



1. Product Name

- RSIC-1 Resilient Sound Clip System
 - RSIC-1® Resilient Sound Isolation Clips
 - RSIC-Backer®

2. Manufacturer

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3. Product Description

Basic Use

RSIC-1

The RSIC-1 is designed for use with any wood-framed, steel-framed, CMU, or concrete wall and ceiling system where noise control is needed. The RSIC-1 assembly decouples and isolates the gypsum board or plywood from the structure increasing the acoustical performance of the system.

The RSIC-1 stops the noise and vibrations that typically would be allowed to transfer through the structure. The RSIC-1 systems have several UL fire resistive design assemblies ranging from one hour to four hours.

The UL assemblies can be viewed on the PAC International, LLC site in Table 1, [here](#) and on UL.com. (File #: R16638)

RSIC-Backer

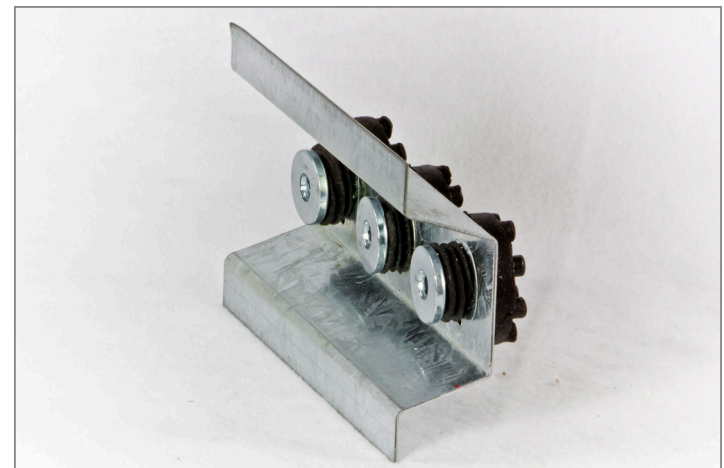
The RSIC-Backer series is a heavy-duty mount used together with the RSIC-1 clips, creating the only complete noise isolation system that can support heavy items. The RSIC-Backer can be used in new construction or retrofit projects. The RSIC-Backer should be used when items need to be acoustically decoupled for noise and vibration isolation.

A few examples of the possible uses for the RSIC-Backer series of noise control clips:

- Cabinet support
- Chalk boards
- Projector screens
- Handicap grab bars
- Lockers
- TV wall mount support
- Handrails



RSIC-1 Clip



RSIC-Backer

Materials and Composition

The 18 gauge RSIC-1 clips and 16 gauge RSIC-Backer are composed of galvanized or aluminum-zinc coated steel and is manufactured in Las Vegas.

The RSIC rubber isolators are made of rubber and manufactured rubber compound.

Sizes and Weight-bearing Information

With an acoustical design load rating of 36 pounds per isolator, the RSIC-1 clip can support up to two layers of $\frac{5}{8}$ inch gypsum board when spaced at 24 × 48 inches on center. For heavier systems increase the number of isolators to support the additional weight of the system. The RSIC-1 clip fastens directly to the framing or structure creating a $1\frac{1}{8}$ inch cavity between the face of the framing and the back of the gypsum board.

The RSIC-Backer standard has an acoustical design load of 108 pounds per isolator. The heavy duty RSIC-Backer has an acoustical design load of 216 pounds per isolator.

Mechanical Fasteners

To Wood Framing Members: screws $2\frac{1}{2}$ inches (63 mm) minimum length, #8 minimum shank, Type W (course thread), bugle- or hex-head screws of equal or greater size. Minimum pullout and shear: 108 pounds.

To Steel Framing Members (20 Gauge through 12 Gauge): screws $1\frac{1}{2}$ inches (38 mm) minimum length; #8 minimum shank; Type S (fine thread); self-drilling tip; bugle-, wafer- or hexhead screws of equal or greater size. Minimum pullout and shear: 108 pounds.

To Concrete: anchors $1\frac{3}{4}$ inches (44 mm) minimum length, $\frac{3}{16}$ -inch to $\frac{1}{4}$ -inch diameter. Mushroom head or screw-in type anchor in accordance with fastener manufacturer's instructions. Powers Fasteners or approved equal. Minimum pullout and shear: 108 pounds.

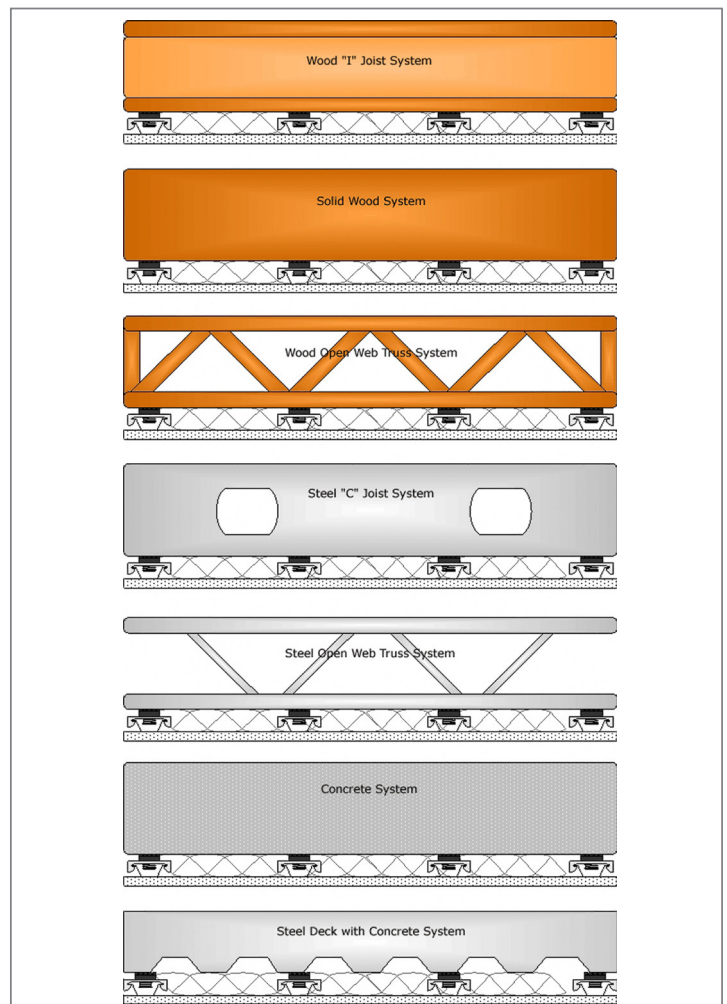
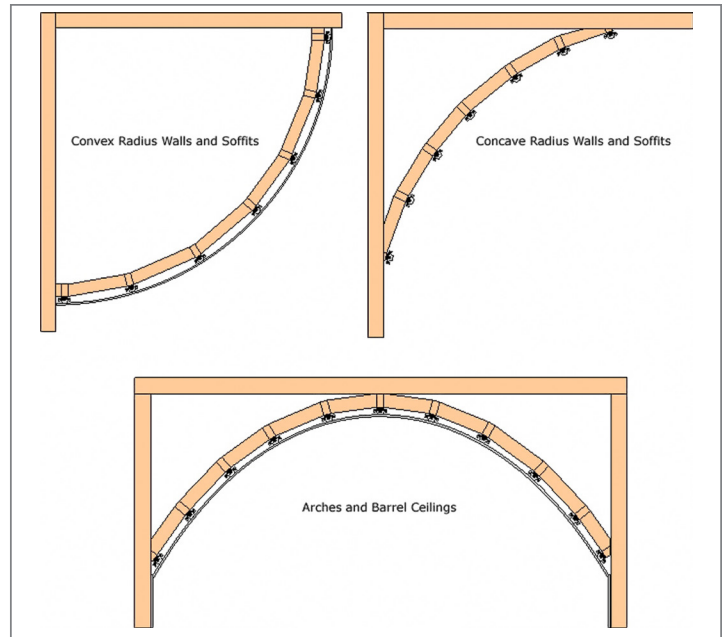
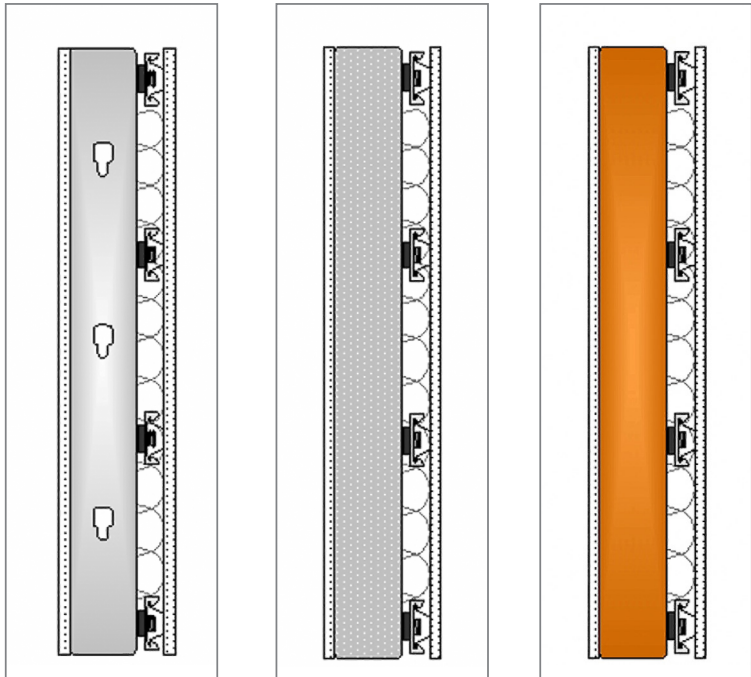
To Concrete Masonry Units: anchors $2\frac{1}{4}$ inches (57 mm) minimum length, $1\frac{1}{4}$ -inch diameter. Designed for use in concrete masonry units in accordance with fastener manufacturer's instructions. Powers Fasteners or approved equal. Minimum pullout and shear: 108 pounds.

Drywall Furring Channel Lap Joint Connection, Steel to Steel: framing screws, buttonhead, $\frac{7}{16}$ inch (11 mm) minimum length, #6 minimum shank, needle point, Phillips drive or greater or double-wire tie with 18 gauge tie wire. Lap joint to be mid span between RSIC-1 clips.

SDS (formerly MSDS)

SDS sheet available [here](#).

Left to right: steel; concrete, block or AAC; wood wall systems



Product Limitations

For internal use only with operating temperatures of 60–80 degrees F (15.5–26.7 degrees C).

4. Technical Data

Applicable Standards

American Iron and Steel Institute (AISI)

- **AISI S100-12** North American Specification for the Design of Cold-Formed Steel Structural Members

ASTM International (ASTM)

- **ASTM B633** Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel
- **ASTM C645** Standard Specification for Nonstructural Steel Framing Members
- **ASTM C754** Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products
- **ASTM C840** Standard Specification for Application and Finishing of Gypsum Board
- **ASTM C1002** 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
- **ASTM D412** Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension
- **ASTM D573** Standard Test Method for Rubber-Deterioration in an Air Oven
- **ASTM D2000** Standard Classification System for Rubber Products in Automotive Applications

- **ASTM D2240** Standard Test Method for Rubber Property - Durometer Hardness
- **ASTM E72** Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
- **ASTM E90** Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- **ASTM E108** Standard Test Methods for Fire Tests of Roof Coverings
- **ASTM E413** Classification for Rating Sound Insulation

Underwriters Laboratories (UL)

- **UL Fire Resistance Directory**; Table 1, www.ul.com or visit [here](#).

Underwriters Laboratories of Canada (ULC)

- UL Fire Resistance Directory. www.ul.com

Environmental Considerations

The RSIC-1 and RSIC-Backer may contribute to LEEDS points.

The rubber RSIC fittings can be recycled.

The steel recycled content is less than 10 percent as required for fire life and safety regulations.

5. Installation

General installation: follow manufacturer's specific installation instructions.

- Install resilient sound isolation clips and drywall furring channels in accordance with manufacturer's instructions
- Mechanically fasten resilient sound isolation clips to structure with screws, bolts or expansion anchors, dependent upon structure

Table 1—RSIC-1 UL Design Number Listings

| | | | | | | | | |
|--------------|------------------|------|------|------|------|------|------|------|
| G501 | G534 | L510 | L532 | L574 | M509 | U311 | U311 | U311 |
| G502 | G551 | L511 | L534 | L576 | M510 | U320 | U320 | U320 |
| G503 | G552 | L513 | L542 | L579 | P519 | U331 | U331 | U331 |
| G504 | G561 | L513 | L546 | L582 | P519 | U334 | U334 | U334 |
| G505 | G561 | L514 | L547 | L589 | P522 | U334 | U334 | U334 |
| G507 | G561 | L516 | L550 | L590 | P545 | U340 | U340 | U340 |
| G510 | G565 | L518 | L562 | L593 | P556 | U341 | U341 | U341 |
| G512 | G565 | L521 | L569 | M501 | U301 | U301 | U301 | V496 |
| G524 | G578 | L523 | L570 | M502 | U305 | U305 | U305 | V498 |
| G524 | L502 | L528 | L570 | M506 | U305 | U305 | U305 | — |
| G525 | L505 | L528 | L573 | M508 | U309 | U309 | U309 | — |
| GA- WP1013 | WFCI 07083 (ply) | | — | — | — | — | — | — |
| GA- WP1453 | WFCI 07083a | | — | — | — | — | — | — |
| ITS LP60- 01 | WP-FC5102 | | — | — | — | — | — | — |
| ITS TSC60-01 | WP-FC5103 | | — | — | — | — | — | — |

* Consult PAC International, Inc. for complete details; UL File number: R16638

- Fire-Resistive Design Assemblies:
 - Install as specified in *UL Fire Resistance Directory*, where required
 - Do not arbitrarily add resilient sound isolation clips to fire-rated assemblies
- Space resilient sound isolation clips at maximum of 24 × 48 inches (600 × 1200 mm) on center for walls and ceilings
- Do not exceed design load (pull and shear) of 36 pounds per isolation clip
- Stagger isolation clip installation, so dead load is supported by all support members
- Splicing Drywall Furring Channels:
 - Splice drywall furring channels with minimum of six inch (150 mm) laps
 - Secure laps with two framing screws or 18 gauge tie wire double wrapped
 - Locate splices between resilient sound isolation clips
 - Do not locate splices on resilient sound isolation clips
- Install resilient sound isolation clips on one side of wall assembly, unless otherwise indicated on the drawings
- 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
- Ensure metal ferrule of resilient sound isolation clips is in firm contact with structural member
- Gypsum Board:
 - Install gypsum board in vertical or horizontal position with a ¼ inch (6 mm) gap around perimeter for acoustical sealant application
 - Install gypsum board in accordance with ASTM C840 as specified in Section 09250
- Acoustical Sealant:
 - Seal potential air leaks with acoustical sealant to achieve best Field Sound Transmission Class (FSTC)
 - Seal electrical outlets and penetrations with acoustical sealant
 - Apply fire-rated acoustical sealant at locations where fire-rated assembly is required
- Putty Pad Sealant: acoustically seal with putty pads, electrical boxes in walls and ceilings in which resilient sound isolation clips are used

6. Availability and Cost

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

7. Warranty

RSIC-1 clips and RSIC-Backer 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.pac-intl.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

- ConstructConnect
- Additional product information is available from the manufacturer upon request ↗