

CFD(R)5W DIFFUSER RADIATION SHIELDS

WARNOCK HERSEY Ceiling Fire Dampers

STANDARD CONSTRUCTION

FRAME

20 gage (.9) galvanized steel. Frame depths are as shown in following chart.

DAMPER MODEL	FRAME STYLE	B DIMENSION or D DIAMETER	FRAME DEPTH
CFD5W	Standard	All sizes	3" (76)
	Extended	5" to 10" (127 to 254)	6" (152)
		11" to 15" (279 to 381)	8" (203)
		16" to 24" (406 to 607)	11" (279)
CFDR5W	Standard	All sizes	3½" (89)
	Extended	5" to 10" (127 to 254)	6½" (165)
		11" to 15" (279 to 381)	8½" (216)
		16" to 20" (406 to 508)	11½" (292)

BLADE

20 gage (.9) galvanized steel, with insulation as required.

FUSIBLE LINK

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

FINISH

Mill.

THERMAL INSULATION BLANKET

Mineral wool is standard. ½" (13) Refractory Ceramic Fiber (RCF) is available at additional cost.

MINIMUM SIZE (Inside Dimension)

Diffuser neck – 4" w x 5" h (102 x 127) or 5" (127) diameter.

MAXIMUM SIZE (Inside Dimension)

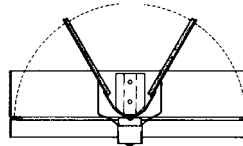
Ceiling opening – 24" x 24" (610 x 610).

Diffuser neck – 20" (508) diameter or 18" x 18" (457 x 457).

DIFFUSER PAN LIMITATION

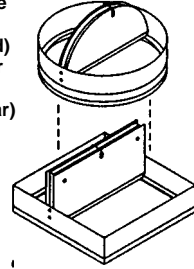
24 gage (.6) steel minimum.

Dimensions shown in parentheses () indicate millimeters.

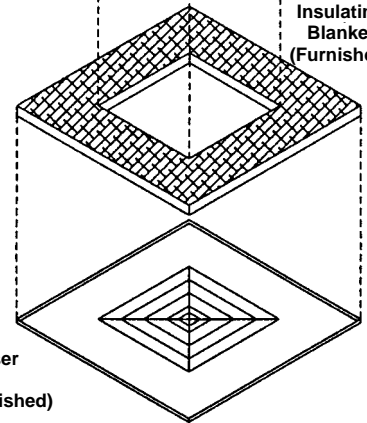


CFD5W with Fusible
Volume Adjustment

Ceiling fire
Damper
(Furnished)
(Round or
Square/
Rectangular)



Thermal
Insulating
Blanket
(Furnished)



Diffuser
Pan
(Not Furnished)

VARIATION

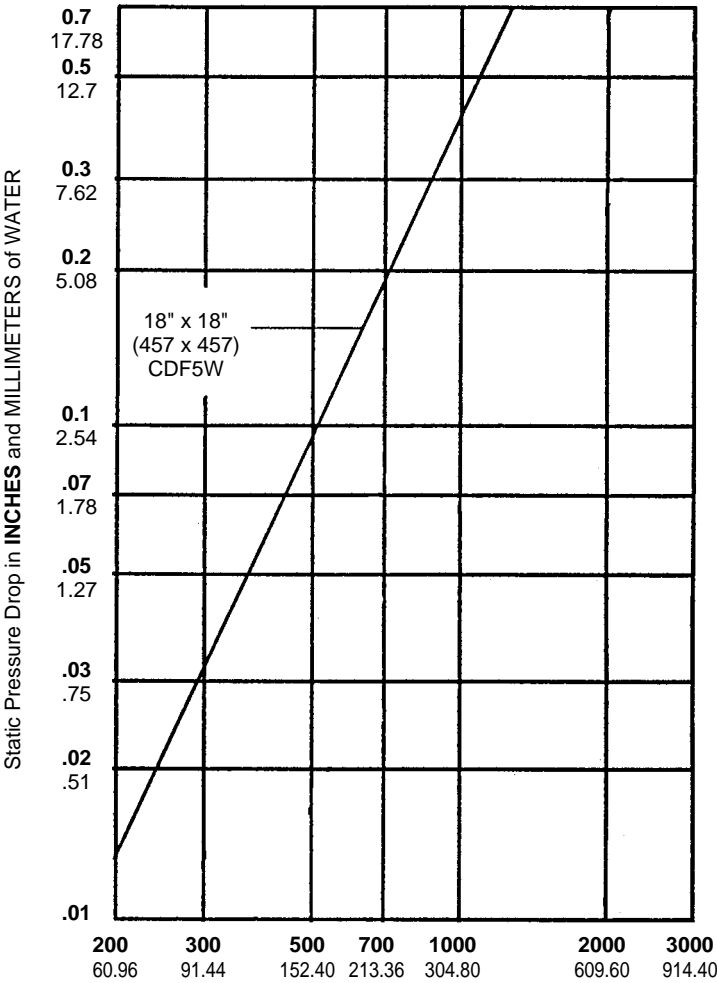
Fusible Volume Adjustment

Standard, fusible link can be replaced by simple mechanism permitting adjustment of damper blades to balance airflow. A standard (5) hex (Allen) wrench is used for adjustment. In fire conditioning the damper closes regardless of volume setting. This feature must be added to the damper at fabrication. It CAN NOT be field added. 165°F (74°C) and 212°F (100°C) (specify temperature) fusible volume adjustment options are available.

QTY.	SIZE			FRAME	FUSE LINK TEMP. 165°F Std. (74°C)	INSULATION BLANKET		VARIATIONS
	A-WIDE	B-HIGH	D-DIA.			MINERAL WOOL	RCF	
JOB					LOCATION			
CONTRACTOR								

PERFORMANCE DATA

Pressure Drop – Damper Open (Size as noted)



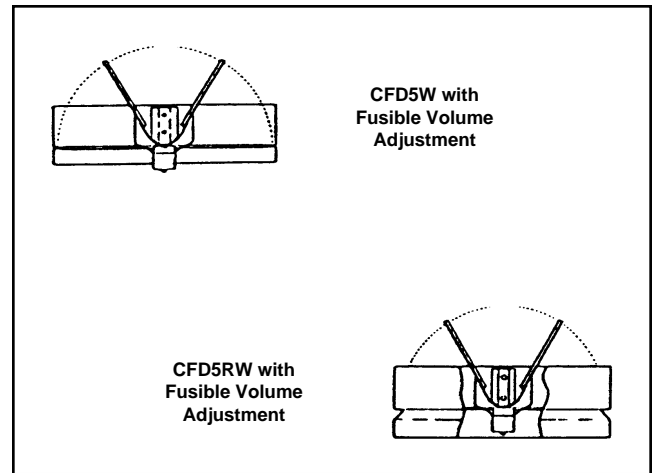
Air Velocity in **FEET** and **METERS** per minute through **FACE AREA**.
Tested per AMCA Std. 500, Fig. 5.2, ductwork upstream.

VOLUME CONTROL

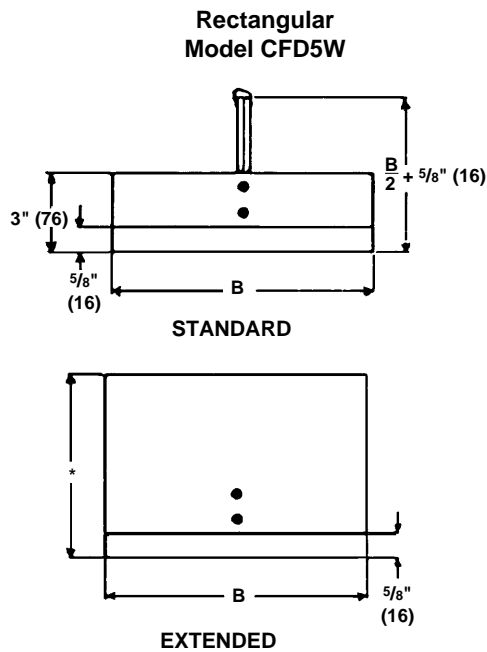
While it is possible to use separate opposed blade balancing dampers with the CFD5W, the fusible volume adjustment option converts the ceiling fire damper to a manually adjustable volume control damper. This permits a final or trim air balance to be accomplished at each ceiling diffuser without need for a separate balancing damper. (In keeping with good design practice, primary balancing of diffuser air should be accomplished at the point where diffuser duct connector taps into supply air duct.)

Fire conditions cause damper blades to close regardless of volume setting. This feature must be incorporated by the factory at time of damper fabrication. It cannot be added in the field. Standard $\frac{3}{16}$ " hexagonal (Allen) wrench is required for adjustment.

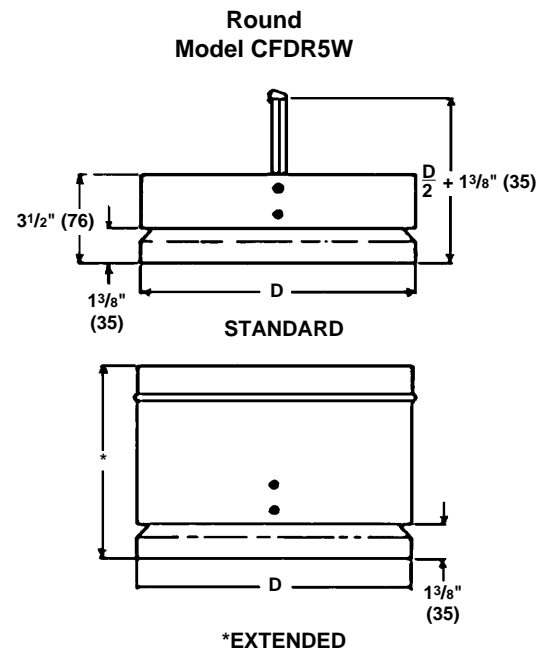
Note: 165°F (74°C) supplied as standard. Specify 212°F (100°C) if required.



STANDARD AND EXTENDED FRAMES



B DIMENSION	*FRAME DEPTH
5" to 10" (127 to 254)	6" (152)
11" to 15" (279 to 381)	8" (203)
16" to 24" (406 to 610)	11" (279)



B DIMENSION	*FRAME DEPTH
5" to 10" (127 to 254)	6½" (165)
11" to 15" (279 to 381)	8½" (216)
16" to 24" (406 to 610)	11½" (292)

NOTE: Dimensions shown in parentheses () indicate millimeters.

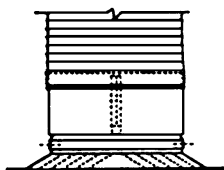
SUGGESTED SPECIFICATION

All ceiling register and grille openings in fire rated ceilings shall be protected by appropriate Warnock Hersey Fire Resistant ceiling fire dampers. Fire dampers with 1½ or 3 hour ratings for walls or floors are not to be used in fire rated ceiling openings. Each ceiling diffuser opening shall be protected with appropriate Warnock Hersey Fire Resistant Ceiling Diffuser Radiation Shields. The Warnock Hersey Fire Resistance Classification(s) shall apply to the specific ceiling system design and diffusers, grille or register construction being installed. All installations shall be in accordance with manufacturer's published installation instructions.

Lay in ceiling diffusers shall be a minimum of 24 gage steel construction. Ceiling diffuser radiation shield shall consist of an appropriate ceiling fire damper protecting the diffuser neck and a thermal insulating blanket protecting the diffuser pan. The entire system shall be Warnock Hersey Classified for use in all Warnock Hersey fire rated floor/ceiling and roof/ceiling systems with fire resistance ratings of three hours or less. System proposed for installation must be equivalent in all respects to Ruskin model CFD5W Ceiling Diffuser Radiation Shield.

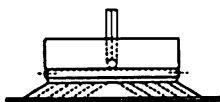
ORDERING INFORMATION

FLEX DUCT INSTALLATIONS



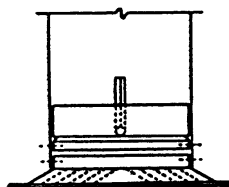
Order "actual size" with **extended** frame. Damper installs over diffuser neck. Flex Duct installs over damper.

DUCTLESS INSTALLATIONS



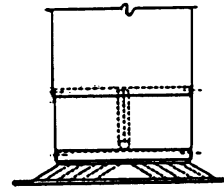
Order "actual size" with **standard** frame. Damper installs over diffuser neck.

STEEL DUCT DROP INSTALLATIONS



Order "deduct 1/4 inch" with **standard** frame. Damper installs inside duct. Duct connects to diffuser neck.

OR



Order actual size with **extended** frame. Damper installs over diffuser neck. Duct connects to damper.

NOTE: Damper sizes are Inside Dimension.

RUSKIN®

3900 Dr. Greaves Rd.
Kansas City, MO 64030
(816) 761-7476
FAX (816) 765-8955
www.ruskin.com