

# MODEL S-AF-II

## LOW LEAKAGE SMOKE DAMPER

U.L. 555S CLASSIFIED AND ULC S112.1 LISTED  
Class II Leakage Rated

### Application and Design

The Model S-AF-II is a UL/ULC listed and labeled Class II leakage rated Smoke Damper. Blades are of the airfoil shaped design for lower pressure loss. The damper is approved for airflow in either direction and provides a maximum leakage of 20 cfm/sq. ft at 4" wg. s.p. It has been designed to be installed in a vertical or horizontal mounting position in the ductwork or a separate sleeve within 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.

### Standard Construction

**Frame:** Roll formed Frame - Galvanized Steel hat-section  
W/ staked corners & integral bracing

**Blades:** Airfoil-shaped, double skin galvanized Steel  
of roll-formed construction.

Min. width: 5" (127mm)

Max. width: 7" (179mm)

**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:** 2000 fpm (10.2 m/s) on all sizes

**Maximum Pressure:** 4" wg (1kPa)

Consult Factory For Velocities up to 4000 FPM 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 code requirements for Smoke Dampers.

Standard Sizes		
Min. V or H	Max. Single Section	Max. Multiple Assembly
8" X 8" 203mm X 203mm	36"W X 48"H 914mm X 1219mm	144"W X 96"H 3657mm X 2438mm

### Suggested Specification

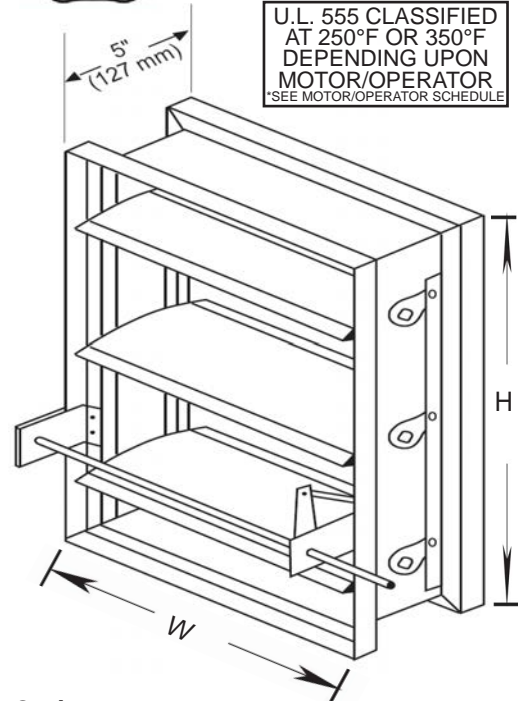
Low Leakage Smoke Control Dampers shall be Model:S-AF-II by United Enertech. Single blade edge and jamb seals shall be of the pressure sensitive type for low leakage. Dampers shall be rated for leakage as to U.L. 555S / U.L.C. S112.1 rating and shall be Class II with leakage not to exceed 20 cfm per sq. ft. at 4.0 inches static pressure. Linkage shall be of the concealed type for the maximum free area.

### Manufacturer's 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.



U.L. 555 CLASSIFIED  
AT 250°F OR 350°F  
DEPENDING UPON  
MOTOR/OPERATOR  
SEE MOTOR/OPERATOR SCHEDULE



### Options:

- Factory Sleeve: \_\_\_\_\_ Ga, (20 Ga min.)
- Sleeve Length: \_\_\_\_\_ inches, 16" min.
- Electric Actuator, \_\_\_\_\_ VAC
- Pneumatic Actuator, 25 psi

### Notes:

•Non-sleeved and side plated dampers are furnished approximately 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.

Job Name:	<input type="checkbox"/> <b>MODEL S-AF-II</b>
Location:	
Architect:	
Engineer:	
Contractor:	

DRAWN BY: MAB	DATE: 11-07-07	REV. DATE: 07-14-08
REV. NO. 2	APPROVED BY: SDC	DWG. NO.: C-4

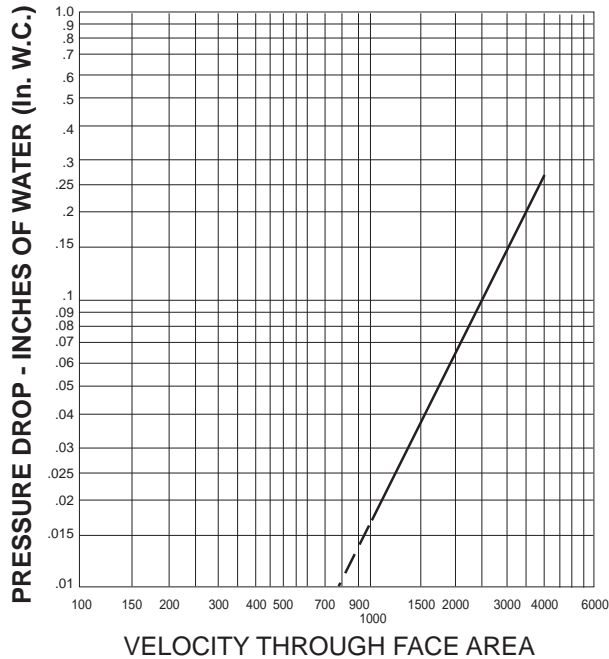


**MODEL S-AF-II**  
**LOW LEAKAGE SMOKE DAMPER**  
**U.L. 555S CLASSIFIED / CLASS II**  
**LOW PRESSURE DROP: AIRFOIL BLADE PER AMCA 500-D**

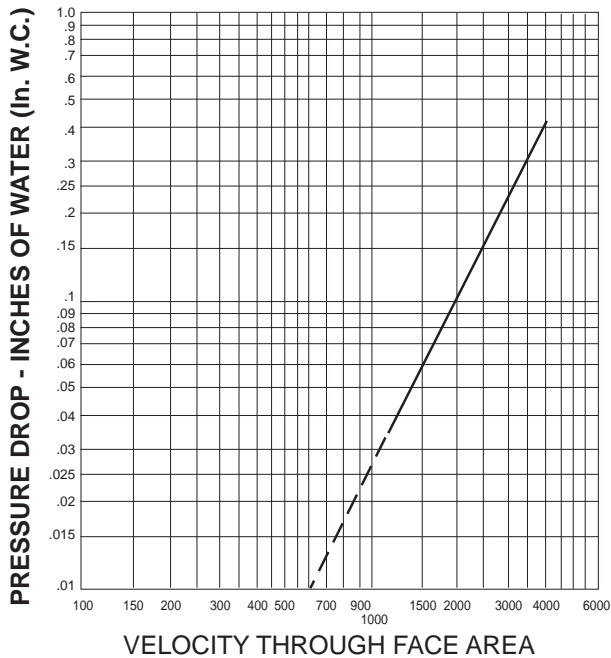
**PERFORMANCE DATA**

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

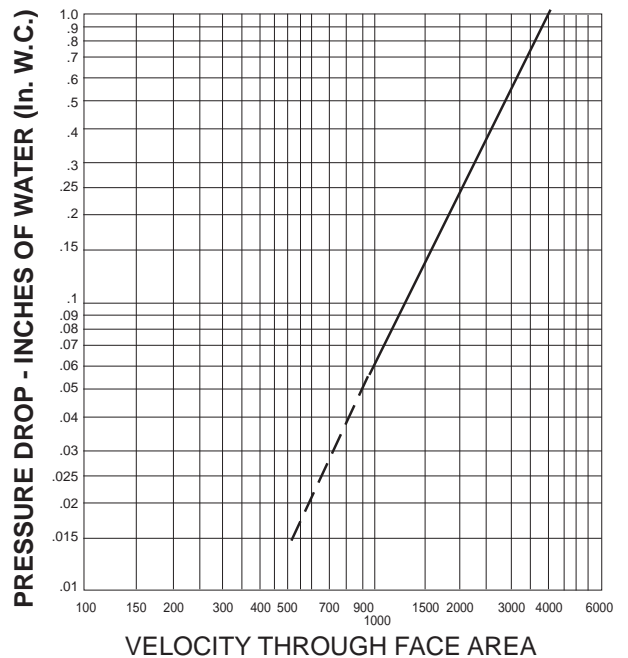
**DAMPER SIZE 36 x 36**



**DAMPER SIZE 24 x 24**



**DAMPER SIZE 12 x 12**



SSD-AF-202 - 02-05