

## FIRE DAMPERS AND OVAL ACCESS DOORS

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## FIRE DAMPERS AND OVAL ACCESS DOORS

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### CURTAIN FIRE DAMPERS

#### Basics

##### Definition of a Fire Damper:

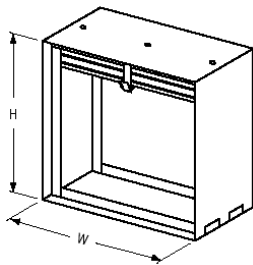
The National Fire Protection Association (NFPA) Standard 90A defines a fire damper as "a device, installed in an air distribution system, that is designed to close automatically upon detection of heat, to interrupt migratory airflow, and to restrict the passage of flame."

Although curtain fire dampers restrict flame and airflow passage as described in the NFPA definition, they are virtually transparent to heat and therefore ineffective for use in openings in fire-rated ceiling assemblies.

#### TYPES OF CURTAIN FIRE DAMPERS

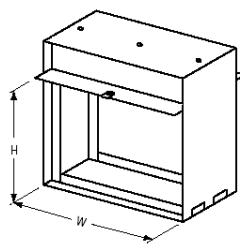
Curtain type fire dampers are generally available in three configurations as follows:

TYPE 'A'



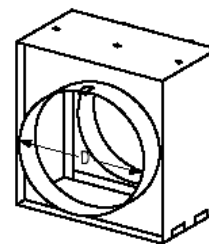
Blades and frame in the airstream.

TYPE 'B'



Blades out of the airstream. With blades out of airstream, provides better free area and resulting pressure drop characteristics than Type 'A', especially on smaller size dampers.

TYPE 'C'



Blades and frame out of the airstream; used mainly for transitioning to round or oval duct. Provides optimum pressure drop characteristics with blades and frame out of airstream.

#### When Ordering Fire Dampers — please specify:

1. TYPE A, B, or C
2. Horizontal or Vertical
3. Hour Rating 1, 2, or 3
4. Fire Rating
5. Standard Width or Slimline
6. Specify Width × Height

**NOTE:** Vertical damper is for horizontal duct (wall installation).  
Horizontal damper is for vertical duct (floor installation).

(cont'd on next page)

## FIRE DAMPERS AND OVAL ACCESS DOORS

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### CURTAIN FIRE DAMPERS (cont'd)

#### Basics (cont'd)

Openings in vertical fire separations ie: walls and partitions, require a vertical mount fire damper (duct runs horizontally). Gravity causes the blades to drop closed (static rated dampers).

Openings in horizontal fire separations ie: floors, require a horizontal mount fire damper (duct runs vertically). Horizontal mount fire dampers utilize springs to pull the blades closed.

Dynamic rated fire dampers utilize closure springs in both vertical and horizontal applications to ensure the blades close fully under airflow conditions.

#### Static Rated VS Dynamic Rated Fire Dampers:

**Static** fire dampers were designed for use in HVAC systems that shut down (fans off) in the event of a fire alarm. They have not been tested to ensure closure while air is moving in the duct.

**Dynamic** fire dampers have been tested under specific airflow and static pressure conditions in order to ensure that the damper will close in today's HVAC designs that utilize 'fans on' smoke management systems.

Generally, a dynamic rated damper can be used in both static (fans off) or dynamic (fans on) type systems, but a static rated fire damper can only be used in a 'static' system (fan shut down during alarm).



#### Did You Know? ...

- Fire dampers must be mounted in a steel sleeve. The damper/sleeve assembly is held in place in the wall, partition, or floor by use of retaining angles on each side of the wall etc. Ductwork shall connect to the sleeve on either side, as required, providing a connection that can 'break away' should the ductwork fall during a fire. This allows the damper/sleeve assembly to remain in the wall etc., maintaining the integrity of the fire barrier.
- NFPA 90A requires that fire barriers of less than 3 hours utilize a 1-1/2 hour rated fire damper. Fire barriers of 3 hours or more require a 3 hour rated fire damper.
- All fire dampers must be installed as per manufacturer's instructions.

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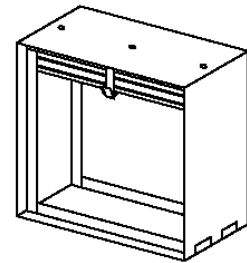
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### CURTAIN FIRE DAMPERS (cont'd)

#### TYPE A VERTICAL FIRE DAMPERS — 4"

For wall or floor mounting, spring loaded and complete with 212° fusible link (stocking sizes).

STOCK #	SIZE (")	TYPE	PRICE
703263	6 × 6	A-VERT-4"	\$50.00
703232	8 × 6	A-VERT-4"	52.00
703264	8 × 8	A-VERT-4"	59.00
703430	10 × 4	A-VERT-4"	57.00
703233	10 × 6	A-VERT-4"	57.00
703234	10 × 8	A-VERT-4"	57.00
703265	10 × 10	A-VERT-4"	66.00
703235	12 × 4	A-VERT-4"	68.00
703236	12 × 6	A-VERT-4"	68.00
703237	12 × 8	A-VERT-4"	72.00
703238	12 × 10	A-VERT-4"	74.00
703239	12 × 12	A-VERT-4"	79.00
703240	14 × 6	A-VERT-4"	80.00
703241	14 × 8	A-VERT-4"	87.00
703242	14 × 10	A-VERT-4"	89.00
703243	14 × 12	A-VERT-4"	100.00
703244	14 × 14	A-VERT-4"	114.00
703245	16 × 8	A-VERT-4"	89.00
703246	16 × 10	A-VERT-4"	92.00
703247	16 × 12	A-VERT-4"	106.00
703266	16 × 16	A-VERT-4"	112.00
703268	18 × 18	A-VERT-4"	136.00
703470	20 × 8	A-VERT-4"	96.00
703249	20 × 10	A-VERT-4"	106.00
703270	20 × 20	A-VERT-4"	142.00
703259	22 × 8	A-VERT-4"	106.00
703482	22 × 10	A-VERT-4"	114.00
703248	24 × 10	A-VERT-4"	112.00
703494	24 × 12	A-VERT-4"	125.00
703272	24 × 24	A-VERT-4"	163.00



#### TYPE A HORIZONTAL FIRE DAMPERS — 4"

For wall or floor mounting, spring loaded and complete with 212° fusible link (stocking sizes).

STOCK #	SIZE (")	TYPE	PRICE
703444	10 × 10	A-HORZ-4"	\$96.00
703448	16 × 8	A-HORZ-4"	114.00
703445	12 × 6	A-HORZ-4"	65.00
703462	18 × 12	A-HORZ-4"	127.00

**NOTE:** Other sizes available – P.O.A.

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## FIRE DAMPERS AND OVAL ACCESS DOORS

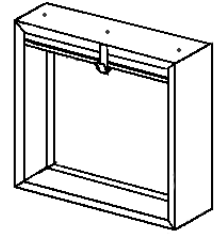
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### CURTAIN FIRE DAMPERS (cont'd)

#### TYPE A VERTICAL SLIMLINE FIRE DAMPER — 2"

For wall or floor mounting, spring loaded and complete with 212° fusible link (stocking sizes).

STOCK #	SIZE (")	TYPE	PRICE
703267	16 × 16	A-VERT-2"	\$142.00
703271	22 × 22	A-VERT-2"	204.00



#### TYPE A HORIZONTAL SLIMLINE FIRE DAMPER — 2"

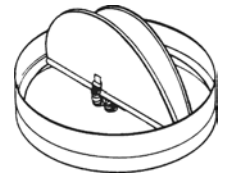
For wall/floor mounting, spring loaded and complete with 212° fusible link (stocking sizes).

STOCK #	SIZE (")	TYPE	PRICE
703262	10 × 4	A-HORZ-2"	\$89.00

### FIRE STOP FLAPS RADIATION DAMPERS — ROUND

Spring loaded with fusible link.

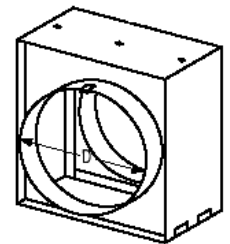
STOCK #	MODEL	SIZE (")	DESCRIPTION	PRICE
703253	0722	4	Ceiling Radiation Damper	\$75.00
703255	0722	5	Ceiling Radiation Damper	77.00
703250	0722	6	Ceiling Radiation Damper	120.00
703251	0722	7	Ceiling Radiation Damper	124.00
703252	0722	8	Ceiling Radiation Damper	127.00
703254	0722	10	Ceiling Radiation Damper	131.00
703256	0722	12	Ceiling Radiation Damper	137.00
703258	0722	14	Ceiling Radiation Damper	184.00



### TYPE C ROUND NECK HORIZONTAL FIRE DAMPERS

For wall or floor installation, spring loaded and complete with 212° fusible link (stocking sizes).

STOCK #	SIZE (")	DESCRIPTION	PRICE
703278	4	Type C Round Neck	\$150.00
703279	5	Type C Round Neck	164.00
703280	6	Type C Round Neck	164.00
703281	7	Type C Round Neck	175.00
703282	8	Type C Round Neck	186.00
703284	10	Type C Round Neck	208.00
703286	12	Type C Round Neck	214.00
703288	14	Type C Round Neck	297.00
703273	16	Type C Round Neck	306.00
703274	18	Type C Round Neck	350.00
703275	20	Type C Round Neck	411.00
C703080	22	Type C Round Neck	P.O.A.
C703080	24	Type C Round Neck	P.O.A.



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## FIRE DAMPERS AND OVAL ACCESS DOORS

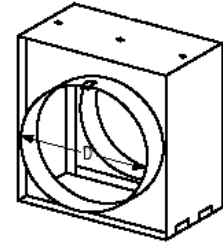
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### CURTAIN FIRE DAMPERS (cont'd)

#### TYPE C ROUND NECK VERTICAL FIRE DAMPERS

For wall or floor mounting, spring loaded and complete with 212° fusible link (stocking sizes).

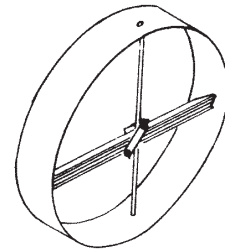
STOCK #	SIZE (")	DESCRIPTION	PRICE
703292	4	Type C Round Neck	\$132.00
703294	5	Type C Round Neck	140.00
703296	6	Type C Round Neck	140.00
703297	7	Type C Round Neck	146.00
703298	8	Type C Round Neck	149.00
703300	10	Type C Round Neck	167.00
703302	12	Type C Round Neck	176.00
703304	14	Type C Round Neck	261.00
703305	16	Type C Round Neck	272.00
703306	18	Type C Round Neck	342.00
C703080	20	Type C Round Neck	P.O.A.
C703080	22	Type C Round Neck	P.O.A.
703309	24	Type C Round Neck	374.00



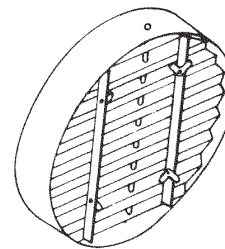
#### TYPE C ROUND NECK DUAL RATED FIRE DAMPERS

For horizontal/vertical installation, spring loaded and complete with 212° fusible link (stocking sizes).

STOCK #	MODEL	SIZE (")	DESCRIPTION	PRICE
703311	RHC	4	Dual Rated	\$121.00
703312	RHC	5	Dual Rated	121.00
703313	RHC	6	Dual Rated	121.00
703314	RHC	7	Dual Rated	136.00
703315	RHC	8	Dual Rated	136.00
703316	RHC	10	Dual Rated	144.00
703317	RHC	12	Dual Rated	159.00
703318	RHC	14	Dual Rated	227.00
703319	RHC	16	Dual Rated	237.00
703320	RHC	18	Dual Rated	257.00



Open Position



Closed Position

#### TRUE ROUND FIRE DAMPERS

Spring loaded for vertical and horizontal installation.

STOCK #	MODEL	SIZE (")	PRICE
714504	R19	4	\$125.00
714505	R19	5	125.00
714506	R19	6	130.00
714508	R19	8	140.00
714510	R19	10	145.00
714512	R19	12	150.00

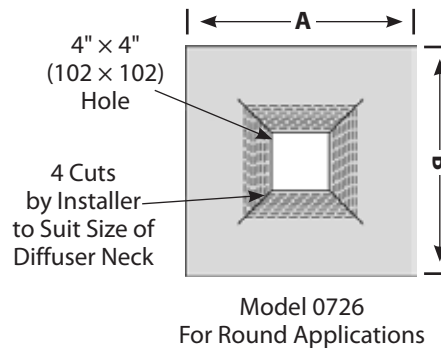
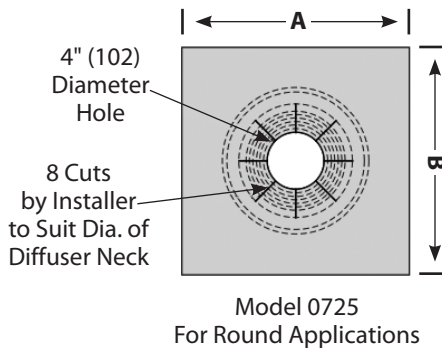
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## FIRE DAMPERS AND OVAL ACCESS DOORS

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### THERMAL BLANKETS

Nailor Models 0725 and 0726 Thermal Blankets are designed to insulate the exposed back pan area of a steel ceiling diffuser that may be used in UL Classified floor/ceiling or roof/ceiling assemblies with up to a 3 hour rating. The insulation protects the floor/roof structure above from the intense heat that radiates through the diffuser pan during fire conditions. A thermal blanket is used in conjunction with a ceiling radiation damper that protects the neck opening of the diffuser, to provide complete protection of the opening in the ceiling membrane. Model 0725 thermal blanket is for use with 0722 ceiling damper models in round neck applications. Model 0726 thermal blanket is for use with 0714, 0716 and 0720 ceiling damper models in square neck applications.



STOCK #	CEILING DIFFUSER NOMINAL SIZE			BLANKET SIZE A x B		PRICE
	IMPERIAL MODULES		METRIC MODULES	IMPERIAL AND METRIC MODULES		
	INCHES	MM	MM	INCHES	MM	
C703080	12 x 12	305 x 305	300 x 300	16 x 16	406 x 406	P.O.A.
C703080	24 x 12	610 x 305	600 x 300	28 x 16	711 x 406	P.O.A.
703310	24 x 24	610 x 610	600 x 600	28 x 28	711 x 711	\$44.00

**NOTE:**

1. Insulation: Non-asbestos UL Classified.
2. For use on the back of steel lay-in diffusers up to 24" x 24" (610 x 610) nominal face size.
3. Installer to make cuts, as shown, to the desired size of the diffuser neck.

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## FIRE DAMPERS AND OVAL ACCESS DOORS

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### ACCESS DOORS

Fire dampers need inspecting and testing, coils need cleaning and controls need adjusting. The Nailor range of duct access doors has been designed to allow easy and convenient access to such equipment within HVAC ductwork, while providing a secure, positive seal when closed. The economical 08SCL and 08SH models afford quality double skin construction that meets SMACNA requirements, with quick simple installation. The ultra-low leakage 0800 Flat Oval Series provides premium quality that optimizes access area and installs firmly. For round duct applications, the 0890 and 0895 models provide easy mounting and positive closure. All models are available in a wide variety of sizes to suit each specific application.

#### Features

- Rugged die-formed frames for maximum strength.
- Die-formed double wall door panels.
- Progressive action, zinc plated camlocks for secure closure.
- 1" (25) insulation for reduced noise and heat transfer.
- Bulb door seal or polyethylene gaskets for positive seal.
- Sizes and models to suit most applications.
- Several easy mounting methods to suit duct type.
- Available hinges, safety chains and viewports.

Other models include positive pressure duct access doors, drywall access doors and fire-rated access doors.



### 0800 SERIES — MOUNTING TYPE M1 DOUBLE FLANGE

- Flat oval
- Premium performance
- Ultra-low leakage
- Ergonomic sizing
- Insulated

The Nailor 0800 Series Flat Oval duct access doors were developed to provide a premium quality, ultra-low leakage door with optimum ergonomics in mind. The unique oval shape was designed after careful study of the needs of site engineering and maintenance personnel. Each door allows a different degree of access, enabling the most appropriate unit to be specified, depending on duct size and likely maintenance requirements. The 0800 Series is available in two frame styles for use with steel duct: a double flange screw-hole mounting type (M1) or a knock-over tab type (M2). Both styles come with a cut-out template making the oval shape openings extra easy to cut. The rugged die-formed frame, die formed double skin door panel with secure continuous bulb seal gasket, and progressive camlock operation make the 0800 Series a solid performer. These doors are continuously batch tested to 8" w.g. (2 kPa) static pressure in order to meet British Standard DW142 Class C for leakage.



### Stamped Oval Access Doors — Insulated 0800 Series for Rectangular Duct

STOCK #	MODEL	SIZE (")	DESCRIPTION	PRICE
703198	0805-M1-IN	8 × 5	Flanged Door	\$31.00
703200	1206-M1-IN	12 × 6	Flanged Door	39.00
703204	1810-M1-IN	18 × 10	Flanged Door	65.00
703212	2114-M1-IN	21 × 14	Flanged Door	112.00
703224	2517-M1-IN	25 × 17	Flanged Door	138.00

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## FIRE DAMPERS AND OVAL ACCESS DOORS

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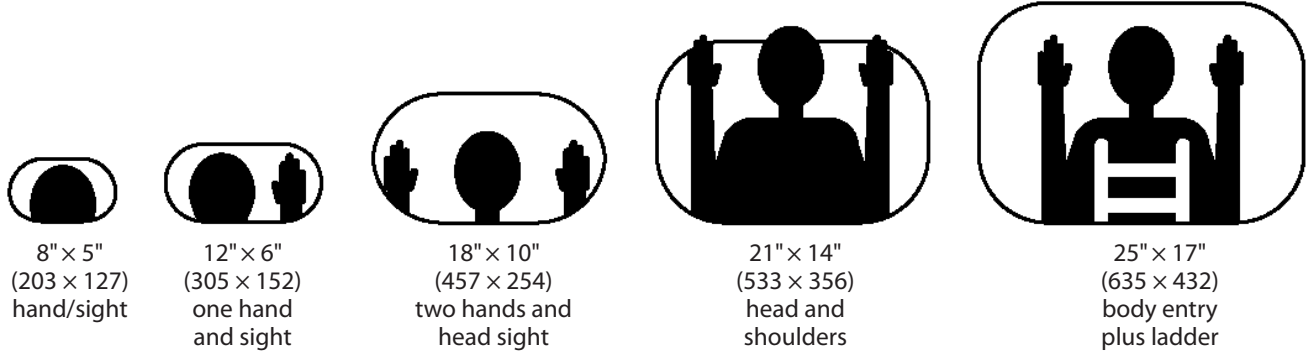
### ACCESS DOORS (cont'd)

#### 0800 SERIES — MOUNTING TYPE M1 DOUBLE FLANGE (cont'd)

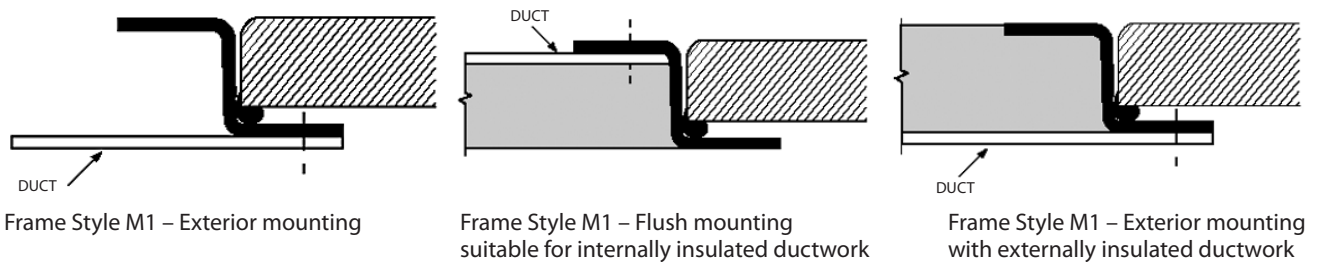
##### Ergonomic Sizing Guide

Use the following guide to select appropriate access door size.

**Suitable for use in high, medium, and low pressure duct systems.**



##### Mounting Positions



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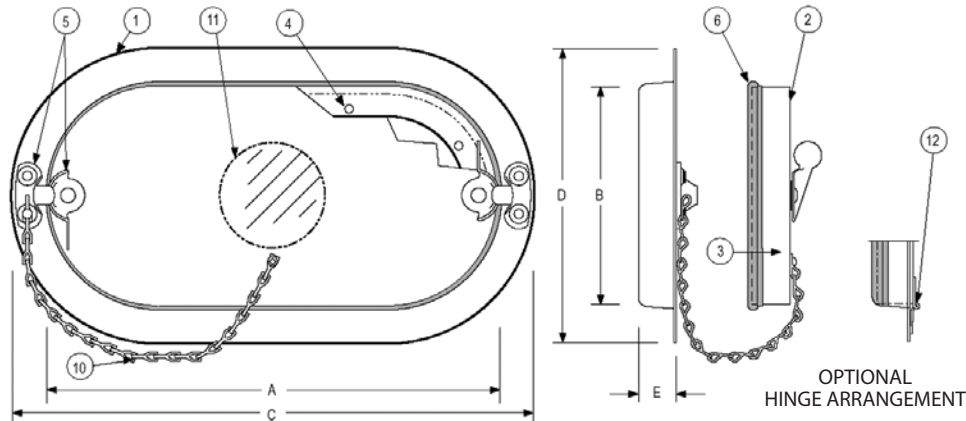
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### ACCESS DOORS (cont'd)

#### 0800 SERIES — MOUNTING TYPE M1 DOUBLE FLANGE (cont'd)

Sizes: 8 × 5, 12 × 6, 18 × 10

For Use in High, Medium and Low Pressure Duct Systems



#### Dimensional Data

NOM. SIZE (")	A (")	B (")	C (")	D (")	E (")	VIEWPORT (")
8 × 5	8	5	9-1/2	6-1/2	1-1/8	N/A
12 × 6	11-3/4	5-3/4	13-3/4	7-3/4	1-1/8	2-3/4 Dia.
18 × 10	17-3/4	9-3/4	19-3/4	11-3/4	1-1/8	5-1/2 Dia.

**NOTE:** For Ergonomic Sizing Guide, please refer to index.

#### Construction Details

1. Die-formed 22 ga. galv. flanged frame for extra strength.
2. Die-formed 22 ga. galv. door panel for extra strength.
3. 1" insulation with 22 ga. galv. backing plate.
4. 3/16" dia. pre-punched attachment holes on inner flange for surface mounting.
5. Plated steel camlock fasteners.
6. Positive bulb door seal.
7. Layout template included.
8. Oval shaped opening adaptable to all ducts 5" or over.

#### Options

9. 3/16" dia. pre-punched attachment holes on outer flange for flush mounting (*optional*).
10. Safety chain (*optional*).
11. Viewport (*optional*). Not available on size 8 × 5.
12. Hinge arrangement (*optional*).
13. Pair of additional camlocks (*optional*).

#### Leakage Information

Conforms to British Standard DW142 Class A, B, and C.

Maximum allowable leakage at 8" w.g.:

8 × 5 – 0.036 CFM; 12 × 6 – 0.064 CFM; 18 × 10 – 0.133 CFM

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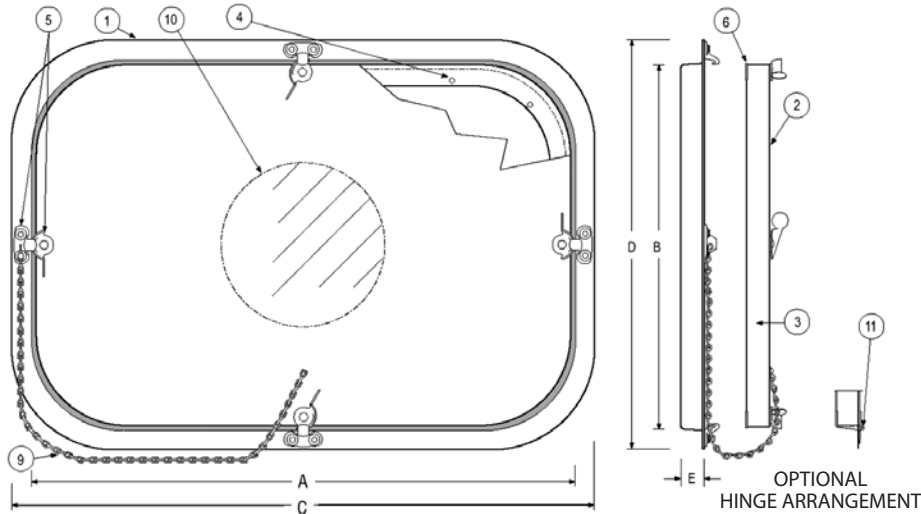
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### ACCESS DOORS (cont'd)

#### 0800 SERIES — MOUNTING TYPE M1 DOUBLE FLANGE (cont'd)

Sizes: 21 × 14, 25 × 17

For Use in High, Medium and Low Pressure Duct Systems



#### Dimensional Data

NOM. SIZE (")	A (")	B (")	C (")	D (")	E (")	VIEWPORT (")
21 × 14	20-3/4	13-3/4	23-3/4	15-3/4	1-1/8	5-1/2 Dia.
25 × 17	24-3/4	16-3/4	26-3/4	18-3/4	1-1/8	5-1/2 Dia.

**NOTE:** For Ergonomic Sizing Guide, please refer to index.

#### Construction Details

1. Die-formed 22 ga. galv. flanged frame for extra strength.
2. Die-formed 22 ga. galv. door panel for extra strength.
3. 1" insulation with 22 ga. galvanized backing plate.
4. 3/16" dia. pre-punched attachment holes on inner flange for surface mounting.
5. Plated steel camlock fasteners.
6. Positive seal gasketing.
7. Layout template included.

#### Options

8. 3/16" dia. pre-punched attachment holes on outer flange for flush mounting (optional).
9. Safety chain (optional).
10. Viewport (optional).
11. Hinge arrangement (optional).
12. Pair of additional camlocks (optional).

#### Leakage Information

Conforms to British Standard DW142 Class A, B, and C.

Maximum allowable leakage at 8" w.g.:  
21 × 14 – 0.206 CFM; 25 × 17 – 0.286 CFM

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## FIRE DAMPERS AND OVAL ACCESS DOORS

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### ACCESS DOORS (cont'd)

#### 0890 SERIES — LOW PRESSURE ROUND DUCT ACCESS DOOR (HINGED)

Nailor Model 0890 is an economical round duct access door, suitable for use in low pressure systems. A continuous piano hinge permits the door to swing open fully, allowing unobstructed access to the duct, while the zinc plated strikes and catches, and polyurethane foam gasketing provide a tight, positive seal.

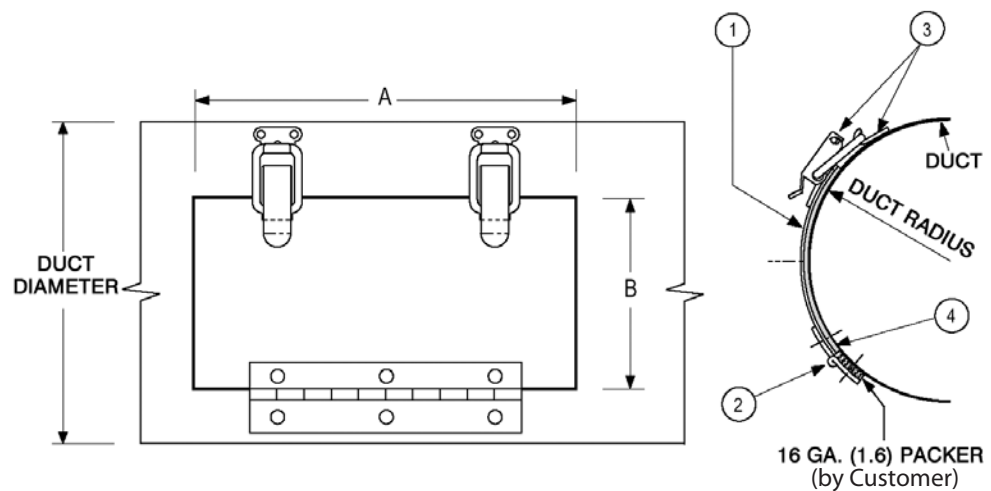


#### SPECIAL APPLICATION ACCESS DOORS — NON INSULATED — 0890 SERIES FOR ROUND DUCT

STOCK #	MODEL	SIZE (")	DUCT SIZE (")	PRICE
703160	0890	7 × 4	5	\$49.00
703166	0890	8 × 5	6	58.00
703170	0890	9 × 6	7	62.00
703176	0890	10 × 7	8	63.00
703180	0890	12 × 9	10	66.00
703182	0890	14 × 10	12	92.00
703184	0890	16 × 12	14	94.00
703185	0890	16 × 12	16	104.00
703186	0890	18 × 14	18	114.00
703188	0890	18 × 16	20	124.00
703190	0890	18 × 16	24	128.00

#### Dimensional Data

DUCT DIAMETER (")	DOOR SIZE (") A × B
5	7 × 4
6	8 × 5
7	9 × 6
8	10 × 7
9	11 × 8
10	12 × 9
12	14 × 10
14	16 × 12
16	16 × 12
18	18 × 14
20	18 × 16
24	18 × 16



#### Construction Details

1. Duct access door 16 ga. galvanized steel.
2. Door hinge.
3. Strike and catch. Zinc plated steel.
4. Gasket.
5. Other sizes are available. Contact your local ECCO Supply Sales Branch for more information.

– E.&O.E. – May not be in stock at all branches, if so please allow 10 days for delivery. –  
– All Prices F.O.B. Our Warehouse – Subject to Change Without Notice – All Taxes Extra –