

Reference:

Client:

Project:

Consultant:

Location:

Contractor:

Date:

Submitted by: BM



### Model SSD-AF-OW-202

Smoke Damper  
Out-of-Wall/Floor Application  
Airfoil Blade, Class 2, UL-Classified  
(Class II is < 20 cfm per sq. ft. @ 4" w.g.)

### Application:

The BAS/CVS model SSD-AF-OW-202 is a smoke damper with Airfoil style blades, for decreased pressure drop, intended for installation outside the plane of a wall or floor. The SSD-AF-OW-202 is used to prevent the smoke through a penetration in a smoke rated barrier made by an HVAC duct or transfer. The SSD-AF-OW-202 can be installed vertically (with blades running horizontally) or horizontally. The SSD-AF-OW-202 can be installed in static or dynamic systems up to the allowable tested pressures and velocities below.

**MAXIMUM VELOCITY:** 2000 fpm (10.2 m/s).

**MAXIMUM PRESSURE:** 4" wg (1kPa).

### Standard Construction:

	Standard	Optional
<b>Frame Material</b>	20 Gauge (1) Galv. Roll-Formed Steel hat section w/ staked corners for integral bracing	-----
<b>Blade Material and Type</b>	Airfoil-shaped, double skin galvanized steel mechanically fastened to fo equivalent to 14 Gauge (2) Steel	16 Gauge (1.5) "3V" Galvanized Roll-Forme Steel (see Model SSD-3V-OW-202)
<b>Blade Sizes</b>	Min. width of 5" (127) to max. width of 7.25" (178)	-----
<b>Frame Depth</b>	5" (127)	-----
<b>Dimensions</b>	Actual - 1/4" (6)	Actual
<b>Axle Bearings</b>	Brass Oilite (press fit into frame)	-----
<b>Axle Material</b>	Plated Steel	-----
<b>Linkage</b>	.125" (3.2) plated steel, Concealed in Frame	-----
<b>Sleeve</b>	16" x 20" gauge (406x1) galvanized steel	Wide variety of gauges and lengths available
<b>Thermal Blanket</b>	-----	0.25" (6) thick thermal blanket 3 sides for vertical & 4 sides for horizontal applications
<b>Operating Temp.</b>	350° (177°C)	-----
<b>Leakage Class Rating</b>	Class 2	Class 1 (see Model SSD-AF-OW-201)

### Minimum & Maximum Sizes:

Out-of-Wall Mounting	Minimum Single Section	Maximum Single Section	Maximum Multi-Section
SSD-AF-OW-202 Vertical	8 x 8 (203 x 203)	36" x 48" (914 x 1219)	42" x 48" (1067 x 1219)
SSD-AF-OW-202 Horizontal			

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



### LISTINGS:

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

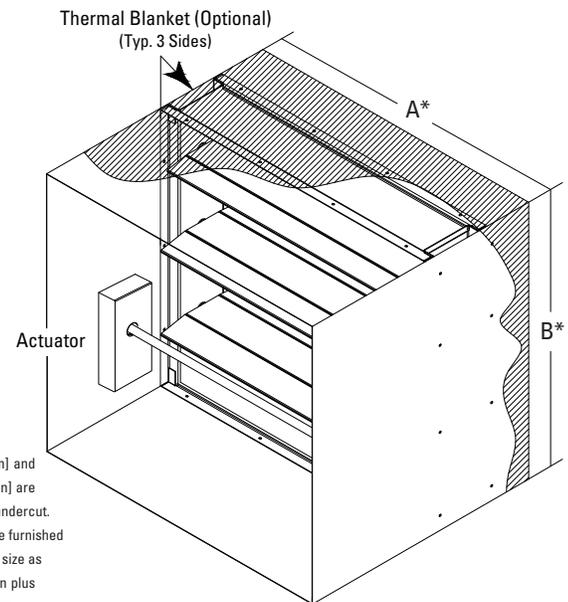


### STANDARDS MET:

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

Building Code Standard:

ICC International Building Code



\*Width [A dimension] and \*Height [B Dimension] are approximately 1/4" undercut. Sleeved dampers are furnished approximately same size as given duct dimension plus 0.25 " (6) for insulation.

### Optional Construction:

#### Auxiliary Switch

Add to Actuator (recommended)

Add to Damper (STO/R)

#### Momentary Test Switch

#### Factory Sleeve:

Length: \_\_\_\_\_ (Std. 16" [406])

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

#### Framed Retaining Angles (FRA)

1-Side 2-Sides

#### Remote Control Box

RCB-1 RCB-2 RCB-3

#### Smoke Detector

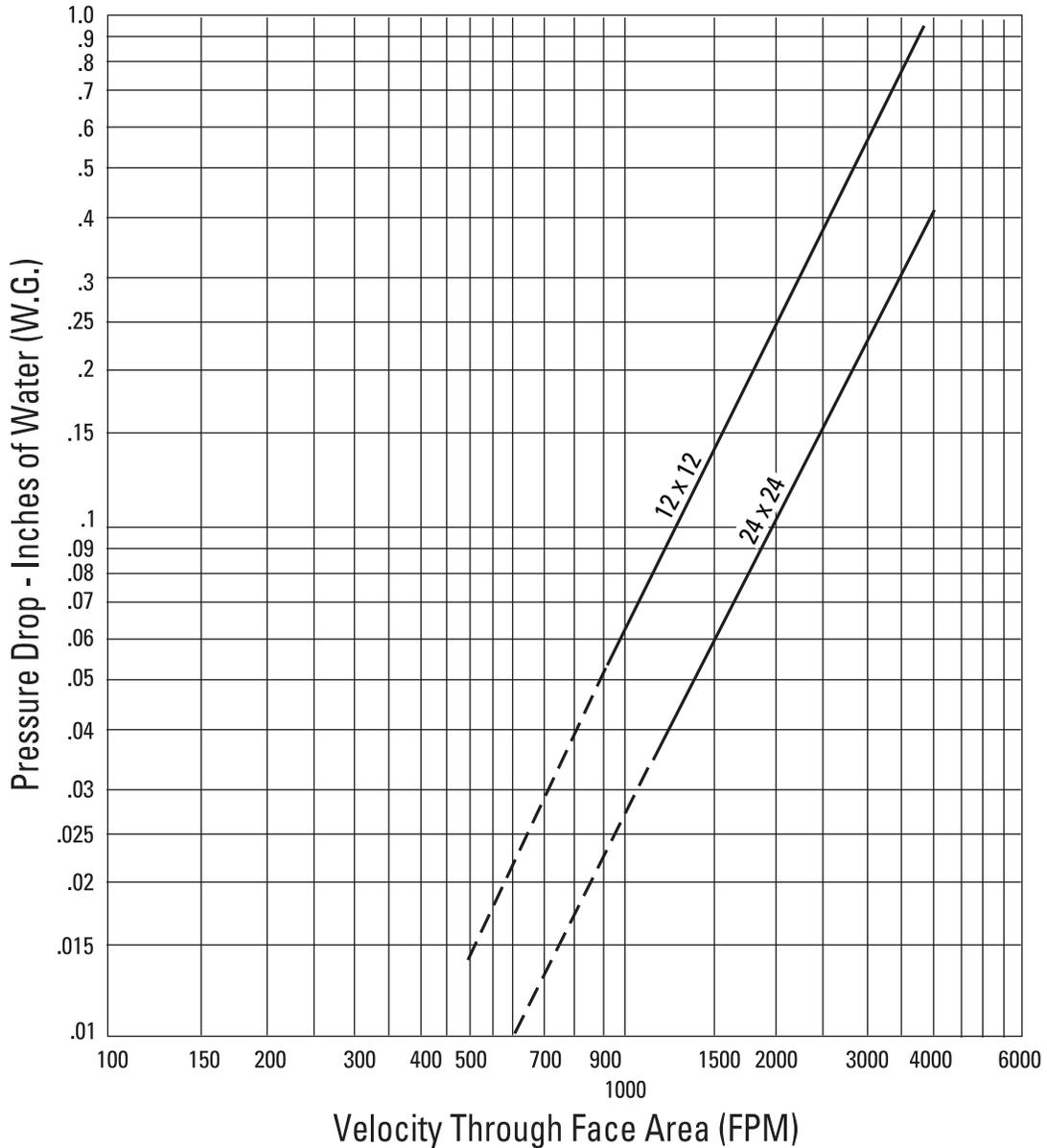
Factory Mounted Shipped Loose

#### Actuators (Refer to UL Damper Actuator Reference Chart)

Type: Electric: Model # \_\_\_\_\_ Pneumatic: Model # \_\_\_\_\_

Location: Right External (Std) Left External Internal

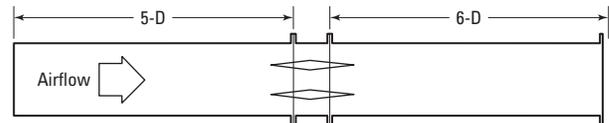
**Pressure Drop**



- To determine pressure drop:**
1. Locate the applicable face velocity on the bottom of the chart.
  2. Move up the chart to the most appropriate size damper line.
  3. From the intersection point, move left to determine the pressure drop.

**AMCA Figure 5.3 - Ducted Inlet and Outlet**

Pressure drop testing was performed by an independent laboratory to the AMCA Standard 500-D, Fig. 5.3 (ductwork upstream and downstream).



**Note:**

Pressure Drop data reflects damper face area only and does not take into account internally mounted actuator.

**Actuator Requirements:**

**UL555S requires that all leakage rated dampers be provided with factory mounted actuators.** Available actuators vary by damper size and velocity, pressure and temperature ratings. Consult Motor/Actuator sheet for UL Products for current offering.

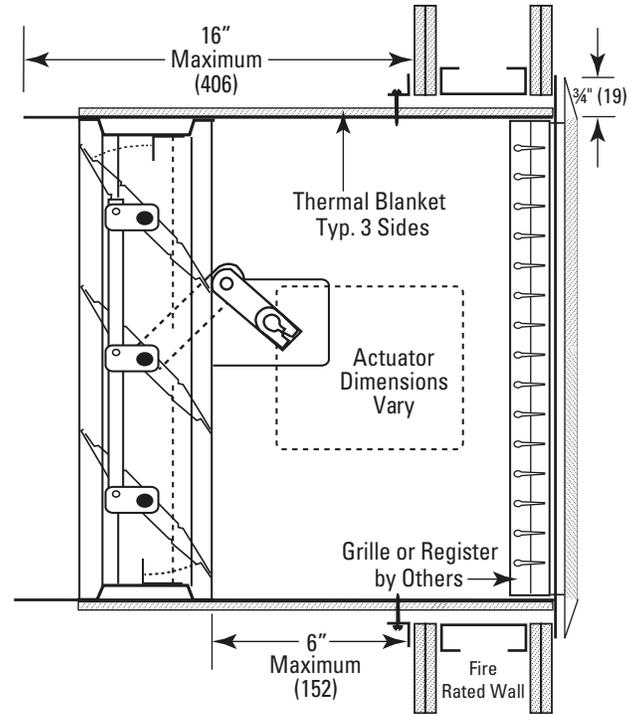
**Sleeve Requirements:**

**Sleeve must be installed at the factory for out of wall/floor products.**

Sleeve length is dependent upon damper height, grille depth (including OBD) and actuator selection:

- Standard clearance allowance for grille inset is 3" (76).
- Maximum sleeve length is 16" (406) plus the total wall depth.

**Sleeve is provided with a 3/4" (19) flange on the actuator end of the sleeve by default.** Flange must be on top of barrier in horizontal installations. Damper may be optionally ordered without flange for continuous duct installation; this method requires the use of a single mounting angle for installation (see Detail).



\*Thermal Blanket provided 3 sides for Vertical and 4 sides for Horizontal.

**Thermal Blanket (Optional):**

A factory installed thermal blanket is provided on three sides (bottom excluded) for dampers ordered for vertical installation and on all four sides for dampers ordered for horizontal installation.

Due to the nature of the application for Out-of-Wall and Out-of-Floor Smoke dampers, a 0.25" (6) thermal blanket is installed around the sleeve at the factory.

