

(ENGINEERS)
SUBMITTAL DATA
MODEL S-AF-I
LOW LEAKAGE SMOKE DAMPER
 U.L.555S CLASSIFIED AND ULC S112.1 LISTED
 CLASS I LEAKAGE RATED

Application and Design

The Model S-AF-I is a UL/ULC listed and labeled Class I leakage rated Smoke Damper. Blades are of the airfoil shaped design for low pressure loss. The damper is approved for airflow in either direction and provides a maximum leakage of 8cfm/sq. ft. at 4" w.g. s.p. It has been designed to be installed in a vertical or horizontal mounting position in the ductwork or a separate sleeve with 24" of the smoke partition. These dampers are approved for use in engineered smoke control systems and are controlled via smoke detection system. Electric (24v, 120v, 230v) or pneumatic actuators are used to operate the smoke dampers.



U.L. 555S Classified at 250°F or 350°F depending upon Actuator/Operator
 *See Actuator/Operator Schedule

Standard Construction

Frame: Roll Formed Frame - Galvanized Steel hat section W/ staked corners and integral bracing

Blades: Airfoil-shaped, double skin galvanized steel of roll-formed construction

Axles: Square plated steel

Seals: Pressure Sensitive 450° silicone blade edge seals and flexible metal jamb seals.

Linkage: Concealed in frame. Linkage bars are 1/8" (3.2mm)

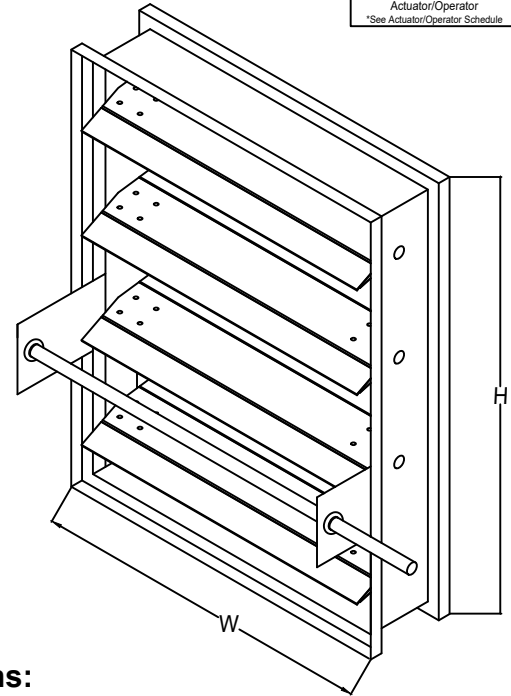
Bearings: Bronze Oilite press-fit into frame

Maximum Velocity: 2000fpm (10.2 M/S) on all sizes

Maximum Pressure: 4" w.g. (1kPa)

Consultate factory For Velocities up to 4000fpm and 6.0" w.g.

Designed and tested in accordance to standards: UL 555S, ULC S112.1. Labeled and listed by UL/ULC under File # R25410. They meet all the NFPA-90A, IBC Code, and other major requirements for smoke dampers



Options:

- ☐ Factory Sleeve: _____ Ga. (20 Ga. min)
- ☐ Sleeve Length: _____ Inches, 16" min.
- ☐ Electric Actuator, _____ VAC
- ☐ Pneumatic Actuator, 25 psi

Note:

*Non- sleeved and side plated dampers are furnished approx. 1/4" (6.4mm) smaller than given duct dimensions. Sleeved dampers are furnished approx. same size as given duct dimension, unless otherwise noted.

*Not recommended with blades running vertically.

Standard Sizes

Min. V or H	*Max. Single Section	*Max. Multiple Assembly
8" x 8" 203mm x 203 mm	36" x 48" 914mm x 1219mm	144" x 96" 3657mm x 2438mm

Suggested Specifications

Low leakage smoke control dampers shall be model :S-AF-I by S&P. Double blade edge and jamb seals shall be of the pressure sensitive type for low leakage. Dampers shall be rated for leakage as to U.L. 555S / U.L.C. S112.1 rating and shall be class I with leakage not to exceed 8 cfm per sq. ft. at 4.0 inches static pressure. Linkage shall be of the concealed type for the maximum free area.

Manufactures Recommendations

All moving parts of the damper must be inspected and cycled at intervals not greater than every 12 months or in accordance with the latest edition of NFPA 90A, 92A, local codes and the actuator manufacturer. In addition, the damper shall be inspected for corrosion. Dry lubricants are recommended.

Note: Due to continuing research, S&P reserves the right to change specifications without notice.

Job Name:

Location:

Architect:

Engineer:

Contractor:



☐ **MODEL S-AF-I**

DRAWN BY:

MAB

DATE:

11-07-07

REV. DATE:

4-14-26

REV. NO.

6

APPROVED BY:

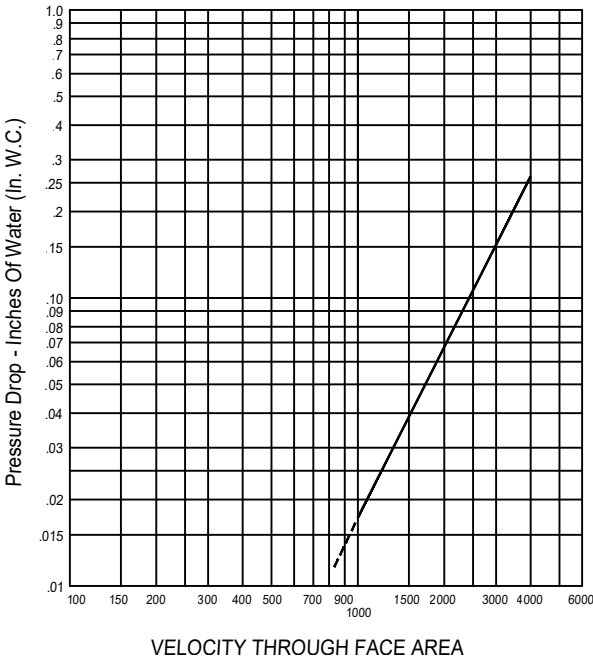
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C-3

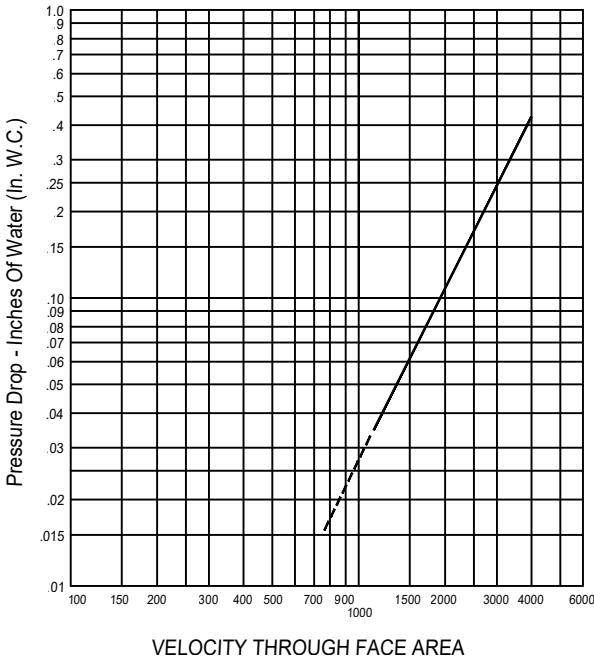
PERFORMANCE DATA

Pressure drop testing was done by an independent laboratory to the AMCA Standard 500-D, Fig. 5.3 ductwork upstream and downstream.

Damper Size 36 x 36



Damper Size 24 x 24



Damper Size 12 x 12

