located next to each stud.
- Fasten the RSIC-U to the steel track centering the rubber isolator in the hole drilled earlier.
- Fasten RSIC-U to the track with 7/16" or 1/2" framing screws.
- Place the RSIC-Donut and washer over the small section of the RSIC-Rubber.
- Fasten the RSIC-U to the ceiling using appropriate fasteners for your application.
- Wood structure use min #8 x 2.5" course thread fastener.
- Steel structure use min #8 x 1-5/8" fine thread self drilling fasteners.
- Concrete Structure:
 - Screw in Tapcon or Tapper or similar, 3/16" x 2.5". Pre-drill the anchor hole per manufacturers recommendation
 - Drop-in Powers brand mini drop in anchor and 1/4-20 x 1-1/2" bolt
 - Other, see fastener manufacturers for details and information.
- Fill cavity between track and structure with fiberglass insulation.
- Avoid high density (rigid) insulation, whereas a short circuit may occur.
- Install wall framing, and gypsum board per manufacturers recommendation.
- Caulk the perimeter of the gypsum board wall airtight. Use fire rated acoustical caulking where required.



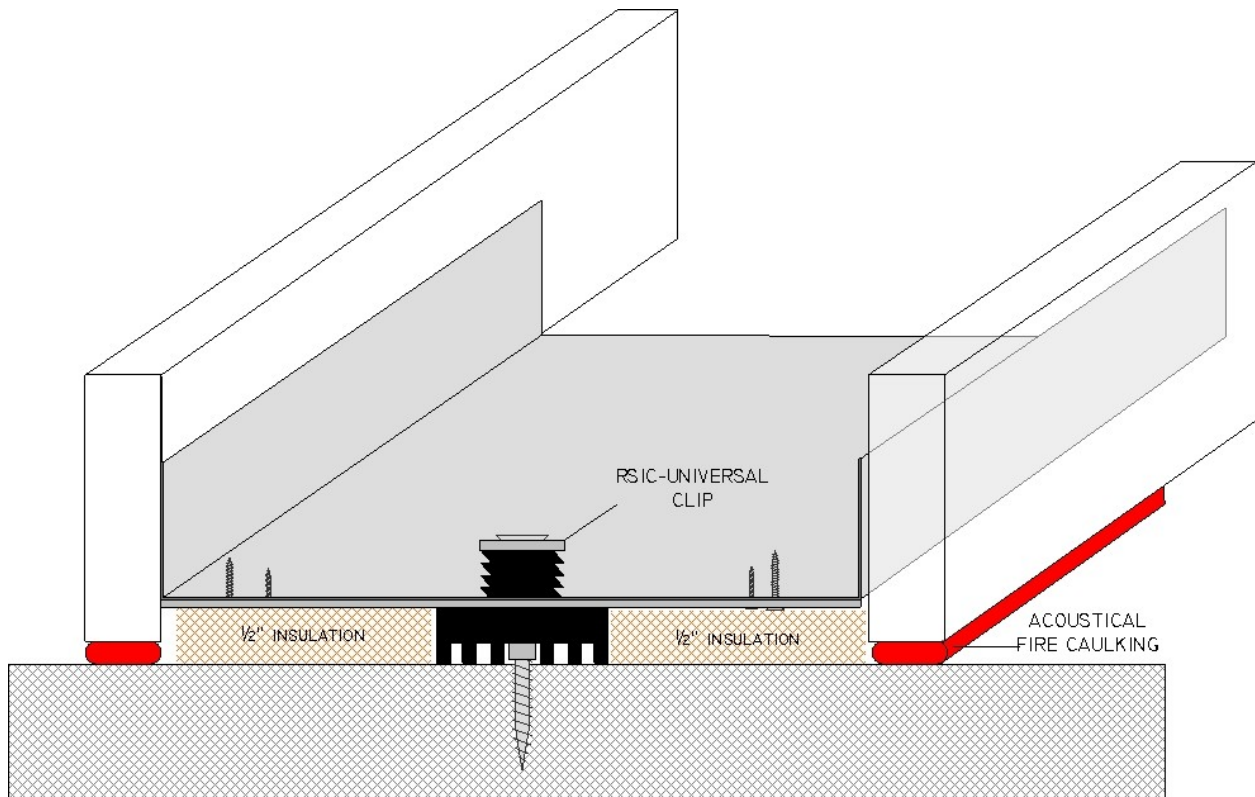
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- Fasten the RSIC-U to the floor using appropriate fasteners for your application.
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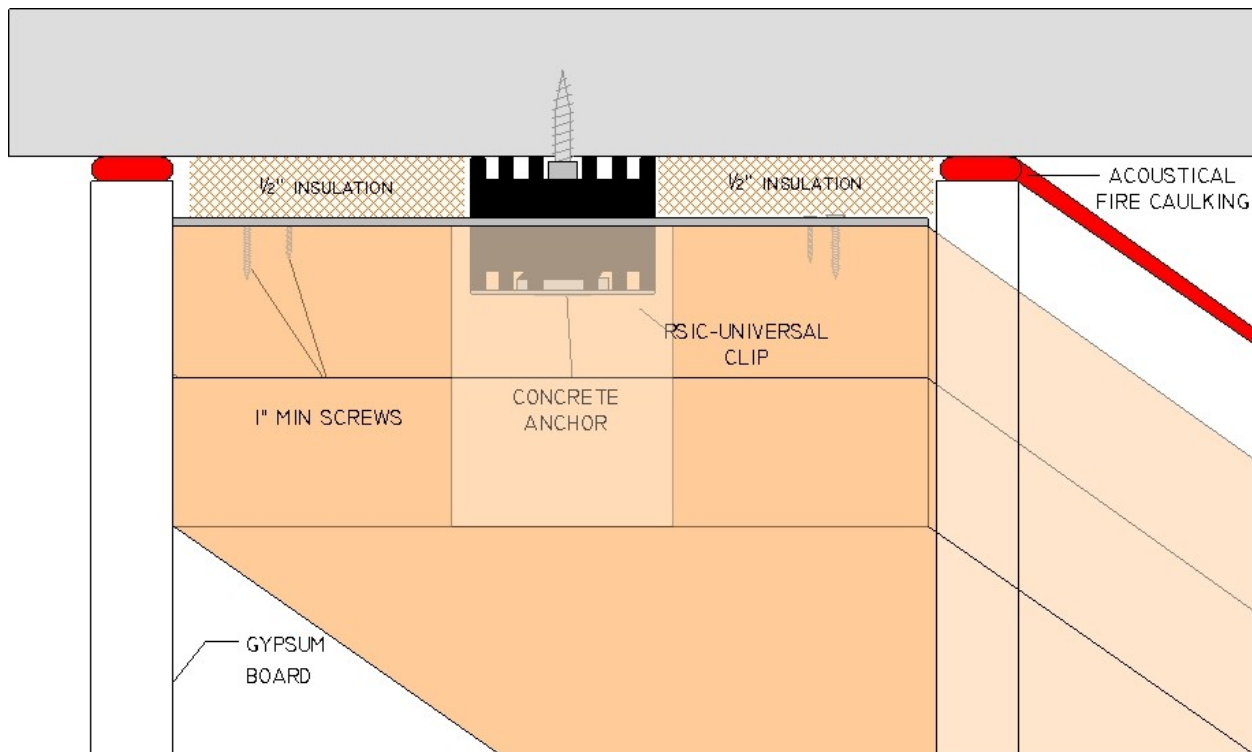
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THE RSIC SOUND ISOLATION CLIPS

Installation Instructions for Wood Framing:

- Drill 2" hole in center of wood top and bottom plate located next to each stud location.
- Fasten the RSIC-U to the top and bottom plate centering the rubber isolator in the 2" hole drilled earlier with 1" min screws.
- Place the RSIC-Donut and washer over the small section of the RSIC-Rubber.
- Fasten the RSIC-U to the ceiling or floor using appropriate fasteners for your application.
- Wood structure use min #8 x 2.5" course thread fastener.
- Steel structure use min #8 x 1-5/8" fine thread self drilling fasteners.
- Concrete Structure:
 - Screw in Tapcon or Tapper or similar, 3/16" x 2.5". Pre-drill the anchor hole per manufacturers recommendation
 - Drop-in Powers brand mini drop in anchor and 1/4-20 x 1-1/2" bolt
 - Other, see fastener manufacturers for details and information.
- Fill cavity between track and structure with fiberglass insulation.
- Avoid high density (rigid) insulation, whereas a short circuit may occur.
- Install wall framing, and gypsum board per manufacturers recommendation.
- Caulk the perimeter of the gypsum board airtight. Use fire rated acoustical caulking where required.



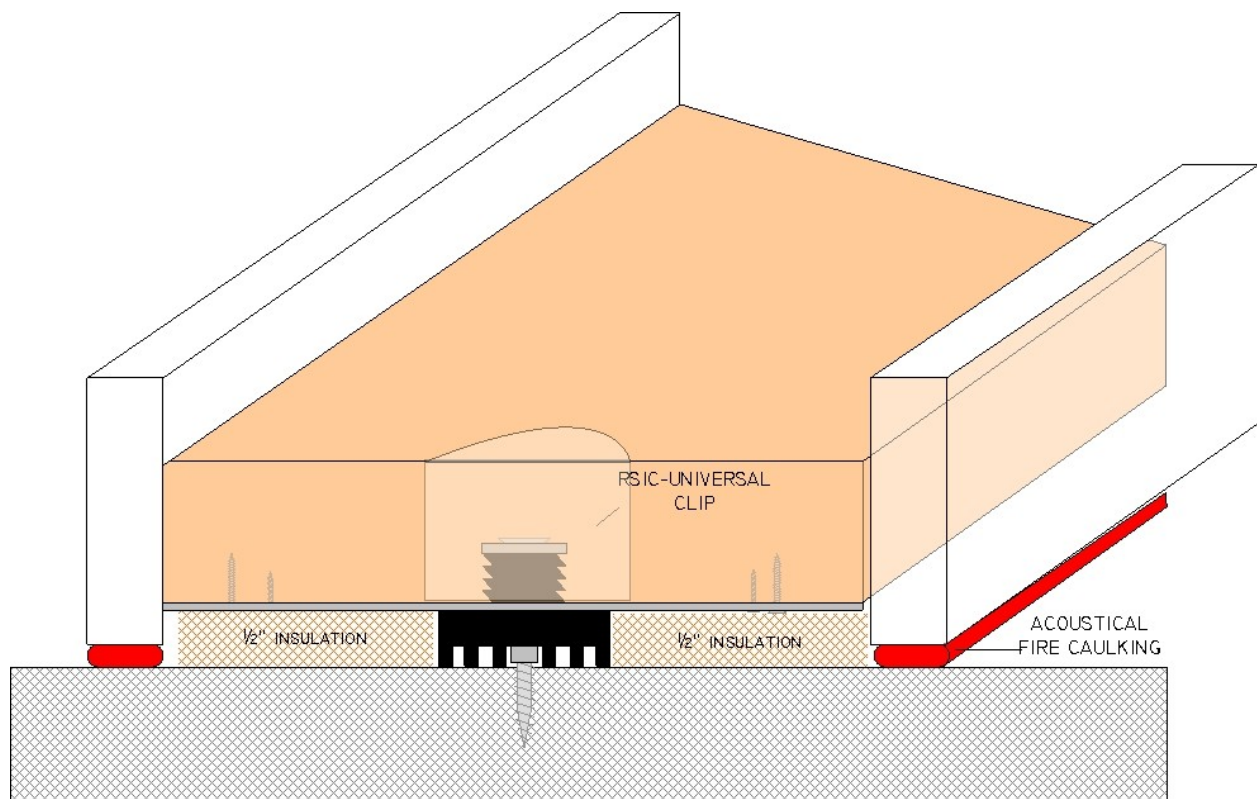
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THE RSIC SOUND ISOLATION CLIPS

Installation Instructions for Wood Framing:

- Drill 2" hole in center of wood top and bottom plate located next to each stud location.
- Fasten the RSIC-U to the top and bottom plate centering the rubber isolator in the 2" hole drilled earlier with 1" min screws.
- Fasten the RSIC-U to the floor using appropriate fasteners for your application.
- Wood structure use min #8 x 2.5" course thread fastener.
- Steel structure use min #8 x 1-5/8" fine thread self drilling fasteners.
- Concrete Structure:
 - Screw in Tapcon or Tapper or similar, 3/16" x 2.5". Pre-drill the anchor hole per manufacturers recommendation
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LEED Analysis **RSIC-U**

Recycled Content

PAC International's RSIC-U does not contain significant recycled content.

Fabrication Location

The RSIC-U is manufactured in Canby, OR 97013

Material Source

The extraction points for the materials in these products cannot be verified. Assume they are outside the 500 mile radius.



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 CFR 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 otherwise 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.



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Noise Control
Solutions**

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.

LIABILITY LIMITED TO RETURN OF PURCHASE PRICE

IT IS AGREED THAT SELLER'S LIABILITY AND PURCHASER'S SOLE REMEDY, WHETHER IN CONTRACT, UNDER ANY WARRANTY, IN TORT (INCLUDING NEGLIGENCE), IN STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE RETURN OF THE AMOUNT OF THE PURCHASE PRICE PAID BY PURCHASER, AND UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, PERSONAL INJURY, PROPERTY DAMAGE, DAMAGE TO OR LOSS OF EQUIPMENT, LOST PROFITS OR REVENUE, COSTS OF RENTING REPLACEMENTS AND OTHER ADDITIONAL EXPENSES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE PRICE STATED FOR THE EQUIPMENT IS A CONSIDERATION IN LIMITING SELLER'S LIABILITY AND PURCHASER'S REMEDY. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

SELLER NOT LIABLE FOR PURCHASER'S NEGLIGENCE

SELLER WILL NOT BE LIABLE FOR ANY DAMAGES, LOSSES OR EXPENSES AS A RESULT OF PURCHASER'S NEGLIGENCE, WHETHER DEEMED ACTIVE OR PASSIVE AND WHETHER OR NOT ANY SUCH NEGLIGENCE IS THE SOLE CAUSE OF ANY SUCH DAMAGE, LOSS OR EXPENSE.

MODEL FOR DEMONSTRATION PURPOSES ONLY

THE MODEL OR SAMPLE SHOWN BY SELLER TO BUYER IS USED FOR DEMONSTRATION PURPOSES ONLY. THERE IS NO WARRANTY THAT THE GOODS AS DELIVERED SHALL CONFORM TO THE MODEL OR SAMPLE, AND CONFORMITY OF THE GOODS TO THE MODEL OR SAMPLE IS NOT PART OF THE BASIS OF THE BARGAIN BETWEEN SELLER AND BUYER.

NO WARRANTY OR COMPLIANCE WITH SAFETY CODE OR REGULATION

SELLER DOES NOT WARRANT THAT ANY OF THE GOODS SOLD WILL MEET OR COMPLY WITH THE REQUIREMENTS OF ANY SAFETY CODE, BUILDING OR DWELLING CODE, OR REGULATION OF ANY STATE, MUNICIPALITY OR OTHER JURISDICTION.

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 OF 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