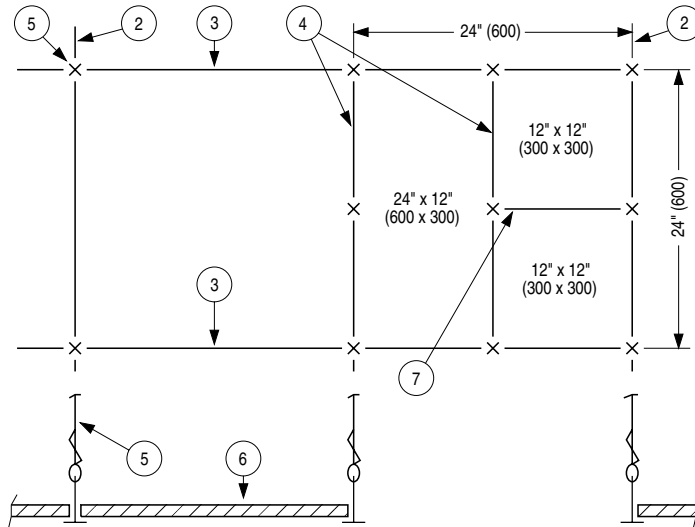


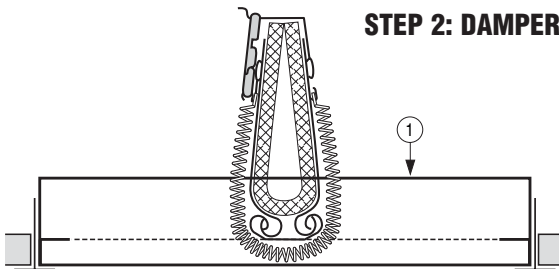
STEP 1: CEILING GRID LAYOUT (12" x 12": 24" x 12": 24" x 24" (300 x 300: 600 x 300: 600 x 600) SIZES)



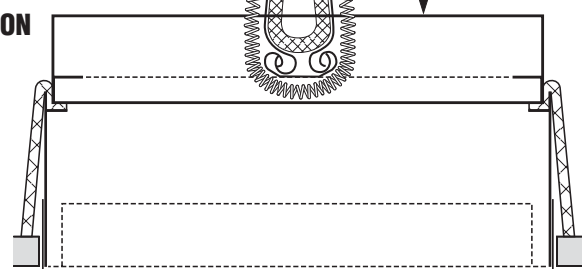
ITEMS:

1. Series 4110 and 4120 Ductless Return Air Damper (and Grille*).
 2. Main Ceiling Grid Member.
 3. 4'-0" (1200) Ceiling Grid Member.
 4. 2'-0" (600) Ceiling Grid Member.
 5. Hanger Wire.
 6. Ceiling Panel or Tile (see note 5).
 7. 1'-0" (300) Ceiling Grid Member.
- Items 2, 3, 4, 6 and 7 are UL/ULC Classified.

STEP 2: DAMPER INSTALLATION



MODELS 4111 THRU 4119 FOR DETAILS SEE DWG. 4100-1A



MODELS 4121 THRU 4129 FOR DETAILS SEE DWGS. 4100-2 & 3

1. Follow carefully steps 1 and 2 as illustrated above.
2. Before installing, open damper blades and install link between spring loaded wire clips. Do not bend or deform clips after assembly. If dampers are provided with link tabs instead of wire clips, install link and bend tabs to secure link in position.
3. The end tabs of the 2'-0" (600) Ceiling Grid Member shall be bent back against the web of the 4'-0" (1200) Ceiling Grid Member. The 4'-0" (1200) Ceiling Grid Member must have slots in the web for connection of the 2'-0" (600) Ceiling Grid Member.
4. Use 12 ga. (2.5) galvanized steel hanger wires at the corners of the grid modules to support the Ceiling Grid Member to the structural members of the floor or roof above. Wires must hang vertically, not slantwise.
5. Maximum size of the Fire-Rated Ductless Return Air Damper (and Grille*) is 24" x 24"(600 x 600).
6. All UL/ULC Classified Ceiling Assemblies require that Lay-in Ceiling Panels, filling the remainder of the module, less than 24" x 48" (600 x 1200) shall bear on the Ceiling Grid Member by a minimum of 3/8" (10).
7. No Fire-Rated Ductless Return Air Damper (or Grille*) shall be located in an adjacent 24" x 48" (600 x 1200) Ceiling Grid Module.
8. Series 4110 and 4120 Fire-Rated Ductless Return Air Damper (and Grilles*) are for use in place of the Hinged Blade, Sheet Metal Dampers in steel ducts with steel diffusers or grilles as specified in the "Design Information Section - General" and in the individual floor or roof ceiling design(s) being used as illustrated and described in the current U.L. Fire Resistance Directory or ULC List of Equipment and Materials Volume III Fire Resistance Ratings.
9. Fire resistive designs must cover UL/ULC Classified Ceiling Grid Members with appropriate cross tee sizes and slots in cross tees. The following manufacturers currently supply 1'-0" (300) long cross tees that are UL and/or ULC Classified:
 - Armstrong World Industries Inc.
 - CGC Interiors, Division of CGC Inc.
 - Chicago Metallic Corp.
 - USG Interiors Inc.

Cartons of grid members shall be of the same type and bear the UL/ULC Classification marking.

*Grilles are optional on Models 4127 thru 4129.

Dimensions are in inches (mm).



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