

Smoke Damper Airfoil Blade – Model 682 CLASS II

Features – U.L. rated for dynamic closure & leakage CLASS II @ 350° F (176°) C. Meets NFPA 90A & UL555S. Meets California State Fire Marshal Requirements.

STANDARD CONSTRUCTION

FRAME

4-5/16" (110) deep, 16 gauge (1.6) galvanized steel

BLADES

6 1/2" (165) wide, double wall 20 gauge (1.0) galvanized steel in airfoil shape, equivalent to a 14-gauge (1.9) single skin blade.
(Bottom blade width may vary depending on damper height)

BLADE AXLES & BEARINGS

AXLES – 7/16"(11) Plated hex
BEARINGS – Bronze oil impregnated

LINKAGE

Plated steel concealed inside of jamb

SEALS

Silicone blade edge and stainless steel jamb seals

MULTIPLE SECTIONS

Maximum Single Size is 128"w x 48"h (3658 x 1219)
Available also in 128"w x 96"h (3658 x 2438) (Static Rated)

MAXIMUM SINGLE SECTION

Single section assemblies - 32" W x 48"H (813 x 1219)

MINIMUM SIZE

8"W x 8"H (305 x 203)

UNDERSIZED

1/4"(102) under ordered size unless specified Exact or Actual

FINISH

Mill

OPERATOR

Refer to UL approved actuator chart
(Specify external or internal mounting)

OPTIONAL CONSTRUCTION

SPECIFIED MATERIAL – Available in Stainless

SLEEVE AND DUCTWORK CONNECTION – 10 ga.(3.5) to 20 ga.(1.0) galvanized steel to 30" (762) in length. – Transitions available in: round, oval, rectangular or custom. Factory can install access door, retaining angles, or flange connections.

FINISH – Air-dry primer, polyurethane, epoxy, or enamel, Baked epoxy or enamel.

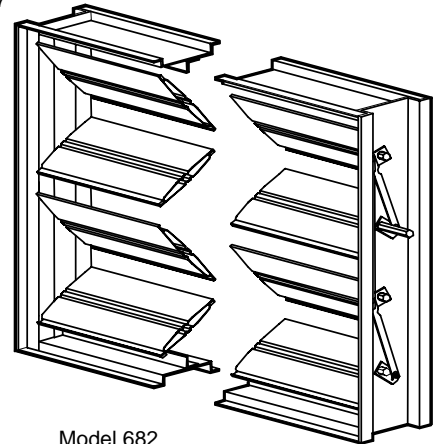
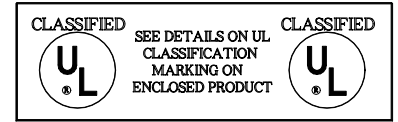
* Dampers 11" (279) high and under will be single blade, and extend from the frame proportionately.

SPECIAL PURPOSE CONSTRUCTION

- Fully welded corner assembly
- Security bars (mounted in sleeve)
- Filter Racks
- Face and Bypass dual mixing damper configuration



03230-0751-107



Model 682
Opposed Blade

APPROVED ACTUATORS

	Honeywell	Siemens	Belimo
24 Vac -	ML 8115	GND121.1U	FSNF24 US*
	MS 4309	GND126.1U	
	MS 8120	GGD121.1U	
120 Vac -	ML 4115	GND221.1U	FSNF120 US*
	MS 4209	GND226.1U	
	MS 4120	GGD221.1U	
230 Vac -		GND321.1U	
		GGD321.1U	
Pneumatic -		331-2961	
		331-3060	
		331-4826	

* Only for dampers up to 24" x 24"

ACCESSORIES

- Smoke Detector
- Indicator Switches
- Monitoring Station

DATE	ARCHITECT			ENGINEER
PROJECT				
ITEM	QTY	W	H	DESCRIPTION



DEPENDABLE PRODUCTS SINCE 1955

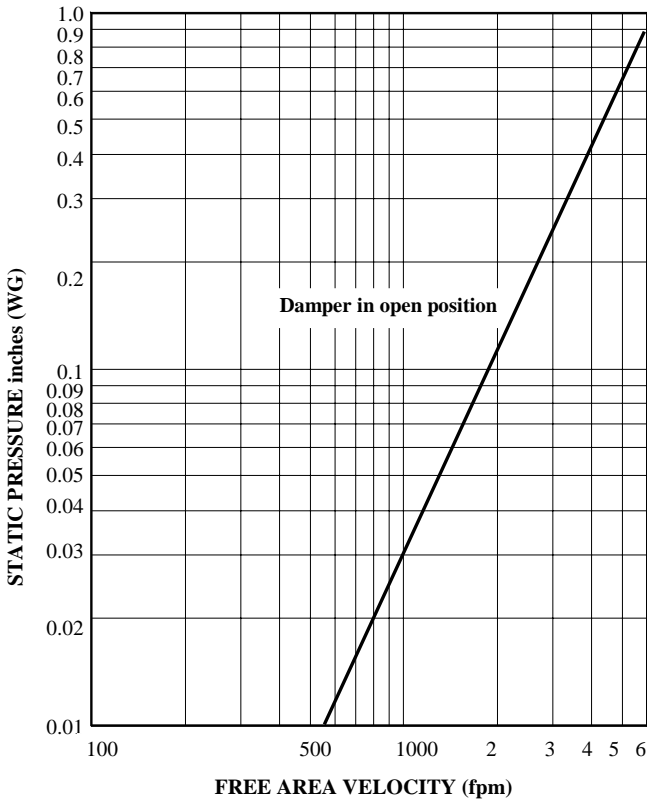
SAFE-AIR OF ILLINOIS, INC.

Engineering and General Offices

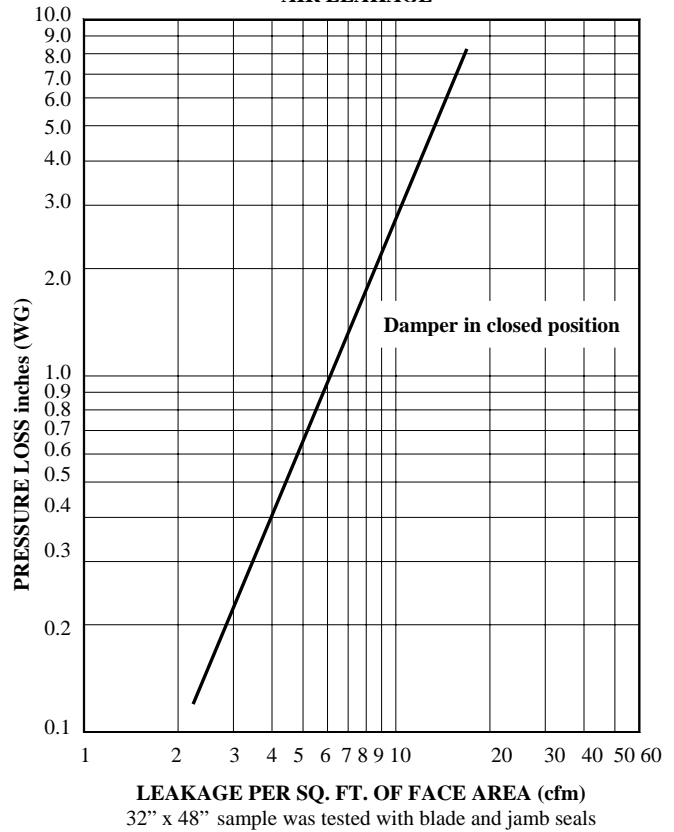
1855 South 54th Avenue, Cicero, Illinois 60804

Phone 708-652-9100 FAX 708-652-9158

AIR PERFORMANCE



AIR LEAKAGE



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

U. L. CLASSIFIED DYNAMIC CLOSURE RATING

Our maximum recommended operating for this damper is 2000 fpm @ 4" static pressure. This damper has been tested in accordance with the U.L. requirements for closure under installed " system in operation " conditions, (Dynamic closure). Single sections 32" w x 48" h have been tested capable to close, mounted either vertical or horizontal, at 3000 fpm. @ 8" static pressure.

FREE AREA CALCULATIONS IN SQ. FT.

		WIDTH					
		12	16	20	24	28	32
HEIGHT	12	0.58	0.81	1.03	1.26	1.49	1.72
	16	0.86	1.20	1.54	1.88	2.22	2.56
	20	1.09	1.53	1.96	2.39	2.82	3.26
	24	1.33	1.86	2.38	2.91	3.43	3.96
	28	1.61	2.25	2.89	3.52	4.16	4.80
	32	1.85	2.58	3.31	4.04	4.77	5.50
	36	2.08	2.91	3.73	4.55	5.38	6.20
	40	2.37	3.30	4.23	5.17	6.10	7.04
	44	2.60	3.63	4.66	5.68	6.71	7.74
48	2.84	3.96	5.08	6.20	7.32	8.44	