



## MODEL ICW WOOD-FRAME CEILING HANGER

### SELECTION GUIDELINES

#### **IMPORTANT! PLEASE READ FIRST:**

These suggested selection guidelines represent generally accepted procedures for properly selecting Kinetics Noise Control Model ICW Wood-Frame Ceiling Hanger for ceiling system isolation. These suggestions may be followed, modified, or rejected by the owner, engineer, contractor, and/or their respective representative(s) since they, not Kinetics Noise Control, are responsible for planning and executing procedures appropriate to a specific application. Kinetics Noise Control 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 selection.

1. Define ceiling area being isolated and sketch a layout showing the ceiling hanger locations per the following criteria (refer to layout diagram):
  - A. Isolators installed at the perimeter must be located not more than 16" from the edge of the isolated ceiling; maintain at least a three-inch clearance from the perimeter.
  - B. Isolators may be located up to 48" along the perimeter of the isolated ceiling.
  - C. 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.).
  - D. When ceiling height is to be maximized, it is important to be aware of which direction the joists supporting the structural floor above run. The grid must be oriented so that the cold-rolled steel channel member that is supported directly by the isolators runs parallel to these. Please note this can affect the basic arrangement of the isolators and thus their size and quantity.
  - E. Many room configurations will require non-conventional placement of isolation hangers to support the gypsum board ceiling (i.e., every isolated ceiling cannot be laid out in even rows in each direction). Consideration must be given to supporting the gypsum board ceiling adequately; this may require unique spacing arrangements to accommodate installation of the ceiling grid.
2. Once spacing of the ceiling hangers is determined and sketched, three (3) general areas of the ceiling require load calculations: mid-room, along the perimeter, and in the corners. The total number of calculations required depends on how varied the spacing of the hangers is in each of these areas.
3. Determine the total weight of the layers of gypsum wallboard and ceiling grid components being supported by the isolation hangers. The chart at the top of the next page is useful in determining common weights for materials used in isolated ceiling construction:



<b>Building Material</b>	<b>Weight (psf)</b>
R11 (3-1/2" Fiberglass)	0.50
1-1/2" CRC and 7/8" DWF	0.50
1/2" Gypsum Board (Type X)	2
5/8" Gypsum Board (Type X)	2.4

- Additional items such as lights or a lay-in tile ceiling may be suspended from the gypsum board/ceiling grid assembly. The weight of these items needs to be considered when determining the appropriate number/capacity of hangers required.
- Calculate load at each hanger location:

\_\_\_\_\_lbs/hanger = Total PSF of ceiling materials x SF area carried by hanger

Where, PSF = pounds per square foot  
SF = square feet

- Select appropriate hanger for each location from chart below. Designated model numbers indicate the load at which the isolator deflects one-inch (1") nominal. Every hanger has at least a 50% overload capacity; it is possible to slightly exceed the maximum capacity shown in the chart below:

<b>Model ICW</b>	<b>Spring Color</b>	<b>Capacity Range (lbs.)</b>	<b>Deflection Range (in.)</b>
24	Blue	12-24	0.50-1.00
37	White	19-37	0.50-1.00
50	Green	25-50	0.50-1.00
75	Black	38-75	0.50-1.00
100	Gray	50-100	0.50-1.00
150	Red	75-150	0.50-1.00
210	Brown	105-210	0.50-1.00





# MODEL ICW WOOD-FRAME CEILING HANGER

## INSTALLATION GUIDELINES

### IMPORTANT! PLEASE READ FIRST:

These suggested installation guidelines represent generally accepted procedures for successful installation of Kinetics Noise Control Model ICW Ceiling Hanger for ceiling system isolation. These suggestions may be followed, modified, or rejected by the owner, engineer, contractor, and/or their respective representative(s) since they, not Kinetics Noise Control, are responsible for planning and executing procedures appropriate to a specific application. Kinetics Noise Control 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 ceiling system that uses Kinetics Noise Control Model ICW Wood-Frame Ceiling Hangers requires following materials (as specified by others and purchased separately):

- A. 1-1/2" x 1/2", 16-gauge cold-rolled channel.
- B. 7/8" 20- to 25-gauge drywall furring channel.
- C. Anchors for mounting into non-isolated wood-frame construction (e.g., joists, trusses).
- D. 1/2" or 5/8" thick gypsum board.
- E. 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. When ceiling height is to be maximized, it is important to be aware of which direction the joists supporting the structural floor above run. The grid must be oriented so that the cold-rolled steel channel member that is supported directly by the isolators runs parallel to these. Please note this can affect the basic arrangement of the isolators and thus their size and quantity. Mark grid pattern using the following criteria:

- A. Isolators installed at the perimeter must be located not more than 16" from the edge of the isolated ceiling; maintain at least a three-inch clearance from the perimeter.
- B. Isolators may be located up to 48" along the perimeter of the isolated ceiling.
- C. 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.

3. Remove Model ICW Hangers from box. 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; refer to Step 2), locate the isolators on the grid.

Anchor isolators to joists using appropriate fastener through the opening(s) on the hanger bracket. Slide cold-rolled channel through the channel clip on the leveling bolt. Position the cold-rolled channel to prevent contact at partition/wall/column or any other non-isolated structural component. Inter-connect ends of cold-rolled channel using appropriate practices for ceiling grid installation.

<b>Model ICW</b>	<b>Spring Color</b>	<b>Capacity Range (lbs.)</b>	<b>Deflection Range (in.)</b>
24	Blue	12-24	0.50-1.00
37	White	19-37	0.50-1.00
50	Green	25-50	0.50-1.00
75	Black	38-75	0.50-1.00
100	Gray	50-100	0.50-1.00
150	Red	75-150	0.50-1.00
210	Brown	105-210	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.

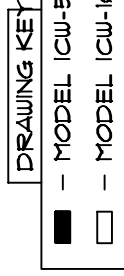
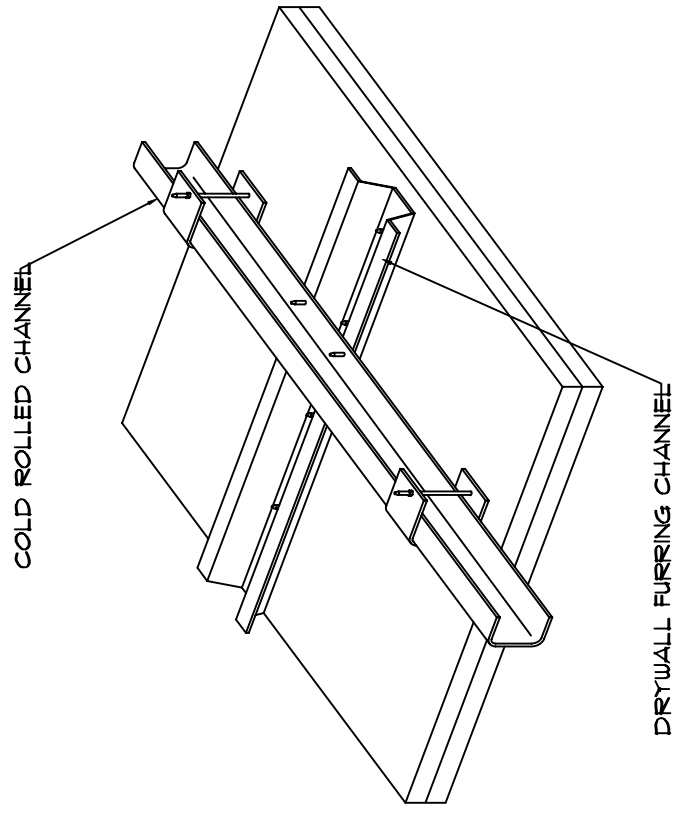
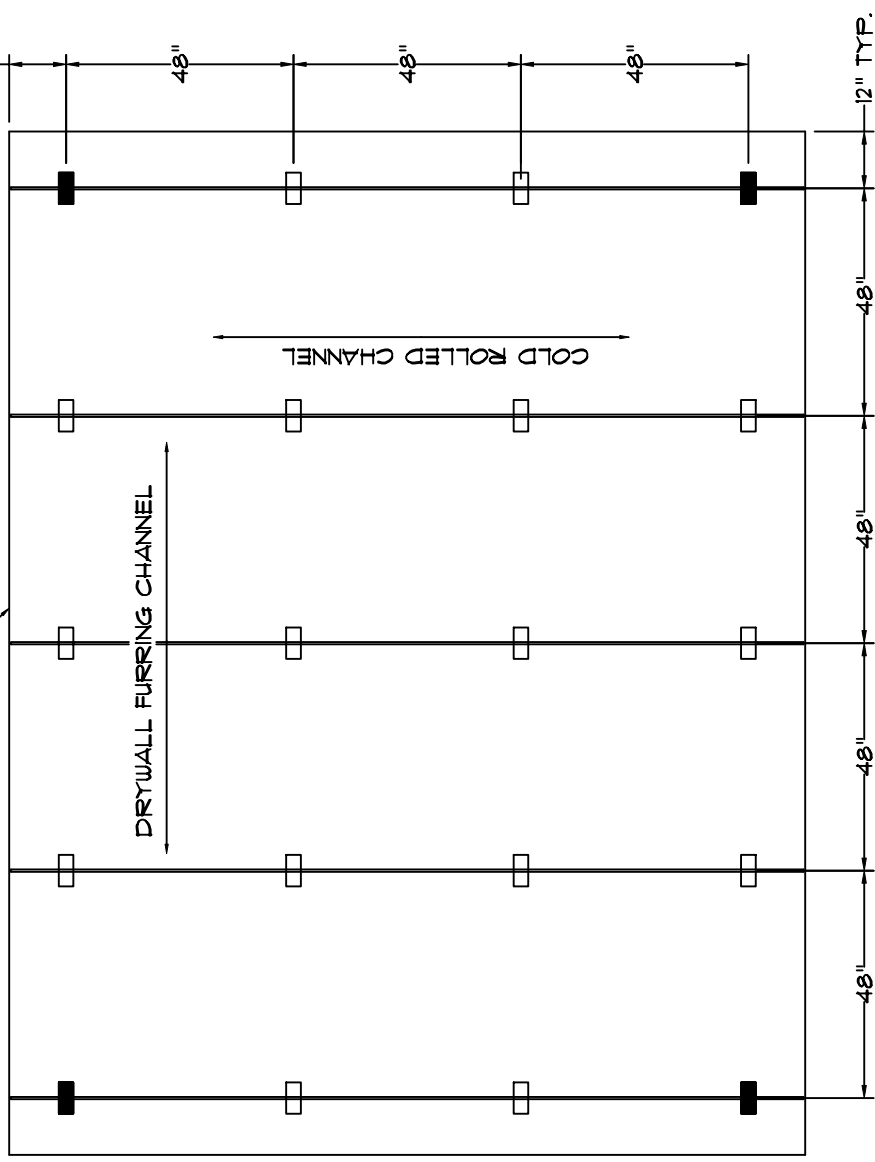
5. After assembling the ceiling grid, check for levelness. By loosening or tightening the bolt, the grid can be adjusted to level. Do not overly loosen. A minimum 1/4" of threaded rod should be exposed above the threaded spring cap.

6. Install Model SRP perimeter isolation board at partitions/walls, columns, and around any non-isolated building components to create a 3/8" 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 1-1/4" nominally depending on spring capacity) allowing the ceiling system to lower into final position. Position the Model SRP to account for this change to final elevation. Trimming the Model SRP 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 backer rod), be sure to maintain a 3/8" gap from non-isolated structural components.

7. Install the gypsum board using accepted practices for attaching to the grid system. Be certain to maintain a 3/8" 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 SRP; it should abut the perimeter isolation board. Do not allow the Model SRP 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.

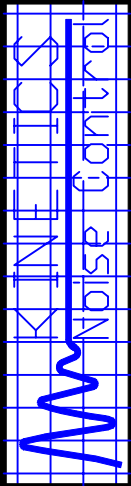
8. Trim Model SRP as required and caulk gap using a resilient, non-hardening caulk.

(2) LAYERS GYPSUM BOARD



**NOTES:**

- 1.) NO CHANNEL SHALL CONTACT PERIMETER AND CREATE A SHORT-CIRCUIT.
- 2.) ATTACH TWO (2) LAYERS OF 5/8" THICK TYPE "X" GYPSUM BOARD TO DUF.
- 3.) SEAL EDGES W/ RESILIENT NON-HARDENING CAULK
- 4.) ISOLATED CEILING CANNOT BE RIGIDLY ATTACHED TO ANY NON-ISOLATED STRUCTURE.



TITLE  
TYPICAL CEILING  
HANGER LAYOUT  
MODEL ICW (1" DEFL.)

LAST DATE  
REVISED  
10/31/03

DRAWN BY  
TEF

DRAWING NO.  
DIAGRAM "A"