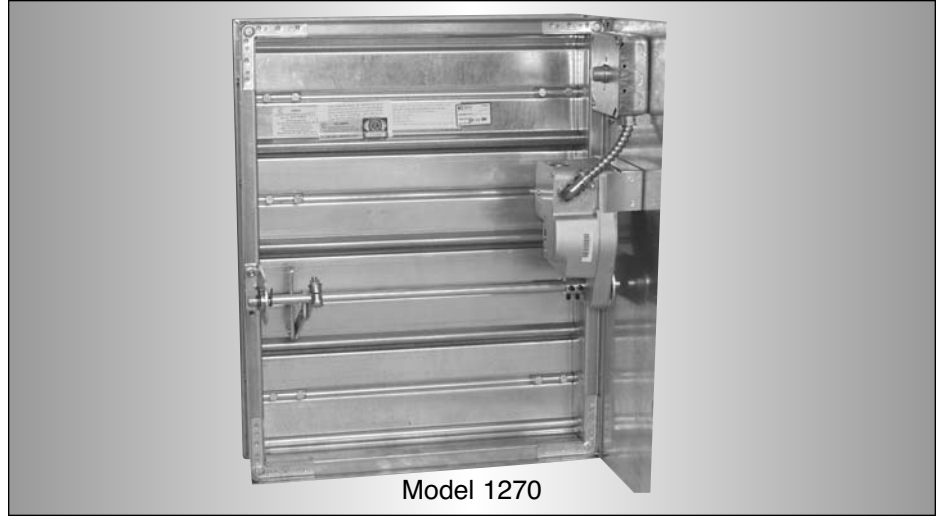


- **UL 555 CLASSIFIED DYNAMIC FIRE DAMPER**
- **UL 555S CLASSIFIED SMOKE DAMPER**
- **LEAKAGE CLASS I, II OR III**

MODELS:

- 1270 TYPE A
- 1271 TYPE A IN SLEEVE
- 1272 TYPE B
- 1273 TYPE C



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COMBINATION FIRE/SMOKE DAMPERS

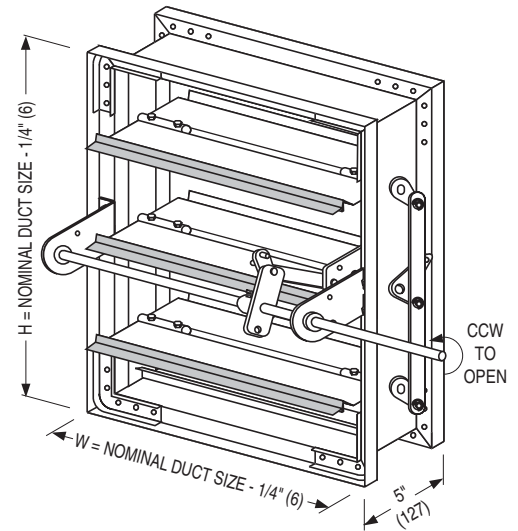
The Nailor Series 1270 combination fire/smoke damper, with sturdy vee-groove style blades and a rugged mitered corner hat channel frame design that virtually eliminates racking, provides 1 1/2 hour UL labeled fire protection suitable for use where ductwork penetrates a wall or floor with a fire resistance rating of 2 hours or less. The 1270 Series is also UL tested and labeled for use as a Class I, II or III Leakage Rated Damper for smoke control applications in both static or dynamic HVAC system designs. Available with factory mounted sleeve Model 1271, and a variety of actuators and options to suit each application, the 1270 Series is a versatile and economical performer suitable for use in the majority of commercial applications.

QUALIFICATIONS:

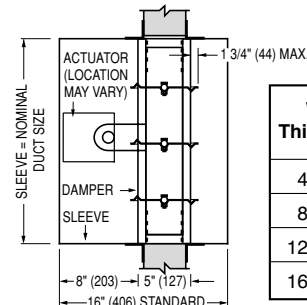
- UL 555 Classified Dynamic Fire Damper • 1 1/2 hr. Label (File #9492).
- UL 555S Classified Smoke Damper (File #9492) Leakage Class I, II or III at 250°F or 350°F elevated temp.
- California State Fire Marshal: Fire Damper Listing No. 3225-0935:106, Leakage (Smoke) Damper Listing No. 3230-0935:107.
- City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.
- Meets NFPA 90A, NFPA 92A and IBC requirements.
- Maximum velocity 2000 fpm @ 4" w.g. (10 m/s @ 1 kPa).

CONSTRUCTION DETAILS:

- FRAME:** 5" x 7/8" x 16 ga. (127 x 22 x 1.6) galvanized steel hat channel.
- BLADES:** 6" (152) wide on 5 1/2" (140) centers. 16 ga. (1.6) galvanized steel vee groove or double skin design.
- LINKAGE:** Concealed in frame. 12 ga. (2.7) plated steel.
- BEARINGS:** 1/2" (13) dia. self-lubricating oilite bronze.
- AXLES:** 1/2" (13) dia. plated steel double bolted to blades.
- JACKSHAFT:** 1/2" (13) dia. cadmium plated steel.
- JAMB SEALS:** Stainless steel.
- BLADE SEALS:** Stainless steel.
- HEAT RESPONSIVE DEVICE (CONTROLLED CLOSURE):** 250°F (121°C) standard. 165°F (74°C), 212°F (100°C) and, with ERL only, 350°F (176°C) available. ERL (Electric Resettable Link) is standard on all dampers with electric actuators. PRL (Pneumatic Replaceable Link) is standard on all dampers with pneumatic actuators.
- MINIMUM SIZE:** Vertical or Horizontal mount: 8" x 8" (203 x 203).
- MAXIMUM SIZE:** Single Section
 - Vertical mount: 36" x 48" (914 x 1219).
 - Horizontal mount: 30" x 40" (762 x 1016).
 Multiple Section Assembly
 - Vertical mount: 91" x 40" (2311 x 1016) or 72" x 48" (1829 x 1219).
 - Horizontal mount: 91" x 40" (2311 x 1016) or 30" x 91" (762 x 2311).



TYPE A: MODEL 1270



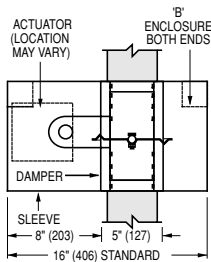
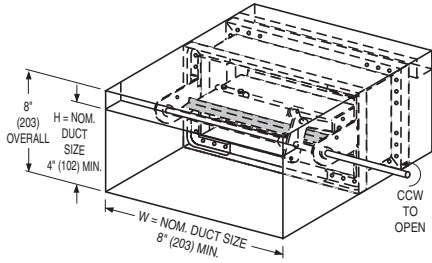
Wall Thickness	Minimum Sleeve Length
4 (102)	16 (406)
8 (203)	20 (508)
12 (305)	24 (610)
16 (406)	28 (711)

TYPE A WITH SLEEVE: MODEL 1271

Standard factory sleeve (caulked to UL requirements) 16" long x 20 ga. (406 x 1.0) (18 ga. for dampers over 84" (2134) in width). Available up to 36" (914) dependent upon wall thickness and 10 through 20 ga. (3.5-1.0).

Model Series 1270 dampers with duct heights less than 8" (203) require a Type 'B' sleeve enclosure (Model 1272). Units less than 8" (203) in width only, or in both width and height, require a Type 'C' enclosure (Model 1273).

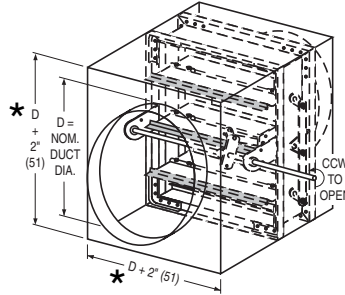
TYPE B SLEEVE ENCLOSURE MODEL: 1272



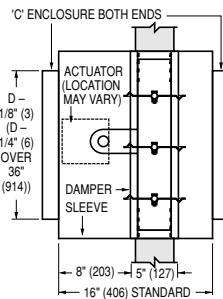
Min. Duct Size:
8" x 4" (203 x 102) (Overall damper H is 8").

Max. Duct Size:
Single Section
Vertical mount: 36" x 7 1/2" (914 x 191).
Horizontal mount: 30" x 7 1/2" (762 x 191).
Multiple Section Assembly
Vertical mount: 91" x 7 1/2" (2311 x 191).
Horizontal mount: 91" x 7 1/2" (2311 x 191).

TYPE C SLEEVE ENCLOSURES MODEL: 1273



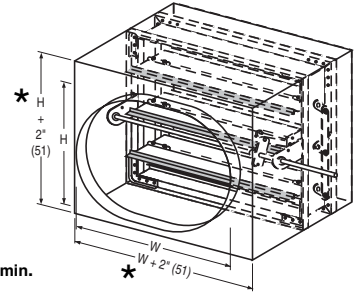
STYLE CR: FOR ROUND DUCT



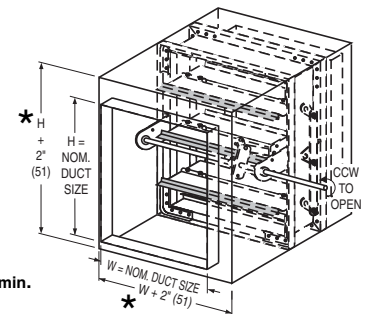
TYPE C SIDE VIEW

Min. Duct Size:
Vertical or Horizontal mount: 4" (102) diameter.
(Overall damper size is 8" x 8" (203 x 203) min.).

Max. Duct Size:
Single Section
Vertical mount: 34" (864) diameter.
Horizontal mount: 28" (711) diameter.
Multiple Section Assembly
Vertical mount: 46" (1168) diameter,
Horizontal mount: 38" (965) diameter.



STYLE CO: FOR OVAL DUCT



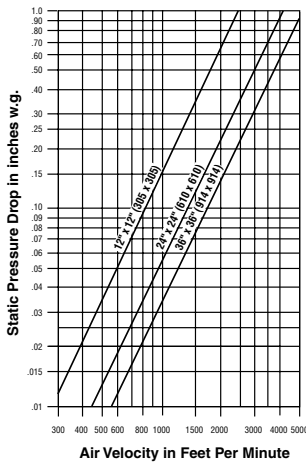
STYLE CSR : FOR SQUARE
or RECTANGULAR DUCT

Min. Duct Size:
Vertical or Horizontal mount: 4" x 4" (102 x 102).
(Overall damper size is 8" x 8" (203 x 203) min.).

Max. Duct Size: Single Section
Vertical mount: 34" x 46" (864 x 1168).
Horizontal mount: 28" x 38" (711 x 965).
Multiple Section Assembly
Vertical mount: 89" x 38" (2261 x 965) or
70" x 46" (1176 x 1168).
Horizontal mount: 89" x 38" (2261 x 965)
or 28" x 89" (711 x 2261).

PERFORMANCE DATA:

PRESSURE DROP (damper fully open)



Tested per AMCA standard 500-D, Fig. 5.3.

Imperial figures shown.
To convert to SI (metric) system:

Multiply:
CFM x .4719 = liters per second
inches w.g. x .2486 = kilopascals
fpm x .00508 = meters per second
cfm per sq. ft. x 5.08 = liters/second per sq. meter.

LEAKAGE CLASS

The 1270 Series Combination Fire/Smoke Damper has been designed and qualified under UL 555S in order to provide maximum system design flexibility. They are available with a Class I, II or III leakage rating with all damper/actuator assemblies having been tested successfully at an elevated temperature of 250°F (121°C) or 350°F (176°C), depending on actuator, under airflow of 2000 fpm (10 m/s) at 4" w.g. (0.995 kPa). The criteria for selection should be based upon both first cost consideration and the maximum total acceptable leakage of all closed dampers in the smoke management system when in the smoke control mode. This will have an influence on fan selection and capacity requirement.

Leakage Class	Maximum Leakage cfm/ft ² (m ³ /s/m ²)	
	@ 1" w.g. (0.249 kPa)	@ 4" w.g. (0.995 kPa)
I	4 (0.020)	8 (0.041)
II	10 (0.051)	20 (0.102)
III	40 (0.204)	80 (0.408)

COMBINATION FIRE/SMOKE DAMPERS

MODELS: 1270/1271/1272/1273

VARIABLES/ACCESSORIES

VARIABLES:	CODE	DESCRIPTION
MOUNTING:	V	Vertical Mount (wall)
	H	Horizontal Mount (floor)
LEAKAGE/ELEV. TEMP. RATINGS:	125	Class I @ 250°F
	135	Class I @ 350°F
	225	Class II @ 250°F
	235	Class II @ 350°F
	325	Class III @ 250°F
	335	Class III @ 350°F
CLOSURE DEVICE:	ERL	Electric Resettable Link
	ML4	MLS-400 Fire Sensor Reopenable Control System
	PRL	Pneumatic Replaceable Link
CLOSURE TEMPERATURE:	165	165°F (74°C)
	212	212°F (100°C)
	250	250°F (121°C)
	350	350°F (177°C)
	HL (must select with MLS-400)	High=350°F/Low=165°F
SLEEVE LENGTH/GAUGE:	Specify Sleeve Length:	12" (305) to 36" (914).
	Specify Sleeve Gauge:	20G, 18G, 16G, 14G, 10G
ACTUATORS:	411	Honeywell ML4115 (120 VAC)
	811	Honeywell ML8115 (24 VAC)
	MS4	Honeywell MS4X09 (120 VAC)
	MS8	Honeywell MS8X09 (24 VAC)
	4Y0	Honeywell MS4Y09 (230 VAC)
	F12	Belimo FSNF120 (120 VAC)
	F24	Belimo FSNF24 (24 VAC)
	412	Honeywell MS4120 (120 VAC)
	812	Honeywell MS8120 (24 VAC)
	462	Honeywell MS4620 (230 VAC)
	GD2	Siemens GGD221 (120 VAC)
	GD1	Siemens GGD121 (24 VAC)
	GD3	Siemens GGD321 (230 VAC)
	296	Siemens 331-2961 (25 psi)
	306	Siemens 331-3060 (25 psi)
ACTUATOR MOUNTING:	EXT	External Mount
	INT	Internal Mount
ACTUATOR LOCATION:	RH	Right-Hand Mount
	LH	Left-Hand Mount
	MH	Multi-Hand Mount
FAIL POSITION:	CL	Damper to Fail Closed
DAMPER LOCATION IN SLEEVE:	L8	8" (204) from Sleeve End
	L0	Specify Dimension from Sleeve End
IF MODEL 1273 IS SELECTED, SPECIFY TYPE OF TRANSITION:	CR	Round Type C Transitions
	CO	Oval Type C Transitions
	CSR	Square/Rect. Type C Transitions
ACCESSORIES:	CODE	DESCRIPTION
POSITION INDICATOR:	300	MLS-300 Switch Pack
E.P. SWITCH:	EP1	120V Siemens 2651008
	EP2	24Vac Siemens 2651007
MOTOR MTG. PLATE:	SMP	Side Mounting Plate (required for mounting of actuator without sleeve)
RETAINING ANGLES:	QS1	One "Quick Set" retaining angle
	QS2	Set of two "Quick Set" retaining angles
FLANGED SLEEVE:	TDF1	TDF Flange on One End
	TDF2	TDF Flange on Both Ends

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COMBINATION FIRE/SMOKE DAMPERS

HOW TO ORDER OR TO SPECIFY

COMBINATION FIRE/SMOKE DAMPERS

MODELS: 1270/1271/1272/1273

HOW TO ORDER:

Select model number and size, then select from each variable. Choose accessories as desired. See previous page for description of variables and accessories.

MODEL	SIZE W X H or DIA.	MOUNTING	LEAKAGE/ELEV. TEMP. RATING	CLOSURE DEVICE *	CLOSURE TEMP. **	SLEEVE LENGTH ***	SLEEVE GAUGE ***	ACTUATOR	ACTUATOR MOUNTING	ACTUATOR LOCATION	FAIL POSITION	DAMPER LOCATION IN SLEEVE	TRANSITION TYPE (MODEL 1273 ONLY)	ACCESSORIES *	
1270	ie: 36" x 24"	V	125	ERL	165	SPECIFY LENGTH	20G	ACTUATORS ARE LISTED ON PREVIOUS PAGE	EXT	RH	CL	L8	CR	300	
1271	or	H	135	ML4	212		18G		INT	LH		L0	CO	EP1	
1272	18" dia.		225	PRL	250		16G			MH				EP2	
1273			235		350		14G								SMP
			325		HL		10G								QS1
			335										QS2		
													TDF1		
													TDF2		

- Notes:
- * One MLS-400 or MLS-300 required per assembly. (MLS-300 is included as part of MLS-400 package.)
 - ** Maximum closure temperature allowed is equal to elevated temperature rating. HL (high/low closure temps.) must be selected when MLS-400 is selected as closure device.
 - *** Standard sleeve is 16" (406) long (suitable for 4" (102) thick wall) x 20 ga. (1.0).

SUGGESTED SPECIFICATION:

Provide and install, as shown on plans and/or schedules, Combination Fire/Smoke Dampers meeting or exceeding the following criteria: Frame shall be constructed of 16 ga. (1.6) galvanized steel hat channel with mitered corners reinforced with die-formed corner gussets for strength. Blades shall be of triple-vee design, 16 ga. (1.6) galvanized steel, on 5 1/2" (140) centers and shall be parallel configuration. Blade axles shall be 1/2" (13) dia. plated steel, double bolted at each end of blade to ensure positive locking connection. Hex or square friction-fit or press-fit axles are not acceptable. Bearings shall be self-lubricating oilite bronze type. Blade linkage shall be zero-maintenance, concealed in frame, out of airstream. Jamb seals shall be compression type stainless steel. Blade seals shall be stainless steel.

Dampers shall meet the requirements of NFPA 90A, 92A and 92B. Dampers shall be classified by Underwriters Laboratories and labeled as a 1-1/2 hour Fire Damper under UL 555, and as a (**specifier select one**) Class I, Class II or Class III Leakage Rated Smoke Damper under UL 555S at an elevated temperature of (**specifier select one**) 250°F (121°C) or 350°F (177°C). Dampers shall be qualified for use in dynamic or static Smoke Control Systems. Dampers shall be supplied with factory installed sleeves of minimum 16" (406) length, to be field verified by contractor, dependent on wall thickness. Factory sleeves shall be caulked to UL requirements and shall be 20 ga. (1.0) through 84" (2134) wide, and 18 ga. (1.2) above 84" (2134) wide. Appropriate electric or pneumatic actuators (**specifier select type**) shall be installed by the damper manufacturer in the factory and shall have been tested and classified under UL 555S with the damper at an elevated temperature of (**specifier select one**) 250°F (121°C) or 350°F (177°C). Actuators shall incorporate an OEM internal spring return mechanism. External after-market spring mechanisms are not acceptable. Damper and actuator assembly shall be factory cycled a minimum of three times to ensure correct operation.

Each damper shall be equipped with a UL Classified heat responsive device that will cause the damper to close in a controlled manner and lock in a closed position by means of an over center/knee lock linkage, when the duct temperature reaches the maximum degradation temperature of the damper/actuator assembly as required by UL 555S. Closure devices that cause instantaneous closure are not acceptable.

Damper manufacturer shall submit independent test data verifying pressure drop, leakage characteristics and airflow conditions. Standard of acceptance: Nailor Industries Model 1270.

