

MODEL FDD-160-AF LOW PRESSURE DROP CURTAIN FIRE DAMPER

U.L. 555 CLASSIFIED 1-1/2 AND 3 HOURS
FOR USE IN DYNAMIC OR STATIC SYSTEMS

Application and Design

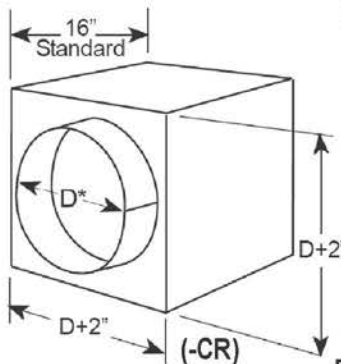
The Model FDD-160-AF is UL Classified for installation in walls, floors, and partitions with a fire rating of less than 3 hours. This damper may be installed horizontally or vertically in dynamic HVAC systems that continue to operate in the event of fire. Also approved for static systems. (See optional 3 hour rating)

Standard Construction

- Frame:** Roll formed Frame - Galvanized Steel hat-section
W/ staked corners & integral bracing
- Blades:** Airfoil-shaped roll-formed- Double Skin Galvanized Steel
min. width: 5" (127mm)
max. width: 7" (178mm)
- Axles:** square plated steel
- Linkage:** Concealed in frame. Linkage bars are 1/8" (3.2mm)
- Bearings:** Bronze Oilite press-fit into frame
- Closure Spring:** Stainless Steel
- Fusible Link - UL-33:** UL Listed 165°F (Standard),
212°F (Optional)
- Manual Locking Quadrant -**
(may be required for inspection)
- Maximum Velocity:** 2000 fpm (10.2 m/s)
on all sizes
- Maximum Pressure:** 4" wg (1kPa)
Consult Factory For Velocities up to 4000 FPM
and 6.0" w.g.

Model FDD-160-AF meets or complies with the following as a fire damper:
All major building codes,
including IBC/ICC International Code
UL 555 Listing 1-1/2 and 3 Hour - File #R25410
ULC S112
NFPA - 90A, 80

+ Note: Non-sleeved (with side plate) dampers are furnished Approx. 1/4" (6.4mm) smaller than given duct dimensions. Sleeved dampers are furnished Approx. the same size as given duct dimension, unless otherwise noted.



Note: Due to continuing research, UE reserves the right to change specifications without notice.

Standard Sizes (duct) 1-1/2 HR.

Min. V or H	*Max. Vertical Size	*Max. Horizontal Size
8" X 8" 203mm X 203mm	*108"W X 96"H 2743mm X 2438mm	*36"W X 48"H 914mm X 1219mm

* May consist of multi-sections

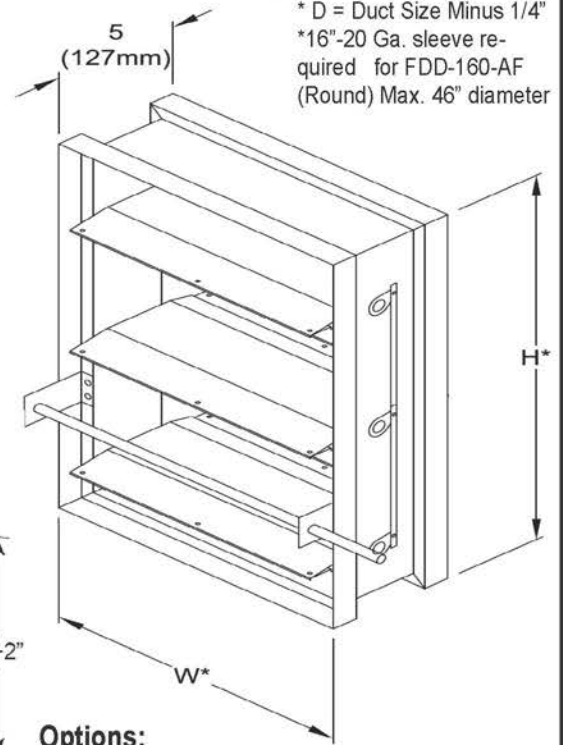
Standard Sizes (duct) 3 HR.

Min. V or H	*Max. Vertical Size	Horizontal Size
8" X 8" 203mm X 203mm	72"W X 48"H 1828mm X 1219mm	*36"W X 48"H 914mm X 1219mm

* May consist of multi-sections



* D = Duct Size Minus 1/4"
*16"-20 Ga. sleeve re-
quired for FDD-160-AF
(Round) Max. 46" diameter



Options:

- Factory Sleeve: _____ Ga (18 Ga min.)
- Sleeve Length: _____ Inches
- Retaining Angles
- 3 Hour Rating
- Round Transitions (FD-160-AF Round)
- Out of Wall Const. Available (See dwg. A-36 inst.)
- EFL (Electric Fusible Link)*
- PFV (Pneumatic Fusible Valve)*
- 250° - 350° (Actuator Req.)
- Mounting:
 - Horizontal
 - Vertical

*Option provides quick and economical way to check damper operations and also provide a Systematic Closure Control. Option PFV allow damper operation without the need/cost for an EP valve and electrical connection at the damper.

Job Name:

Location:

Architect:

Engineer:

Contractor:

- MODEL FDD-160-AF
- MODEL FDD-160-AF-OW (Out of Wall)
- MODEL FDD-160-AF-CR (Round)

DRAWN BY:
MAB

DATE:
11-07-07

REV. DATE:
10-24-08

REV. NO.
8

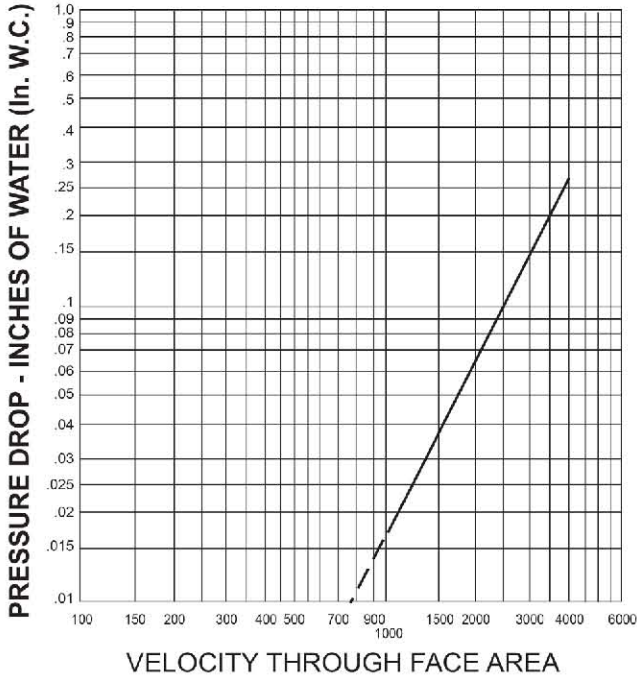
APPROVED BY:
SDC

DWG. NO.:
A-31

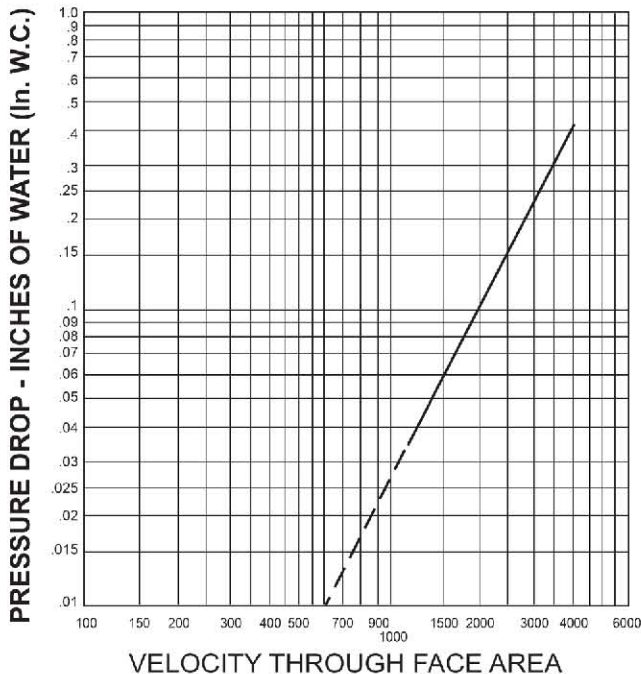
PERFORMANCE DATA

Pressure drop testing was done by an independent laboratory to the AMCA Standard 500-D, Fig. 5.3 ductwork upstream & downstream.

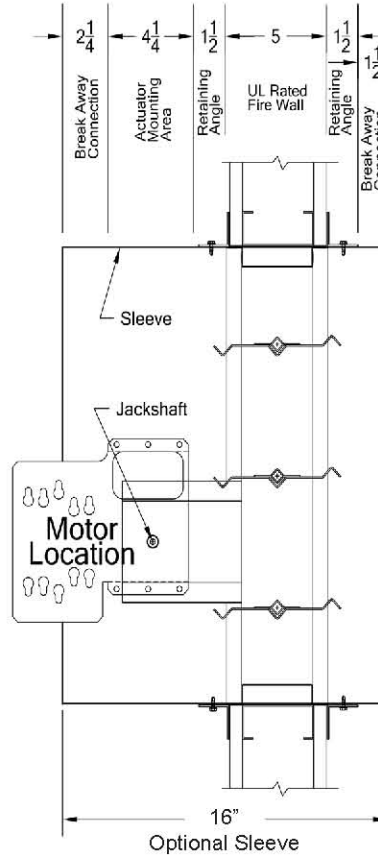
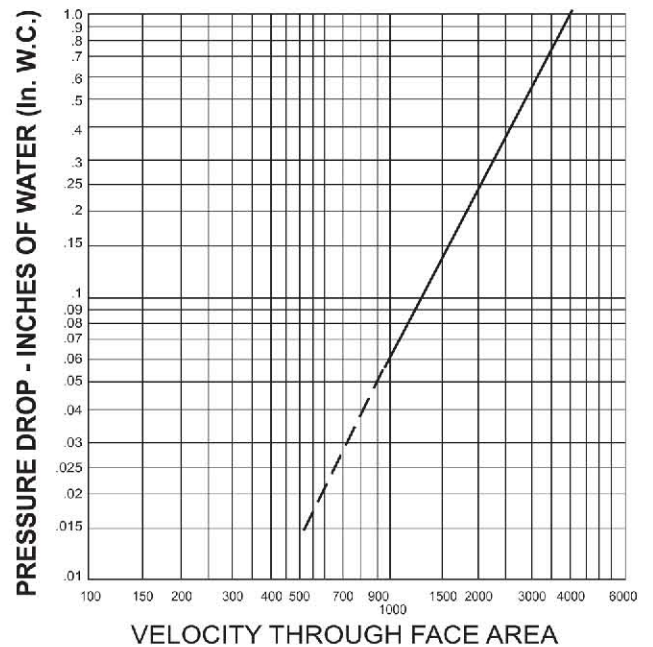
DAMPER SIZE 36 x 36



DAMPER SIZE 24 x 24



DAMPER SIZE 12 x 12



When the actuator is externally mounted and the wall thickness exceeds 5 inches, add 1 inch for each additional inch of wall thickness increased to ensure sleeve length through the penetration. As standard the actuator is externally installed on the lower right of the damper when viewed from the jack shaft side. The damper may be installed/rotate 180° such the actuator will be located on the upper left. The top of the damper is either side of the frame as long as the blades are running horizontal. When ordering internally mounted actuators, be aware there is a min. height requirement (in some cases the sleeve can be increased to allow for internally mounting). The entire damper frame does not have to be installed in the plane of the wall of floor. The rule of thumb is with the damper in the closed position, the blade plane should be within the plane of the UL rated wall or floor.