

**Smoke Damper – Model 622 CLASS II**

**Features** – U. L. rated leakage CLASS II @ 350° F (176°)C Smoke Damper. Meets NFPA 90A & UL555S. Meets California State Fire Marshall requirements.

**STANDARD CONSTRUCTION**

**FRAME**

4-5/16" (160) deep, 16 gauge (1.6) galvanized steel

**BLADES**

6" (152) wide, 16 gauge (1.6) galvanized steel  
(Bottom blade width may vary depending on damper height)

**BLADE AXLES & BEARINGS**

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

**LINKAGE**

Opposed blade – Plated steel concealed inside the jamb  
Drive blade has a 1" (25) to 6" (152) extendable shaft to mount operator

**SEALS**

Silicone blade seals and S.S. side seals

**MULTIPLE SECTIONS**

Maximum Multiple Size is 144" w x 48" h (3658 x 1219) in one common sleeve with one actuator on each section (Dynamic Rated)  
Available also in 144" w x 96" h (3658 x 2438) (Static Rated)

**MAXIMUM U. L. CLASSIFIED LEAKAGE CLASS II SIZES**

Single section assemblies – 36" w x 48" h (914 x 1219)

**MINIMUM SIZE**

6" w x 6" h (152 x 152)

**UNDERSIZED**

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

**FINISH**

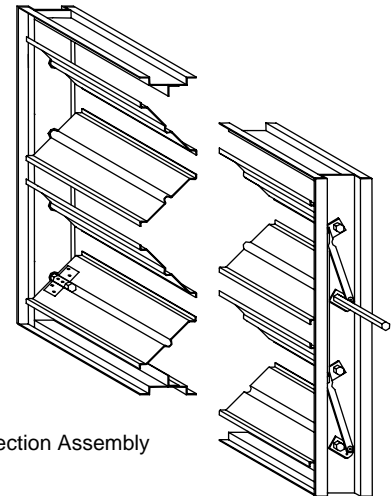
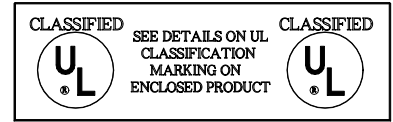
Mill

**OPERATOR**

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



03225-0751-100



Typical Single Section Assembly

**OPTIONAL CONSTRUCTION**

**SPECIFIED MATERIAL** – Available in stainless, Aluminum or as requested

**LINKAGE** – Mounted on face of blades in either opposed or parallel

**JAMB SEALS** – Stainless steel.

**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.

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

**ACCESSORIES**

Smoke Detector  
Indicator Switches  
Monitoring Station

**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"

DATE	ARCHITECT				ENGINEER
PROJECT					
ITEM	QTY	W	H	DESCRIPTION	

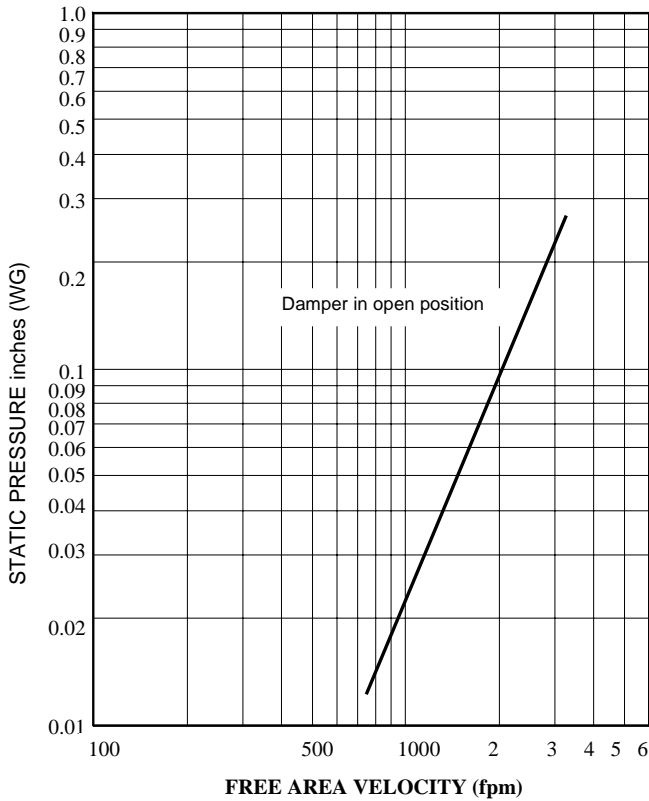


DEPENDABLE PRODUCTS SINCE 1955

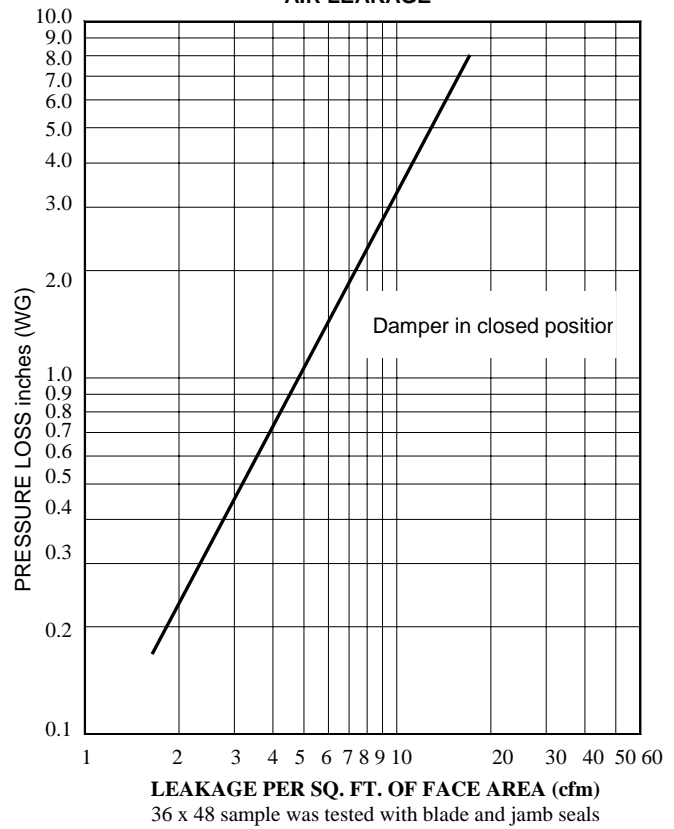
**SAFE-AIR OF ILLINOIS, INC.**

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 36" 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	36
HEIGHT	12	0.56	0.78	1.00	1.22	1.44	1.67	1.89
	16	0.83	1.17	1.50	1.83	2.17	2.50	2.83
	20	1.06	1.48	1.91	2.33	2.75	3.18	3.60
	24	1.28	1.80	2.31	2.83	3.34	3.85	4.37
	28	1.51	2.11	2.72	3.32	3.93	4.53	5.14
	32	1.79	2.50	3.22	3.93	4.65	5.36	6.08
	36	2.01	2.82	3.63	4.43	5.24	6.04	6.85
	40	2.37	3.30	4.23	5.17	6.10	7.04	7.97
	44	2.60	3.63	4.66	5.68	6.71	7.74	8.77
48	2.84	3.96	5.08	6.20	7.32	8.44	9.56	