

Reference:

Client:

Project:

Consultant:

Location:

Contractor:

Date:

Submitted by:



Manufacturing Excellence

Model FDD-SL

Slimline Dynamic Curtain Fire Damper
1-1/2 or 3 Hour, UL555 Classified

Application:

The CVS-SAFE4 model FDD-SL fire damper utilizes a Slimline frame as well as curtain style blades to prevent the spread of fire through a penetration in a fire rated barrier made by an HVAC duct or transfer. The FDD-SL can be installed vertically or horizontally and is meant for dynamic (fans remain on in a fire) or static (fans shut off in a fire) HVAC systems.

MAXIMUM VELOCITY: 2000 fpm (10.2 m/s) on all sizes.

MAXIMUM PRESSURE: 4" wg (1kPa) on all sizes.

Standard Construction:

	Standard	Optional
Frame Material	22 Gauge Galvanized Roll-formed Steel	-----
Blade Material and Type	22 Gauge Galvanized Roll-formed Steel	-----
Frame Depth	2-3/8" (55)	3-11/16" (94) [see Model FDD]
Dimensions	Actual - 1/4" (6)	Actual
Closure Spring	Stainless Steel	-----
Fusible Link	165° (74°C)	212° (100°C)
Mounting	Vertical	Horizontal
UL Hour Rating	1-1/2 Hour	3 Hour

Option in Stainless steel construction available.

All dimensions shown in inches, parentheses () indicate millimeters.

Optional Construction:

Factory Installed External Sleeve:

Length: 12 (305) 16 (406) 24 (610) Other: _____

Gauge: 20 (1.0) 18 (1.2) 16 (1.5) 14 (2.0) 10 (3.5)

Location in Sleeve: Standard Offset: _____

Flanged Sleeve (requires factory installed external sleeve):

3/4" (19) 1" (25)

Framed Retaining Angles - 16 ga. x 1 1/2 x 1 1/2 (1.5x38x38)

Single Side Dual Side

Other Options:

- Static models (see Model FD-SL)
- Multi-Blade models (FDD-MB)
- Regular Frame Models (FDD)
- Out-of-wall models (see Model FDD-OW)
- True Round models (see Model FDD-RD)



LISTINGS:

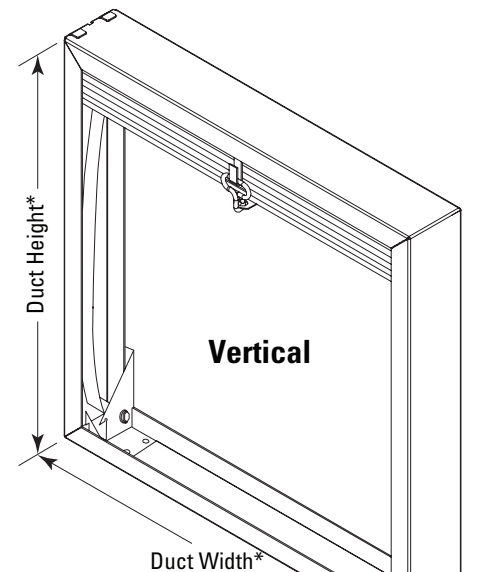
UL 555 Listing: R27700(UAE), R41135(KSA), R40068(Qatar), R41122(Egypt)

STANDARDS MET:

NFPA Standards: 80, 90A, 92A, 92B and 101

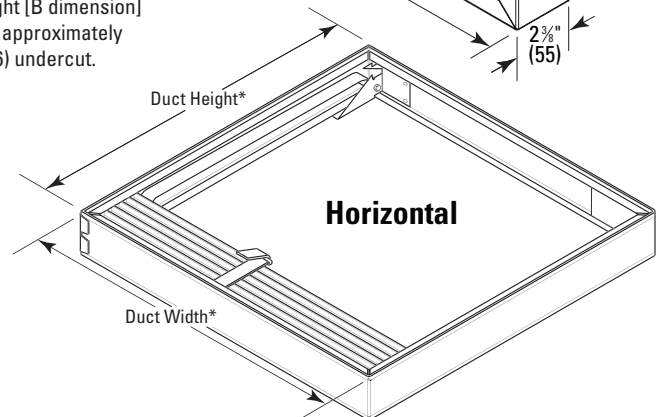
Building Code Standard:

ICC International Building Code

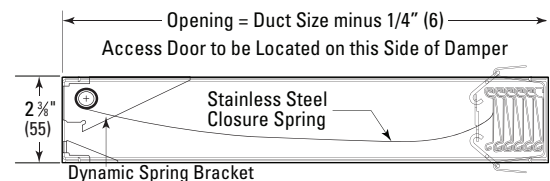


Vertical

* Width [A dimension] and Height [B dimension] are approximately 1/4" (6) undercut.



Horizontal



FDD-SL-A - Horizontal (Similar for Vertical)

As part of our continuous improvement program, we reserve the right to make further improvements without notice.

Submittal

Type A Dynamic Curtain Fire Damper

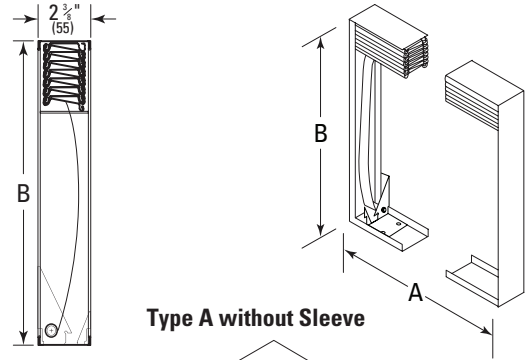
- For use in static HVAC systems (fans off)
- Frame and blade stack in air stream
- Approximately 75-85% Free Area
- Sleeve optional (Factory installed external or Integral)
- 1-1/2 or 3 Hour Fire Rated

FDD-SL-A Minimum & Maximum Sizes:

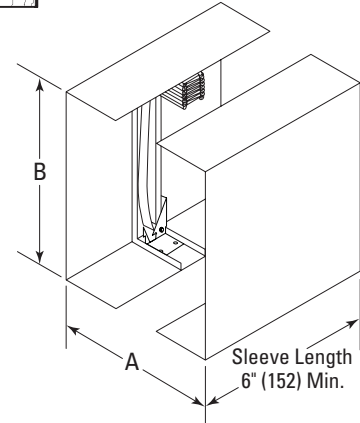
Type A Model	Minimum Size		Max. Single Section		Max. Multi-Section	
	1.5 Hour	3 Hour	1.5 Hour	3 Hour	1.5 Hour	3 Hour
FDD-SL (Vertical)	6x6 (152x152)		24x24 (610x610)	24x24 (610x610)	36x36 (914x914)	36x36 (914x914)
FDD-SL (Horizontal)			24x24 (610x610)	24x24 (610x610)	36x36 (914x914)	36x36 (914x914)

All dimensions shown in inches, parentheses () indicate millimeters.

A Dimension = Duct Width
B Dimension = Duct Height



Type A without Sleeve



Type A with External Sleeve

Type B Dynamic Curtain Fire Damper

- For use in static HVAC systems (fans off)
- Black stack out of airstream
- Approximately 80-90% Free Area
- Sleeve optional (Factory installed external or Integral)
- 1-1/2 or 3 Hour Fire Rated

FDD-SL-B Minimum & Maximum Sizes:

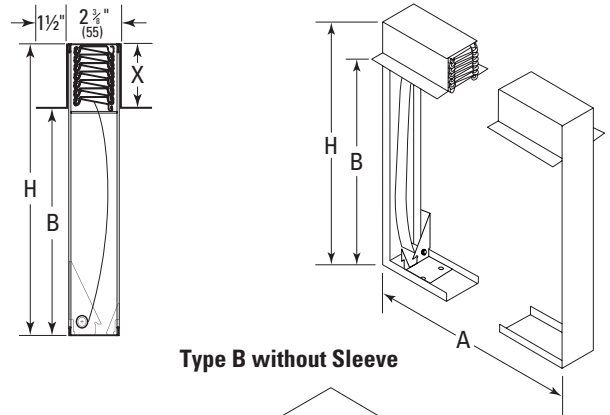
Type B Model	Minimum Size		Max. Single Section		Max. Multi-Section ¹	
	1.5 Hour	3 Hour	1.5 Hour	3 Hour	1.5 Hour	3 Hour
FDD-SL (Vertical)	6x4 (152x102)		24x21 (610x583)	24x21 (610x583)	36x32 (914x813)	36x32 (914x813)
FDD-SL (Horizontal)			24x21 (610x583)	24x21 (610x583)	36x32 (914x813)	36x32 (914x813)

All dimensions shown in inches, parentheses () indicate millimeters.

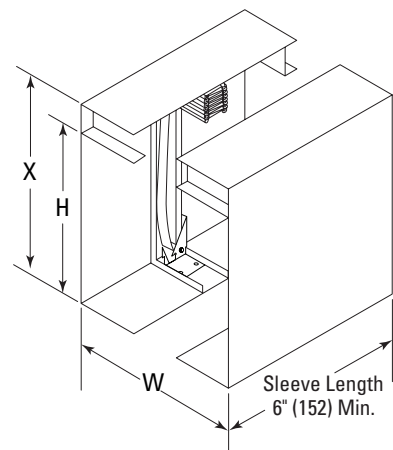
A Dimension = Duct Width
B Dimension = Duct Height
X Dimension = Height of Blade Stack
H Dimension = Overall Damper Height (B+X)

Notes:

1. Multi-section damper will have frame in the airstream and blades for vertical models more than one damper in height.



Type B without Sleeve

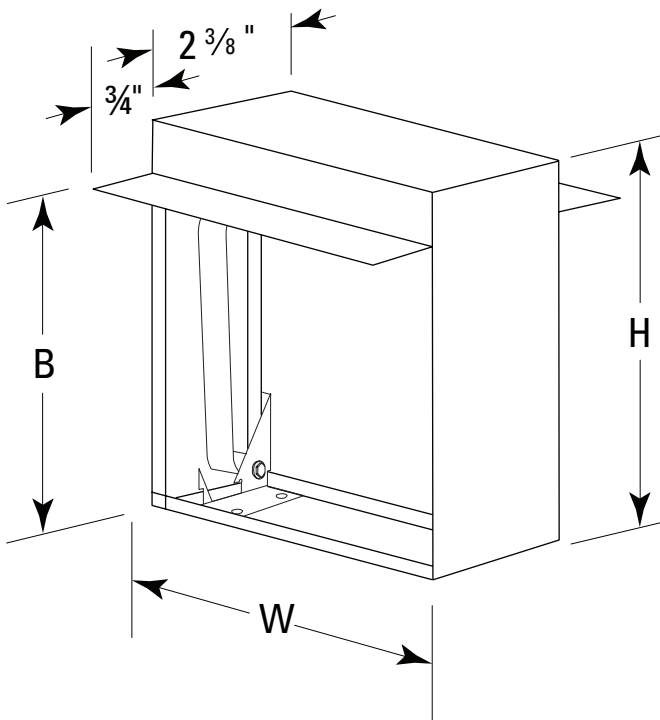


Type B with External Sleeve

As part of our continuous improvement program, we reserve the right to make further improvements without notice.

Submittal

Type B Fire Damper



Duct Height (B)	Type B Damper Height (H)	
	Inches	
Inches	Vertical	Horiz.
3	5	5
4	6	6
5	7	7
6	8	8
7	9	9
8	10	10
9	11	11
10	12	12
11	13	13
12	14	14
13	15	15
14	16	16
15	17	17
16	18	18
17	19	19
18	20	20
19	21	21
20	22	22
21	24	24
22	25	26
23	26	27
24	27	28
25	28	29
26	29	30
27	30	31
28	31	32
29	32	33
30	33	34
31	34	35
32	35	36

Below are diagrams showing the location of the Type A and B fire dampers in a factory installed external sleeve.

Sleeve Diagram Key:

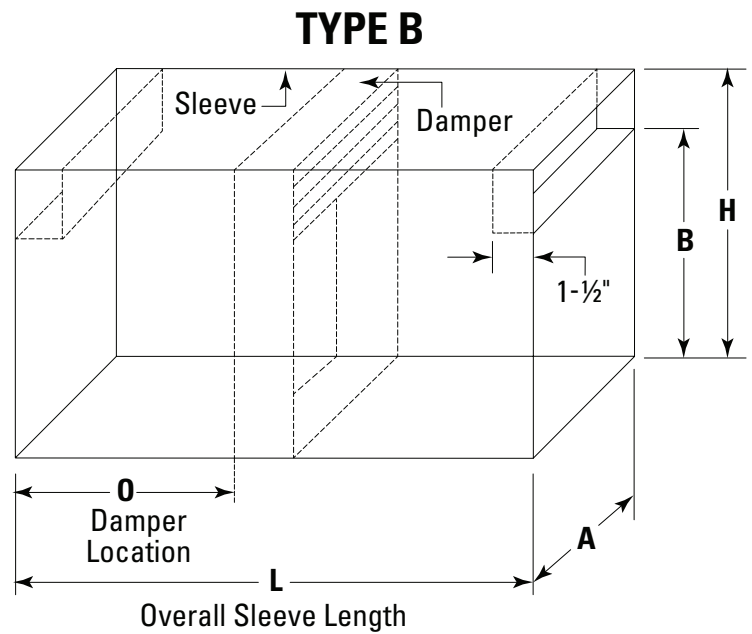
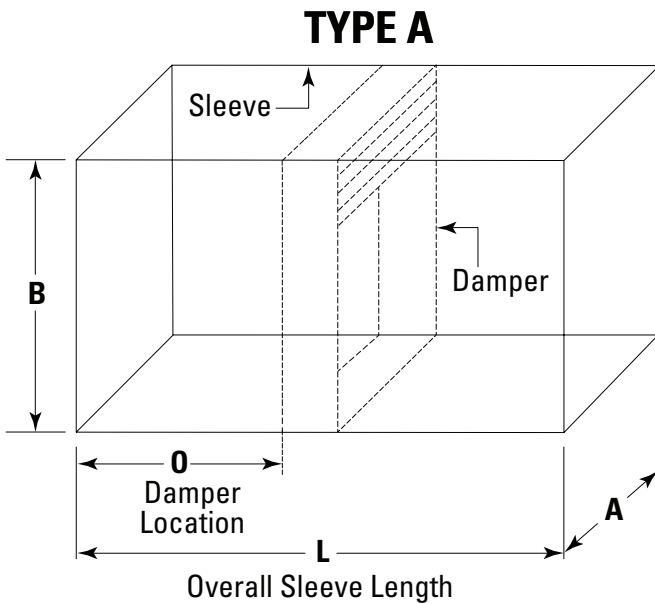
H = Overall height

W = Overall width (always the length of the blades)

A = Duct Width

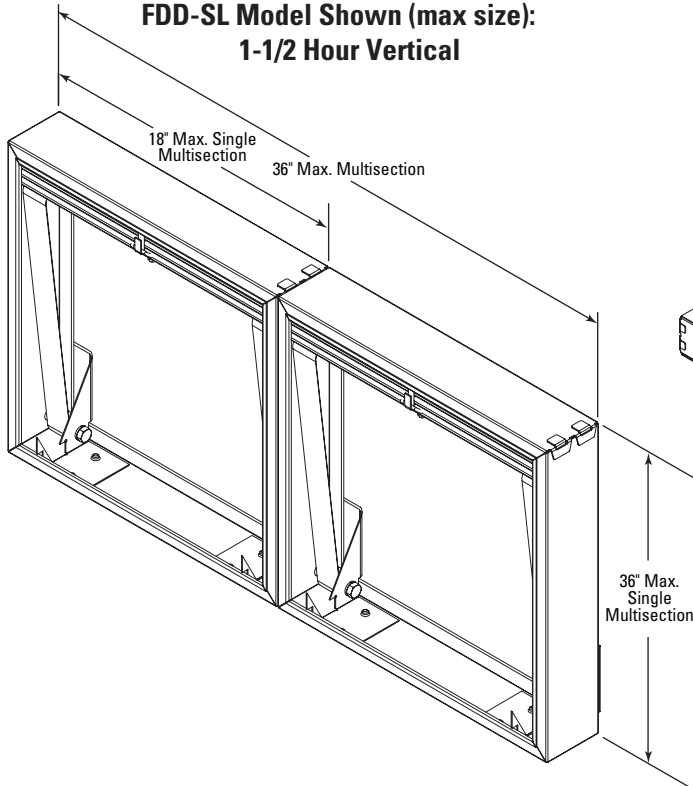
B = Duct Height

O = The offset from one end of the sleeve to the beginning of the damper frame (can be altered as a construction option)

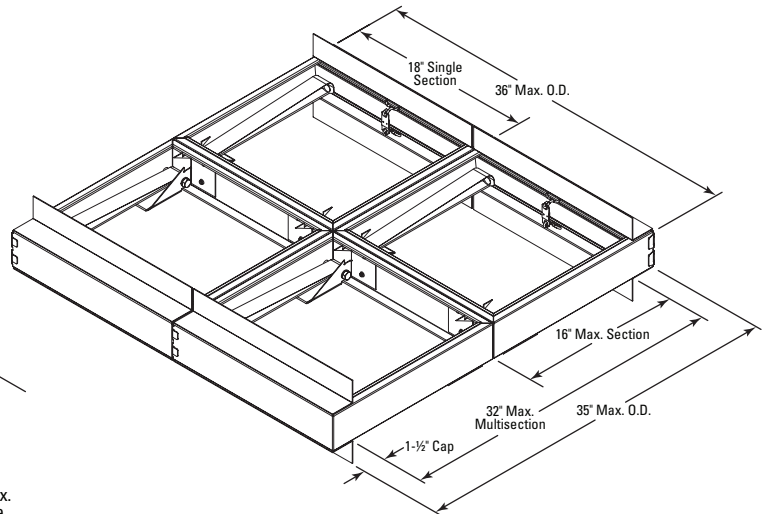


Multiple section damper assemblies are shipped in individual sections from the factory unless a factory supplied and installed sleeve is required. When a multiple section damper is ordered with a sleeve, it is usually shipped as a complete assembly. The following drawings are of different maximum size multiple section FDD-SL models and are for reference purposes (not all options are shown).

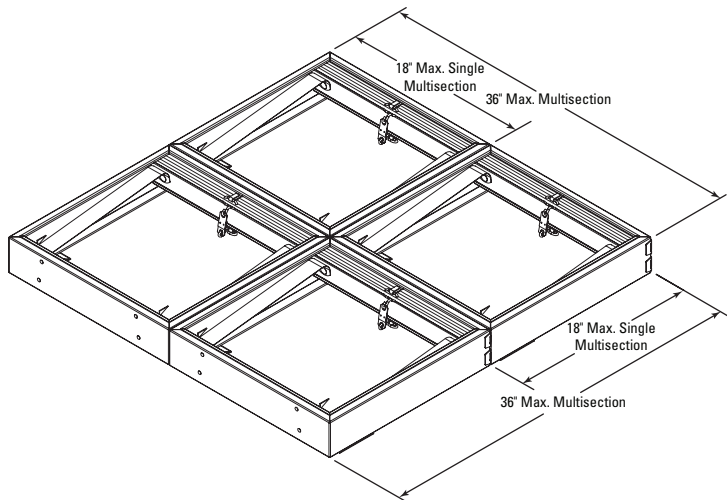
Type A Multi-Section Assembly
FDD-SL Model Shown (max size):
1-1/2 Hour Vertical



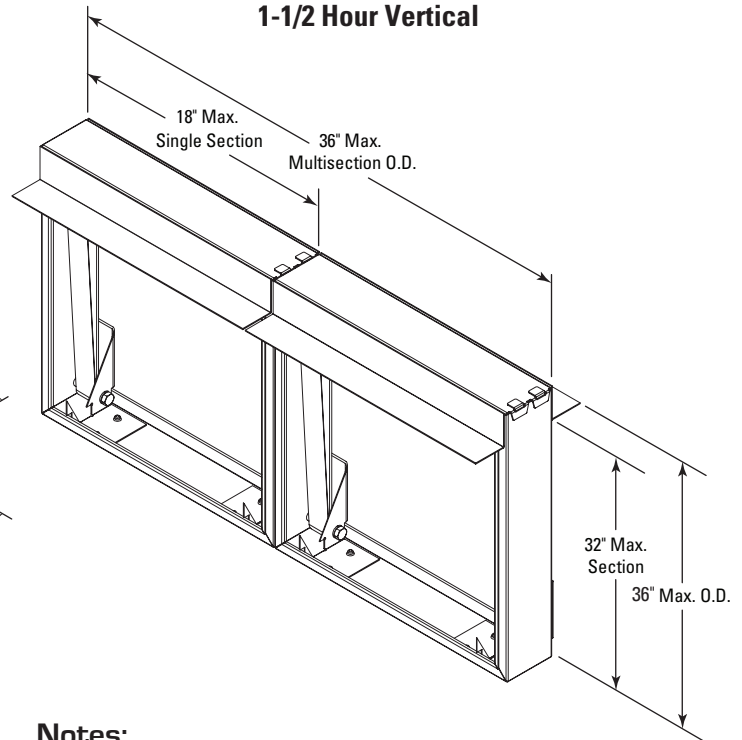
Type B Multi-Section Assembly
FDD-SL Model Shown (max size):
1-1/2 Hour Horizontal



Type A Multi-Section Assembly
FDD-SL Model Shown (max. size):
1-1/2 Hour Horizontal



Type B Multi-Section Assembly
FDD-SL Model Shown (max. size):
1-1/2 Hour Vertical



Notes:

1. These diagrams are for reference purposes
2. Not all FDD-SL Model options are shown