

## Fire/Smoke Damper – Model 771 & 771-3 CLASS I 771 (1-1/2 hr.) rated    771-3 (3 hr.) rated

**Features** - U.L. rated for static/dynamic closure & leakage CLASS I @ 350<sup>0</sup> F, for use in a 771 (2-hour) and 771-3 (4-hour) wall or partition, for use in systems with velocities up to 2,000 FPM and pressure to 4" w.g. Meets NFPA 90A & UL555 & UL555S. Meets California State Fire Marshal requirements.

### STANDARD CONSTRUCTION

**FRAME**

4-5/16" deep, 16 gauge galvanized steel

**BLADES**

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

**BLADE AXLES & BEARINGS**

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

**LINKAGE**

Plated steel in opposed blade configuration, concealed inside the jamb.  
Operator shaft is 1/2" steel rod extending 4-1/2" from damper side

**SEALS**

Extruded Silicone blade seals and stainless steel jamb seals

**MAXIMUM UL CLASSIFIED LEAKAGE CLASS I SIZES**

Single section assemblies:

- 771 (36" x 48")
- 771-3 (36" x 36")

**MULTIPLE ASSEMBLIES**

Multiple assemblies: (made of sections no larger than above sizes)  
771 (144" x 96") vertical or horizontal mount  
771-3 (144" x 36" max.) vertical or horizontal mount

**MINIMUM UL CLASSIFIED LEAKAGE CLASS I SIZE**

- 771 8"W x 6"H
- 771-3 8"W x 6"H

**SLEEVE**

18 ga. x 16" deep galvanized steel

**UNDERSIZED**

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

**FINISH**

Galvanized

**HEAT SENSOR**

165°F standard.

**OPERATOR**

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

### OPTIONAL CONSTRUCTION

HEAT SENSOR - 212°F, 250°F, or 350° F

**SPECIFIED MATERIAL** – Available in stainless steel

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

Dampers 11" high and under will be single blade, and extend from the frame proportionately

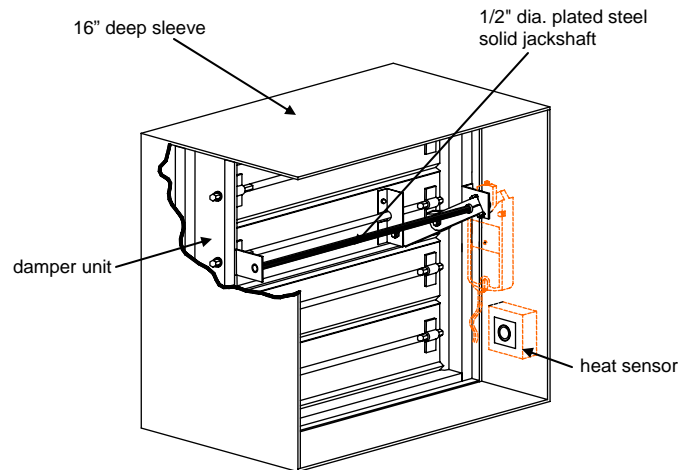
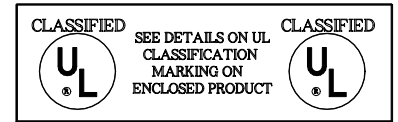
### ACCESSORIES

Smoke Detector  
Monitoring Station

Indicator Switches  
Dual Sensors



03225-0751-100



### APPROVED ACTUATORS

**Honeywell    Siemens    Belimo**

	Honeywell	Siemens	Belimo
24 Vac -	ML 8115	GND121.1U	FSNF24 US*
	MS 8209	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 – (8-13 PSI)		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

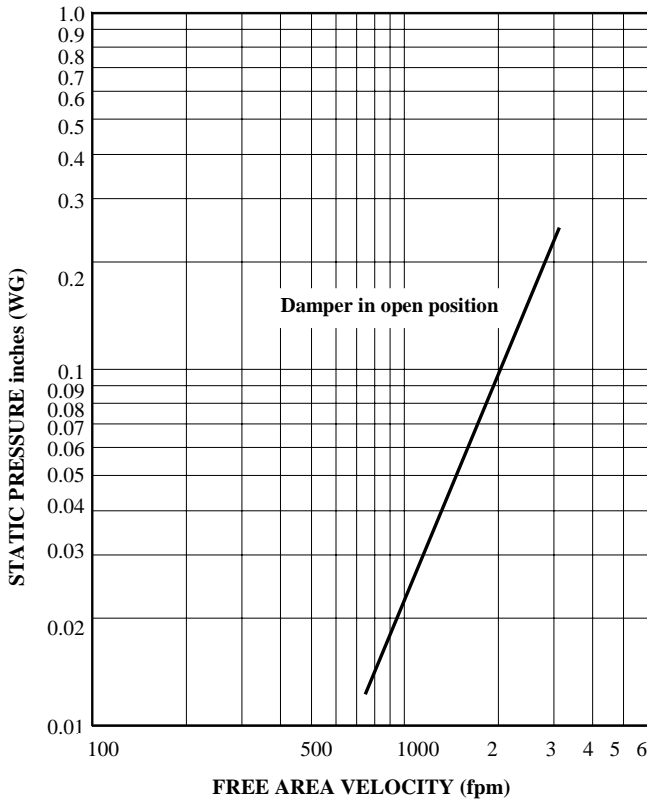
**SAFE-AIR OF ILLINOIS, INC.**

*Engineering and General Offices*

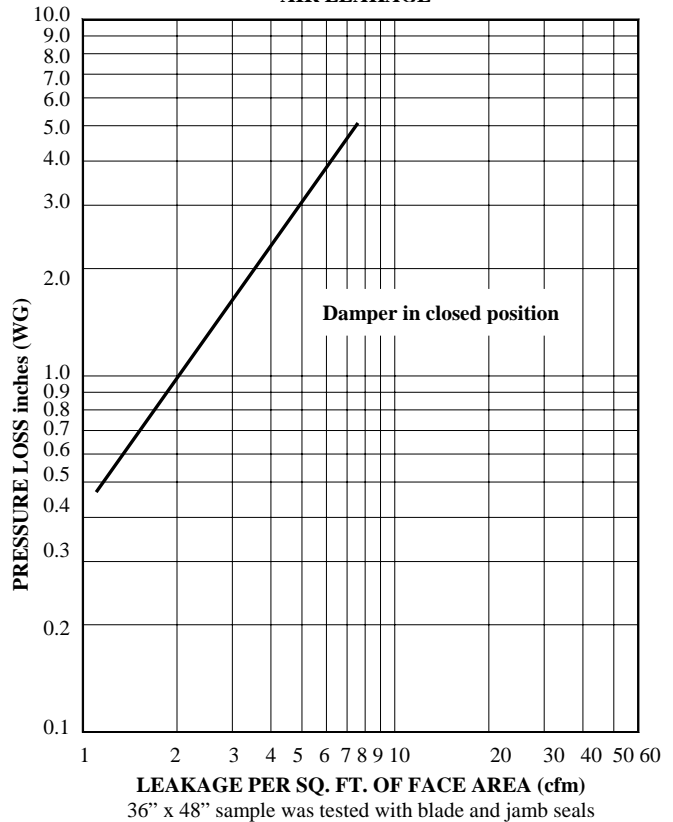
1855 South 54th Avenue, Cicero, Illinois 60804

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.

**Model 771 (1-1/2 hr.) rated CLASS I**  
**Model 771-3 (3 hr.) rated CLASS I**

**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	