

CFD(R)2, CFD(R)3 and CFD(R) 3.5 CEILING FIRE DAMPERS UL Classified Radiation Dampers

APPLICATION

UL Fire Rated Floor/Ceiling Assemblies and Roof/Ceiling Assemblies require specially tested and classified Ceiling Dampers (also called Ceiling Fire Dampers or Radiation Dampers) to provide fire and heat protection where HVAC components penetrate the ceiling membrane. **Standard, 1½ and 3 hr. primary fire dampers DO NOT provide the necessary protection.**

Ruskin CFD(R)2 and CFD(R)3 are UL Classified to provide protection to HVAC penetrations of up to 324 sq. in. (2090) maximum opening size through UL fire rated assemblies with fire resistance ratings of 3 hours or less. Penetrations larger than 324 sq. in. (2090) and up to 576 sq. in. (3716) require model CFD4. The quantity and frequency of permissible HVAC ceiling penetrations are described in the UL Fire Resistance Directory.

WOOD TRUSS CEILING APPLICATION

The Ruskin CFD7T ceiling fire damper is the ceiling fire damper to use if the application is a wood truss ceiling. The CFD7T is UL approved for use in wood truss ceiling design L586 which is similar to wood truss ceiling designs like L528, L521, L534, L546, L550, etc.

**UL CLASSIFIED
ULC LISTED**
UL555C Listing R8039

STANDARD CONSTRUCTION

FRAME

24 gage (.7) galvanized steel. Frame depths are as shown in following chart.

DAMPER MODEL	FRAME STYLE	B DIMENSION OR D DIAMETER	FRAME DEPTH
CFD2 CFD3 CFD3.5	Standard	All sizes	3" (76)
	Extended	4" to 10" (102 to 254)	6 ³ / ₈ " (162)
		11" to 14" (279 to 356) 15" to 24" (381 to 607)	8 ⁷ / ₁₆ " (208) 11 ³ / ₁₆ " (284)
CFDR2 CFDR3 CFD(R)3.5	Standard	All sizes	3 ⁵ / ₈ " (92)
	Extended	5" to 10" (127 to 254)	6 ³ / ₄ " (171)
		11" to 14" (279 to 356)	6 ³ / ₄ " (171)
15" to 20" (381 to 508)		11 ³ / ₄ " (298)	

BLADE

24 gage (.7) galvanized steel, with UL Classified insulation as required.

FUSIBLE LINK

165°F (74°C) is standard. 212°F (100°C) is available at no additional cost.

MINIMUM SIZE (Damper Sizes)

CFD2/CFD3 – 5"w x 4"h (127 x 102).
CFDR2 – 12" (305) diameter.
CFDR3/3.5 – 5" (127) diameter.

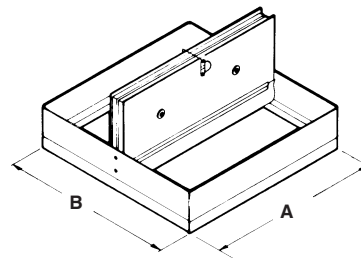
MAXIMUM SIZE (Damper Sizes)

CFD3 – 70 sq. in. (452) maximum.
CFD2 – 324 sq. in. (2090) with height or width dimensions not greater than 24" (607).
CFDR2 – 20" (508) diameter.
CFDR3/3.5 – 10" (254) diameter.

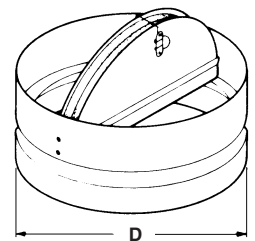
OPTIONS

- VA Volume Adjust to balance airflow.

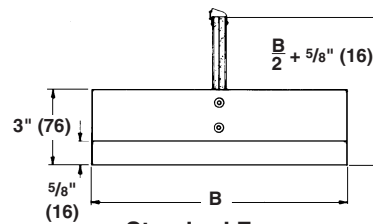
Dimensions shown in parentheses () indicate millimeters.



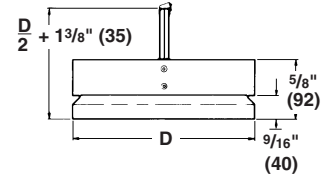
CFD



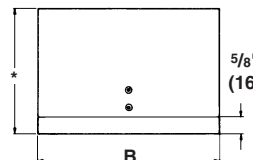
CFDR



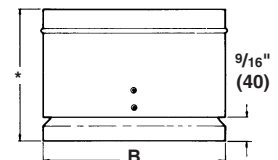
Standard Frame



Standard Frame



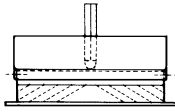
Extended Frame



Extended Frame

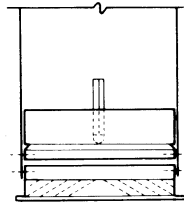
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HOW TO ORDER



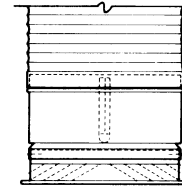
Ductless Installation

Order "actual size" with **standard** frame. Damper installs over diffuser neck.



Steel Duct Installation

Order "deduct 1/4" (6)" with **standard** frame. Damper installs inside duct.

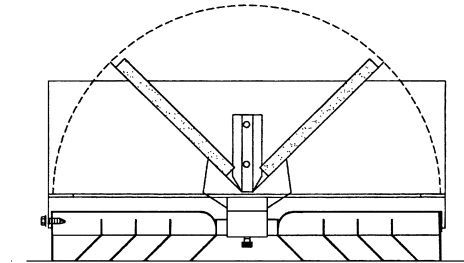


Flex Duct Installation

Order "actual size" with **extended** frame. Damper installs over diffuser neck; flex duct installs over damper.

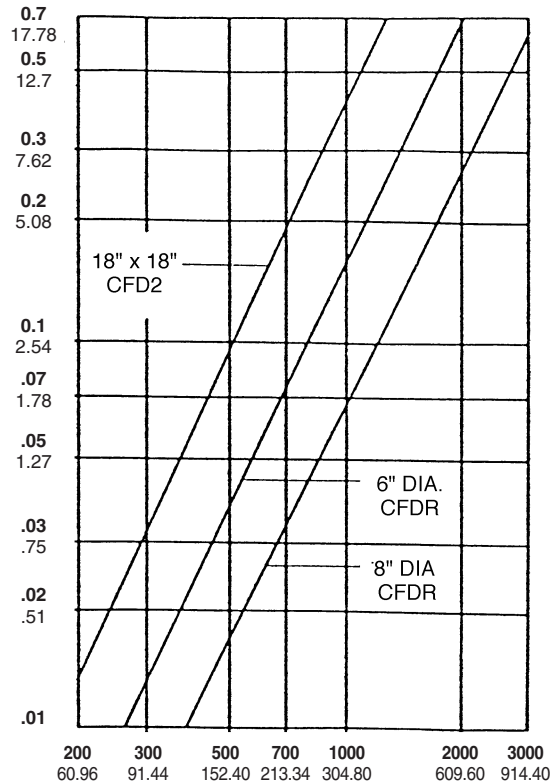
UL Listed Fusible Volume Adjustment Option

The standard, fusible link can be replaced with a simple mechanism that permits adjustment of damper blades to balance airflow. A standard 3/16" (5) hex (Allen) wrench is used for adjustment. In fire conditions, the damper closes regardless of volume setting. This feature must be added to the damper at fabrication. 165°F or 212°F (74°C or 100°C) (specify temperature) fusible volume adjustment options are available. **Caution: Volume Adjust hangs below a rectangular damper 1 1/8" (29). Volume Adjust hangs below a round damper 3/8" (10).**



CFD(R)2, 3, 3.5 with Fusible Volume Adjustment

Pressure Drop – Damper Open (Size as noted)



Air Velocity in FEET and METERS per minute through FACE AREA.
Tested per AMCA Std. 500, Fig. 5.2, ductwork upstream.

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