

Installation Instructions Models – 420 & 421

Notes: Before installing damper model 420 or 421, open blades and hook fusible link.

420 - Hook link to opposite blade and bend down tab to secure link. Maximum size 24 x 24 or 24" round.

421 – Connect tab to sleeve or duct work with #8 sheet metal screw provided by Safe-Air/Dowco and bend down tab to secure link. Maximum size 24 x 24.

Installation: Method 1

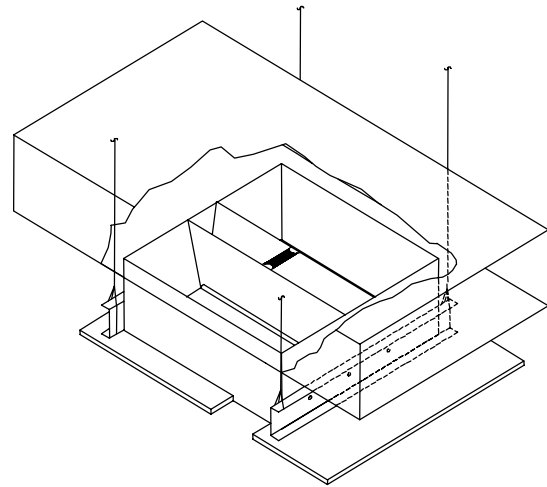
1. Attach the two (2) 16 ga. cold rolled steel support channels (1-1/2 inches deep with 1/2 inch flanges) through the duct drop and ceiling damper using 3/16 inch diameter by 1/2 inch long steel coils spaced 6 inch O.C. maximum with (2) bolts per channel minimum. The bolts shall not interfere with the closing of the ceiling dampers.

Method 2

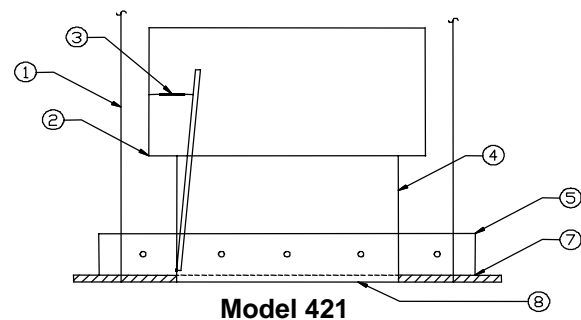
2. Support the duct with (2) 16 ga. cold rolled steel support channels (1-1/2 inch deep with 1/2 inch flanges) place the support channels at the bottom of the duct adjacent to both sides of the duct drop. Install the ceiling damper in the duct drop using 3/16 inch diameter by 1/2 inch long steel bolts, #8 by 1/2 inch sheet metal screws or 3/16 inch diameter steel rivets at 6 inch O.C. with two (2) per side minimum.

- A. Use 12 SWG galvanized steel wire hangers to independently support channels to the structural members of the floor and roof above.
- B. Steel grille or diffuser to be attached to the duct drop or ceiling damper using #8 sheet metal screws 1/2 inch long at 8 inch O.C. maximum and at least one screw per side. The grille or diffuser flange face shall overlap the ceiling opening by 1-inch minimum.
- C. The clearance between each side of the ceiling damper and the duct drop shall be 1/8 inch maximum.
- D. Duct outlets in lay-in ceiling should be located in the field of an acoustical ceiling panel or tile, where it is necessary to cut a main runner or cross tee. Each cut shall be supported by a vertical 12 ga. hanger wire. A 1/2 inch clearance shall be maintained between the duct outlet and each cut at main runner and cross tee. The duct outlet shall be located so that no more than one main runner or cross tee is cut when penetrating the ceiling membrane.

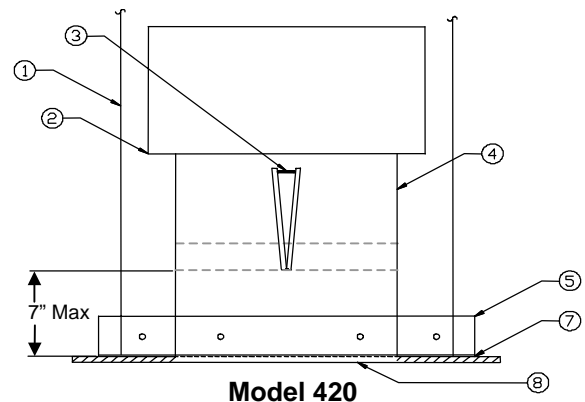
- E. The design information section-general and in the individual floor or roof ceiling designs being used, as resistance illustrated and described in the current U.L. Fire Resistance Directory. One ceiling damper of the same size as the allowable duct outlet size may be substitutes for each hinged sheet metal damper specified in the design.



**Model 420
Typical**



Model 421



Model 420

1. Wire Hanger (4 Required)
2. Steel Duct
3. Listed Fusible Link
4. Steel Duct Drop
5. Support Channel (2 Required)
6. Mounting Bolt, Screws or Rivets
7. Ceiling: Acoustical (Lay-in), Acoustical Tile or Gypsum Wallboard
8. Steel Grille or Diffuser (See Note B)