

MIAMI TECH INC | FIRE DAMPER SELECTION GUIDE

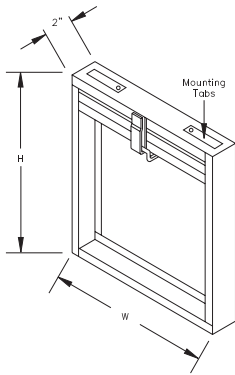
STATIC SYSTEM APPLICATION - UL555 CLASSIFICATION

Model	Rating	Fusible Link	Blade Gauge	Closure Springs	Blade Configuration	Mounting
150E	1-1/2 Hour	165 or 212	22 gauge	Stainless Steel	In Airstream	Horizontal
150F	3 Hour	165 or 212	22 gauge	N/A	In Airstream	Vertical

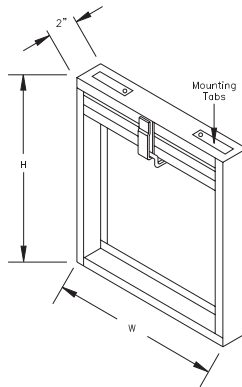
DYNAMIC SYSTEM APPLICATION - UL555 CLASSIFICATION

Model	Rating	Fusible Link	Blade Gauge	Closure Springs	Blade Configuration	Mounting
151A	1-1/2 Hour	165 or 212	22 gauge	Stainless Steel	In Airstream	Horizontal/Vertical
151B	1-1/2 Hour	165 or 212	22 gauge	Stainless Steel	Out of Airstream	Horizontal/Vertical
151C	1-1/2 Hour	165 or 212	22 gauge	Stainless Steel	Out of Airstream	Horizontal/Vertical
US-3	1-1/2 Hour	165	16 gauge	Stainless Steel	In Airstream	Horizontal/Vertical

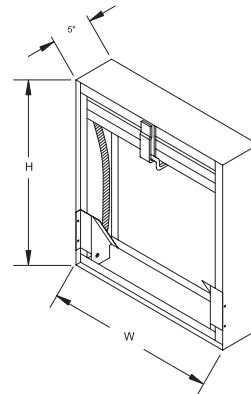
Model 150E



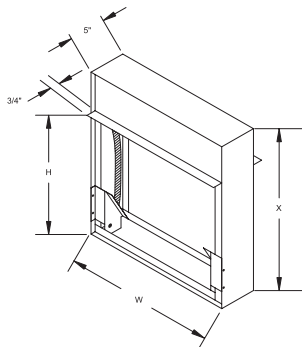
Model 150F



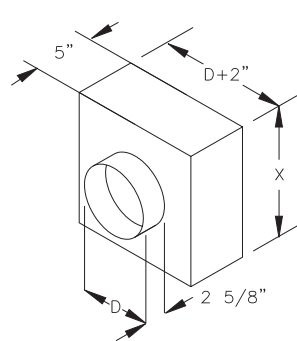
Model 151A



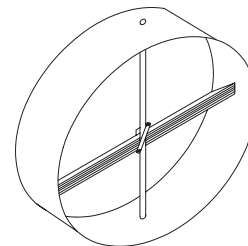
Model 151B



Model 151C



Model US-3



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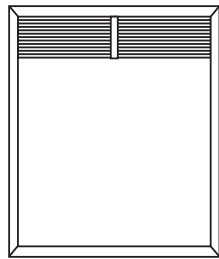
Maximum Size Availability, Width x Height

STATIC SYSTEM APPLICATION DAMPERS				
Model	Mounting Position	Single Piece	Two Piece (Vertical)	Four Piece
150E	Vertical	36" x 24"	N/A	N/A
150E	Horizontal/Vertical	36" x 24"	N/A	N/A
150F	Vertical	36" x 24"	N/A	N/A

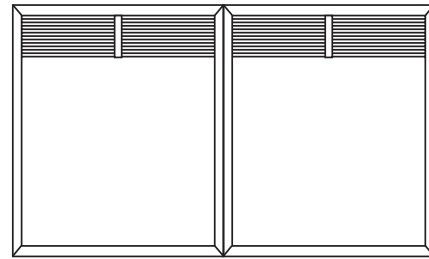
Maximum Size Availability, Width x Height

DYNAMIC SYSTEM APPLICATION DAMPERS		
Model	Mounting Position	Single Piece
151A	Horizontal/Vertical	24" x 24"
151B	Horizontal/Vertical	24" x 24"
151C	Horizontal/Vertical	22" Round
US-3	Horizontal/Vertical	12" Round

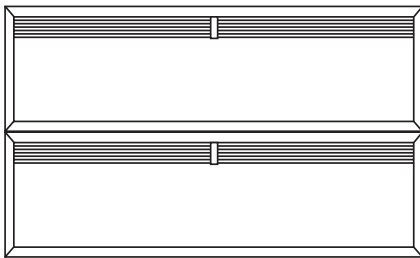
Note: All fire dampers are available in 1/4" increments.



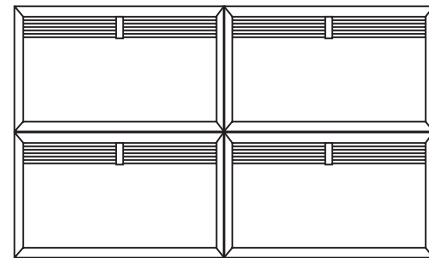
SINGLE PIECE CONSTRUCTION



TWO PIECE CONSTRUCTION (VERTICAL)



TWO PIECE CONSTRUCTION (VERTICAL)



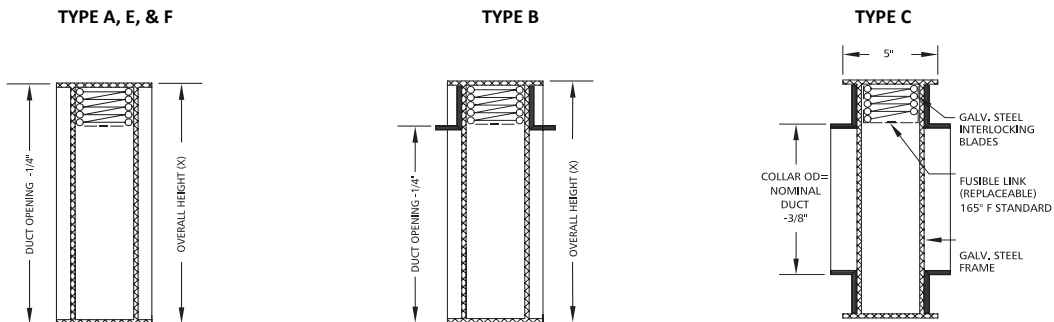
FOUR PIECE CONSTRUCTION

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FIRE DAMPER SIZING TABLE			
Duct Opening/ Nominal Size	TYPE A, E, & F Overall Height (x)	TYPE B Overall Height (x)	TYPE C Overall Height (x)
4"	3 3/4"	5 3/4"	6 3/4"
5"	4 3/4"	6 3/4"	7 3/4"
6"	5 3/4"	7 3/4"	8 3/4"
7"	6 3/4"	8 3/4"	9 3/4"
8"	7 3/4"	9 3/4"	10 3/4"
9"	8 3/4"	10 3/4"	11 3/4"
10"	9 3/4"	11 3/4"	12 3/4"
11"	10 3/4"	12 3/4"	13 3/4"
12"	11 3/4"	13 3/4"	14 3/4"
13"	12 3/4"	14 3/4"	15 3/4"
14"	13 3/4"	15 3/4"	16 3/4"
15"	14 3/4"	16 3/4"	17 3/4"
16"	15 3/4"	18 3/4"	19 3/4"
17"	16 3/4"	19 3/4"	20 3/4"
18"	17 3/4"	20 3/4"	21 3/4"
19"	18 3/4"	21 3/4"	22 3/4"
20"	19 3/4"	22 3/4"	23 3/4"
21"	20 3/4"	23 3/4"	24 3/4"
22"	21 3/4"	24 3/4"	N/A
23"	22 3/4"	N/A	N/A
24"	23 3/4"	N/A	N/A
25"	24 3/4"	N/A	N/A
26"	25 3/4"	N/A	N/A
27"	26 3/4"	N/A	N/A
28"	27 3/4"	N/A	N/A
29"	28 3/4"	N/A	N/A
30"	29 3/4"	N/A	N/A
31"	30 3/4"	N/A	N/A
32"	31 3/4"	N/A	N/A
33"	32 3/4"	N/A	N/A
34"	33 3/4"	N/A	N/A
35"	34 3/4"	N/A	N/A
36"	35 3/4"	N/A	N/A

NOTES:

- Type A, E, and F Damper Overall Width = Duct Opening/Nominal Size - 1/4"
- Type B Damper Overall Width = Duct Opening/Nominal Size - 1/4"
- Type C Damper Overall Width = Duct Opening/Nominal Size + 2"
- All fire dampers are available in 1/4" increments.



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Dynamic Fire Damper Description

Underwriters Laboratories (UL) Standard for Safety 555 categorizes smoke and fire control systems as either static and dynamic. UL555 defines dampers intended to close under no airflow conditions as dampers for static systems, and dampers intended to close under flow conditions as dampers for dynamic systems.

For dynamically rated dampers, the label indicates airflow direction, maximum rated velocity through the open damper, and the maximum pressure differential across the closed damper.

Dynamic Fire Damper Ratings

The following figures represent the approved flow ratings for dynamically rated dampers in various mounting arrangements.

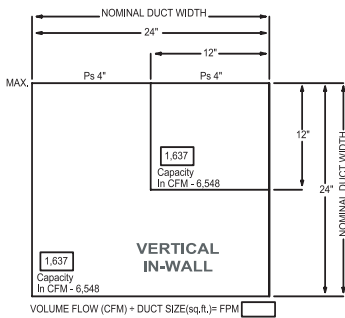


FIGURE 1

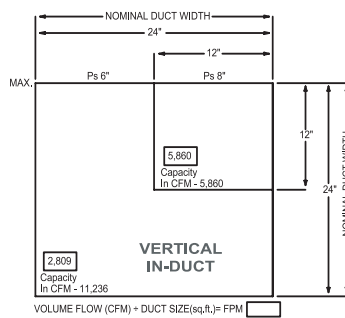


FIGURE 2

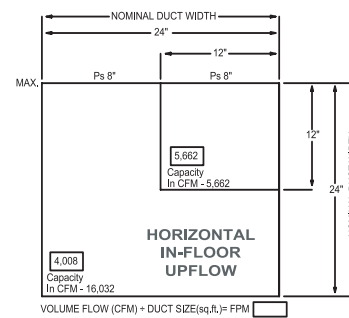


FIGURE 3

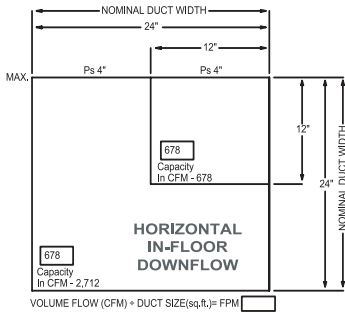


FIGURE 4

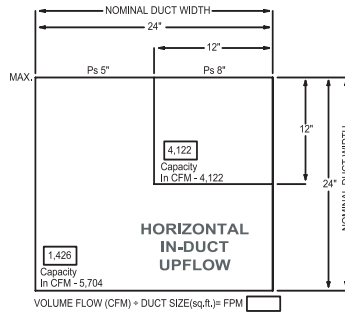


FIGURE 5

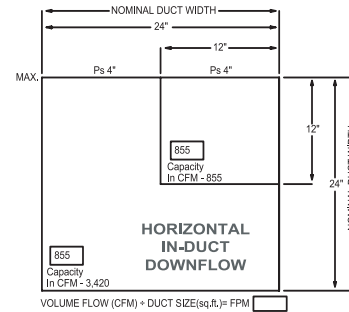


FIGURE 6

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Fire Damper Description

Curtain-type fire dampers are designed to restrict the spread of fire through ventilation systems by shutting when the link melts. Fire dampers are evaluated for use in either Static applications (for HVAC Systems that are automatically shut down in the event of a fire) or Dynamic applications (for HVAC Systems that continue to operate in the event of a fire).

Fire Damper Ordering Guidelines

- When ordering fire dampers, designate the appropriate model number to specify static or dynamic rating (see Model Ordering Guidelines below).
- When ordering dynamically rated fire dampers, also refer to Figures 1 through 6 on page 4. When duct sizes are larger than the sizes shown, multiple unit assemblies are required. Since each individual damper in the assembly has its own heat responsive device, it must be assumed that each damper will close at slightly different times. Because of this, Underwriters Laboratories requires that the total volume of air for the assembly must not exceed the allowable rating of the smallest unit in the assembly.

Example: A model 151A 24" x 24" is ordered to be installed in a Vertical In-Duct position (see Figure 2, pg. 4). This unit shall be assembled in (1) 24" x 24" section, which according to the table, is rated for an air volume of 11,236 CFM with an air velocity of 2,809 FPM and a static pressure (Ps) of 6" w.g. Therefore, the 24" x 24" unit will have a maximum air volume of no more than 11,236 CFM with an air velocity of 2,809 FPM and a static pressure (Ps) of 6" w.g.

- For CFM of a Round Collar unit (Type C), multiply the CFM in the appropriate figures by .785.

Model Ordering Guidelines

Square and Rectangular Fire Damper Ordering Guidelines					
Model 15X	Type X	Width (inches)	Height (inches)	Collar Size (C Only)	Fusible Link Rating (°F)
Static - 0	Blades In Airstream --- A	X X	X X	X X	X X
Dynamic - 1	Blades Out of Airstream --- B	Specify	Specify	Specify	Specify
	High Pressure --- C				
	Slimline (1-1/2 hour) --- E				
	Slimline (3 hour) --- F				

Note: For Model 150E, please specify mounting position V (vertical) or H (horizontal).

Round Fire Damper Ordering Guidelines	
Model US3	Diameter (inches)
US3 - Round	X X Specify

Required Information For Ordering

- Please specify dimensions of damper: Width (in.) x Height (in.)
Note: For round dampers, specify diameter. Dampers are manufactured 1/4" undersized, unless actual size is requested.
- Please select model number:
151A - Dynamic Fire Damper, blades in the airstream. (1-1/2 hour fire-rated)
151B - Dynamic Fire Damper, blades out of the airstream. (1-1/2 hour fire-rated)
151C - Dynamic Fire Damper with round transitions. (1-1/2 hour fire-rated)
150E - Static Slimline Fire Damper, blades in the airstream. (Vertical/Horizontal 1-1/2 hour fire-rated)
150F - Static Slimline Fire Damper, blades in the airstream. (Vertical 3 hour fire-rated)
- Please specify temperature of the fusible link: 165°F (standard) or 212°F (optional)
- Are factory-installed sleeves required? Y/N, if yes, please specify length of sleeve.
Note: Available lengths: 8", 10", 12", 14", 16", 18", 20", 24". Standard sleeve is 12" in length, 22 gauge. As a default, fire dampers are installed centered in the sleeve. Off-center installation is available upon request.
- Are pre-cut mounting angles required? Y/N
Note: Set includes 4 individual angles per side, 8 in total.

REPLACEMENT FUSIBLE LINKS	
Part No.	Applications
FL-165-JS	165°F - For use in models 150E/150F
FL-165-GS	165°F - For use in models 151A/B/C