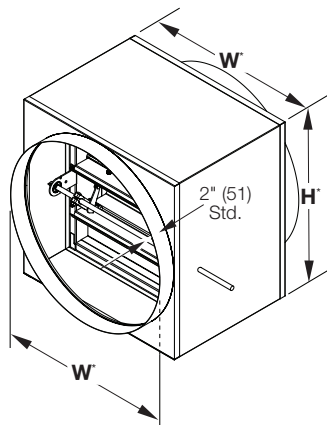


Actuator and Sleeve Dimensional Data

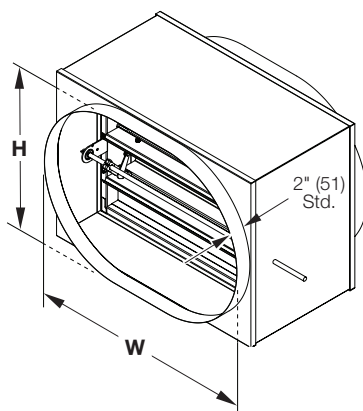
FSD-182-SS

1-1/2 Hour fire • UL Class 2

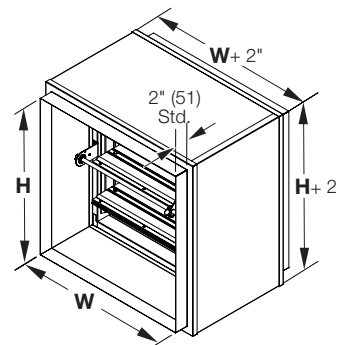
Combination Fire-Smoke Damper • Stainless Steel - Airfoil Blade



Type R (Optional)
Round duct transitions are standard with $D=W=H$. (available with $D<W$ and H)



Type O (Optional)
Oval duct transitions are standard with W and H equal to damper width and height dimensions. (available with W and H smaller than damper width and height)



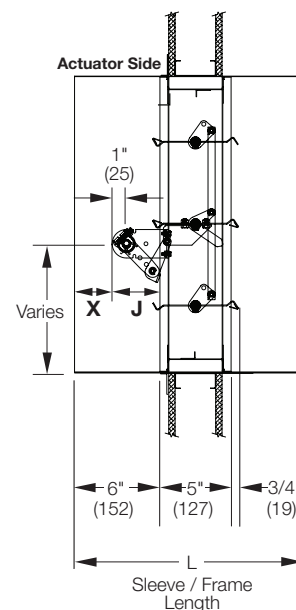
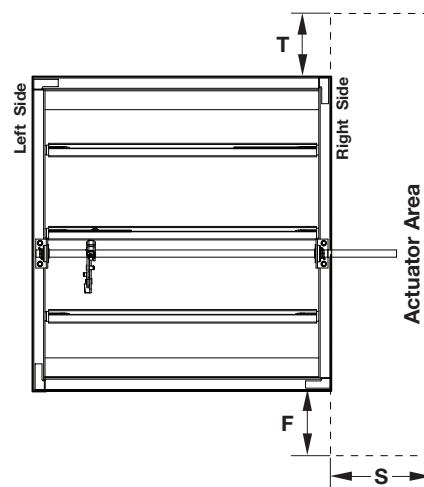
Type C (Optional)
Damper is oversized and uses rectangular transitions to remove damper frame from airstream

*Damper dimensions furnished approximately 1/4" (6) undersize.

The drawings and corresponding table illustrate the position of the damper and the relative space required for a given actuator. The standard mounting locations provide enough space for installation of retaining plates and duct connections.

Actuator Model			
	Damper Height	FSLF120 FSLF24	FSNF120 FSNF24
F	6"-7"	5"	7"
	8"-9"	4"	7"
	10"-11"	1"	4"
	12"-13"	0"	3"
	14"	0"	2"
	15"-16"	0"	1"
	17"	0"	3"
	18" and 23"	0"	0"
	19"- 20" and 25"	0"	0"
T	21"- 22" and 24"	0"	0"
	26"-27"	0"	0"
	>27"	0"	0"
	6" and 10"	3"	3"
	7" and 11"- 12"	2"	2"
	8", 13", -14" and 21"	1"	1"
S	9", 15"-17" and 20"	0"	0"
	18"- 19"	0"	1"
	22"-23"and >24"	0"	0"
	24"	0"	0"
X	All	4-1/2"	4-1/2"
J	<8"	4"	4"
	≥8"	2-5/8"	2-5/8"
	<8"	2"	2"
	≥8"	3-3/8"	3-3/8"

- NOTE:**
1. Sleeve length "L" = wall/floor thickness + 10" (254). Standard sleeve length "L" = 16" (406)
 2. Damper may be rotated 180° to position actuator area on the left side.
 3. The entire damper frame is not required to be installed within the wall, partition or floor. However, the closed plane of the damper blades must be inside the wall, partition or floor.
 4. For dimensions on actuators not shown above, contact factory.



Airflow Performance Data

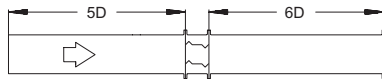
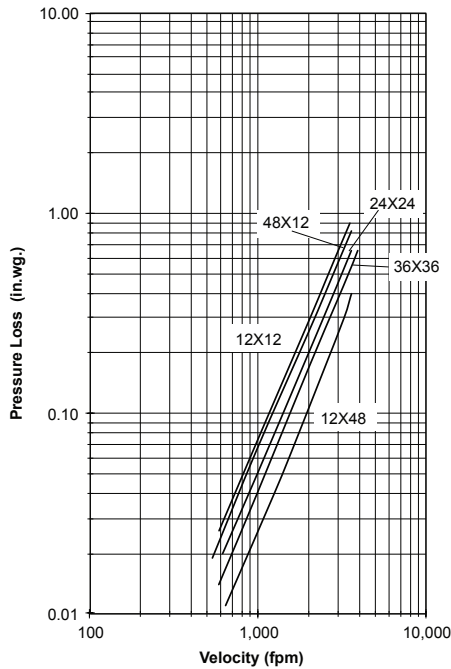
FSD-182-SS

1-1/2 Hour fire • UL Class 2

Combination Fire-Smoke Damper • Stainless Steel - Airfoil Blade

Pressure Loss vs. Velocity

Figure 5.3 — Ducted Inlet and Outlet

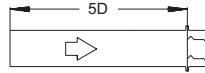
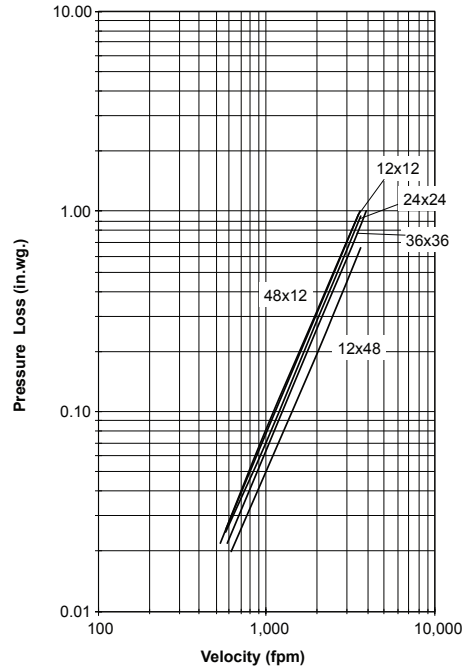


Ducted Inlet and Outlet

AMCA Figure 5.3 illustrates a fully ducted damper. This configuration represents the lowest pressure drop of the three test configurations because entrance and exit losses are minimized by straight duct runs upstream and downstream of the damper.

Pressure drop testing was performed in accordance with AMCA Standard 500-D using the configuration shown. All data has been corrected to represent air density of 0.075 lb/ft. Actual pressure drop in any ducted HVAC system is a combination of many elements. This information, along with analysis of other system influences, should be used to estimate actual pressure losses for a damper installed in a given HVAC system.

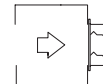
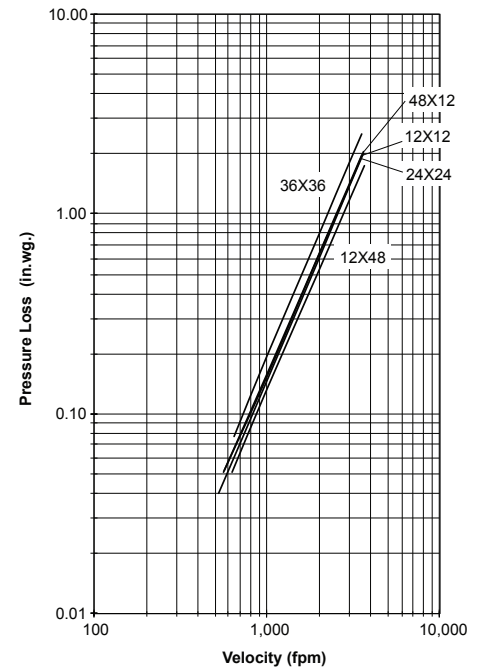
Figure 5.2 — Ducted Inlet



Ducted Inlet

AMCA Figure 5.2 illustrates a ducted damper exhausting air into an open area. This configuration has a lower pressure drop than Figure 5.5 because entrance losses are minimized by a straight duct run upstream of the damper.

Figure 5.5 — Plenum Mount



Plenum Mount

AMCA Figure 5.5 illustrates a plenum mounted damper. This configuration has the highest pressure drop because of extremely high entrance and exit losses due to the sudden changes of area in the system.