

### Application

Model SESMD-201 is a leakage rated 316SS smoke damper with 3V style blades for operational closure in emergency smoke control situations. Model SESMD-201 may be installed vertically (with blades running horizontally) or horizontally and is rated for airflow and leakage in either direction.



### Ratings

#### UL 555S Leakage Rating

Leakage Class: I

Operational Rating: Actual ratings are size dependent

Velocity: Up to 2000 fpm (10.2 m/s)

Pressure: Up to 6 in. wg (1.5 kPa)

Temperature: Up to 350°F (177°C) - depending upon the actuator

### Construction

|                          | Standard                                   |
|--------------------------|--|
| Frame Material           | 316SS                                      |
| Frame Material Thickness | 16 ga. (1.5 mm)                            |
| Frame Type               | 5 in. x 1 in. (127 mm x 25 mm) hat channel |
| Blade Material           | 316SS                                      |
| Blade Material Thickness | 16 ga. (1.5 mm)                            |
| Blade Type               | 3V   |
| Blade Action             | Opposed                                    |
| Linkage                  | 316SS out of airstream, concealed in jamb  |
| Axle Bearings            | 316SS                                      |
| Axle Material            | 316SS                                      |
| Blade Seals              | Silicone                                   |
| Jamb Seals               | 316SS                                      |

W&H dimensions furnished approximately ¼ in. (6mm) undersize. (Add sleeve thickness for overall sleeved damper dimension)  
Actuator shown is mounted internal left.



See complete marking on product.  
UL 555S Classification  
R13317

Model SESMD-201 meets the requirements for smoke dampers established by:

**National Fire Protection Association**  
NFPA Standards 90A, 92, 101 & 105

**IBC International Building Codes**

**CSFM California State Fire Marshal**  
Leakage (Smoke) Damper Listing (#3230-0981:104)

#### Note:

The frames are constructed with reinforced corners. Low profile head and sill are used on sizes less than 17 in. (432mm) high for lower pressure drop and improved damper performance.

| W x H                              | Minimum Size | Maximum Size   |                  |
|------------------------------------|--------------|----------------|------------------|
|                                    |              | Single Section | Multiple Section |
| <b>4 in. wg (1 kPa) pressure</b>   |              |                |                  |
| Inches                             | 8 x 6        | 24 x 30        | 88 x 72          |
| mm                                 | 203 x 152    | 610 x 762      | 2235 x 1829      |
| <b>6 in. wg (1.5 kPa) pressure</b> |              |                |                  |
| Inches                             | 8 x 6        | 24 x 30        | 88 x 48          |
| mm                                 | 203 x 152    | 610 x 762      | 2235 x 1219      |

## Options

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- [Momentary test switch](#)
- [Retaining angles](#)
- [OCI \(Open closed indication switches\)](#)
- Sealed transitions and sleeves
- Smoke detectors
- Transitions: C, O, R

## Documents

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[INSTALLATION](#)



[CATALOG](#)



[DAMPER  
SELECTION GUIDE](#)



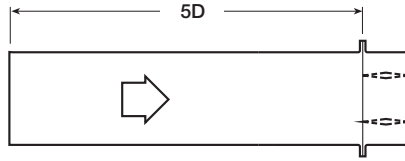
[SPECIFICATIONS](#)



[WARRANTY](#)

# Pressure Drop

AMCA Figure 5.2



12 in. x 12 in. (305mm x 305mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.04                   |
| 1000           | 0.14                   |
| 1500           | 0.31                   |
| 2000           | 0.55                   |
| 2500           | 0.86                   |
| 3000           | 1.24                   |
| 3500           | 1.69                   |
| 4000           | 2.20                   |

24 in. x 24 in. (610mm x 610mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.02                   |
| 1000           | 0.07                   |
| 1500           | 0.16                   |
| 2000           | 0.29                   |
| 2500           | 0.45                   |
| 3000           | 0.65                   |
| 3500           | 0.89                   |
| 4000           | 1.16                   |

36 in. x 36 in. (914mm x 914mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.01                   |
| 1000           | 0.04                   |
| 1500           | 0.09                   |
| 2000           | 0.16                   |
| 2500           | 0.25                   |
| 3000           | 0.36                   |
| 3500           | 0.49                   |
| 4000           | 0.64                   |

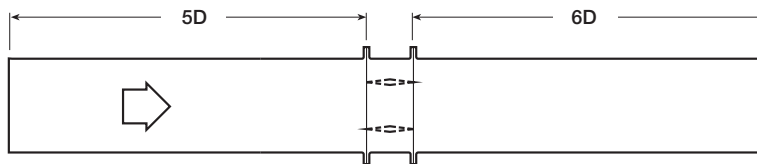
12 in. x 48 in. (305mm x 1219mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.01                   |
| 1000           | 0.06                   |
| 1500           | 0.13                   |
| 2000           | 0.23                   |
| 2500           | 0.36                   |
| 3000           | 0.52                   |
| 3500           | 0.70                   |
| 4000           | 0.92                   |

48 in. x 12 in. (1219mm x 305mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.03                   |
| 1000           | 0.10                   |
| 1500           | 0.23                   |
| 2000           | 0.41                   |
| 2500           | 0.63                   |
| 3000           | 0.91                   |
| 3500           | 1.24                   |
| 4000           | 1.62                   |

AMCA Figure 5.3



12 in. x 12 in. (305mm x 305mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.02                   |
| 1000           | 0.09                   |
| 1500           | 0.20                   |
| 2000           | 0.36                   |
| 2500           | 0.56                   |
| 3000           | 0.81                   |
| 3500           | 1.10                   |
| 4000           | 1.44                   |

24 in. x 24 in. (610mm x 610mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.01                   |
| 1000           | 0.04                   |
| 1500           | 0.09                   |
| 2000           | 0.16                   |
| 2500           | 0.25                   |
| 3000           | 0.35                   |
| 3500           | 0.48                   |
| 4000           | 0.63                   |

36 in. x 36 in. (914mm x 914mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.01                   |
| 1000           | 0.03                   |
| 1500           | 0.06                   |
| 2000           | 0.11                   |
| 2500           | 0.17                   |
| 3000           | 0.24                   |
| 3500           | 0.33                   |
| 4000           | 0.42                   |

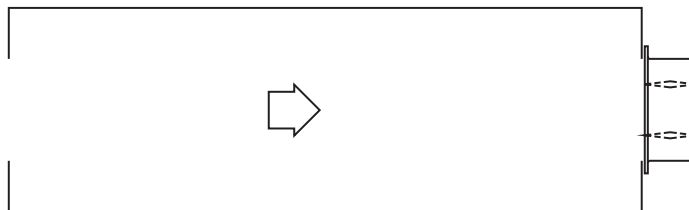
12 in. x 48 in. (305mm x 1219mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.01                   |
| 1000           | 0.04                   |
| 1500           | 0.10                   |
| 2000           | 0.17                   |
| 2500           | 0.27                   |
| 3000           | 0.39                   |
| 3500           | 0.53                   |
| 4000           | 0.70                   |

48 in. x 12 in. (1219mm x 305mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.02                   |
| 1000           | 0.07                   |
| 1500           | 0.16                   |
| 2000           | 0.29                   |
| 2500           | 0.45                   |
| 3000           | 0.64                   |
| 3500           | 0.88                   |
| 4000           | 1.14                   |

AMCA Figure 5.5



12 in. x 12 in. (305mm x 305mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.06                   |
| 1000           | 0.22                   |
| 1500           | 0.50                   |
| 2000           | 0.89                   |
| 2500           | 1.39                   |
| 3000           | 2.00                   |
| 3500           | 2.72                   |
| 4000           | 3.55                   |

24 in. x 24 in. (610mm x 610mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.03                   |
| 1000           | 0.14                   |
| 1500           | 0.31                   |
| 2000           | 0.54                   |
| 2500           | 0.85                   |
| 3000           | 1.22                   |
| 3500           | 1.66                   |
| 4000           | 2.17                   |

36 in. x 36 in. (914mm x 914mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.03                   |
| 1000           | 0.12                   |
| 1500           | 0.26                   |
| 2000           | 0.46                   |
| 2500           | 0.73                   |
| 3000           | 1.05                   |
| 3500           | 1.42                   |
| 4000           | 1.86                   |

12 in. x 48 in. (305mm x 1219mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.03                   |
| 1000           | 0.13                   |
| 1500           | 0.30                   |
| 2000           | 0.53                   |
| 2500           | 0.83                   |
| 3000           | 1.19                   |
| 3500           | 1.62                   |
| 4000           | 2.11                   |

48 in. x 12 in. (1219mm x 305mm)

| Velocity (fpm) | Pressure Drop (in. wg) |
|----------------|------------------------|
| 500            | 0.04                   |
| 1000           | 0.17                   |
| 1500           | 0.38                   |
| 2000           | 0.67                   |
| 2500           | 1.04                   |
| 3000           | 1.50                   |
| 3500           | 2.05                   |
| 4000           | 2.67                   |

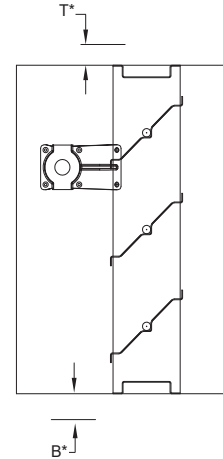
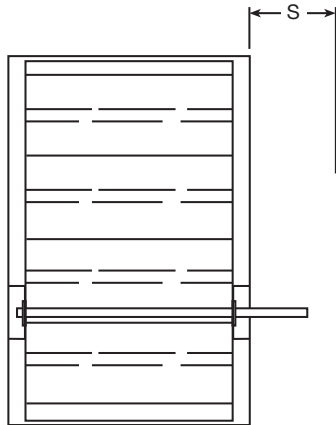


Greenheck Fan Corporation certifies that the model SESMD-201 shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to air performance ratings only.

# Space Envelopes

Externally mounted actuators always require space outside of the damper sleeve. The “S” dimension illustrates the clearance required for various available actuators.

Worst case space envelopes shown below. Exact dimensions may vary based on specific damper configuration. Consult factory for specific space envelope if necessary.

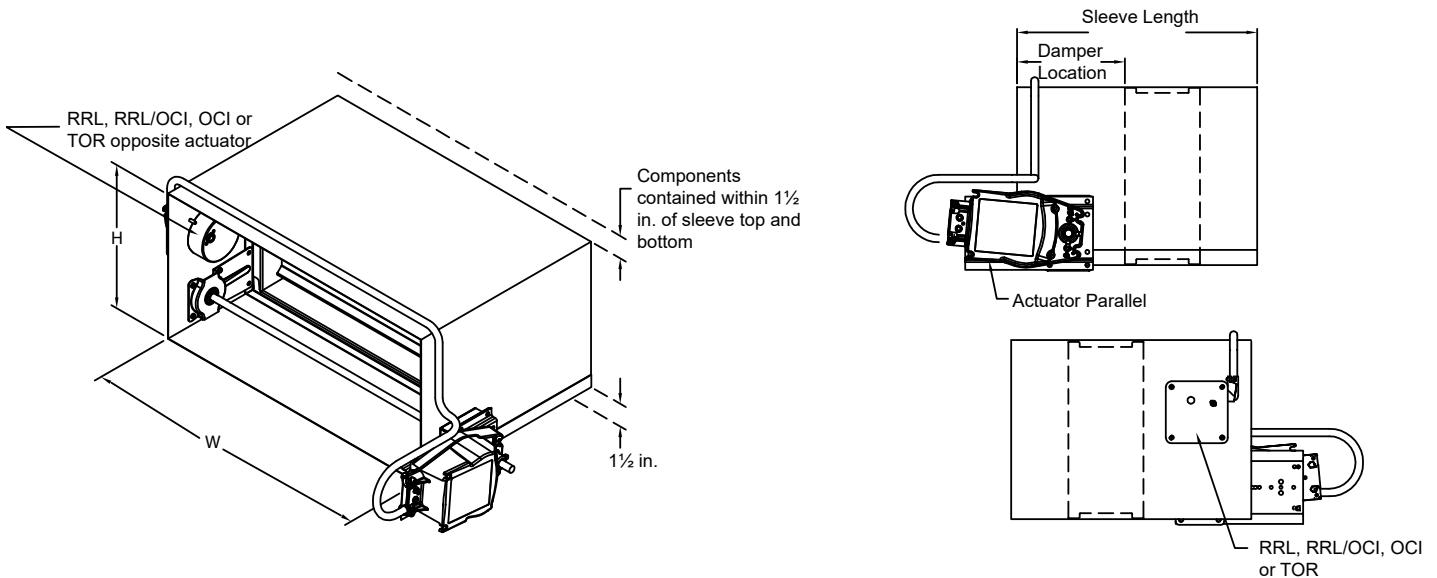


| Actuator Type/Model              | B*                              | T*                              | S              |               |
|----------------------------------|---------------------------------|---------------------------------|----------------|---------------|
|                                  | With<br>RRL, RRL/OCI, or<br>TOR | With<br>RRL, RRL/OCI, or<br>TOR | Piggyback      |               |
|                                  |                                 |                                 | No             | Yes           |
| Belimo                           |                                 |                                 |                |               |
| FSAFB24-SR (-S)                  | 1½ in (38mm)                    | 9¼ in. (235mm)                  | 6 in. (152mm)  | 9 in. (229mm) |
| FSLF series                      | 8 in. (203mm)                   | 1½ in (38mm)                    | 6½ in. (165mm) | NA            |
| FSNF series                      | 1½ in (38mm)                    | 9¼ in. (235mm)                  | 6 in. (152mm)  | 9 in. (229mm) |
| FSTF Series                      | 8 in. (203mm)                   | 1½ in (38mm)                    | 6½ in. (165mm) | NA            |
| Siemens                          |                                 |                                 |                |               |
| GJD Series                       | 7 in. (178mm)                   | 1½ in (38mm)                    | 6½ in. (165mm) | NA            |
| GRD Series                       | 1½ in (38mm)                    | 7½ in (191mm)                   | 6½ in. (165mm) | NA            |
| GXVD Series                      | 1½ in (38mm)                    | 9¼ in. (235mm)                  | 6 in. (152mm)  | 9 in. (229mm) |
| Honeywell                        |                                 |                                 |                |               |
| MS4103, MS8103 Series            | 8¾ in. (222mm)                  | 1½ in (38mm)                    | 6½ in. (165mm) | NA            |
| MS4104, MS4604,<br>MS8104 Series | 1½ in (38mm)                    | 8½ in (216mm)                   | 6½ in. (165mm) | NA            |
| MS4109, MS4609,<br>MS8109 Series | 1½ in (38mm)                    | 8½ in (216mm)                   | 6½ in. (165mm) | NA            |
| MS4120, MS4620,<br>MS8120 Series | 1½ in (38mm)                    | 9½ in. (241mm)                  | 6 in. (152mm)  | 9 in. (229mm) |

\* For dampers 18 in. (457mm) or more in height these dimensions are 0 in.

# Contained Actuator Option

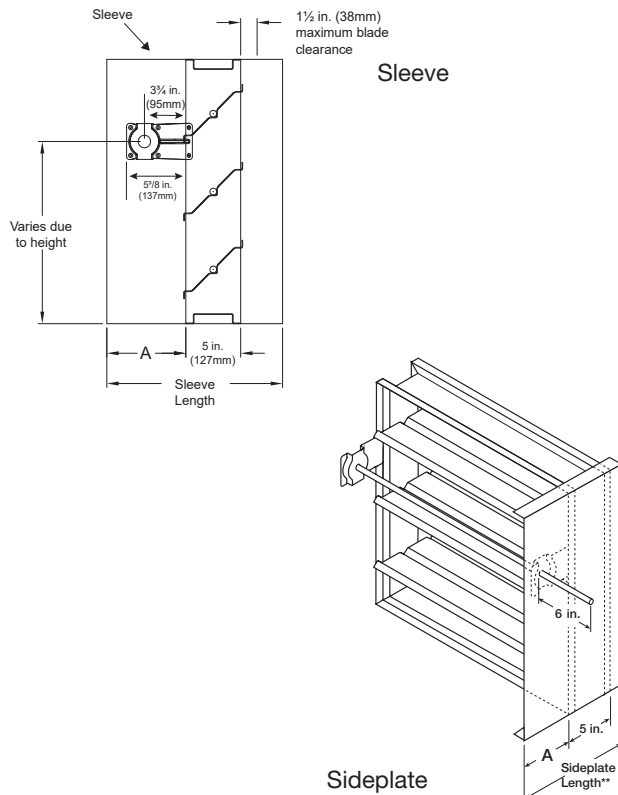
Dampers can be ordered with a “contained actuator option”. This option will result in the actuator being oriented such that it extends no more than 1½ inches above or below the sleeve. Note that some damper configurations that are 11 inches high or less will have the OCI mounted on the side opposite the actuator when the contained actuator option is selected.



# Sleeve and Sideplate Dimension

The drawings below and corresponding table show the position of the SESMD-201 damper when mounted in a factory sleeve ("A" dimension). The standard mounting locations provide enough space for the mounting of actuators, controls and allow space for installation of retaining angles and duct connections. The following options may affect the range of available mounting locations: smoke detector, NEMA 7 enclosure, transitions, security bars, grille tabs.

The standard location of a damper mounted in a factory sleeve ("A" dimension) is shown below. The damper can be positioned at other locations within a range of 6 in. (152mm) to 16 in. (406mm) for the "A" dimension.

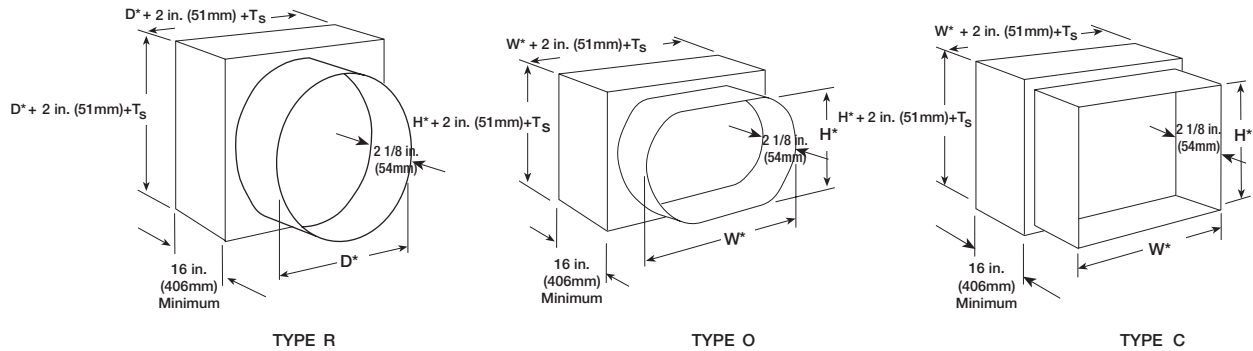


| in. (mm)                       | With Sleeve                 |                             | Sideplate Damper Location "A" |
|--------------------------------|-----------------------------|-----------------------------|-------------------------------|
|                                | Minimum Damper Location "A" | Maximum Damper Location "A" |                               |
| Damper with no OCI             | 7 3/16 in. (183)            | 16 (406)                    | 6 3/16 (157)                  |
| Height < 12 in. (305) with OCI | 12 (305)                    | 16 (406)                    | 12 (305)                      |
| Height ≥ 12 in. (305) with OCI | 7 3/16 in. (183)            | 16 (406)                    | 12 (305)                      |

**NOTE:** Entire damper frame is not required to be installed within the wall. The damper blades, when closed should be contained within the wall.

## Transitioned Damper Dimensions

When a fire/smoke damper is being used in conjunction with round or oval ductwork, the SESMD-201 can be supplied in a factory sleeve with round or oval transitions on both ends of the sleeve. Dampers should be ordered to the duct dimensions. Drawings below show overall damper size.

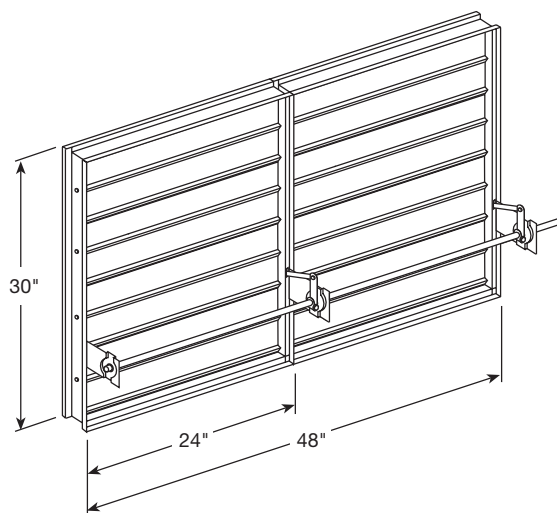


\*These dimensions are furnished approximately 1/4 in. (6mm) undersize, except round and oval dimensions which are approximately 1/8 in. (3mm) undersize.

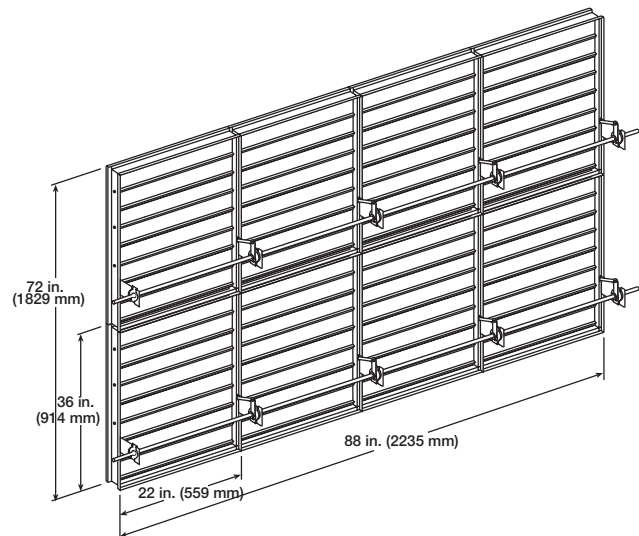
$$T_S = (2)(\text{Sleeve Thickness})$$

## Multiple Section Sizing

Dampers larger than maximum single section size are supplied as a factory assembly of two or more sections of equal size. The following figures show maximum damper section size and assembly configurations for multi-section dampers.



**2 sections**



**4 sections wide**  
**2 sections high**