

GENERAL PRODUCT OVERVIEW

Over the past 100 years, the US and other industrial countries have experienced a dramatic decrease in deaths attributed to fires in commercial and industrial-use buildings. As the focus of modern commercial and industrial building construction continues to become increasingly life safety oriented, fire containment and smoke management systems are being utilized to a higher degree as more sophisticated technology is developed and implemented into building codes. Resulting property damage is minimized and occupant safety is maximized. Nailor Industries' commitment to the development of new and existing fire and smoke control technology has resulted in a comprehensive line of premium quality smoke, fire and combination fire/smoke dampers and accessories, available at a reasonable cost and in a timely fashion. Nailor's 'multi-blade' type fire dampers are available in several blade and frame styles with a multitude of options to suit most commercial and light industrial applications.

MODEL SERIES D1200 (1 1/2 HR.) & D1200-3 (3 HR.) DYNAMIC FIRE DAMPER AIRFOIL BLADE

Model Series D1200 and D1200-3 Airfoil Multi-blade Fire Dampers provide the ultimate in fire containment for both static and dynamic HVAC systems. The design utilizes an innovative inter-locking double skin airfoil blade that maintains a complete barrier throughout the fire test with absolutely no visible through-gaps. Amazingly, the damper gets tighter as it gets hotter! Ideal for use where building codes require a fire damper for the protection of ductwork penetrations in walls or floors with a low pressure drop design suitable for high velocity applications. Premium performance, versatility and assured closure under airflow make the D1200 and D1200-3 series dampers an excellent choice for the majority of today's commercial applications.



Model D1200



Model 1200

MODEL SERIES 1200 (1 1/2 HR.) & 1200-3 (3 HR.) STATIC FIRE DAMPER AIRFOIL BLADE

Model Series 1200 and 1200-3 Airfoil Multi-blade Fire Dampers are classified for use only in static "fans off" systems where the HVAC system is automatically shut down in the event of a fire alarm. Largest fire damper listing in the industry (exceeding curtain dampers) at 144" x 96" (3658 x 2438). Standard features include an innovative inter-locking double skin airfoil blade design that maintains a complete barrier throughout the fire test with absolutely no visible through-gaps. The airfoil blade design and elimination of blade sills, top and bottom, provide a low pressure drop design. The 1200 and 1200-3 series dampers have been especially designed and tested to provide premium performance.

MODEL SERIES D1250 (1 1/2 HR.) DYNAMIC FIRE DAMPER VEE-GROOVE BLADE

Model Series D1250 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 up to 2 hours. Nailor's most popular and economical design features sturdy vee groove style blades and a rugged mitered corner hat channel frame design that virtually eliminates racking. The over-center/knee lock with high torque spring/fusible link assures fail-safe closure during fire conditions under airflow. The D1250 series is approved for use in both static and dynamic HVAC system designs, and is an economical and versatile performer, available with a factory fitted sleeve and choice of transition styles, suitable for use in the majority of today's commercial applications.



Model D1250

- HIGH PERFORMANCE
- AIRFOIL BLADE
- UL 555 CLASSIFIED
STATIC FIRE DAMPER



Model 1200

Model Series:

- 1200** **1 1/2 Hour Label** (for fire separations up to 2 hours)
1200-3 **3 Hour Label** (for fire separations up to 4 hours)

Model Series 1200 and 1200-3 Multi-Blade Fire Dampers are classified for use only in static "fans off" systems where the HVAC system is automatically shut down in the event of a fire alarm. Unique airfoil design provides low pressure drop, particularly suited for high velocity applications. Ideal for use where building codes require a fire damper for the protection of ductwork penetrations in walls or floors, UL approved for installation with airflow in either direction and inverted mounting. Supplied as standard with an internal locking quadrant which holds the damper in the fully open position, but may also be used for system balancing if required, available with a factory fitted sleeve ready for installation and choice of transition styles to suit duct size and type.

The design utilizes an innovative interlocking double skin airfoil blade that maintains a complete barrier throughout the fire test and also features the industry proven over-center knee-lock design with high torque spring/fusible link closure. Sturdy 16 ga. (1.6) hat channel frames, 14 ga. (2.0) equivalent blades with double bolted axles, long lasting self-lubricating bearings and reinforced mitered corners result in one of the industry's most durable fire dampers. Premium performance and versatility make the 1200 and 1200-3 series dampers an excellent choice for the majority of today's commercial applications.

QUALIFICATIONS:

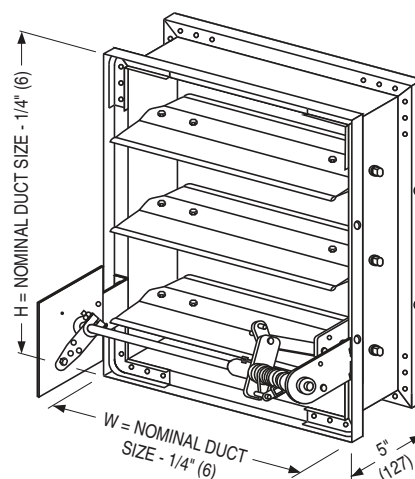
- **UL 555 & CAN/ULC-S112 CLASSIFIED FIRE DAMPER**
1 1/2 hr. Label or 3 hr. Label (File # R9492).
- **Meets NFPA 80, 90A and 101 as well as IBC and NBC (Canada) Building Code requirements.**
- **City of New York. MEA # 366-03-M.**
- **California State Fire Marshal: Fire Damper Listing No. 3225-0935:0101.**

STANDARD CONSTRUCTION:

- Frame:** 5" x 7/8" x 16 ga. (127 x 22 x 1.6) galvanized steel hat channel.
Blades: 14 ga. (2.0) equivalent galvanized steel formed airfoil on 5 1/2" (140) centers. Opposed action.
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.
 Internal locking quadrant is factory installed.
Fusible Link: 165°F (74°C) standard. 212°F (100°C) available on single and double sections only.

COMMON OPTIONS:

- MLS-300 Position Indicator Switch Pack.
- QS1 & QS2 "Quick-Set" Retaining Angles.
- Factory fitted sleeves in custom lengths, gauges and transition styles.

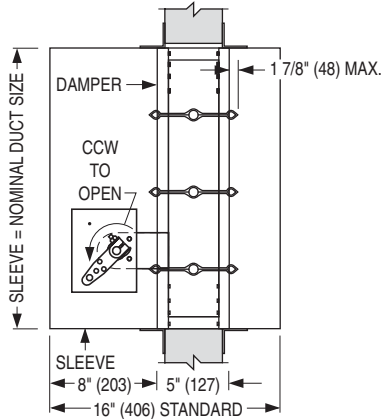
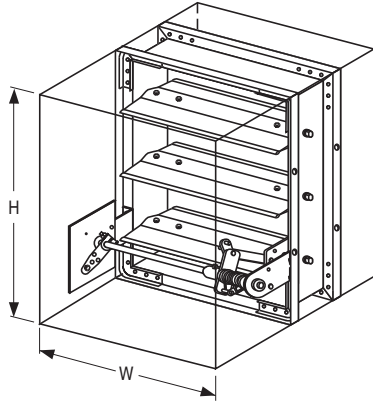


MODEL 1200 1 1/2 HOUR LABEL
MODEL 1200-3 3 HOUR LABEL
 (Side Mounting Plate/Sleeve not shown)

DIMENSIONAL DATA:

Model Series 1200 (1 1/2 hr. label) and D1200-3 (3 hr. label) dampers with duct heights less than 8" [203] in width only, or in both width and height, require a Type 'B' sleeve enclosure (Models 1202 [1 1/2 hr. label] and 1202-3 [3 hr. label]). Duct sizes less than 8" (203) in width require a Type 'C' enclosure (Models 1203 [1 1/2 hr. label] and D1203-3 [3 hr. label]).

MODELS 1200, 1200-3, 1201 AND 1201-3: TYPE A SLEEVE



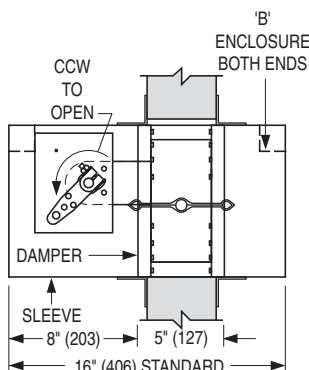
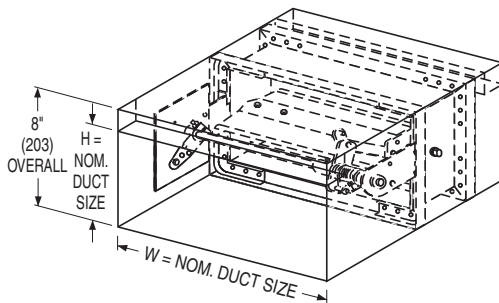
Models 1200 (no sleeve), 1201, 1200-3 (no sleeve) and 1201-3 Sizes (Duct W x H):

Model	Minimum	Maximum			
	Single Sect.	Single Section		Multiple Section	
	Vert./Horiz.	Vertical	Horizontal	Vertical	Horizontal
Model 1200	8" x 8" (203 x 203)	36" x 48" (914 x 1219)	32" x 48" (813 x 1219)	144" x 96" (3658 x 2438)	144" x 96" (3658 x 2438)
Model 1200-3	8" x 8" (203 x 203)	36" x 48" (914 x 1219)	32" x 48" (813 x 1219)	120" x 96" (3048 x 2438). (Individual sections not to exceed 30" x 48" [762 x 1219]).	n/a

Standard factory sleeve 16" long x 20 ga. (406 x 1.0). (18 ga. [1.3] for dampers over 84" [2134] in width). Available up to 36" (914) dependent upon wall thickness and 10 through 20 ga. (3.5 through 1.0).

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

MODELS 1202 AND 1202-3: TYPE B SLEEVE ENCLOSURE



Models 1202 and 1202-3 Sizes (Duct W x H):

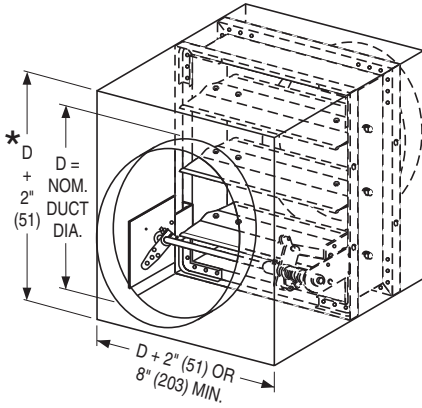
Model	Minimum	Maximum			
	Single Sect.	Single Section		Multiple Section	
	Vert./Horiz.	Vertical	Horizontal	Vertical	Horizontal
Model 1202	8" x 4" (203 x 102). Overall damper height is 8" (203).	36" x 7 1/2" (914 x 191)	32" x 7 1/2" (813 x 191)	144" x 7 1/2" (3658 x 191)	144" x 7 1/2" (3658 x 191)
Model 1202-3	8" x 4" (203 x 102). Overall damper height is 8" (203).	36" x 7 1/2" (914 x 191)	32" x 7 1/2" (813 x 191)	120" x 7 1/2" (3048 x 191). (Individual sections width not to exceed 30" [762]).	n/a

Note: Duct sizes less than 8" (203) in width only, or in both width and height, require a Type 'C' enclosure (Models 1203 and 1203-3).

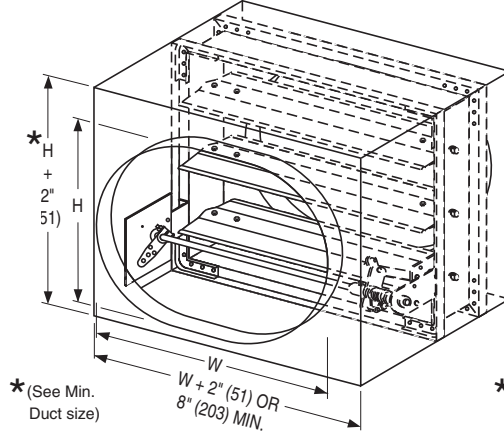
Standard factory sleeve 16" long x 20 ga. (406 x 1.0). (18 ga. [1.3] for dampers over 84" [2134] in width). Available up to 36" (914) dependent upon wall thickness and 10 through 20 ga. (3.5 through 1.0).

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

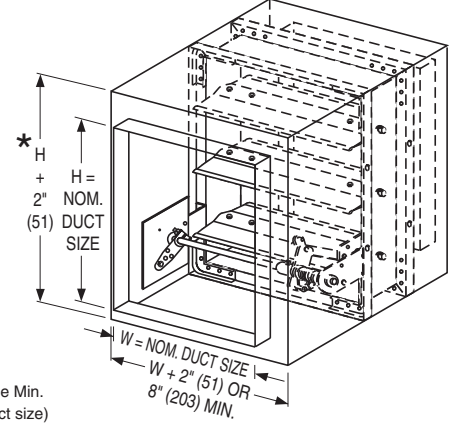
MODELS 1203 AND 1203-3: TYPE C SLEEVE ENCLOSURES



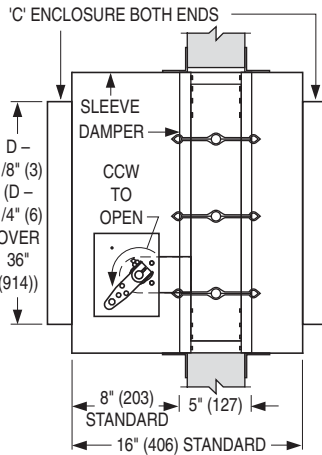
STYLE CR : FOR ROUND DUCT



STYLE CO : FOR OVAL DUCT



STYLE CSR : FOR SQUARE OR RECTANGULAR DUCT



Standard factory sleeve 16" long x 20 ga. (406 x 1.0). (18 ga. [1.3] for dampers over 84" [2134] in width). Available up to 36" (914) dependent upon wall thickness and 10 through 20 ga. (3.5 through 1.0).

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

Models 1203 and 1203-3 - Round Duct Connection Sizes (Duct Dia.):

Model	Minimum		Maximum		
	Single Sect.	Single Section		Multiple Section	
	Vertical/Horizontal	Vertical	Horizontal	Vertical	Horizontal
Model 1203	4" (102) dia. Overall damper size is 8" x 8" (203 x 203) min.	34" (864) dia.	30" (762) dia.	94" (2388) dia.	94" (2388) dia.
Model 1203-3	4" (102) dia. Overall damper size is 8" x 8" (203 x 203) min.	34" (864) dia.	30" (762) dia.	94" (2388) dia. (Individual sections not to exceed 28" [711] dia. duct size).	n/a

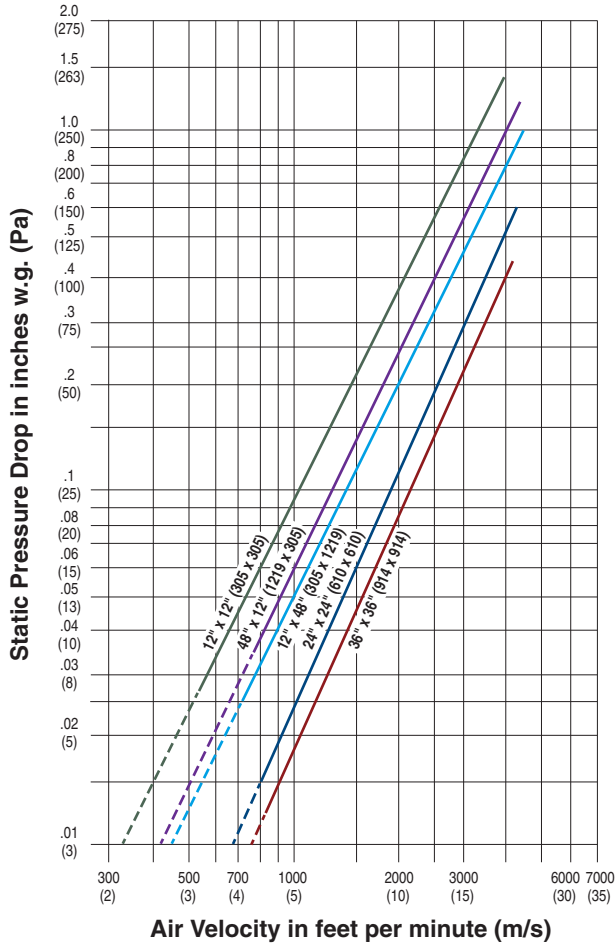
Models 1203 and 1203-3 - Square, Rect. or Oval Duct Connection Sizes (Duct W x H):

Model	Minimum		Maximum		
	Single Sect.	Single Section		Multiple Section	
	Vertical/Horizontal	Vertical	Horizontal	Vertical	Horizontal
Model 1203	4" x 4" (102 x 102). Overall damper size is 8" x 8" (203 x 203) min.	34" x 46" (864 x 1168)	30" x 46" (762 x 1168)	142" x 94" (3607 x 2388)	142" x 94" (3607 x 2388)
Model 1203-3	4" x 4" (102 x 102). Overall damper size is 8" x 8" (203 x 203) min.	34" x 46" (864 x 1168)	30" x 46" (762 x 1168)	118" x 94" (2997 x 2388) (Individual sections not to exceed 28" x 46" [711 x 1168] duct size).	n/a

PERFORMANCE DATA:

MODEL SERIES: 1200 - 1 1/2 HOUR LABEL AND 1200-3 - 3 HOUR LABEL

PRESSURE DROP:



Pressure drop tested per AMCA Standard 500-D, Figure 5.3.
Data corrected to standard air density of 0.075 lbs/ft.³.

HOW TO SPECIFY

SUGGESTED SPECIFICATION:

Provide and install, as shown on plans and/or schedules, Multi-Blade Static Fire Dampers as manufactured by Nailor Industries, Inc. which meet or exceed the following criteria: Fire dampers shall meet the requirements of NFPA 80, 90A and 101 and shall be manufactured, tested and labeled in accordance with UL 555. Each damper shall bear a UL fire resistance rating label of **(specifier select rating)** 1 1/2 hours **or** 3 hours.

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 14 ga. (2.0) equivalent galvanized steel formed double skin, airfoil design, on 5 1/2" (140) centers. Dampers shall be of opposed blade configuration with an interlocking blade design. Blade seals are not acceptable. Blade axles shall be plated steel, double bolted at each end of blade to provide positive locking connection. Hex, 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.

Each fire damper shall be complete with a **(specifier select temperature)** 165°F (74°C) **or** 212°F (100°C) UL Listed fusible link that will cause the damper to close and lock in closed position by means of an over center/knee lock linkage for assured closure. Fire dampers shall each include a steel sleeve of appropriate length/gauge as field verified by contractor, with Nailor 'Quick-Set' retaining angles supplied by damper manufacturer to ensure proper installation in accordance with damper manufacturer's instructions. Each damper shall be supplied with an internal manual quadrant(s) for setting and locking of blades in desired position. Contractor shall provide and install an access door at each fire damper, of appropriate size to allow for inspection, testing and fusible link replacement. Data submitted for approval shall include confirmation of UL qualifications in addition to manufacturer's installation instructions. Each shipment of fire dampers shall include same installation instructions. Standard of acceptance shall be Nailor Model Series **(specifier to select)** 1200 (1 1/2 hour label) **or** 1200-3 (3 hour label).

HOW TO ORDER

MULTI-BLADE & TRUE ROUND FIRE DAMPERS

MODEL SERIES: D1200, D1200-3, D1200SS, D1200SS-3, D1201-OW, D1201-DOW, D1250, 1290F, 1290F-SS, 1200, 1200-3, 1200SS, 1200SS-3

EXAMPLE: D1251 - 24 x 24 - V - 24 - FL - 165 - BO - SL = 16 - 20G - L8

1a. Models

Dynamic or Static Applications

D1200	Airfoil Blade, 1 1/2 Hour Label
D1200-3	Airfoil Blade, 3 Hour Label
D1200SS	Stainless Steel, Airfoil Blade, 1 1/2 Hour Label
D1200SS-3	Stainless Steel, Airfoil Blade, 3 Hour Label
D1201-OW	Out-Of-Wall Airfoil Blade, 1 1/2 Hour Label, Grille Mount
D1201-DOW	Out-Of-Wall Airfoil Blade, 1 1/2 Hour Label, Through Penetrations
D1250	Vee Blade, 1 1/2 Hour Label
1290F	True Round, 1 1/2 Hour Label
1290F-SS	Stainless Steel, True Round, 1 1/2 Hour Label

Static Only Applications

1200	Airfoil Blade, 1 1/2 Hour Label
1200-3	Airfoil Blade, 3 Hour Label
1200SS	Stainless Steel, Airfoil Blade, 1 1/2 Hour Label
1200SS-3	Stainless Steel, Airfoil Blade, 3 Hour Label

1b. Sleeve/Enclosure Style

(4th digit not applicable to all models)

- 0 = No Sleeve
- 1 = Type A Sleeve
- 2 = Type B Sleeve Enclosure
- 3 = Type C Sleeve Enclosure

2. Duct Size

Width x Height or Diameter (inches [mm's])

3. Construction

(Stainless Steel models only)

- 304 Type 304 Stainless Steel (default)
- 316 Type 316 Stainless Steel

4. Mounting

- V Vertical (wall)
- H Horizontal (floor)

5. Max. Velocity/Pressure Rating

(Dynamic models only)

- 24 2000 fpm @ 4" w.g. (default)
- 34 3000 fpm @ 4" w.g.
- 44 4000 fpm @ 4" w.g.

6. Closure Device

- FL Fusible Link (default)

7. Closure Temperature

- 165 165°F (default)
- 212 212°F

8. Bearings

- BO Oilite Bronze (default)
- BS Stainless Steel (default on
Stainless Steel models)

9. Jamb Seals

- (Not applicable to all models)
- None
- JSM Flexible metal
- JSS Stainless steel

10. Blade Seals

- (Not applicable to all models)
- None
- BSS Silicone (D1250 Series only)

11a. Side Mounting Plate

- (No sleeve models only)
- SMP Side Mounting Plate

11b. Sleeve Length

- SL = Specify**
- 16" (406) standard (default)
- 16" – 36" (406 – 914)

12. Sleeve Gauge

- 20G 20 ga. standard (default)
- 18G 18 ga.
- 16G 16 ga.
- 14G 14 ga.
- 10G 10 ga.

13. Transition

- (Sleeve Type C models only)
- CR Round
- CO Oval
- CSR Square/Rectangular

14. Damper Location

- L8 8" (203) from sleeve end
- LX Other (specify)
8" – 16" (203 – 406)

ACCESSORIES:

15. Retaining Angles

- None (default)
- QS1 Single set (Not available on
Model D1201-DOW)
- QS2 Pair (Not available on
Model D1201-OW)

16. Position Indicator

- None (default)
- 300 MLS-300 (4-wire)

17. TDF Flange

- (Type A sleeved models only)
- None (default)
- TDF1 One end
- TDF2 Both ends

Notes:

1. Not all variants and options are available on all models. Refer to individual model for selection availability.
2. One MLS-300 required per damper assembly.
3. All multi-blade fire dampers are supplied with a locking quadrant.

Options and Accessories

Nailor multi-blade fire dampers are tested by and listed with Underwriters Laboratories Inc. and are manufactured within UL procedural requirements. Approved variables including a variety of options and accessories are available to suit specific applications.

MATERIAL OPTIONS:

OPTION CODE 304
STAINLESS STEEL CONSTRUCTION

All parts of damper (except blade seals) will be constructed of 304 stainless steel. Provides higher corrosion resistance against harsh atmospheric and process elements. Consult your Nailor representative for specific application suitability.

OPTION CODE 316
STAINLESS STEEL CONSTRUCTION

All parts of damper (except blade seals) will be constructed of 316 stainless steel. Provides higher corrosion resistance against harsh atmospheric and process elements. Consult your Nailor representative for specific application suitability.

BEARING OPTIONS:

OPTION CODE BO
OILITE® BRONZE BEARINGS



Bronze sintered (oil impregnated) self-lubricating oilite bearings provide long time lubrication making them ideal for use in applications where proper maintenance is uncertain or difficult.

OPTION CODE BS
STAINLESS STEEL BEARINGS



304 grade stainless steel bearings provide corrosion resistance in a wide variety of corrosive media. In higher heat applications, provides good oxidation resistance. Standard for stainless steel models.

CLOSURE TEMPERATURES:

OPTION CODES
165 212
FUSIBLE LINK TEMPERATURE

Fusible links for Model Series (D)1200, D1250 and 1290F fire dampers are available with a choice of several melting temperature ratings. Nailor fire dampers are provided as standard with 165°F (74°C) fusible link. Optional 212°F (100°C) link can be installed on damper at time of manufacturing, or can be ordered separately as a replacement part for field installation as part of a regular maintenance program or after a fire emergency (providing damper is still functional).

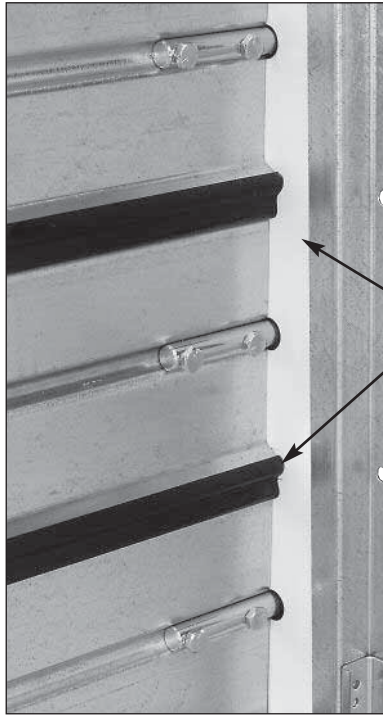
The National Fire Protection Association Standard 90A states that "fusible links shall have a temperature rating approximately 50°F (28°C) above the maximum temperature that normally is encountered when the system is in operation or shut down, but not less than 160°F (71°C)." Adhering to this guideline helps prevent 'nuisance trips' resulting in unnecessary replacement costs and labor time. Note that local building codes may also stipulate a maximum closure temperature rating.

OPTIONAL SEALS:

OPTION CODE **JSM**
FLEXIBLE METAL JAMB SEALS

OPTION CODE **JSS**
STAINLESS STEEL JAMB SEALS

OPTION CODE **BSS**
SILICONE SEALS



Option Code JSM (Option Code JSS on stainless steel models) provides damper with flexible metal jamb seals to minimize air leakage between blade ends and frame. Suitable for use in applications that may require damper to be used as a shut-off damper for example, as well as a fire damper.

JSM JSS
BSS

Option Code BSS provides damper with Silicone blade edge seals. Blade seals minimize air leakage between blades, and are a suitable option for use in applications that may require damper to be used as a shut-off damper for example, as well as a fire damper.

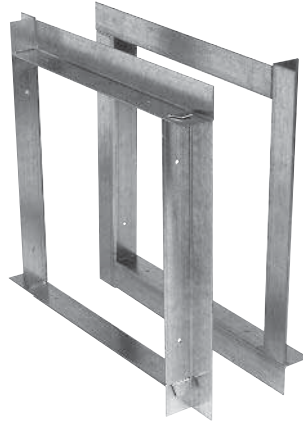
RETAINING ANGLES:

OPTION CODES
QS2 TWO SIDES (PAIR)
QS1 ONE SIDE
 'QUICK-SET' RETAINING ANGLES

FOR USE WITH ALL MULTI-BLADE FIRE DAMPERS EXCEPT MODELS 1290FS AND 1290FS-SS

- Maximum Size: 90" x 48" (2286 x 1219) or 48" x 90" (1219 x 2286)

Note: Reference IOM-FDQSRA for more details.



BENEFITS:

- Factory fabricated by the manufacturer to suit the individual fire damper.
- Dampers can ship directly to the job site complete with all necessary installation sheet metal hardware (saves on double handling at contractor's shop).
- Reduced cost when compared to conventional retaining angles.
- Only two sets of angles to handle per damper (rather than eight).
- Angles ship with individual damper - no sorting or matching.
- Pre-drilled holes on 8" (203) centers to ensure correct angle/sleeve attachment.
- Help ensure a correct installation as per U.L. approved installation instructions.

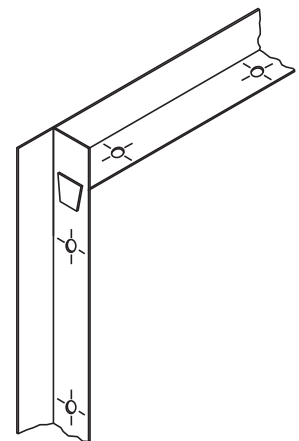
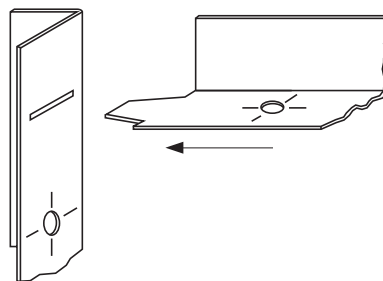
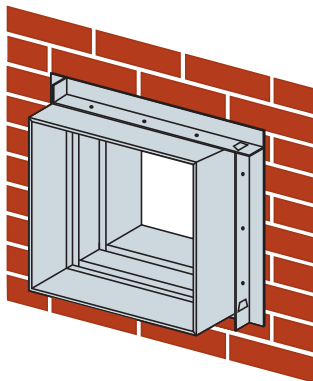
The majority of installing contractors view fire damper installation as a costly time consuming and troublesome procedure. Eight conventional angles must be custom fabricated for each damper either in a sheet metal shop or at the job site and sized to suit each individual damper. Invariably, they are mislaid or lost and must be matched to each factory supplied damper. The Nailor "Quick-Set" solution solves the majority of problems. They are pre-formed to fit each damper and shipped with the individual damper units for ultimate convenience.

Nailor "Quick-Set" retaining angles are an accessory option for all dampers ordered with factory sleeves.

QS2: Two sides (pair). For standard installations where angles are installed on both sides of the fire partition.

QS1: One side (single set). For use in a single side retaining angle installations and with grille mount and "out of wall" damper models. "Quick-Set" angles are supplied with correctly spaced pre-drilled screw-holes to ensure a quick, easy and accurate installation for all Nailor fire dampers - no measuring required.

"Quick-Set" retaining angles when specified and supplied with Nailor integral sleeve fire dampers provide the "complete" installation package. Simple, fast, convenient.



Style 1: 1 1/2" x 1 1/2" x 20 ga. (38 x 38 x 1.0) Four sides are connected together with rivets in three corners. Standard for the majority of applications with the following limitations:

- 1 1/2 hour label fire dampers.
- Maximum Size: 36" x 36" (914 x 914).
- Two sided installation only.

Style 2: 1 1/2" x 1 1/2" x 16 ga. (38 x 38 x 1.6) Slot and tab design. The retaining angle assembly for each side has four angles, each with a tab end and a slot end (Detail A). The tabs are to be inserted into the slots and knocked down either before or after fastening to the sleeve (Detail B).

- 1 1/2 or 3 hour label fire dampers.
- Maximum Size: 90" x 48" (2286 x 1219) or 48" x 90" (1219 x 2286).
- Single side (1 1/2 hour only. Refer to Single Side Retaining Angles Supplementary Installation Instructions for size limitations) or two sided installation.

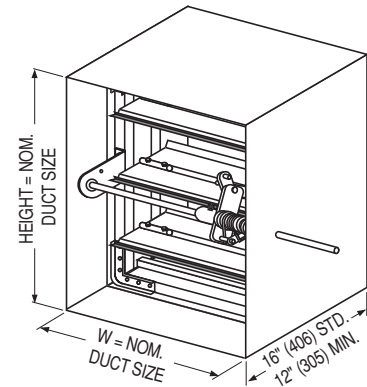
SLEEVES OR SIDE MOUNTING PLATE:

TYPE A SLEEVES
MODELS (D)1201 and D1251

All fire dampers require a steel sleeve of correct length and gauge in order to be installed in accordance with the product's UL approved installation instructions. Nailor recommends that all multi-blade fire dampers, including Type A models, are specified and ordered complete with a factory installed full sleeve (Type B and C models are manufactured as standard with a transition casing that acts as a sleeve). Nailor can provide a factory furnished sleeve that allows the units to ship directly to job site ready for installation, saving time, money and costly shop or field fabrication, as well as helping to ensure proper installation to UL requirements. A factory furnished sleeve also permits factory mounting of Nailor's MLS-300 Position Indicator Switch Pack. Standard sleeve is 16" (406) long. For further damper/sleeve details, see Models (D)1201 and D1251.

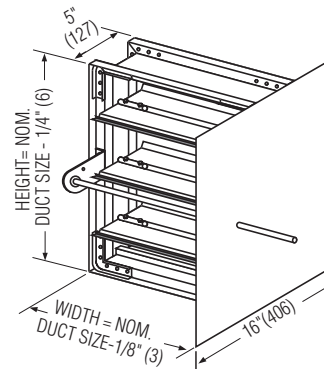
The following indicates model numbers to order for multi-blade fire dampers with factory fitted Type A sleeves:

Standard Model #	With Type A Sleeve
(D)1200	Model (D)1201
D1250	Model D1251



OPTION CODE SMP
SIDE MOUNTING PLATE

Nailor's **SMP**, Side Mounting Plate is required for factory mounting of the MLS-300 Position Indicator Switch Pack when a full factory sleeve is not requested. As with all fire dampers, an appropriate steel sleeve is required for installation of damper in wall or floor.



SIDE MOUNTING PLATE FOR MULTI-BLADE FIRE DAMPERS

FLANGED SLEEVE:

OPTION CODES
 TDF FLANGE
TDF2 BOTH ENDS
TDF1 ONE END



TDF (by Engle) and **TDC** (by Lockformer) proprietary flange systems are approved as breakaway connections for connecting a combination fire/smoke damper Type A sleeve (22 or 20 gauge) to ductwork. They may be used in place of the approved slip joints shown in standard installation instructions. For Option **TDF1** the sleeve is factory flanged on one end only. For Option **TDF2** the sleeve is factory flanged on both ends.

Note that the maximum wall/floor opening size permitted by UL, relative to the damper size, may not physically allow the flange to fit through the opening. Consultation and co-ordination with the wall/floor contractor is recommended. **TDF1**, flange on one end only, will permit the non-flanged end of the sleeve to fit through the opening. Specify which end to be flanged in relation to the jackshaft.

Maximum TDF1/TDF2 Sleeve Size Allowed:
For Curtain Type Fire Damper: 60" wide x 60" high (1524 x 1524).
For Multi-Blade Type Fire Damper: 36" wide x 48" high (914 x 1219).

Note: Reference IOM-FDTDCFINST for more details.