

INSTALLATION INSTRUCTIONS FOR CEILING RADIATION DAMPERS STEEL DUCT SUPPORT APPLICATIONS

MODEL SERIES: 0700

QUALIFICATIONS:

- UL 555C Classified Ceiling Damper (File #9660).
- CAN4-S112.2 Ceiling Firestop Flap Assemblies.
- California State Fire Marshal: Fire Damper Listing No. 3225-0935:102.
- City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.
- Meets the requirements for NFPA 90A, IBC and NBC (Canada) and associated local building codes.



NOTES:

1. Model Series 0700 Ceiling Dampers (known as Fire Stop Flaps in Canada) are for use in place of the hinged blade, sheet metal damper in steel ducts with steel diffuser or grille 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 UL Fire Resistance Directory. One ceiling damper of the same size as the allowable duct outlet size may be substituted for each hinged sheet metal damper specified in the design.

The clearance between each side of the ceiling damper and the duct drop shall be 1/8" (3) maximum.

2. Opening in ceiling membrane may be up to 1" (25) larger than the nominal size of the ceiling radiation damper. For exposed grid T-Bar ceiling systems, where the opening in the ceiling membrane is larger (more than 1" (25)) than the ceiling damper, a thermal blanket (Model 0725 or 0726) must be installed over the exposed surface of the diffuser (see lay-in diffuser applications).

Duct outlets in lay-in ceilings should be located within the field of an acoustical ceiling panel or tile.

Where it is necessary to cut a main runner or cross tee, each cut end shall be supported by a vertical No. 12 SWG hanger wire. A 1/2" (13) clearance shall be maintained between the duct outlet and each cut end 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.

- 3. A. Before installing Model 0716 or 0722, open blades and install fusible 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.
 - B. After installing damper model 0714 in duct drop, open blade and attach link to duct or duct drop.

4. INSTALLATION:

Method 1. Type 0714, 0716 and 0720

Attach the two 16 ga. (1.6) steel support channels. (1 1/2" (38) deep with 1/2" (13) flanges), through the duct drop and ceiling damper using 3/16" (5) diameter by 1/2" (13) long steel bolts spaced 6" (152) o.c. maximum, with two bolts per channel minimum. The bolts shall not interfere with the closing of the ceiling damper.

Method 2. Type 0714, 0716, 0720 and 0722

Support the duct with two 16 ga. (1.6) steel support channels (1 1/2" (38) deep with 1/2" (13) 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" (5) diameter by 1/2" (13) long steel bolts, #8 by 1/2" (13) sheet metal screws or 3/16" (5) diameter steel rivets at 6" (152) o.c. with 2 per side minimum for rectangular or square dampers. For round dampers, use three equally spaced #8 x 1/2" (13) sheet metal screws for dampers up to 10" (254) dia. and four for larger sizes.

- 5. Use No. 12 SWG galvanized steel wire hangers to independently support channels to the structural members of the floor or roof above.
- Maximum damper size. Models 0714, 0716, 0716-4 and 0716-4A: 24" x 24" (610 x 610).
 Model 0716A: 16" x 16" (406 x 406). Model 0720: 18" x 18" (457 x 457).

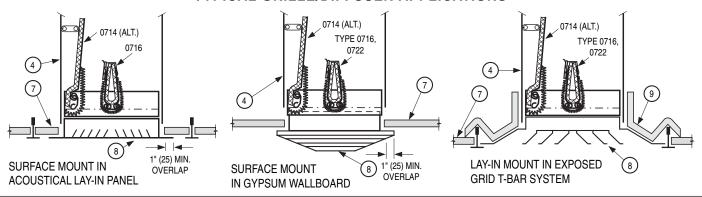
Model 0722: 24" (610) dia. Model 0722A: 16" (406) dia...

7. **Steel grille or diffuser installation:** Attach to the duct drop or ceiling damper using #8 by 1/2" (13) long sheet metal screws at 8" (203) o.c. maximum and at least one screw per side for rectangular or square dampers. Round neck grilles or diffusers shall be attached to the duct drop or ceiling damper using a minimum of four equally spaced #8 x 1/2" (13) sheet metal screws. The grille or diffuser flange face shall overlap the ceiling opening by 1" (25) minimum and provide structural support for the ceiling membrane.

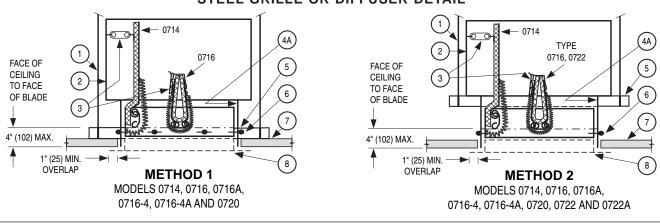
Non-steel grille or diffuser installation: Duct drop requires a support flange as detailed on page 2. Grille or diffuser may be attached in any suitable manner.

Page 1 of 2 Dimensions are in inches (mm).

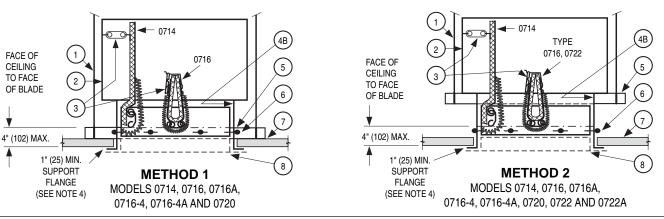
TYPICAL GRILLE/DIFFUSER APPLICATIONS



STEEL GRILLE OR DIFFUSER DETAIL



NON-STEEL GRILLE OR DIFFUSER DETAIL



ITEMS:

- 1. Wire hangers (4 required).
- 2. Main duct.
- Listed fusible link or alt. listed adj. fusible link assembly. (Blade control through screw adjustment).
- 4a. Steel duct drop.
- 4b. Steel duct drop with 1" (25) lower support flange. The support flange may be integral to the duct drop or 1" x 1" (25 x 25) angles may be fastened to the duct drop at 4" (102) max. on center, min. two per side.

Dimensions are in inches (mm).

- 5. Support channels (2 required).
- 6. Mounting bolts, screws or rivets.
- 7. Ceiling: Acoustical panel (lay-in), acoustical tile or gypsum wallboard.
- Grille or diffuser (see note 7).
- Supplementary thermal blanket for use where ceiling opening is larger than nominal damper size. (See lay-in diffuser applications).

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