



STATIC INTEGRAL SLEEVE CURTAIN FIRE DAMPER MODEL – 150-12B, 14B, 16B

Features – U.L. rated 1 ½ hour fire damper, for use in a 2 hour fire partition. • Meets NFPA 90A & UL 555

STANDARD CONSTRUCTION

FRAME AND SLEEVE

150-12B 12" x 20 gauge galvanized steel
150-14B 14" x 20 gauge galvanized steel
150-16B 16" x 20 gauge galvanized steel

BLADES

3-3/8" wide 22 gauge galvanized steel

MINIMUM SIZE

Vertical: 6"w x 6"h
Horizontal: 6"w x 6"h

MAXIMUM SINGLE SECTION

Vertical: 48"w x 43"h
Horizontal: 48"w x 43"h

UNDERSIZED

¼" undersize unless specified otherwise

FUSIBLE LINK

165°F Standard (others available)

SPRINGS

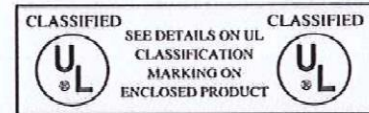
Stainless steel – 301 Negator type
(Standard on Horizontal mount only)

OPTIONAL CONSTRUCTION

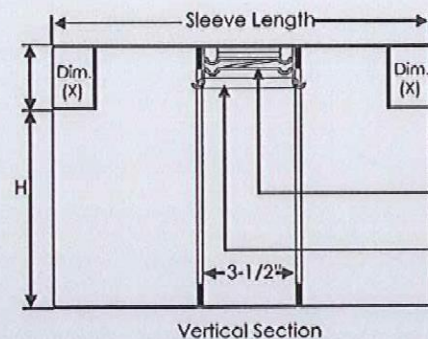
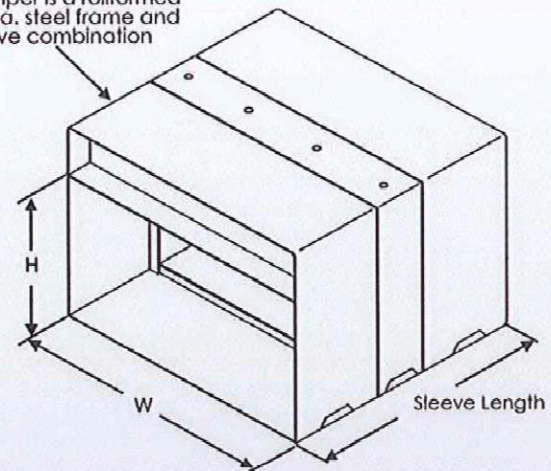
RETAINING ANGLES – Shipped Loose

SECURITY BARS – Mounted in sleeve

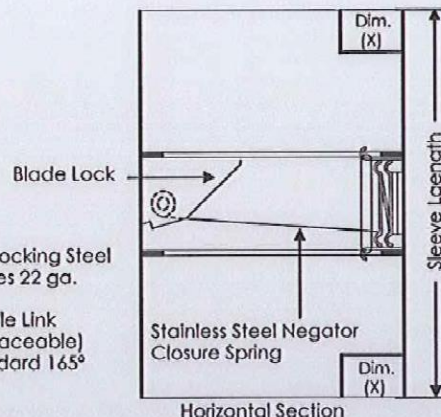
FUSIBLE LINK – Electronically triggered link (ETL)



Damper is a rollformed 20 ga. steel frame and sleeve combination



Vertical Section



Horizontal Section

Duct Height	Dim. (X)
4" thru 15"	2"
16" thru 27"	3"
28" thru 39"	4"
40" thru 55"	5"
40" thru 43" (Horizontal Only)	

DATE	ARCHITECT			ENGINEER
PROJECT				
ITEM	QTY	W	H	DESCRIPTION

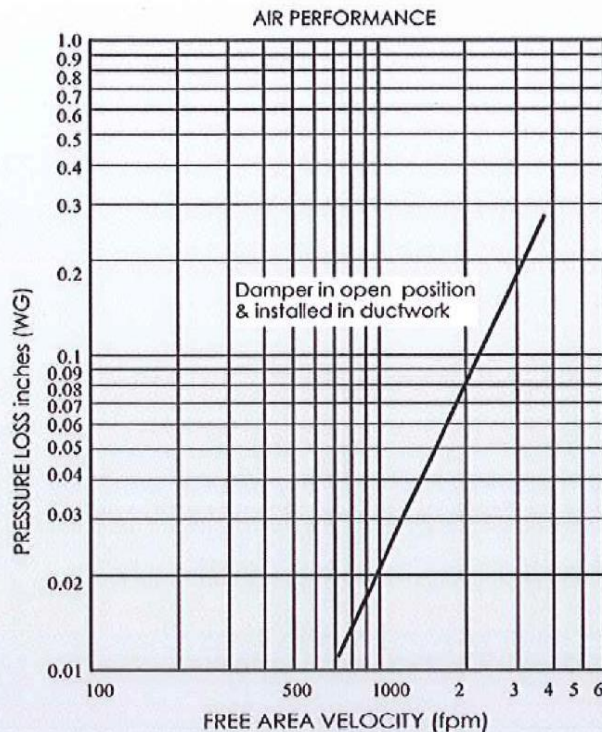
Manufacturer's Recommendations

All moving parts of the damper must be inspected and cycled at intervals not greater than every six months and in accordance with the latest editions of NFPA 90A, 92A. In addition, fuse links shall be removed and inspected for corrosion. Dry lubricants are recommended.

Specifications are correct at time of printing. However, as part of our continuous improvement program, we reserve the right to make further improvements without notice.



175 & 175-3 PERFORMANCE



Model 175 rated 1-1/2 hour U. L. classified damper

Model 175-3 rated 3 hour U. L. classified damper

CALCULATING PRESSURE LOSS:

Based upon a given flow rate (in CFM), the flowing pressure loss may be determined from the "air performance" graph, knowing the sq. ft. of free area of the damper. Alternately, the free area may be determined based upon a volumetric flow rate and a maximum pressure loss. Utilizing the "air performance" graph.

_____ in. W.C. Max. Pressure Loss Intake or Exhaust

_____ FPM (Free Area Velocity From "Air Performance" Graph)

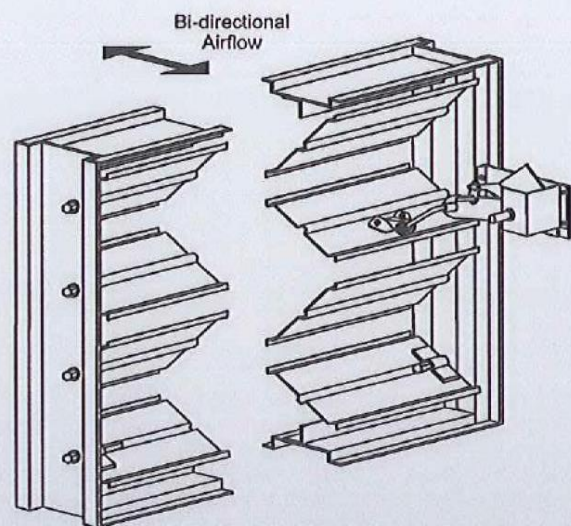
_____ CFM / _____ FPM Free Area Velocity = _____ Sq. Ft. Free Area

FREE AREA CALCULATIONS IN SQ. FT.

		WIDTH						
HEIGHT	Inches	12	16	20	24	28	32	36
	12	0.56	0.78	1.00	1.22	1.44	1.67	1.89
	16	0.83	1.17	1.50	1.83	2.17	2.50	2.83
	20	1.06	1.48	1.91	2.33	2.75	3.18	3.60
	24	1.28	1.80	2.31	2.83	3.34	3.85	4.37
	28	1.51	2.11	2.72	3.32	3.93	4.53	5.14
	32	1.79	2.50	3.22	3.93	4.65	5.36	6.08
	36	2.01	2.82	3.63	4.43	5.24	6.04	6.85

PERFORMANCE DATA

Damper Width Inches	Maximum Static Pressure (W.G.)	Maximum Velocity
12 (305)	6"	2000 FPM
18 (457)	5.5"	2000 FPM
24 (610)	5.5"	2000 FPM
30 (762)	5"	2000 FPM
36 (914)	5"	2000 FPM

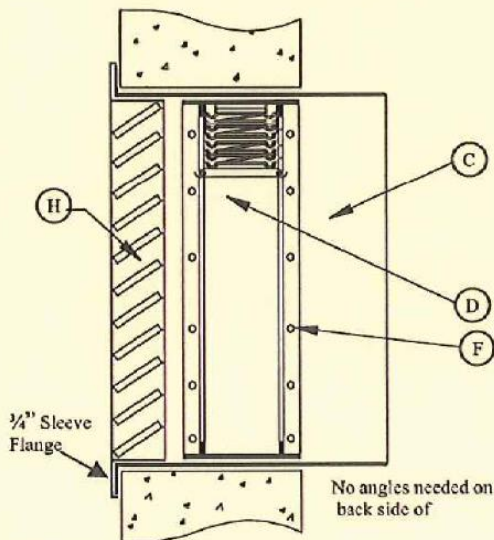
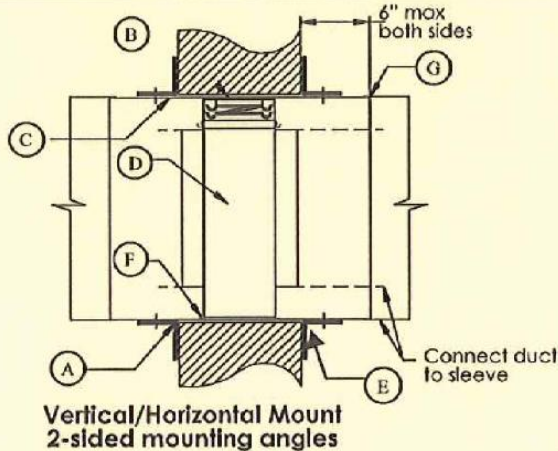


Manufacturer's Recommendations

All moving parts of the damper must be inspected and cycled at intervals not greater than every six months and in accordance with the latest editions of NFPA 90A, 92A. In addition, fuse links shall be removed and inspected for corrosion. Dry lubricants are recommended.

Specifications are correct at time of printing. However, as part of our continuous improvement program, we reserve the right to make further improvements without notice.

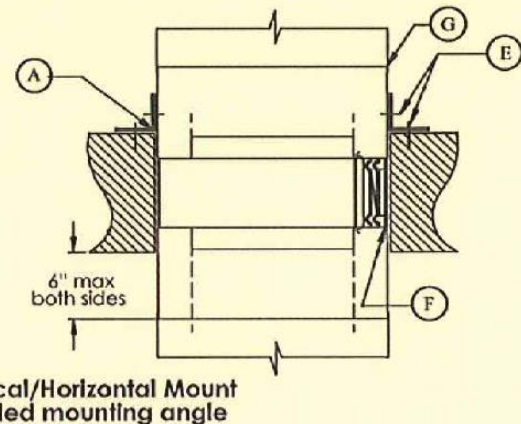
**FIRE DAMPER
MASONRY/CONCRETE OR METAL STUD WALL INSTALLATION INSTRUCTIONS
UL FILE # R 25348 IN ACCORDANCE WITH UL 555**



Grille/Louver or shaft mount

Typical installation details

- (A) Retaining Angles: Minimum 1 1/2" x 1 1/2" x 0.054 (18ga)
- (B) Clearance: 1/8" inch per linear foot both dimensions (see Note 1 below)
- (C) Steel sleeve: See sleeve schedule
- (D) Approved Fire Damper (curtain or blade type)
Damper must be in the wall.
- (E) Secure retaining angles 8" on centers with:
 - 1/2" long welds or
 - 1/4" Bolts and nuts, or
 - No. 10 steel screws, or
 - Minimum 1/16" steel rivets\
 - For 1-sided only secure angle to wall/floor & sleeve
 - For 2-sided only secure angle to sleeve only
 - For concrete, use anchors and # 10 self-lapping screws



- (F) Secure damper to sleeve 8" on centers with:
 - 1/2" long Welds, or
 - 1/4" bolts and nuts in holes provided, or
 - No. 10 steel screws, or
 - Minimum 3/16" steel rivets
- (G) Connect ducts to sleeve with approved or equal duct collar connections/ break-away connections.
- (H) Grille to be supplied by others.

Notes:

Fire damper sleeve clearance within wall opening.

1. Clearance requirements for damper sleeve within a wall opening is based on 1/8 inch per foot of width (or height) unless otherwise stated in the listing of the assembly. The sleeve may rest on the bottom of the opening, and need to be centered. (Fractional dimensions shall be taken as the next largest whole foot.) Example: A 30-inch x 24-inch fire damper sleeve is installed in a wall opening. The opening shall be 30-3/8 inches wide (1/8 inch x 3 feet) by 24-1/4 inches high (1/8 inch x 2 feet). **Minimum of 1/4" gap on width and height.**
2. The sleeve is retained in the wall opening by the use of steel retaining angles (A). These must over-lap the edge of the framing by a minimum of one (1) inch over and beyond all the retaining angle would be 1-3/8 inches (good practice calls for an additional safety factor by making the angle in this case 1-1/2 inches wide). Grille/Louver or shaft mount
3. The dimensions required for the opening shall be those remaining after the opening has been framed and fire resistive materials provided were required. The fire resistive materials shall be equal to the requirements for fire resistive materials used in the constructed wall so that a continuous rating exists at the wall penetration. The contractor erecting the wall is responsible for providing the fire resistive material and correct size openings to achieve the required clearance.
4. Dampers must be installed in accordance with these instructions to meet the requirements of UL 555. The installation of the damper and all duct connections to the damper sleeve shall conform to the latest editions of NFPA 90A, Standard for the Installation of Air Conditioning and Ventilating Systems, and the SMACNA Fire, Smoke and Radiation damper Installation guide, and U.L. Classifications R-25348.

FRAMING OPENINGS FOR FIRE DAMPER IN METAL, WOOD AND CONCRETE WALLS

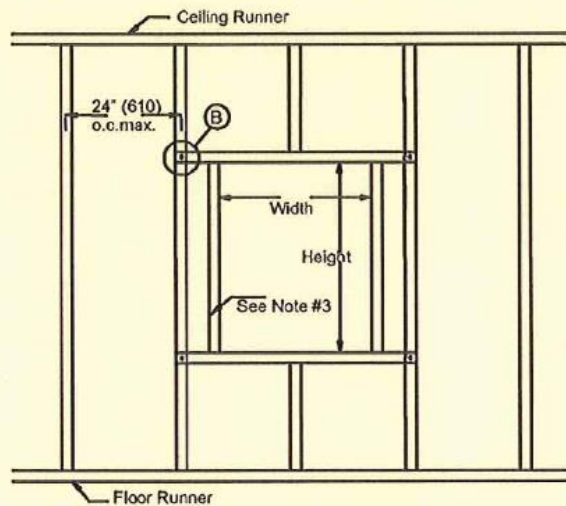
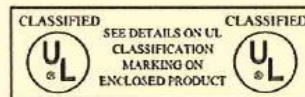


Figure - 1 (Metal Studs)



NOTES

1. Single stud can be used on dampers with 36" x 36" (914 x 914) opening or smaller. (Fig-1.)
2. A single mounting angles may be used, please refer to single retaining angles installation instruction under separate sheet.
3. Framing studs next to the damper are not required to be full length if the spacing is less than the maximum stud spacing as shown in (Fig - 1.)
4. Gypsum panels screwed to all studs and runner flanges shall be 12" (305) o.c. maximum surrounding opening.
5. All metal or wood studs shall be covered with gypsum wallboard.
6. Opening to be minimum 1/8" (3) per ft. larger than overall size of assembly. (min. 1/4" (6) larger than assembly.)
7. Double vertical studs are required for dampers larger than 36" x 36" (Fig - 2.)

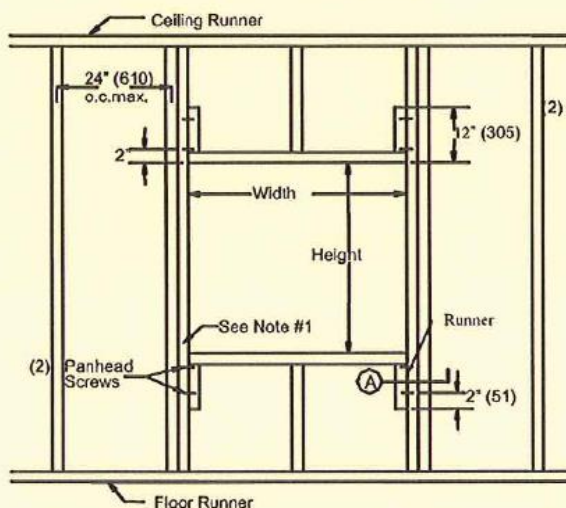
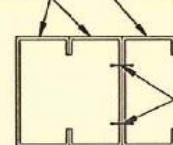
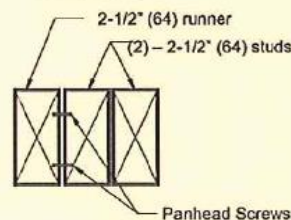


Figure - 2 (Wood Studs)

2) - 2-1/2" (64) Studs

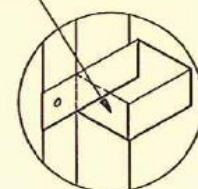


SECTION - A

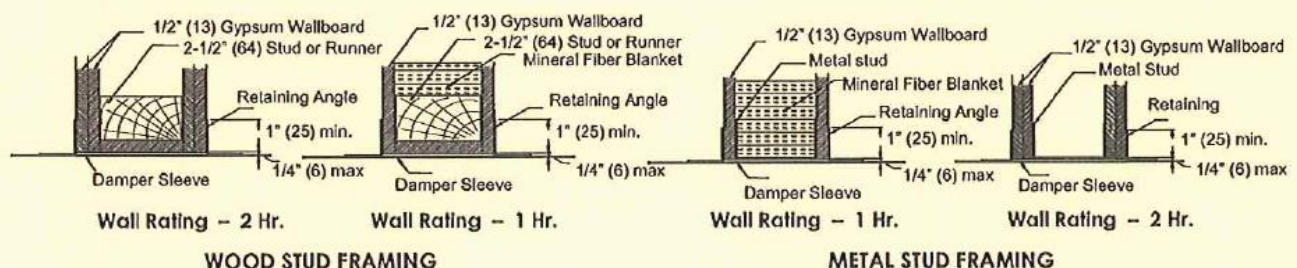


SECTION - A

Notched and bent



DETAIL - B



WOOD STUD FRAMING

METAL STUD FRAMING