

Smoke Damper – Model 621 CLASS I

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

STANDARD CONSTRUCTION

FRAME

4-5/16"(110) 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

Extruded silicone blade seals and S.S. side seals

MULTIPLE SECTIONS

Maximum Multiple Size is 144"w x 48"h (3658 x 1219)
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 I 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

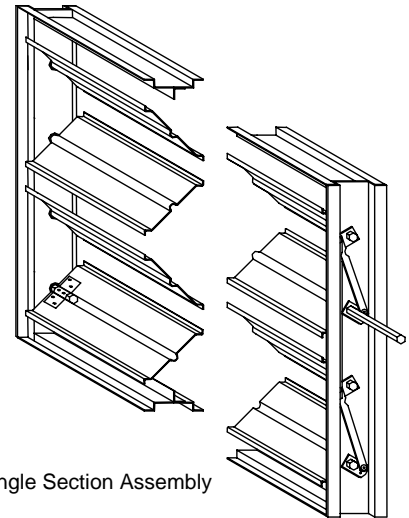
Mill

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 – Extruded Aluminum

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 Stations

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

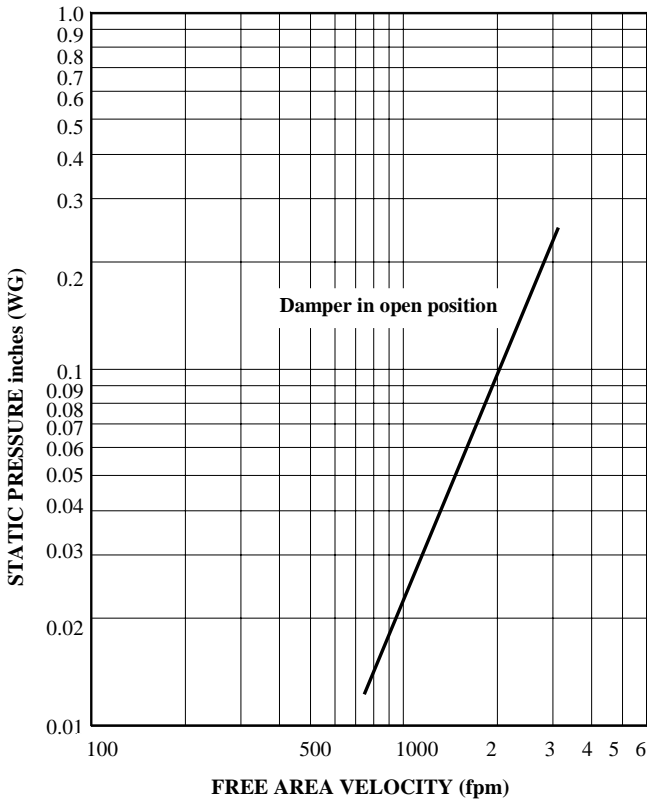
SAFE-AIR OF ILLINOIS, INC.

Engineering and General Offices

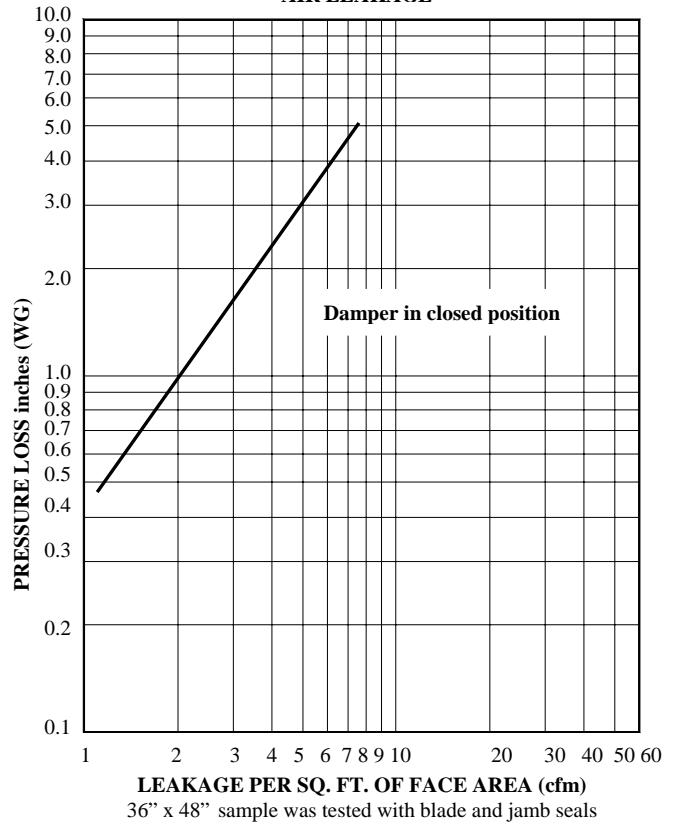
1855 South 54th Avenue, Cicero, Illinois 60804

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

AIR PERFORMANCE



AIR LEAKAGE



36" x 48" sample was tested with blade and jamb seals

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	