

Tag: \_\_\_\_\_ Engineer: \_\_\_\_\_  
 Project: \_\_\_\_\_ Contractor: \_\_\_\_\_  
 Location: \_\_\_\_\_ Architect: \_\_\_\_\_  
 Date: \_\_\_\_\_ Submitted by: \_\_\_\_\_



**Model CDH-S/R-90 & CDH-S/R-90-F**

Ceiling Radiation Damper in a 90° Boot For Wood Truss Ceiling Applications



**Qualifications:**

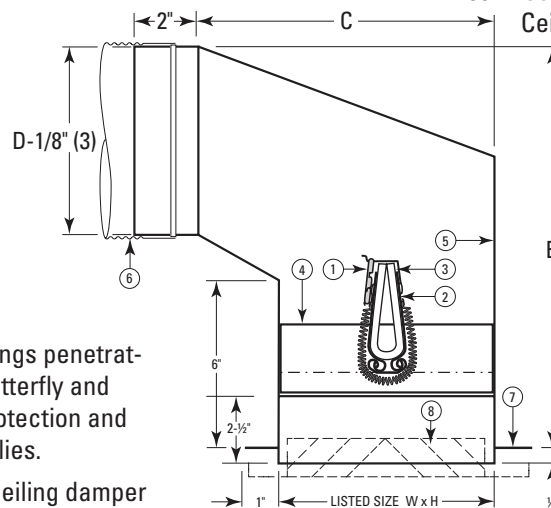
Tested in accordance to standards UL 263/E119. Certified by Intertek for use in 1 hour fire-rated floor/ceiling and roof/ceiling designs constructed in accordance with material and construction specifications of UL Design Numbers: L521, L528, L530, L546, L550, L558, L562, L563, L570, L574, L579, L585, L586, M503, P522, P531, P533, P538, P544, P545 and P552.

Meets NFPA 90A requirements. CFSM Listing: 3226-1721:0500.

**Application:**

Ceiling dampers are designed to function as a heat barrier in openings penetrating fire resistive membrane ceilings. The model CDH-S/R-90(-F) (Butterfly and Single Blade versions) has been designed and tested to provide protection and simple installation in specific UL design wood truss ceiling assemblies.

The CDH-S/R-90(-F) assembly consists of a rectangular or square ceiling damper (butterfly blades or a single blade depending on size) mounted in the bottom of a sheet metal tapered 90 degree register box (boot), that accommodates a steel grille or register.



**Construction:**

1. UL listed fusible link, 212°F (100°C) standard.
2. Blades: 21 ga. G60 roll-formed galvanized steel (Butterfly shown).
3. Blade Insulation: Non-asbestos UL Classified.
4. Damper frame: 21 ga. G60 galvanized steel.
5. Steel plenum: 24 ga. max. with round connection collar.
6. UL Classified Class 0 or I Flexible Air Duct connection by others.
7. Plaster flange: 1" (25) wide by 1/2" (13) deep.
8. Steel grille/register (by others). Standard depth for grille clearance is 2 1/2" (64).

**MINIMUM DAMPER SIZE:** 6" x 4" (152 x 102) Single Blade.

8" x 8" (203 x 203) Butterfly Blade.

**MINIMUM NECK SIZE:** 4" (102) *Note:* Depends on damper size.

**MAXIMUM DAMPER SIZE:** 144 Sq. In. (3658) with no side greater than 14" (356).

**MAXIMUM NECK SIZE:** 12" (305) *Note:* Depends on damper size.

**Optional Construction:**

*Non-standard temp. UL listed fusible link - 165°F (74°C).*

*Installation Support Angles. 26" (660) long.*

2 @ Standard boot rail

2 @ 1-1/2" (38) x 1-1/2" (38) x 20 ga.

*Available Unflanged (without "-F").*

*NOTE:* Alternate boot rail installation not applicable on unflanged boot.

Must use 1-1/2" (38) x 1-1/2" (38) x 20 gauge angle 4 sides.

1" (25) Plaster flange lip.

**Notes:**

1. Building code and UL Classification require damper installation in accordance with manufacturer's instructions.
2. Alternate boot rail installation not applicable on unflanged boot. Must use 1 1/2"x1 1/2" x 20 Ga angle.

**Dimensional Data:**

Common Sizes		B	C	
WxH	Nom. Duct Size D.			
S I N G L E	8 x 4 (203 x 102)	4" (102) dia. 5" (127) dia.	13 (330) 8 (203)	
	10 x 4 (254 x 102)	4" (102) dia. 5" (127) dia. 6" (152) dia.	13 (330) 7 3/4 (197) 7 1/4 (184)	
	12 x 4 (305 x 102)	6" (152) dia. 7" (178) dia. 8" (203) dia.	13 (330) 13 (330) 14 (356) 7 1/2 (191) 7 (178)	
	14 x 4 (356 x 102)	7" (178) dia.	13 (330) 7 1/2 (191)	
	6 x 6 (152 x 152)	4" (102) dia. 5" (127) dia.	13 (330) 13 (330) 8 (203)	
	8 x 6 (203 x 152)	6" (152) dia.	13 (330) 10 (254)	
	B L A D E	10 x 6 (254 x 152)	5" (127) dia. 6" (152) dia. 7" (178) dia.	9 (229) 10 (254) 9 1/4 (235)
		12 x 6 (305 x 152)	6" (152) dia. 7" (178) dia. 8" (203) dia. 9" (229) dia.	13 (330) 13 (330) 14 (356) 10 1/4 (260) 15 (381) 11 (279)
		14 x 6 (356 x 152)	6" (152) dia. 7" (178) dia. 8" (203) dia. 9" (229) dia. 10" (254) dia.	13 (330) 13 (330) 14 (356) 15 (381) 10 (254) 10 1/4 (260)
		8 x 8 (203 x 203)	5" (127) dia. 6" (152) dia.	13 (330) 10 (254)
B U T T E R F L Y	10 x 8 (254 x 203)	7" (178) dia. 8" (203) dia.	13 (330) 14 (356) 9 3/4 (248) 10 1/4 (260)	
	12 x 8 (305 x 203)	7" (178) dia. 8" (203) dia.	13 (330) 14 (356) 9 3/4 (248) 10 1/4 (260)	
	14 x 8 (356 x 203)	6" (152) dia. 7" (178) dia. 8" (203) dia. 9" (229) dia. 10" (254) dia.	13 (330) 13 (330) 14 (356) 15 (381) 16 (406) 12 (305) 12 (305) 12 (305) 13 (330) 13 (330)	

*Dimensions are in inches (mm).*