

Reference:

Client:

Project:

Contractor:

Location:

Contractor:

Date:

Submitted by: BM



BADR and ASFOUR
Engineering & Metal Industries

Model FD-SL

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

Application:

The BAS/CVS model FD-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 FD-SL can be installed vertically or horizontally and is meant for static HVAC systems (fans turn off in a fire) only.



LISTINGS:

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

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 FD] 1-1/2" (38) [see Model FD-USL] |
| Dimensions | Actual - 1/4" (6) | Actual |
| Closure Spring | Stainless Steel (Horizontal) | Stainless Steel (Vertical) |
| Fusible Link | 165° (74°C) | 212° (100°C) |
| Mounting | Vertical | Horizontal |
| UL Hour Rating | 1-1/2 Hours | 3 Hours |

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) Other: _____

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:

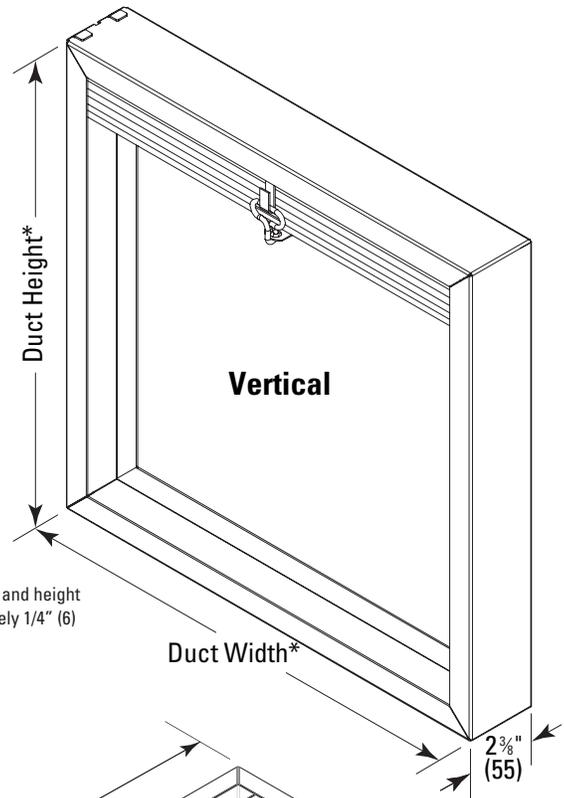
- Dynamic models (see Model FDD-SL)
- Multi-Blade models (FD-MB)
- Regular Frame and Ultra Slimline models (see Models FD and FD-USL)
- Out-of-wall models (see Model FD-OW)
- True Round models (see Model FD-RD)

STANDARDS MET:

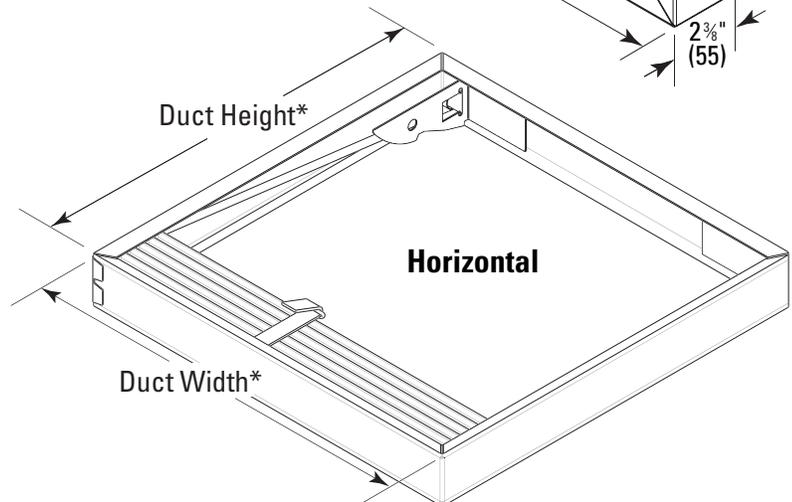
NFPA Standards: 80, 90A, 92A, 92B and 101

Building Code Standard:

ICC International Building Code



*Damper width and height are approximately 1/4" (6) undercut.



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

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Type A Static 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)
- 1-1/2 or 3 Hour Fire Rated

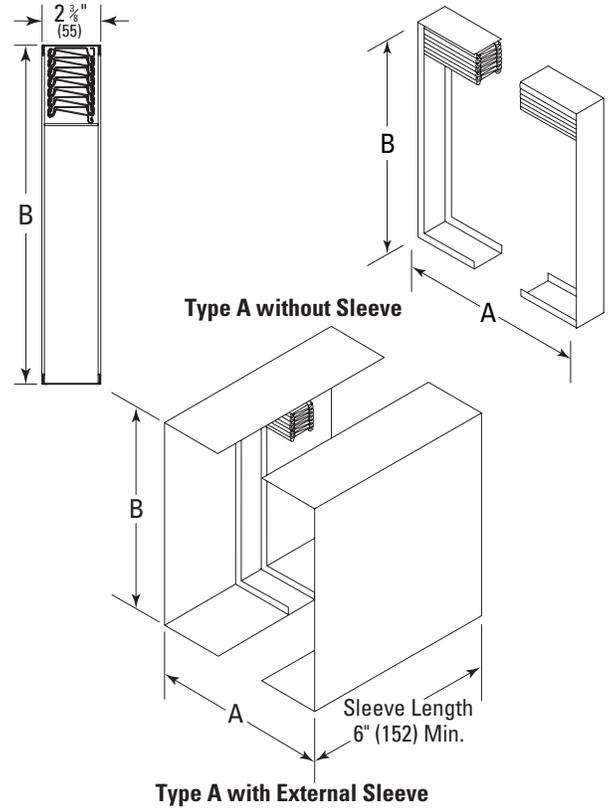
FD-SL-A Minimum & Maximum Sizes:

| 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 |
| FD-SL-A (Vertical) | 4x4 (102x102) | | 60x60 (1524x1524) | 48x48 (1219x1219) | 120x120 (3048x3048) | 80x40 (2032x1016) |
| FD-SL-A (Horizontal) | | | 40x40 (1016x1016) or 48x48 (1219x1219) | 40x40 (1016x1016) | 120x40 (3048x1016) or 96x48 (2438x1219) | 80x40 (2032x1016) |

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

A Dimension = Duct Width

B Dimension = Duct Height



Type B Static Curtain Fire Damper

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

FD-SL-B Minimum & Maximum Sizes:

| Type B Model | Minimum Size | | Max. Single Section | | Max. Multi-Section ² | |
|-----------------------------|--------------|--------|----------------------|----------------------|---|---------------------|
| | 1.5 Hour | 3 Hour | 1.5 Hour | 3 Hour | 1.5 Hour | 3 Hour |
| FD-SL-B (Vertical) | 4x3 (102x76) | | 60x55 (1524x1397) | 48x43 (1219x1092) | 120x115 (3048x2921) | 80x36 (2032x914) |
| FD-SL-B (Horizontal) | | | 48x43 (1219x1092) | 40x36 (1016x914) | 120x36 (3048x914) or 96x43 (2438x1092) | 80x36 (2032x914) |

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

A Dimension = Duct Width

B Dimension = Duct Height

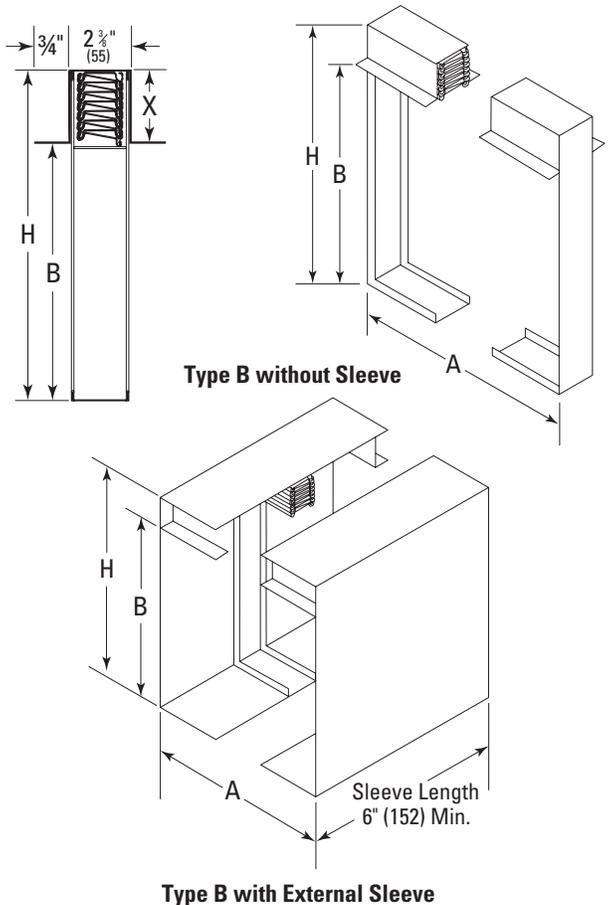
X Dimension = Height of Blade Stack

H Dimension = Overall Damper Height (B+X)

Notes:

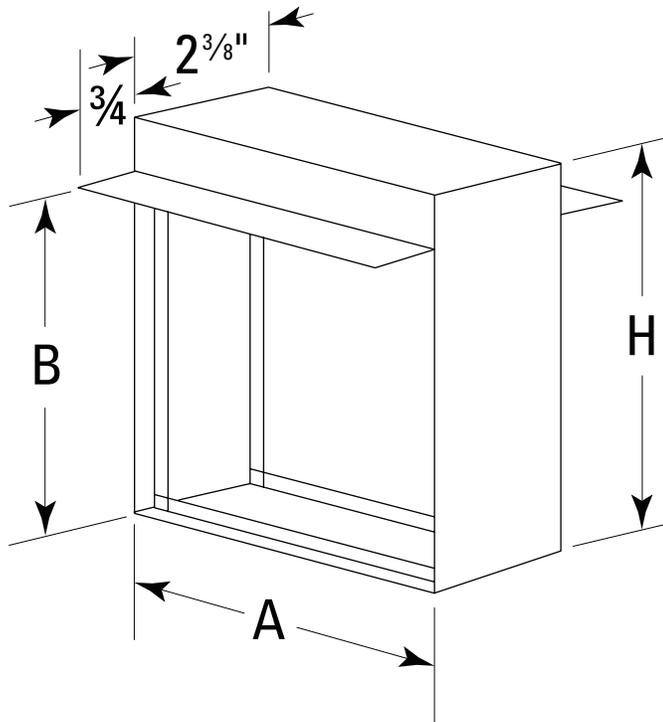
1. Multi-section damper will have frame in the airstream, and blades for vertical models more than one damper in height.

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Type B Fire Damper



| Duct Height (B) | Type B Damper Height (H) |
|-----------------|--------------------------|
| Inches | Inches |
| 3 | 5 |
| 4 | 6 |
| 5 | 7 |
| 6 | 8 |
| 7 | 9 |
| 8 | 10 |
| 9 | 11 |
| 10 | 12 |
| 11 | 13 |
| 12 | 14 |
| 13 | 15 |
| 14 | 16 |
| 15 | 17 |
| 16 | 18 |
| 17 | 19 |
| 18 | 20 |
| 19 | 21 |
| 20 | 22 |
| 21 | 23 |
| 22 | 25 |
| 23 | 26 |
| 24 | 27 |
| 25 | 28 |
| 26 | 29 |
| 27 | 30 |
| 28 | 31 |
| 29 | 32 |
| 30 | 33 |
| 31 | 34 |
| 32 | 35 |
| 33 | 37 |
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| 35 | 39 |
| 36 | 40 |
| 37 | 41 |
| 38 | 42 |
| 39 | 43 |

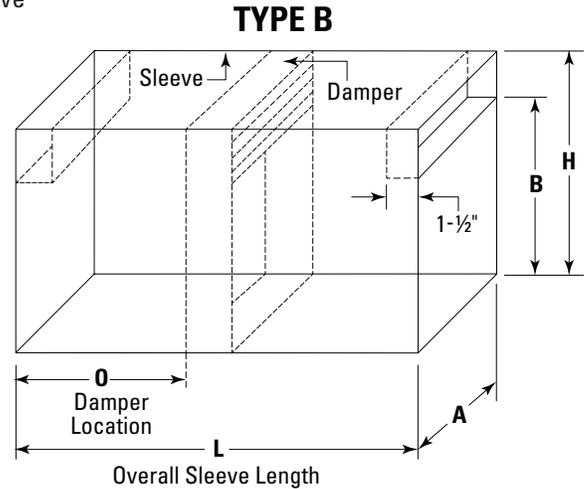
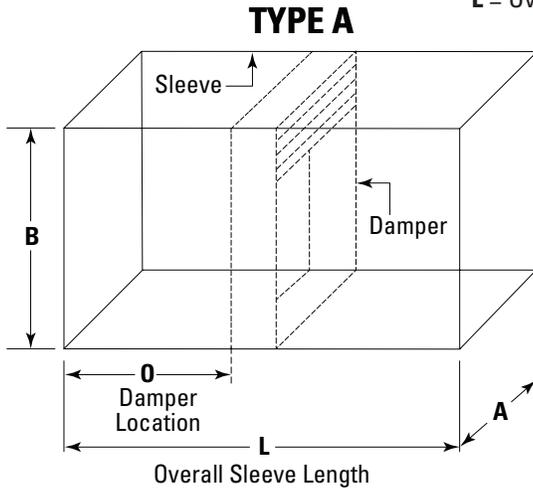
| | |
|----|----|
| 40 | 44 |
| 41 | 45 |
| 42 | 46 |
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| 102 | 107 |
| 103 | 108 |
| 104 | 109 |
| 105 | 110 |
| 106 | 111 |
| 107 | 112 |
| 108 | 113 |
| 109 | 114 |
| 110 | 115 |
| 111 | 116 |
| 112 | 117 |
| 113 | 118 |
| 114 | 119 |
| 115 | 120 |

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

Sleeve Diagram Key:

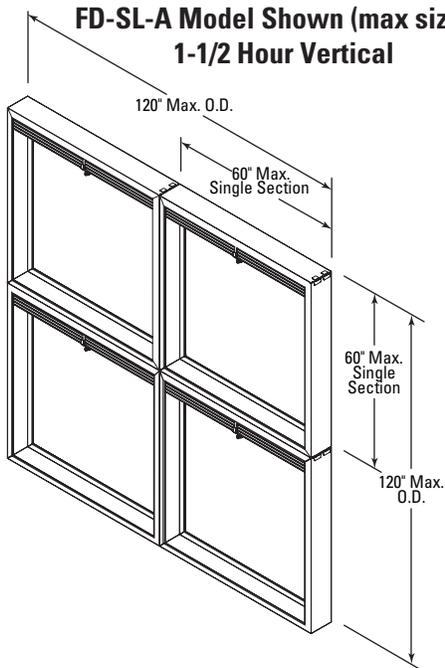
- H** = Overall height
- W** = Overall width (always the length of the blades)
- A** = Duct Width
- B** = Duct Height
- O** = The offset from one end of the sleeve to the beginning of the damper frame (can be altered as a construction option)
- L** = Overall length of sleeve



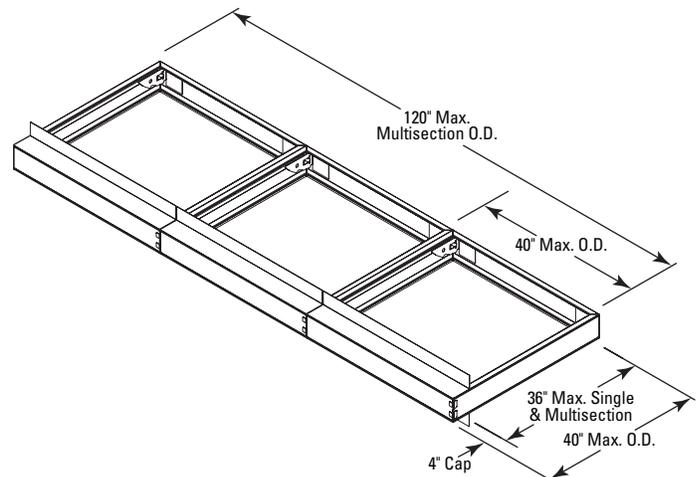
MULTIPLE SECTION INFORMATION - Model FD-SL
Slimline Static Curtain Fire Damper

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
FD-SL-A Model Shown (max size):
1-1/2 Hour Vertical



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



Notes:

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

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