



# Acoustical Surfaces, Inc.

**SOUNDPROOFING, ACOUSTICS, NOISE & VIBRATION CONTROL SPECIALISTS**

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**We Identify and S.T.O.P. Your Noise Problem**

Acoustical Surfaces, Inc.  
A Master Distributor for  
PAC INTERNATIONAL, INC.



## Application Recommendations for Suspended Ceilings

### Installing Resilient Sound Isolation Clips RSIC-1.5CRC

#### MATERIALS:

#### Resilient Sound Isolation Clip for 1.5 inch Cold Rolled Channel (RSIC-1.5CRC)

Spacing: Maximum 48 inch on center.

Maximum Acoustical Design Load: Thirty Six (36) pounds per RSIC-1.5CRC

#### Cold Rolled Channel:

Minimum requirements:

Sixteen (16) gauge (0.055 inch or 1.4 mm thickness), galvanized, "U" Channel, 1/2" (12 mm) x 1-1/2" (38 mm) x 1/2" (12 mm)

#### Drywall Furring Channel:

Minimum requirements:

Twenty Five (25) gauge (0.0188 inch or 0.46 mm thickness), Hemmed Edge detail Required on all 25 gauge Furring Channel. Shall be manufactured in accordance with Steel Stud Manufacturers Association (SSMA) standards.

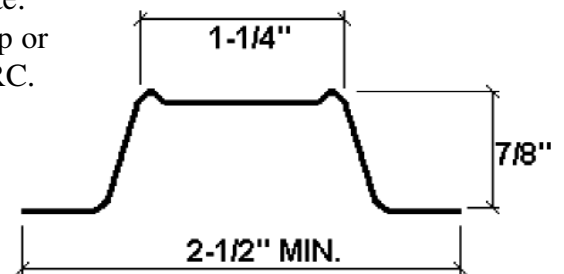
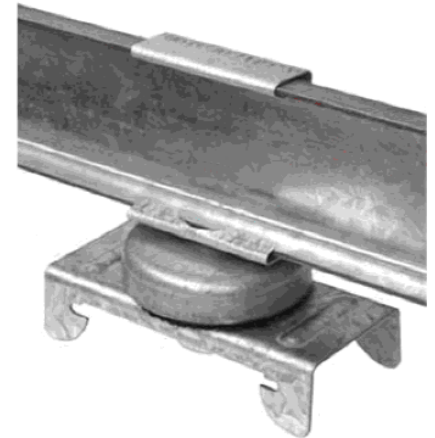
Optional: Twenty Two (22) gauge (0.27 inch or 0.69 mm thickness) or Twenty (20) gauge (0.33 inch or 0.84 mm thickness). Please note:

In the heavier gauge DFC installation may require a C8 vise grip or other compression tool to squeeze the DFC into the RSIC-1.5CRC.

Depth: 7/8 inch (22 mm)

Width: Top 2-1/2" (63 mm) minimum

Bottom: 1-1/4 inch (32 mm)





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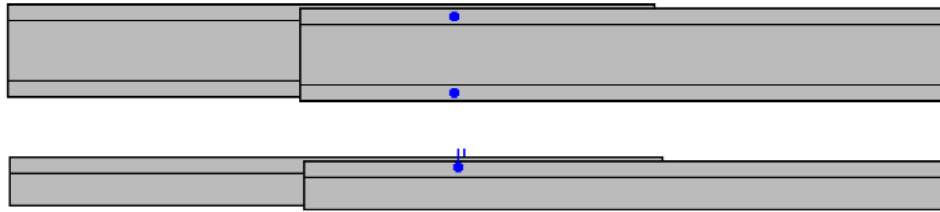
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**Splice:** Drywall Furring channel (aka Hat track) splice shall occur between the RSIC-1.5CRC with 6 inch (152 mm) overlap, secured with two (2) framing screws placed one in each top flange at mid point of the overlap splice or wire tie with two strands of 18 gauge galvanized tie wire.



## Support Wire:

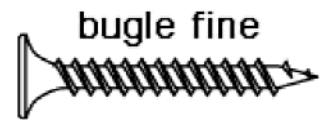
Minimum Requirement: Twelve (12) gauge, Galvanized, Annealed. Minimum sustained static load capacity three hundred (300) pounds. (Recommended: #9 gauge, Galvanized, Annealed).

## Fasteners:

Drywall to Drywall Furring Channel:

Single layer 1/2" (12 mm) or 5/8" (16 mm) use 1" (25 mm), 1-1/8" (28 mm) or 1-1/4" (32mm) long, type "S", fine thread, bugle head, drywall screw.

1 Second layer 1/2" (12 mm) or 5/8" (16 mm) use 1-5/8" (41 mm) long, type "S", fine thread, bugle head, drywall screw.



## Framing Member Spacing (Ceilings):

RSIC-1.5CRC shall be a maximum of 48 inch (1219 mm) on center. Drywall Furring Channel (aka Hat track) shall be a maximum of 24 inch (610 mm) on center.

## Installation:

### Hanger Wires:

Install hanger wire at not more than 48" on center. Install the hanger wires so the hanger wires hang plumb, in a vertical plane with the 1-1/2" (38 mm) Cold Rolled Channel. To not cause lateral force on the 1-1/2" (38 mm) Cold Rolled Channel. Install 1-1/2" (38 mm) Cold Rolled Channel at the elevation required using a double saddle tie. Change the side and direction of the double saddle tie on every other wire, so as to restrict the rollover effect on the 1-1/2" (38 mm) Cold Rolled Channel.



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## **Seismic:**

Where Seismic (lateral) bracing is required, install additional Seismic (splay wires) as required by local code. Seismic vertical uplift struts shall be installed between the structure and top of the 1-1/2" (38 mm) Cold Rolled Channel. Seismic vertical uplift strut may be screwed to the side of the 1-1/2" (38 mm) Cold Rolled Channel where permitted.

## **RSIC-1.5CRC:**

Install RSIC-1.5CRC on the 1-1/2" (38 mm) Cold Rolled Channel by positioning the RSIC-1.5CRC at the location on the 1-1/2" (38 mm) Cold Rolled Channel where installation is required.

Special care should be taken to ensure the RSIC-1.5CRC is in alignment, the RSIC-1.5CRC are not easily moved (or removed) once mounted on the 1-1/2" (38 mm) Cold Rolled Channel.

Place the top of the RSIC-1.5CRC on the 1-1/2" (38 mm) Cold Rolled Channel, as to engage the top return of the RSIC-1.5CRC on the top flange of the 1-1/2" (38 mm) Cold Rolled Channel. While stabilizing the 1-1/2" (38 mm) Cold Rolled Channel snap the bottom portion of the RSIC-1.5CRC on to the 1-1/2" (38 mm) Cold Rolled Channel, so as fully engage the bottom return of the RSIC-1.5CRC onto the 1-1/2" (38 mm) Cold Rolled Channel bottom flange. Please note: Mechanical devices may be required such as adjustable pliers or Vise Grip (C4) clamp to make the installation easier and quicker.

## **Drywall Furring Channel:**

Drywall Furring Channel shall be installed perpendicular to the 1-1/2" (38 mm) Cold Rolled Channel. Install the Drywall Furring Channel in the RSIC-1.5CRC by placing one flange of the Drywall Furring Channel into one side of the RSIC-1.5CRC claw. While squeezing the Drywall Furring Channel, push the Drywall Furring Channel into the RSIC-1.5CRC. When the Drywall Furring Channel is properly installed, all four points of the RSIC-1.5CRC claw, will be holding the Drywall Furring Channel.

## **Drywall Furring Channel Splices:**

Drywall Furring Channel splices shall occur between RSIC-1.5CRC. The Drywall Furring Channel splice shall be a minimum of six inch (152 mm) over lap. The Drywall Furring Channel overlap connection shall be reinforced by either two framing screws placed one on each side, in the top flanges of the Drywall Furring Channel, centered in the middle of the splice or by double wrap of 18 gauge galvanized tie wire.

## **Acoustical Design Load Limits:**

Drywall Furring Channel Spacing shall be determined by the total load supported by each RSIC-1.5CRC. The Acoustical "Design" Maximum Load is thirty (30) pounds per RSIC-1.5CRC.



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## **Drywall Furring Channel Spacing:**

Single layer 1/2" (12 mm) or 5/8" (16 mm) gypsum board, with insulation back load, can be supported with the Drywall Furring Channel placed at twenty four (24) inch (609 mm) on center. Please note: The span capacity of the gypsum board may be less than twentyfour (24) inch (609 mm); you are advised to confirm the maximum span allowed, with insulation back load in your market, with the gypsum board manufacturer.

Double layer 5/8" (16 mm) gypsum board, with insulation back load, can be supported with the Drywall Furring Channel placed sixteen (16) inch (406 mm) on center.

## **General Information:**

Resilient Sound Isolation Clips (RSIC-1.5CRC), Drywall Furring Channel and gypsum board shall not carry heavy loads in excess of the acoustical design load limits.

Where as the purpose of this assembly is to terminate the structure born sound transmission it critical the Drywall Furring Channels NOT be connected to or allowed to come in contact with any structural members including the walls. The 1-1/2" (38 mm) Cold Rolled Channels may contact the walls or other structural members since the acoustical decoupling occurs in the RSIC-1.5CRC between the 1-1/2" cold Rolled Channel and the Drywall Furring Channel.

Seal all potential air leaks with non hardening Acoustical Caulking to achieve best Field Sound Transmission Class (FSTC) and Field Impact Insulation Class (FIIC)

## **Fire Test Information:**

Resilient Sound Isolation Clips (RSIC-1.5CRC) are not to be arbitrarily added to a fire resistive design assembly. Check the [www.pac-intl.com](http://www.pac-intl.com) web page for the latest updates to the Fire Resistive Design Assemblies.