

Application

Model SMD-202 is a leakage rated smoke damper with 3V style blades. Model SMD-202 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: II

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	Optional
Frame Material	Galvanized steel	-
Frame Material Thickness	16 ga. (1.5mm)	-
Frame Type	5 in. x 1 in. (127mm x 25mm) hat channel	-
Blade Material	Galvanized steel	-
Blade Material Thickness	16 ga. (1.5mm)	-
Blade Type	3V	-
Blade Action	Parallel	-
Linkage	Plated steel out of airstream, concealed in jamb	-
Axle Bearings	316SS	-
Axle Material	Plated steel	-
Blade Seals	Silicone	-
Jamb Seals	Stainless Steel	-

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&H dimensions furnished approximately 1/4 in. (6mm) undersize. (Add sleeve thickness for overall sleeved damper dimension) Actuator is shown mounted internal left.



See complete marking on product.

UL 555S Classification
R13317

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

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

IBC International Building Codes

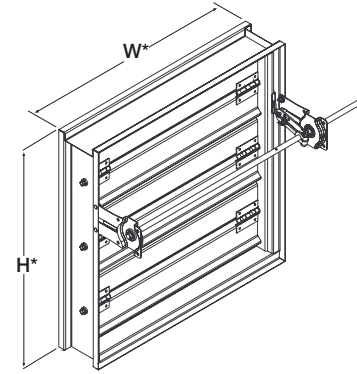
CSFM California State Fire Marshal

Leakage (Smoke) Damper Listing (#3230-0981:104)

W x H	Minimum Size	Maximum Size	
		Single Section	Multiple Section
4 in. wg (1 kPa) pressure			
Inches	6 x 6	32 x 50 or 36 x 48	144 x 100 or 288 x 50
mm	152 x 152	813 x 1270 or 914 x 1219	3658 x 2438 or 7315 x 1270
6 in. wg (1.5 kPa) pressure			
Inches	6 x 6	36 x 48	144 x 48
mm	152 x 152	914 x 1219	3658 x 1219

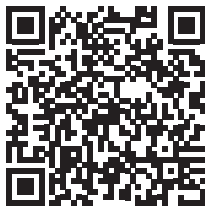
Options

- [Breakaway connections](#)
- Clean wrap
- [Greenheck test switches \(GTS\)](#)
- [Grille tabs](#)
- [Momentary test switch](#)
- [Retaining angles](#)
- [OCI \(Open closed indication switches\)](#)
- Sealed transitions and sleeves
- [Security bars](#)
- Smoke detectors
- Transitions: C, O, R



Document Links

[Installation Instructions](#)



[Life Safety Damper Catalog](#)



[Damper Product Selection Guide](#)



[Specifications](#)

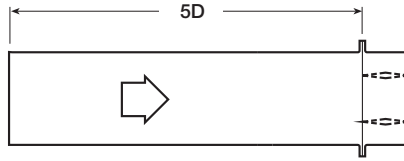


[Damper Warranty](#)



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

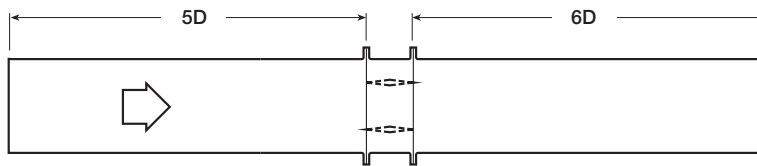
12 in. x 48 in. (305mm x 1219mm)

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

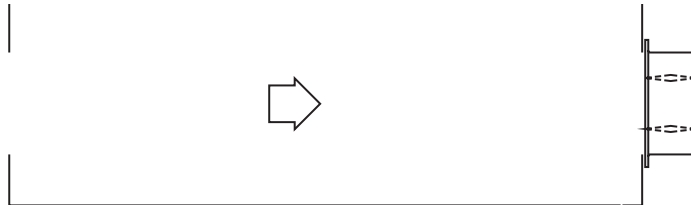
12 in. x 48 in. (305mm x 1219mm)

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

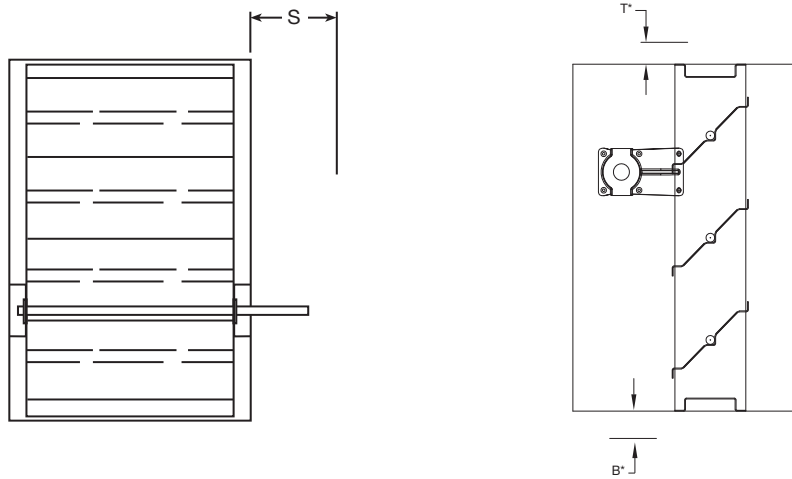


Greenheck Fan Corporation certifies that the model SMD-202 shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Programs. The AMCA Certified 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.

On dampers less than 18 in. (457mm) high, actuators may also require clearances above and/or below the sleeve. “B” and “T” dimensions are **worst** case clearance requirements for some dampers less than 18 in. (457mm) high. All dampers 18 in. (457mm) or more in height, do not require these worst case clearances. If space availability above or below the damper sleeve is limited, each damper size should be individually evaluated.

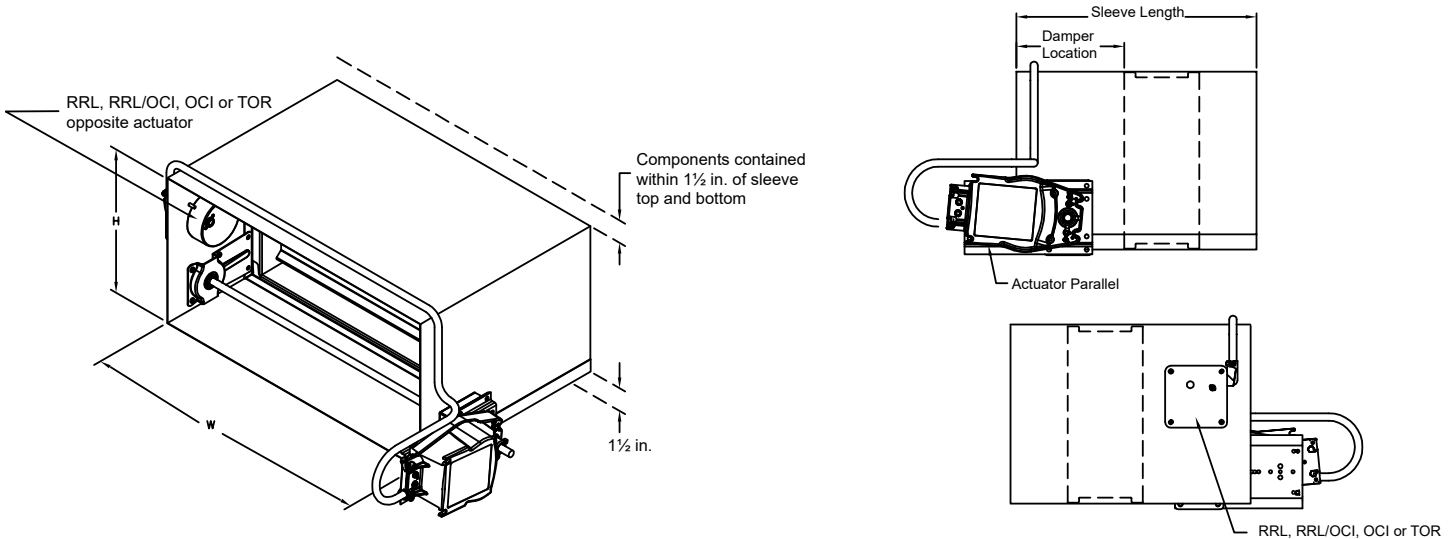


Actuator Type/Model	B*	T*	S	
	With RRL, RRL/OCI, or TOR	With RRL, RRL/OCI, or TOR	No	Yes
120 Volt AC				
FSLF120 (-S) Belimo	7 ¹¹ / ₁₆ in. (195mm)	0	6 in. (152mm)	NA
FSNF120 (-S) Belimo	½ in. (13mm)	9 ¹³ / ₁₆ in. (249mm)	6 in. (152mm)	9 in. (229mm)
FSTF120 (-S) Belimo	7 ¹¹ / ₁₆ in. (195mm)	0	6 in. (152mm)	NA
MS4X09 Series Honeywell	½ in. (13mm)	8½ in. (216mm)	6 in. (152mm)	NA
MS4120 Series Honeywell	½ in. (13mm)	9 ¹³ / ₁₆ in. (249mm)	6 in. (152mm)	9 in. (229mm)
24 Volt AC				
FSAF24 (-S) Belimo	½ in. (13mm)	9 ¹³ / ₁₆ in. (249mm)	6 in. (152mm)	NA
FSTF24 (-S) Belimo	7 ¹¹ / ₁₆ in. (195mm)	½ in. (13mm)	6 in. (152mm)	NA
FSLF24-S Belimo	7 ¹¹ / ₁₆ in. (195mm)	0	6 in. (152mm)	NA
FSNF24 (-S) Belimo	½ in. (13mm)	9 ¹³ / ₁₆ in. (249mm)	6 in. (152mm)	9 in. (229mm)
MS8120 Series Honeywell	½ in. (13mm)	9 ¹³ / ₁₆ in. (249mm)	6 in. (152mm)	9 in. (229mm)
230 Volt AC				
FSLF230-S Belimo	7 ¹¹ / ₁₆ in. (195mm)	0	6 in. (152mm)	NA
FSNF230-S Belimo	½ in. (13mm)	9 ¹³ / ₁₆ in. (249mm)	6 in. (152mm)	9 in. (229mm)
MS4X09 Series Honeywell	½ in. (13mm)	8½ in. (216mm)	6 in. (152mm)	NA
MS4620 Series Honeywell	½ in. (13mm)	9 ¹³ / ₁₆ in. (249mm)	6 in. (152mm)	9 in. (229mm)

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

Contained Actuator Option

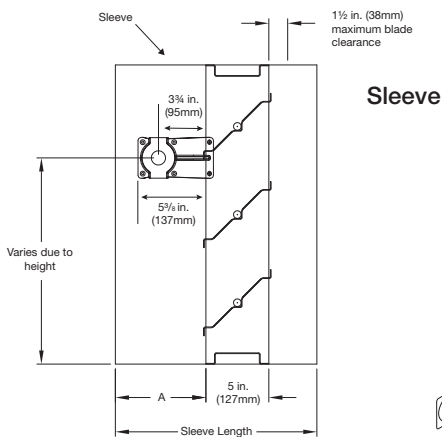
Dampers can be ordered with a “contained actuator option”. This option will result in the actuator being oriented such that it extends no more than 1½ inches above or below the sleeve. Note that some damper configurations that are 11 inches high or less will have the OCI mounted on the side opposite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



Sleeve and Sideplate Dimensions

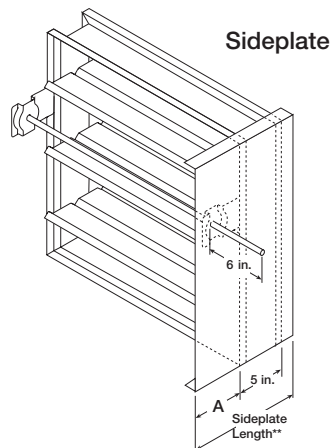
The drawings illustrate the factory standard sideplate and sleeve mountings for the SMD-202. The standard “A” dimensions listed in the table provide adequate space for the mounting of actuators and controls.

If space constraints are a problem the “A” dimension can be varied between 6 in. (152mm) and 16 in. (406mm).



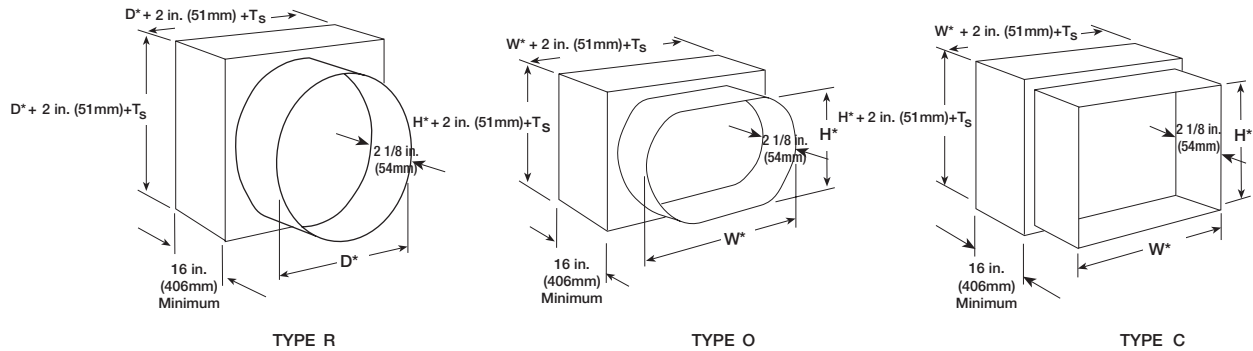
in. (mm)	"A" Dimension		Sideplate
	Standard	Maximum	
All Dampers	7 3/16 in. (183)	16 (406)	6 3/16 (157)
When Height is 11 in. (279) or less with OCI	12 (305)	16 (406)	12 (305)

NOTE: Entire damper frame is not required to be installed within the wall.



Transitioned Damper Dimensions

When a smoke damper is being used in conjunction with round or oval ductwork, the SMD-202 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 Dampers

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.

