

**Nailor**  
Industries Inc.

**FIRE RATED PRODUCTS**

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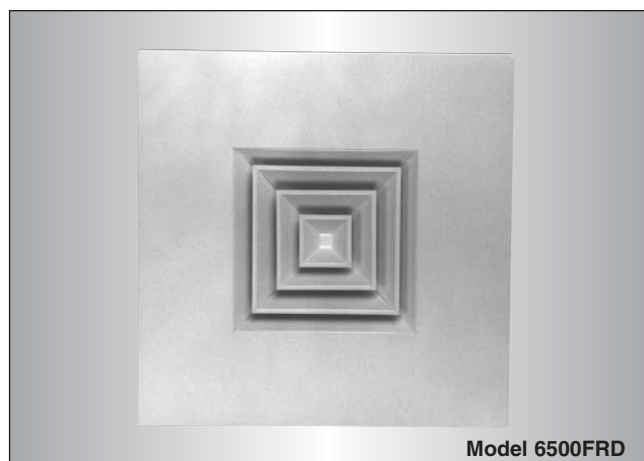
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## GENERAL PRODUCT OVERVIEW

### Fire Rated Products

**Nailor** offers a wide variety of fire rated products that are designed to provide the unobtrusive appearance required for architectural excellence and the high engineering performance required for use in heating and cooling applications. Ceiling diffusers, plenum slot diffusers and even ductless return air grilles are some of the many styles that are available.

**Nailor's** selection of fire rated products are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Volume III Fire Resistance Ratings.



Model 6500FRD

#### Fire Rated Pattern Diffusers

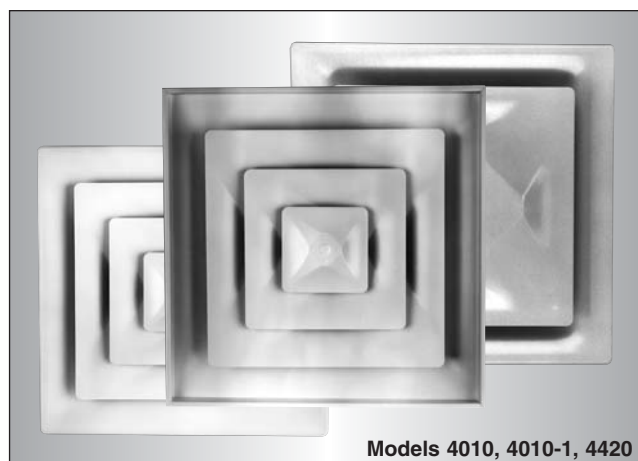
Nailor pattern ceiling diffusers are a high capacity louvered face directional diffuser that can supply large volumes of air at relatively low sound levels and pressure drops. Available in a variety of core styles and neck sizes; a combination can be selected to suit a specified air pattern and deliver the desired volume of air to suit particular requirements.

##### Square Neck –

Fixed Pattern	Model 6500FRD	See page F8
Adjustable Pattern	Model 6550FRD	See page F8
Induction Vanes	Model 6500IVFRD	See page F8

##### Round Neck –

Fixed Pattern	Model 6505FRD	See page F10
Adjustable Pattern	Model 6555FRD	See page F10
Induction Vanes	Model 6505IVFRD	See page F10



Models 4010, 4010-1, 4420

#### Fire Rated Stamped Square Diffusers

The 4000 and 4400 series models are a fire rated version of the popular RNS series. They have been specially designed to provide an extremely cost effective, value engineered product. They offer both the unobtrusive appearance required for architectural excellence and the 360° diffusion pattern at minimum NC levels required for high engineering performance.

##### Fixed Air Pattern –

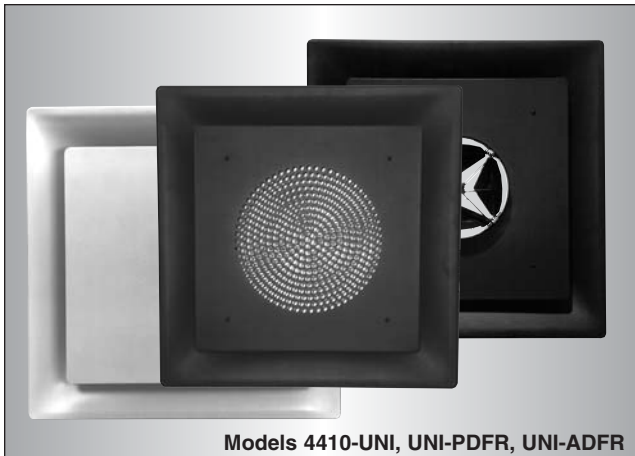
Full Face	Models 4010, 4020	See page F12
Panel Type	Models 4030, 4040	See page F12
Surface Mount	Model 4010-SM (ULC only)	See page F14

##### Adjustable Pattern –

Full Face	Models 4010-1, 4020-1	See page F15
Panel Type	Models 4030-1, 4040-1	See page F15

##### Fixed Pattern 2-Cone –

Full Face	Models 4410, 4420	See page F17
Panel Type	Models 4430, 4440	See page F17



Models 4410-UNI, UNI-PDFR, UNI-ADFR

## Fire Rated Architectural Square Diffusers

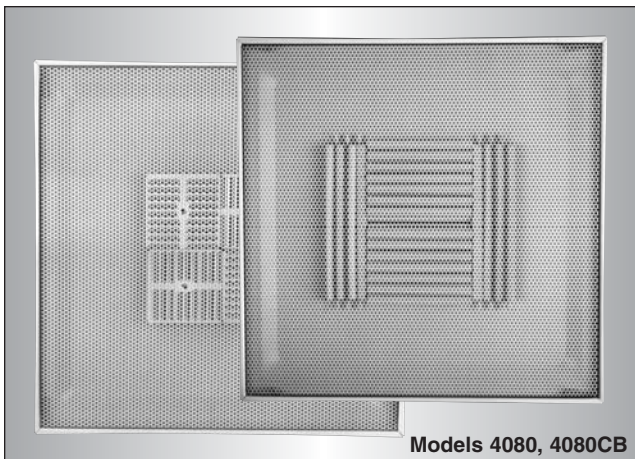
These models are a fire rated version of the popular UNI series. Designed with the architect in mind, the diffusers in this series are fashioned to blend in with most ceiling types to create the ultimate aesthetic look. Nailor has made available two performance styles; the standard UNI with a fixed 360° air diffusion pattern and the downblast diffuser for high ceiling applications.

### Flat Panel –

Full Face      Models 4410-UNI, 4420-UNI      **See page F19**  
 Panel          Models 4430-UNI, 4440-UNI      **See page F19**

### Downblast –

Perforated      Model UNI-PDFR      **See page F21**  
 Radial Vane    Model UNI-ADFR      **See page F23**



Models 4080, 4080CB

## Fire Rated Perforated Diffusers

The fire rated diffusers in this series are the most popular choices of Nailor's 4300 series perforated diffusers. Models included are the adjustable pattern controller design for ultimate performance flexibility. Available in both supply and return air styles with a choice of a flush or drop face.

### Supply Air Adjustable Pattern Deflectors –

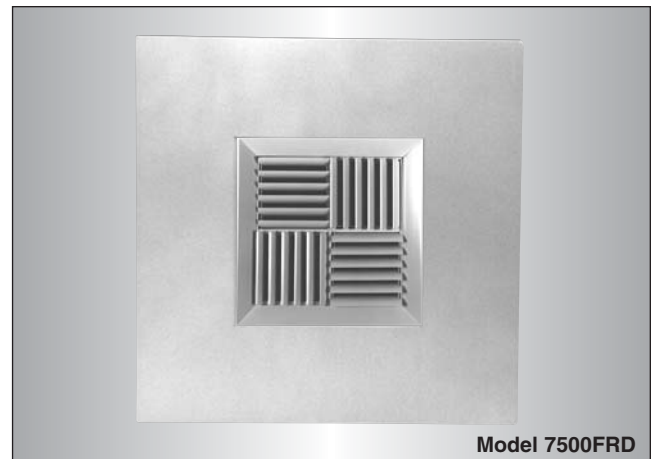
Flush Face      Models 4070, 4080      **See page F25**  
 Drop Face      Models 4075, 4085      **See page F25**  
 Surface Mount Model 4070-SM (ULC only) **See page F27**

### Supply Air Curved Blade Pattern Controllers –

Flush Face      Models 4070CB, 4080CB      **See page F28**  
 Drop Face      Models 4075CB, 4085CB      **See page F28**

### Return Air –

Flush Face      Models 4070R, 4080R      **See page F25**  
 Drop Face      Models 4075R, 4085R      **See page F25**



Model 7500FRD

## Fire Rated Modular Core Diffusers

This diffuser features four individual spring-loaded 'modular' pattern controllers mounted in the neck. They can be adjusted before or after installation, to provide a 1, 2, 3 or 4-way discharge pattern. The diffuser maintains a horizontal ceiling pattern from maximum to minimum flow.

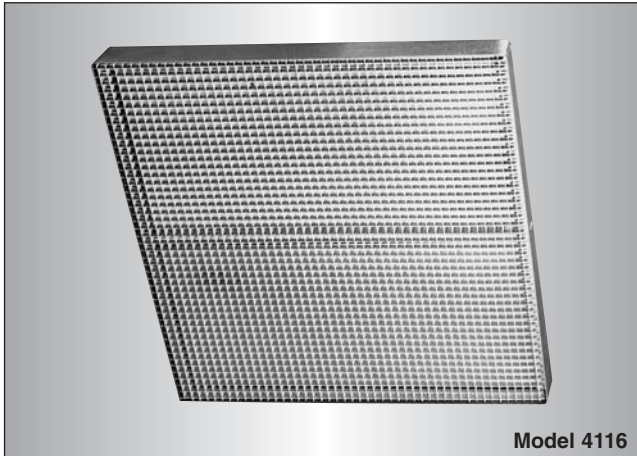
### Square Neck –

Model 7500FRD      **See page F30**

### Round Neck –

Model 7505FRD      **See page F30**





Model 4116

## Fire Rated Ductless Return Grilles

The return air grille models in this series have been designed to compliment the Nailor range of fire rated supply diffusers. The grilles have been tested and classified for use without the requirement of duct work or supplementary support, they simply lay in place. The grilles are available in three styles, a perforated face, an eggcrate face or an open face model that can accommodate a grille by others.

### Perforated Face –

Models 4111, 4112, 4113

See page F32

### Eggcrate Face –

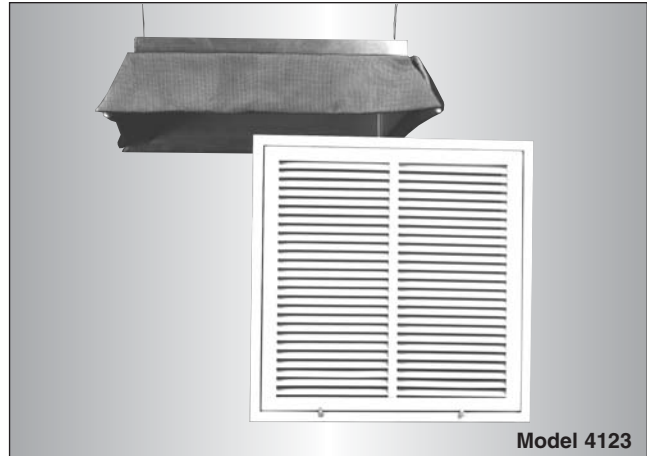
Models 4114, 4115, 4116

See page F32

### Open Face (grille by others) –

Models 4117, 4118, 4119

See page F32



Model 4123

## Fire Rated Ductless Return Filter Grilles

The return air filter grille models in this series have been designed to compliment the Nailor range of fire rated supply diffusers. These grilles are manufactured to accommodate a throw away filter by others. The grilles have been tested and classified for use without the requirement of duct work or supplementary support, they simply lay in place. The filter grilles are available in two styles, a louvered face or an eggcrate face.

### Louvered Face –

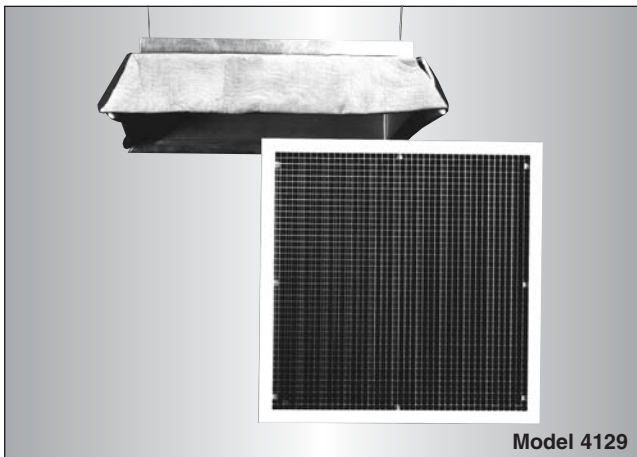
Models 4121, 4122, 4123

See page F34

### Eggcrate Face –

Models 4124, 4125, 4126

See page F34



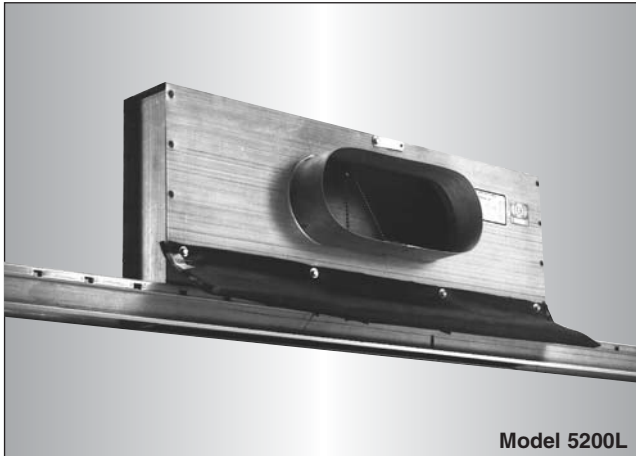
Model 4129

## Fire Rated Ductless Return Ceiling Dampers for Optional Grille

This unique product features a raised ceiling radiation damper mounted on an extended support frame above the ceiling line. It will accommodate any type of return air grille, filter grille or register manufactured from steel or aluminum. This allows the design engineer greater flexibility.

Models 4127, 4128, 4129

See page F36



Model 5200L

## Open Face Fire Rated Plenum Diffusers

This fire rated plenum is designed for lay-in T-Bar. It can accommodate steel or aluminum grilles, registers or linear type slot diffusers and bar grilles. A turned in leg design is available to suit lay-in type cores and a hemmed leg design is available to accommodate concealed mounting angles.

### Turned in Leg –

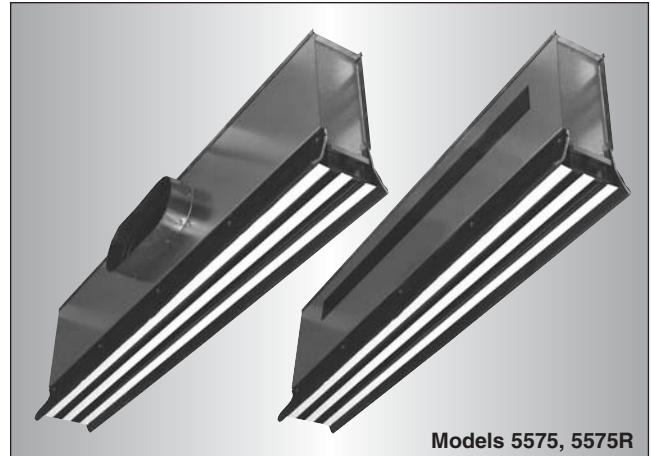
Model 5200L

See page F38

### Hemmed Leg –

Model 5200S

See page F38



Models 5575, 5575R

## Fire Rated Plenum Slot Diffusers

These plenum slot diffusers are designed for lay-in T-Bar. They are available for supply and return air. The supply air models feature pattern controllers that are available in three performance styles, four slot widths, and up to four parallel slots. The return models are designed to match the look of the supply air models.

### 'Wiper Blade' Pattern Controller –

Models 5550WB, 5575WB, 5510WB, 5515WB

See page F40

### 'Ice Tong' Pattern Controller –

Models 5550T, 5575T, 5510T

See page F42

### 'Flip Flop' Pattern Controller –

Model 5575

See page F44

### Return Air –

Models 5550R, 5575R, 5510R, 5515R

See page F46

## FIRE RATED PATTERN CEILING DIFFUSERS

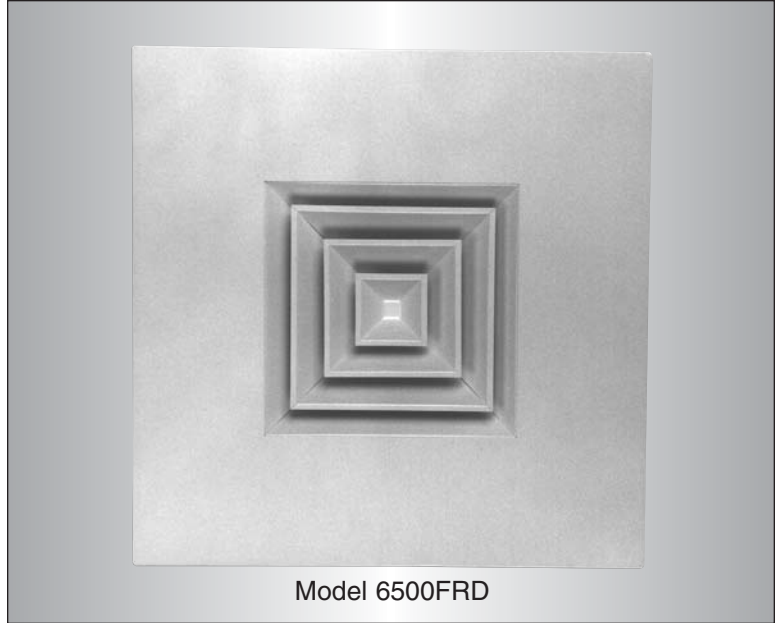
- SQUARE NECK
- 3 HOUR RATING
- LOUVERED FACE
- HIGH CAPACITY
- LAY-IN



CATEGORY  
CABS



CATEGORY  
40U18.2 &  
40U18.2W



### Models:

- 6500FRD** Fixed Pattern  
**6550FRD** Adjustable Pattern  
**6500IVFRD** Induction Vanes

F

FIRE RATED PRODUCTS

The **Nailor Models 6500FRD, 6550FRD and 6500IVFRD** are UL/ULC Classified fire rated ceiling diffuser component assemblies. The ceiling damper and thermal blanket accessory are listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

**Nailor Pattern Ceiling Diffusers** provide a high capacity louvered face directional diffuser that can supply large volumes of air at relatively low sound levels and pressure drops. Available in a variety of core styles and neck sizes, a combination can be selected to suit a specified air pattern and deliver the desired volume of air to suit any particular requirements.

All models provide a tight horizontal discharge pattern from maximum to minimum airflow, making this product ideally suited to VAV applications.

The **Model 6550FRD Adjustable Pattern Ceiling Diffuser** features four hinged, independently adjustable control vanes, providing continuous adjustment of the air discharge pattern from horizontal to vertical on each side of the diffuser.

The **Model 6500IVFRD Induction Vane Pattern Ceiling Diffuser** features induction vanes mounted behind the louvers that create counter-flowing jets of primary air that promote rapid mixing of the cool primary air with room air.

### FEATURES:

- Spring-loaded core. Removable without the use of tools.
- Engineered air diffusion patterns for 1, 2, 3 or 4-way blow in a variety of square neck sizes.
- Clean lines with no unsightly visible screws.
- The fixed ceiling radiation damper

is standard. The adjustable model for balancing is optional.

- Removing the inner core assembly gives access to AV balancing option.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).
- All models must be installed in accordance with the installation

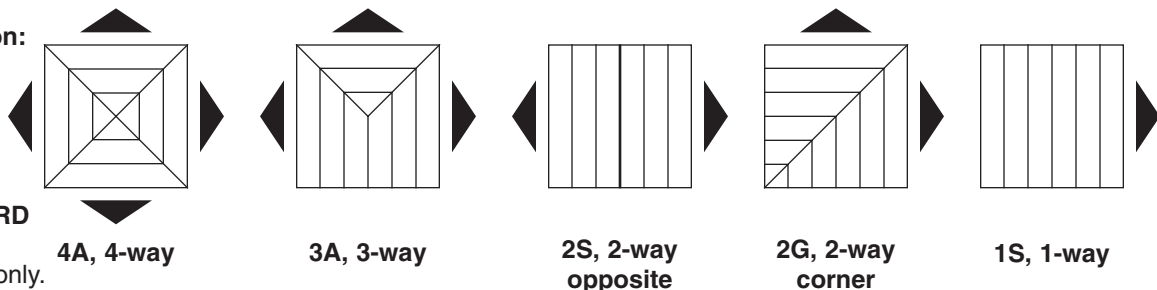
instructions for UL/ULC Classification.

**Material:** Corrosion-resistant steel.

**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available.

**Performance Data:** See non-fire rated **Model 6500** on page D18 or **Model 6500IV** on page D39.

### Core Selection:

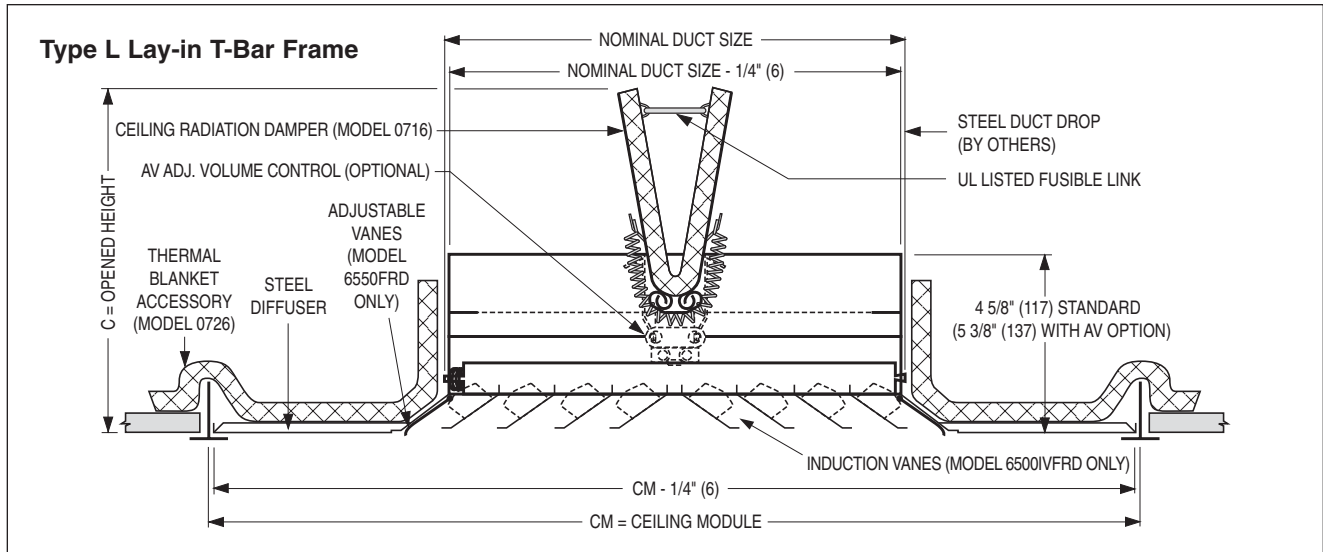


**Note:**  
**Model 6550FRD**  
 is available in  
 core style 4A only.



## Dimensional Data

Models 6500FRD, 6550FRD and 6500IVFRD • Square Neck



F

FIRE RATED PRODUCTS

### Available Sizes and Dimensional Data

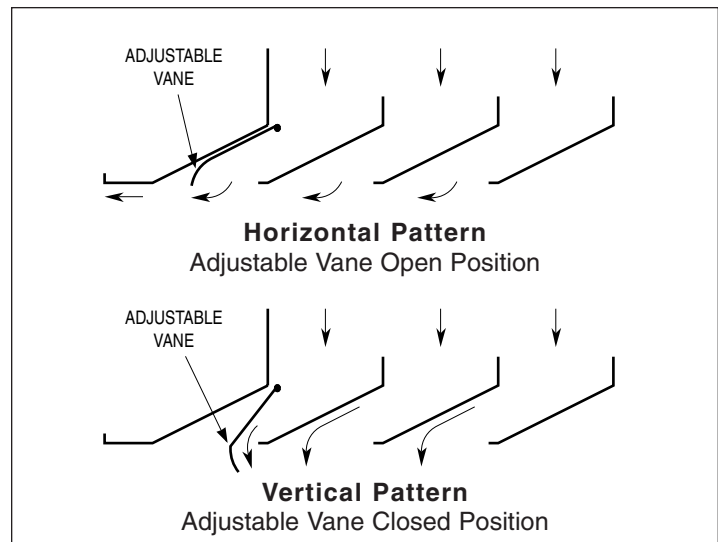
Ceiling Module CM	Nominal Duct Size (square)	Opened Height C	
		Standard	With AV Option
12 x 12 (305 x 305)	6 x 6 (152 x 152)	5 3/4 (146)	6 1/2 (165)
	9 x 9 (229 x 229)	7 1/4 (184)	8 (203)
24 x 24 (610 x 610)	6 x 6 (152 x 152)	5 3/4 (146)	6 1/2 (165)
	9 x 9 (229 x 229)	7 1/4 (184)	8 (203)
	12 x 12 (305 x 305)	9 (229)	9 3/4 (248)
	15 x 15 (381 x 381)	10 1/4 (260)	11 (279)
	18 x 18 (457 x 457)	11 3/4 (298)	N/A
	21 x 21 (533 x 533)	13 1/4 (337)	N/A

Dimensions are in inches (mm).

#### Note:

If the square ceiling module is more than 3" (76) larger than the duct size, a module sized extended panel is utilized.

### Model 6550FRD Pattern Adjustment

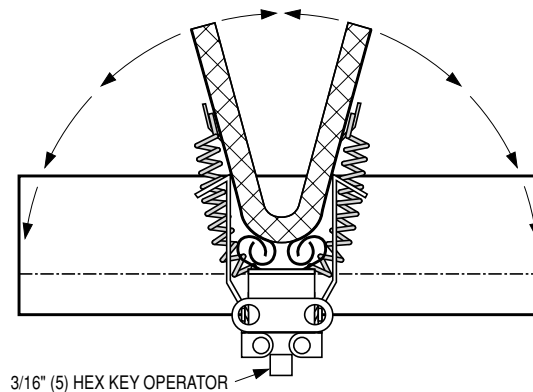


#### AV Fusible Link Adjustable Volume Control Option.

This UL Listed ceiling radiation damper (Model 0716A) option allows the ceiling radiation damper to be used as a balancing damper for volume control.

The ceiling damper blades are adjusted with a hex key and perform like a butterfly damper.

**Note:** Maximum square duct size for this option is 15" x 15" (381 x 381).

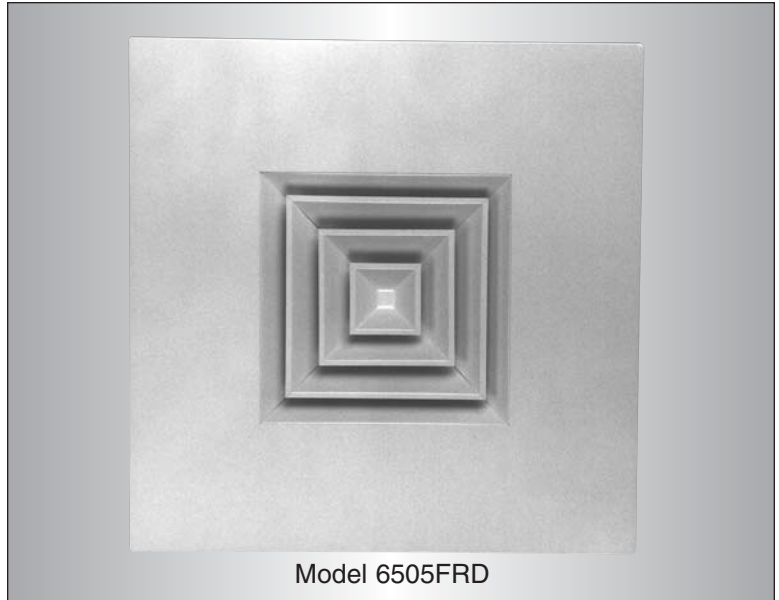


## FIRE RATED PATTERN CEILING DIFFUSERS

- ROUND NECK
- 3 HOUR RATING
- LOUVERED FACE
- HIGH CAPACITY
- LAY-IN



CATEGORY  
CABS



### Models:

- 6505FRD** Fixed Pattern  
**6555FRD** Adjustable Pattern  
**6505IVFRD** Induction Vanes

F

FIRE RATED PRODUCTS

The **Nailor Models 6505FRD, 6555FRD** and **6505IVFRD** are UL Classified fire rated ceiling diffuser component assemblies. The ceiling damper and thermal blanket accessory are listed in Underwriters Laboratories Fire Resistance Directory. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory.

**Nailor Pattern Ceiling Diffusers** provide a high capacity louvered face directional diffuser that can supply large volumes of air at relatively low sound levels and pressure drops. Available in a variety of core styles and neck sizes, a combination can be selected to suit a specified air pattern and deliver the desired volume of air to suit any particular requirements.

All models provide a tight horizontal discharge pattern from maximum to minimum airflow, making this product ideally suited to VAV applications.

The **Model 6555FRD Adjustable Pattern Ceiling Diffuser** features four hinged, independently adjustable control vanes, providing continuous adjustment of the air discharge pattern from horizontal to vertical on each side of the diffuser.

The **Model 6505IVFRD Induction Vane Pattern Ceiling Diffuser** features induction vanes mounted behind the louvers that create counter-flowing jets of primary air that promote rapid mixing of the cool primary air with room air.

### FEATURES:

- Spring-loaded core. Removable without the use of tools.
- Engineered air diffusion patterns for 1, 2, 3 or 4-way blow.
- Clean lines with no unsightly visible screws.
- Round neck permits use of flexible duct.
- The fixed ceiling radiation damper

is standard. The adjustable model for balancing is optional.

- Removing the inner core assembly gives access to AV balancing option.
- 212°F (100°C) fusible link is standard. (165°F (74°C) is optional).
- All models must be installed in accordance with the installation instructions for UL Classification.

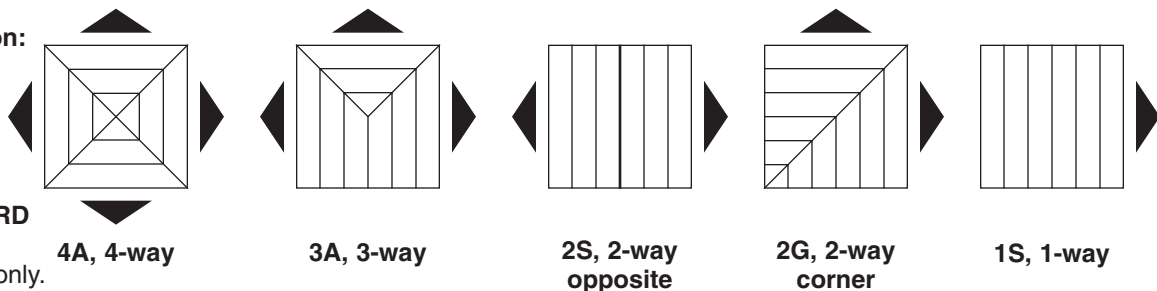
**Material:** Corrosion-resistant steel.

**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available.

**Performance Data:** See non-fire rated **Model 6500** on page D18 or **Model 6500IV** on page D39.

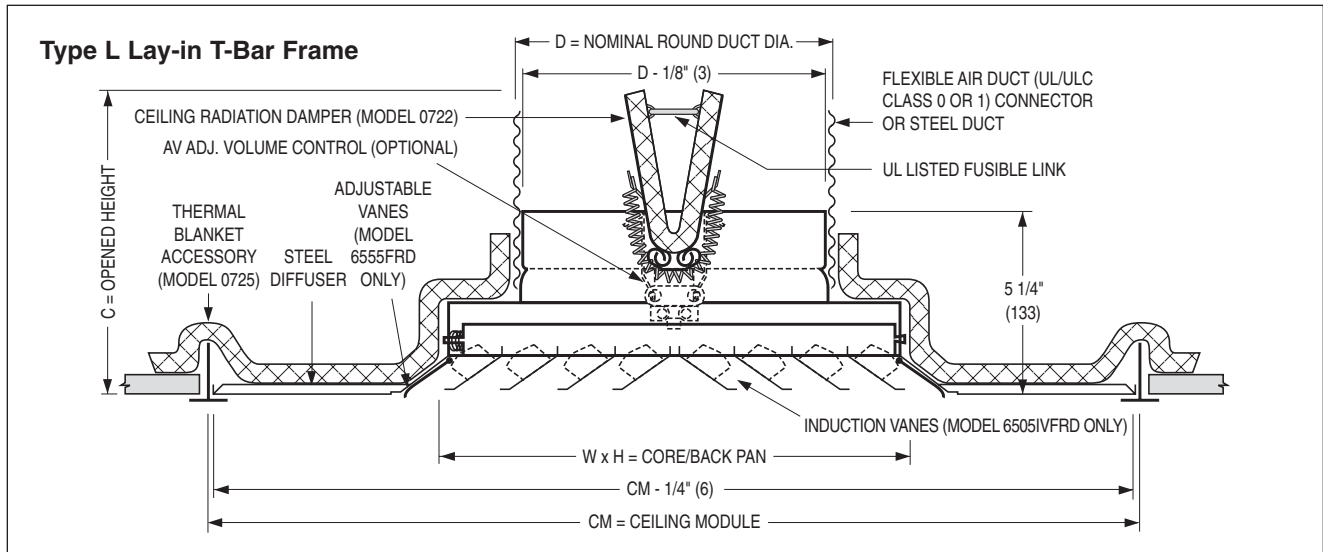
### Core Selection:

**Note:**  
**Model 6555FRD**  
 is available in  
 core style 4A only.



## Dimensional Data

### Models 6505FRD, 6555FRD and 6505IVFRD • Round Neck



F

FIRE RATED PRODUCTS

### Available Sizes and Dimensional Data

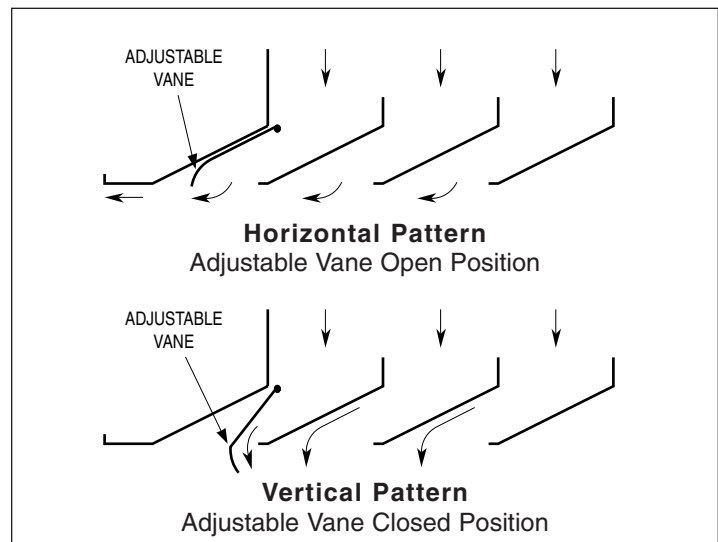
Ceiling Module CM	Core/ Back Pan W x H	Round Neck D	Opened Height C
12 x 12 (305 x 305)	9 x 9 (229 x 229)	6 (152) 8 (203)	6 1/2 (165) 7 1/2 (191)
24 x 24 (610 x 610)	9 x 9 (229 x 229)	6 (152) 8 (203)	6 1/2 (165) 7 1/2 (191)
	12 x 12 (305 x 305)	8 (203) 10 (254)	7 1/2 (191) 8 1/2 (216)
	15 x 15 (381 x 381)	10 (254) 12 (305)	8 1/2 (216) 9 1/2 (241)
	18 x 18 (457 x 457)	12 (305) 14 (356)	9 1/2 (241) 10 1/2 (267)
		14 (356)	10 1/2 (267)

Dimensions are in inches (mm).

#### Note:

If the square ceiling module is more than 3" (76) larger than the duct size, a module sized extended panel is utilized.

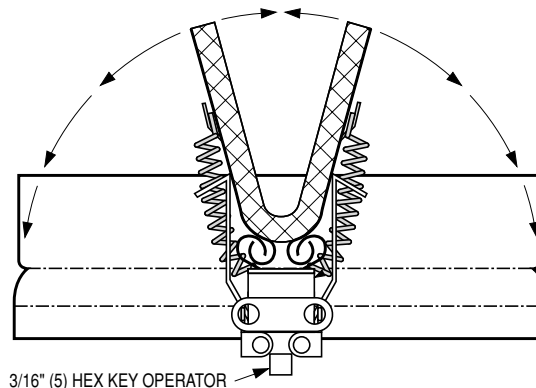
### Model 6555FRD Pattern Adjustment



### AV Fusible Link Adjustable Volume Control Option.

This UL Listed ceiling radiation damper (Model 0722A) option allows the ceiling radiation damper to be used as a balancing damper for volume control.

The damper blades are adjusted with a hex key and perform like a butterfly damper.



## FIRE RATED STAMPED SQUARE CEILING DIFFUSERS

- FIXED AIR PATTERN
- HIGH PERFORMANCE
- ROUND NECK
- 3 HOUR RATING
- LAY-IN

### Full Face Models:

4010, 4020

### Panel Type Models:

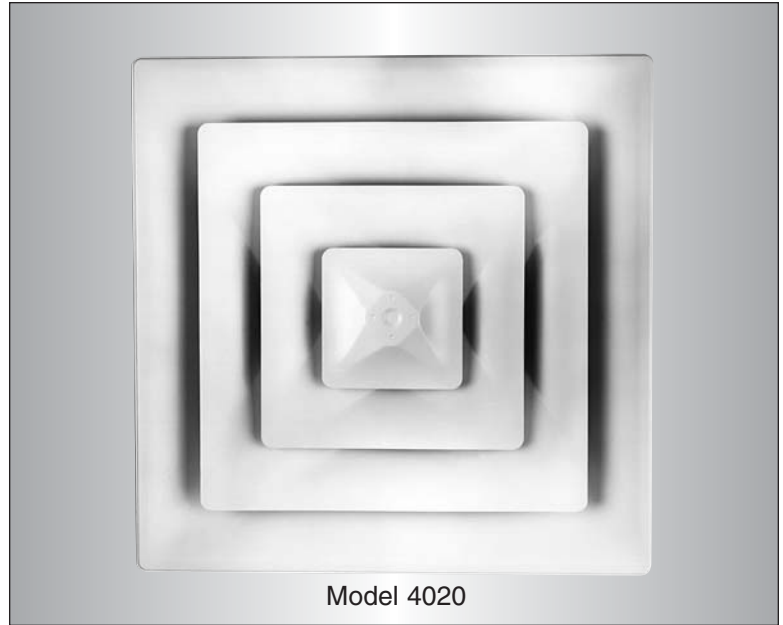
4030, 4040



CATEGORY  
BZZU



CATEGORY  
40U18.1-1/2A



The **Nailor Model Series 4000** are UL/ULC Classified fire rated ceiling diffuser assemblies listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

These models are a fire rated version of the popular **RNS Series**. They have been specially designed to provide an extremely cost effective, value engineered product. They offer both the unobtrusive appearance required for architectural excellence and the 360° diffusion pattern at minimum NC levels required for high engineering performance. For these reasons the **RNS Series** diffuser is the most popular choice for general applications.

The stamped one-piece cones eliminate mitered corners and the die-formed curves provide consistent quality and performance. The stepped down core design increases capacity and minimizes streaking and smudging of the ceiling.

The diffusers provide stable diffusion and mixing patterns under constant and changing load conditions, and are particularly suitable for variable air volume systems.

### FEATURES:

- Factory assembled, 'packaged' product ensures compliance with fire code, simplifies specification and minimizes field labor.
- Tested in accordance with UL Standard 263, "Fire Tests of Building Construction and Materials."
- Approved for use with flexible duct. Eliminates steel branch duct and drop. No costly independent hangers and supports are required.
- Spring-loaded core is securely held in position and is removable without the use of tools.
- Engineered air diffusion pattern.
- Steel stamped cones for uniformity.
- All 12 x 12 (300 x 300) and 24 x 24 (600 x 600) modules feature four cones in all neck sizes, providing a uniform appearance where different sizes are installed in the same area.
- The fixed ceiling radiation damper is standard. The adjustable version for balancing is optional.
- Quick, easy access to the AV balancing option is achieved from the face of the diffuser by removing the center plug. It is not necessary to remove the inner cone assembly.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).
- All models must be installed in accordance with the installation instructions for UL/ULC Classification.

**Material:** Heavy gauge corrosion-resistant steel.

**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available

**Performance Data:** See non-fire rated **Model RNS** on page D82.

## Dimensional Data

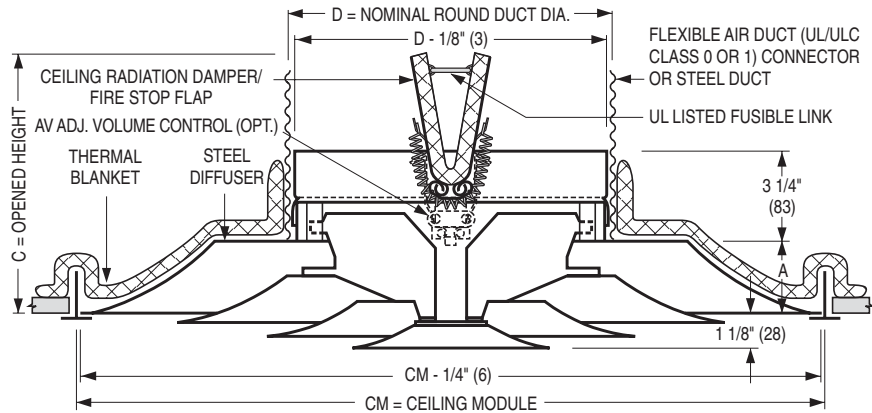
### Models 4010 and 4020 • Full Face

**Model 4010** 12 x 12 (300 x 300) module

**Model 4020** 24 x 24 (600 x 600) module

Listed Neck Size	Imperial Modules (inches)			Metric Modules (mm)		
	D	A	C	D	A	C
6	CM = 12 x 12			CM = 300 x 300		
8	6	1	5 1/2	152	25	140
	8		6 1/2	203		165
10	CM = 24 x 24			CM = 600 x 600		
12	6		6 13/16	152		173
	8		7 13/16	203		198
	10	2 5/16	8 13/16	254	59	224
	12		9 13/16	305		249
	14		10 13/16	356		275

#### Type L Lay-in T-Bar Frame



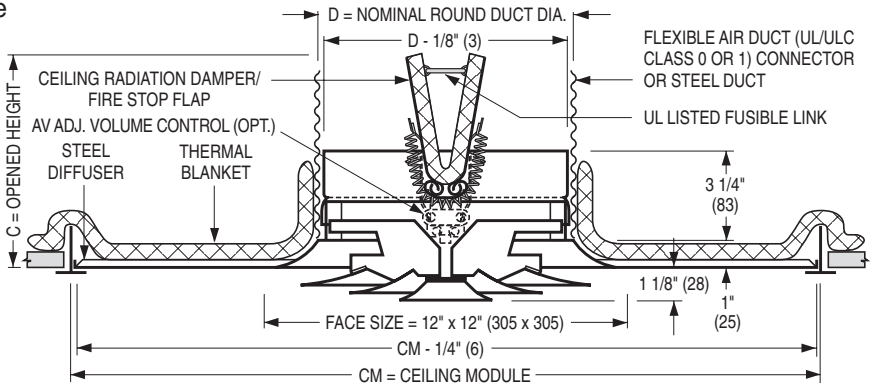
### Models 4030 and 4040 • Panel Type

**Model 4030** 24 x 12 (600 x 300) module

**Model 4040** 24 x 24 (600 x 600) module

Listed Neck Size	Imperial Modules (inches)		Metric Modules (mm)	
	D	C	D	C
6	CM = 24 x 12		CM = 600 x 300	
8	6	5 1/2	152	140
	8	6 1/2	203	165
10	CM = 24 x 24		CM = 600 x 600	
12	6	5 1/2	152	140
	8	6 1/2	203	165

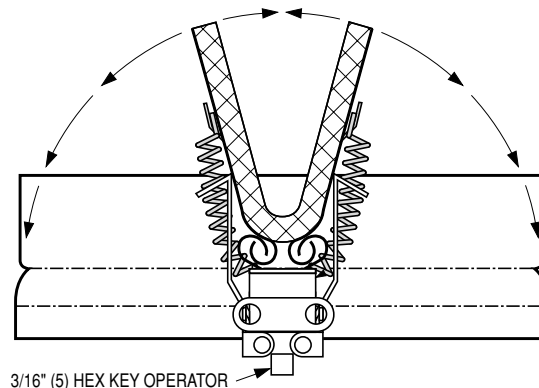
#### Type PL Panel Lay-in T-Bar Frame



#### AV Fusible Link Adjustable Volume Control Option.

This UL Listed ceiling radiation damper option allows the ceiling radiation damper to be used as a balancing damper for volume control.

The ceiling damper blades are adjusted with a hex key and perform like a butterfly damper.





## FIRE RATED STAMPED SQUARE CEILING DIFFUSERS

- FIXED AIR PATTERN
- ROUND NECK
- 3 HOUR RATING
- SURFACE MOUNT

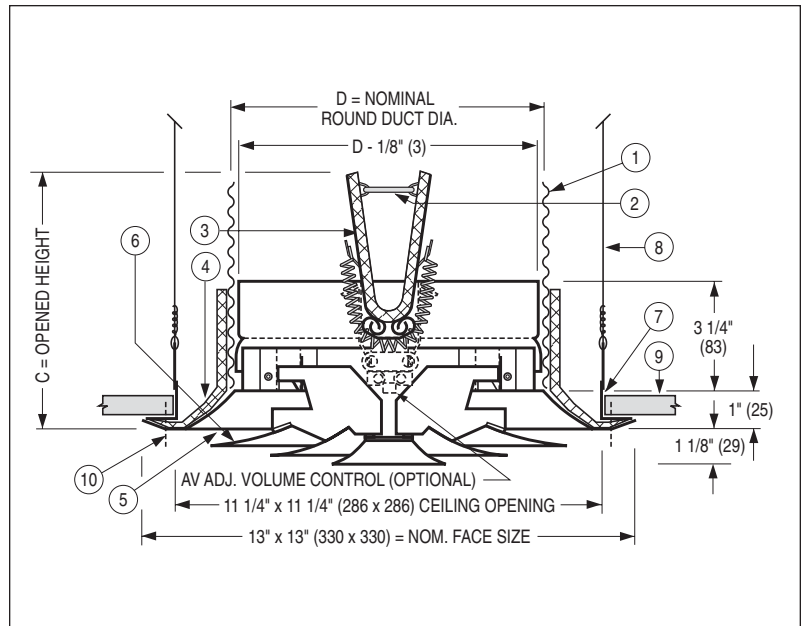


CATEGORY  
40U18.1-1/2A

Model:

4010-SM

12 x 12 (300 x 300) Module  
Type S Surface Mount Frame



### ITEMS:

- |   |  |                      |
|---|--|----------------------|
| 1. Flexible air duct (UL/ULC Class 0 or 1) connector or steel duct. | 4. Thermal blanket.                    | 9. Ceiling membrane. |
| 2. UL Listed fusible link. 212°F (100°C) standard.                  | 5. Corrosion-resistant steel diffuser. | 10. Mounting screws. |
| 3. Ceiling radiation damper/fire stop flap.                         | 6. Louvered deflector cones.           |                      |
|   | 7. Mounting support frame.             |                      |
|   | 8. Hanger wires (by others).           |                      |

A unique **Nailor** Product. The only fire rated diffuser assembly of its kind for surface mount applications. Popular applications are fire rated ceiling designs which incorporate wooden joists on less than 24" (610) centers and 'Type X' gypsum wallboard ceiling membrane protection.

This model is a fire rated version of the popular **RNS Louvered Face Series**.

Classified by Underwriters' Laboratories of Canada (ULC) for use in ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate air ducts and a hard (gypsum board) ceiling membrane with up to a 3 hour rating. For details of fire rated assemblies, see the current ULC List of Equipment and Materials Vol. III Fire Resistant Ratings. The use of this product in fire rated ceilings with ceiling membrane protection and/or UL Classified assemblies in the U.S.A. requires local approval by the authority having jurisdiction.

### OPTIONS:

- AV Fusible link adjustable volume control. Permits adjustment to damper blades for balancing.
- Non-standard temperature UL Listed fusible link (165°F (74°C)).

**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available.

**Performance Data:** See non-fire rated **Model RNS** on page D82.

### Available Sizes and Dimensional Data

Listed Neck Size	Imperial Modules				Metric Modules	
	Imperial Units (inches)		SI Units (mm)		SI Units (mm)	
	D	C	D	C	D	C
6	6	5 1/2	152	140	152	140
8	8	6 1/2	203	165	203	165

## FIRE RATED ADJUSTABLE STAMPED SQUARE CEILING DIFFUSERS

- HORIZONTAL TO VERTICAL ADJUSTABLE DISCHARGE PATTERN
- HIGH PERFORMANCE
- ROUND NECK
- 3 HOUR RATING
- LAY-IN

### Full Face Models:

4010-1, 4020-1

### Panel Type Models:

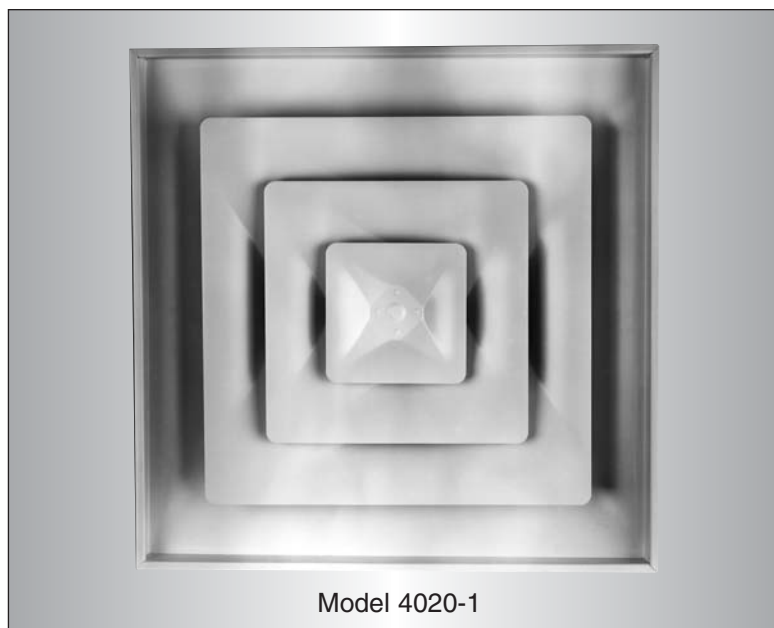
4030-1, 4040-1



CATEGORY  
BZZU



CATEGORY  
40U18.1-1/2A



Model 4020-1

The **Nailor Model Series 4000** are UL/ULC Classified fire rated ceiling diffuser assemblies listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

These models are a fire rated version of the popular **RNSA Series**. They have been specially designed to provide an extremely cost effective, value engineered product. They offer both the unobtrusive appearance required for architectural excellence and the 360° diffusion pattern at minimum NC levels required for high engineering performance. They provide the flexibility of a standard horizontal discharge or near vertical discharge pattern, useful in high ceiling applications where better air penetration or spot heating may be desired.

The stamped one-piece cones eliminate mitered corners and the die-formed curves provide consistent quality and performance.

The diffusers provide stable diffusion and mixing patterns under constant and changing load conditions, and are particularly suitable for variable air volume systems.

### FEATURES:

- Factory assembled, 'packaged' product ensures compliance with fire code, simplifies specification and minimizes field labor.
- Tested in accordance with UL Standard 263, "Fire Tests of Building Construction and Materials."
- Approved for use with flexible duct. Eliminates steel branch duct and drop. No costly independent hangers and supports are required.

**Adjustment:** Unique screw-type arrangement is quick and simple from the face of the diffuser. Permits gradual adjustment of the air discharge pattern from horizontal to vertical by rotating the center cone and so moving the inner cone assembly up or down.

- Spring-loaded core is securely held in position and is removable without the use of tools.
- Engineered air diffusion pattern.
- Steel stamped cones for uniformity.
- All 12 x 12 (300 x 300) and 24 x 24 (600 x 600) modules feature four cones in all neck sizes, providing a uniform appearance where different sizes are installed in the same area.
- The fixed ceiling radiation damper is standard. The adjustable version for balancing is optional.
- Quick, easy access to the AV balancing option is achieved from the face of the diffuser by removing the center plug. It is not necessary to remove the inner cone assembly.

- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).

- All models must be installed in accordance with the installation instructions for UL/ULC Classification.

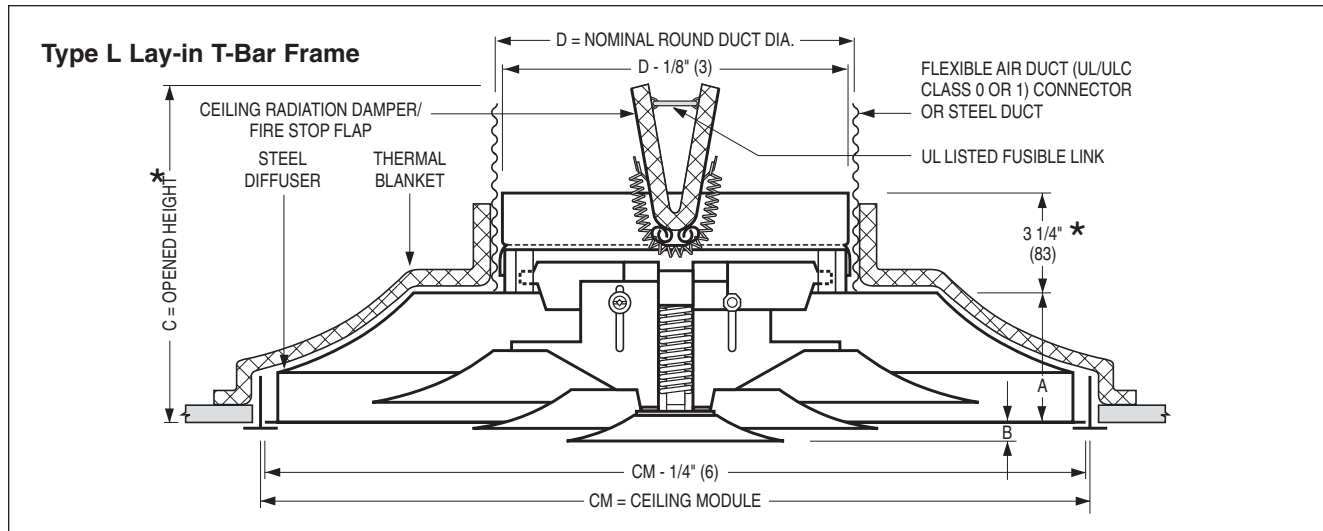
**Material:** Heavy gauge corrosion-resistant steel.

**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available.

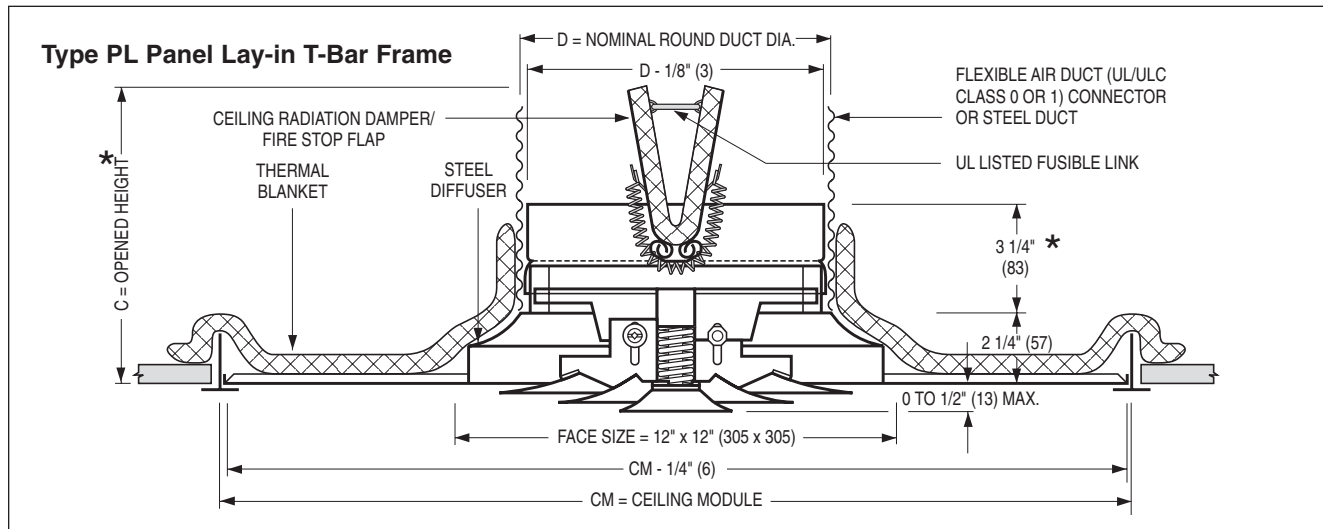
**Performance Data:** See non-fire rated **Model RNSA** on page D87.

## Dimensional Data

### Models 4010-1 and 4020-1 • Full Face



### Models 4030-1 and 4040-1 • Panel Type



### Available Sizes and Dimensional Data

**Model 4010-1** 12 x 12 (300 x 300) module

**Model 4020-1** 24 x 24 (600 x 600) module

Listed Neck Size	Imperial Modules (inches)				Metric Modules (mm)			
	CM = 12 x 12				CM = 300 x 300			
6	6	2 1/4	0 to	6 3/4	152	57	0 to	171
8	8		1/2	7 3/4	203		13	197
Listed Neck Size	CM = 24 x 24				CM = 600 x 600			
	D	A	B	C *	D	A	B	C *
6	6			8 1/4	152			210
8	8		0	9 1/4	203		0	235
10	10	3 3/4	to	10 1/4	254	95	to	260
12	12		3/8	11 1/4	305		10	286
14	14			12 1/4	356			311

**Model 4030-1** 24 x 12 (600 x 300) module

**Model 4040-1** 24 x 24 (600 x 600) module

Listed Neck Size	Imperial Modules (inches)		Metric Modules (mm)	
	CM = 24 x 12		CM = 600 x 300	
6	6	6 3/4	152	171
8	8	7 3/4	203	197
Listed Neck Size	CM = 24 x 24		CM = 600 x 600	
	D	C *	D	C *
6	6	6 3/4	152	171
8	8	7 3/4	203	197

\* Plus 1 1/2" (38) with AV option.

\* Plus 1 1/2" (38) with AV option.

## FIRE RATED STAMPED SQUARE CEILING DIFFUSERS

- FIXED AIR PATTERN
- HIGH PERFORMANCE
- ROUND NECK
- 3 HOUR RATING
- LAY-IN

### Full Face Models:

4410, 4420

### Panel Type Models:

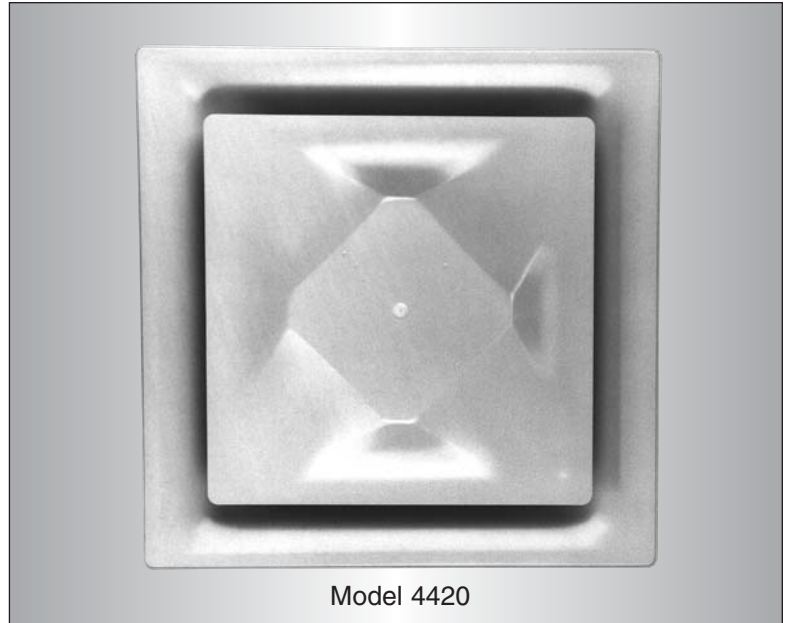
4430, 4440



CATEGORY  
BZZU



CATEGORY  
40U18.1-1/2A



Model 4420

F

FIRE RATED PRODUCTS

The **Nailor Model Series 4400** are UL/ULC Classified fire rated ceiling diffuser assemblies listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

These models are a fire rated version of the economical **RNS2 Series**. They have been specially designed to provide an extremely cost effective, value engineered product. They offer both the unobtrusive appearance required for architectural excellence and the 360° diffusion pattern at minimum NC levels required for high engineering performance.

The stamped one-piece cones eliminate mitered corners and the die-formed curves provide consistent quality and performance. The stepped down core design increases capacity and the diffusers provide stable diffusion and mixing patterns under constant and changing load conditions. They can accommodate a turn down of 80% without losing the ceiling coanda effect and dumping, making them particularly suitable for variable air volume systems.

### FEATURES:

- Factory assembled, 'packaged' product ensures compliance with fire code, simplifies specification and minimizes field labor.
- Tested in accordance with UL Standard 263, "Fire Tests of Building Construction and Materials."
- Approved for use with flexible duct. Eliminates steel branch duct and drop. No costly independent hangers and supports are required.
- The inner cone assembly is fixed and non-removable, providing additional security and safety.
- Engineered air diffusion pattern.
- Steel stamped cones for uniformity.

- All 12 x 12 (300 x 300) and 24 x 24 (600 x 600) modules feature two cones in all neck sizes, providing a uniform appearance where different sizes are installed in the same area.
- The fixed ceiling radiation damper is standard. The adjustable version for balancing is optional.
- Quick, easy access to the AV balancing option is achieved from the face of the diffuser by removing the center plug.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).

- All models must be installed in accordance with the installation instructions for UL/ULC Classification.

**Material:** Heavy gauge corrosion-resistant steel.

**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available.

**Performance Data:** See non-fire rated **Model RNS2** on page D92.

## Dimensional Data

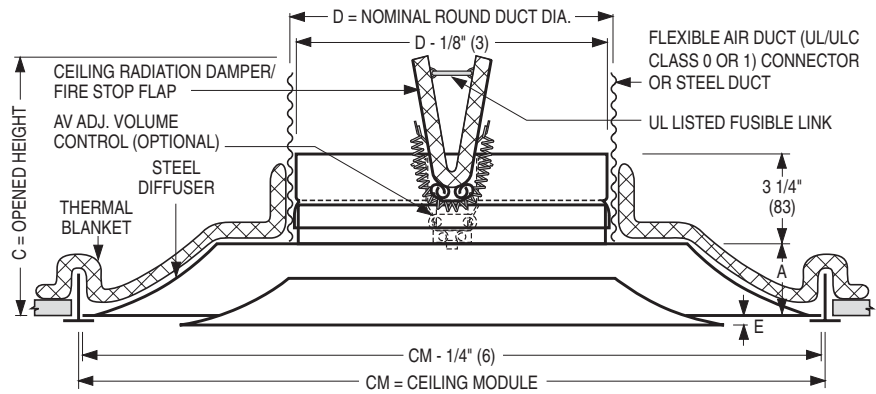
### Models 4410 and 4420 • Full Face

**Model 4410** 12 x 12 (300 x 300) module

**Model 4420** 24 x 24 (600 x 600) module

#### Type L Lay-in T-Bar Frame

Listed Neck Size	Imperial Modules (inches)				Metric Modules (mm)			
	D	A	C	E	D	A	C	E
CM = 12 x 12								
6	6	1	5 1/2	1 1/4	152	25	140	32
8	8		6 1/2		203		165	
CM = 24 x 24								
6	6		6 13/16		152		173	
8	8		7 13/16		203		198	
10	10	2 5/16	8 13/16	7/8	254	59	224	22
12	12		9 13/16		305		249	
14	14		10 13/16		356		275	



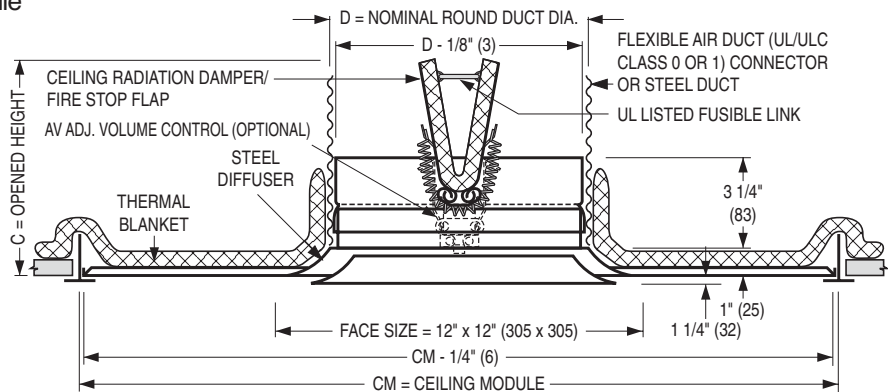
### Models 4430 and 4440 • Panel Type

**Model 4430** 24 x 12 (600 x 300) module

**Model 4440** 24 x 24 (600 x 600) module

#### Type PL Panel Lay-in T-Bar Frame

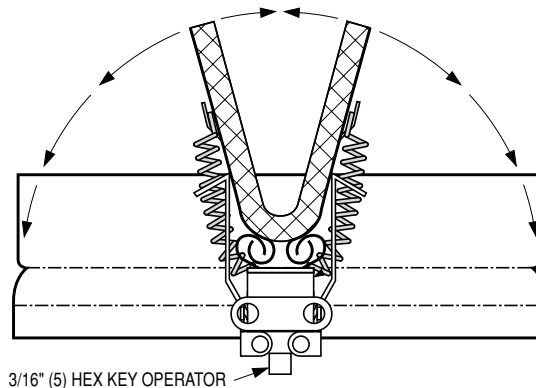
Listed Neck Size	Imperial Modules (inches)		Metric Modules (mm)	
	D	C	D	C
CM = 24 x 12				
6	6	5 1/2	152	140
8	8	6 1/2	203	165
CM = 24 x 24				
6	6	5 1/2	152	140
8	8	6 1/2	203	165



#### AV Fusible Link Adjustable Volume Control Option.

This UL Listed ceiling radiation damper option allows the ceiling radiation damper to be used as a balancing damper for volume control.

The ceiling damper blades are adjusted with a hex key and perform like a butterfly damper.





## FIRE RATED ARCHITECTURAL SQUARE CEILING DIFFUSERS

- HIGH PERFORMANCE
- ROUND NECK
- 3 HOUR RATING
- LAY-IN

### Full Face Models:

4410-UNI, 4420-UNI

### Panel Type Models:

4430-UNI, 4440-UNI



CATEGORY  
BZZU



CATEGORY  
40U18.1-1/2A



Model 4420-UNI

The **Nailor Model Series 4400** are UL/ULC Classified fire rated ceiling diffuser assemblies listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

These models are a fire rated version of the popular **UNI Series**. They have been specially designed to provide the unobtrusive appearance required for architectural excellence and the 360° diffusion pattern at minimum NC levels required for high engineering performance. The stamped one-piece outer cone eliminates mitered corners and the die-formed curves provide consistent quality and performance.

The **UNI** diffuser compliments any decor, blending beautifully with virtually any architectural style or requirement. The **UNI** diffuser provides a stable, tight fit to the ceiling, horizontal air diffusion and mixing pattern under constant and changing load conditions throughout the cataloged range of air volumes, and is particularly suitable for variable air volume applications.

### FEATURES:

- Factory assembled, 'packaged' product ensures compliance with fire code, simplifies specification and minimizes field labor.
- Tested in accordance with UL Standard 263, "Fire Tests of Building Construction and Materials."
- Approved for use with flexible duct. Eliminates steel branch duct and drop. No costly independent hangers and supports are required.
- Spring-loaded core is securely held in position and is removable without the use of tools.
- Engineered air diffusion pattern.
- Steel stamped cones for uniformity.

- Face panel is virtually flush with the ceiling line and is double skinned for rigidity and strength. Features a hemmed edge for a professional finish.
- With two cones in all sizes, the diffusers provide a uniform appearance where different neck sizes are installed in the same area.
- RC Retaining Channels are available for ceiling tile installation on the face of the inner cone assembly.
- Unique, concealed neck bracketry is virtually invisible from most angles.
- The fixed ceiling radiation damper is standard. The adjustable version for balancing is optional.

- Access to the AV balancing option is achieved by removing the inner cone assembly.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).
- All models must be installed in accordance with the installation instructions for UL/ULC Classification.

**Material:** Heavy gauge corrosion-resistant steel.

**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available

**Performance Data:** See non-fire rated **Model UNI** on page D101.

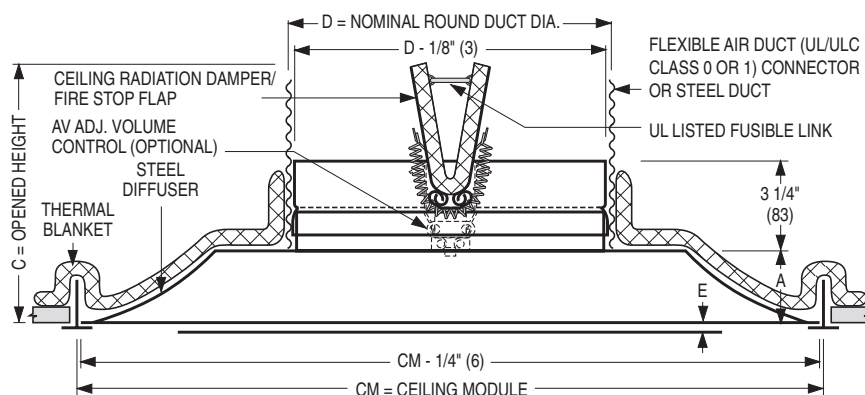
## Dimensional Data

### Models 4410-UNI and 4420-UNI • Full Face

**Model 4410-UNI** 12 x 12 (300 x 300) module **Type L Lay-in T-Bar Frame**

**Model 4420-UNI** 24 x 24 (600 x 600) module

Listed Neck Size	Imperial Modules (inches)				Metric Modules (mm)			
	CM = 12 x 12				CM = 300 x 300			
	D	A	C	E	D	A	C	E
6	6		5 1/2	5/8	152		140	16
8	8	1	6 1/2		203	25	165	
Listed Neck Size	CM = 24 x 24				CM = 600 x 600			
	D	A	C	E	D	A	C	E
6	6		6 13/16		152		173	
8	8		7 13/16		203		198	
10	10	2 5/16	8 13/16	3/8	254	59	224	10
12	12		9 13/16		305		249	
14	14		10 13/16		356		275	

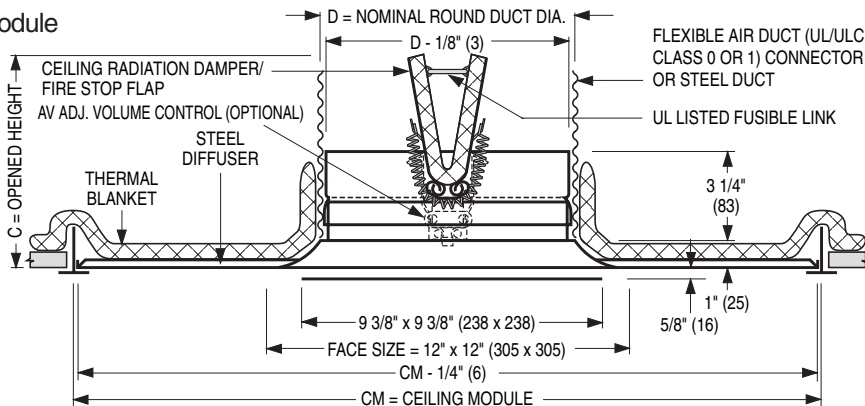


### Models 4430-UNI and 4440-UNI • Panel Type

**Model 4430-UNI** 24 x 12 (600 x 300) module **Type PL Panel Lay-in T-Bar Frame**

**Model 4440-UNI** 24 x 24 (600 x 600) module

Listed Neck Size	Imperial Modules (inches)		Metric Modules (mm)	
	CM = 24 x 12		CM = 600 x 300	
	D	C	D	C
6	6	5 1/2	152	140
8	8	6 1/2	203	165
Listed Neck Size	CM = 24 x 24		CM = 600 x 600	
	D	C	D	C
6	6	5 1/2	152	140
8	8	6 1/2	203	165



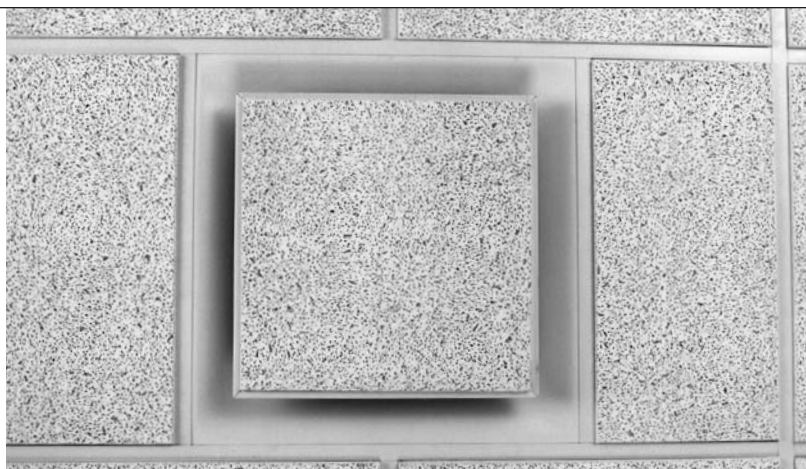
## Architectural Option

### Model 4420-UNI

The **Model 4420-UNI** diffuser with optional RC Retaining Channel compliments any decor blending beautifully with virtually any architectural style or requirement for a unique 'custom' appearance.

The retaining channel is shipped separately for field installation of a ceiling tile that has been cut to size and installs directly on the face of the inner cone assembly.

The result is a high performance, fire rated diffuser that blends harmoniously with the specified architectural ceiling design.



## FIRE RATED FIXED PERFORATED DOWNBLAST DIFFUSER

- HIGH PERFORMANCE
- ROUND NECK
- 3 HOUR RATING
- LAY-IN

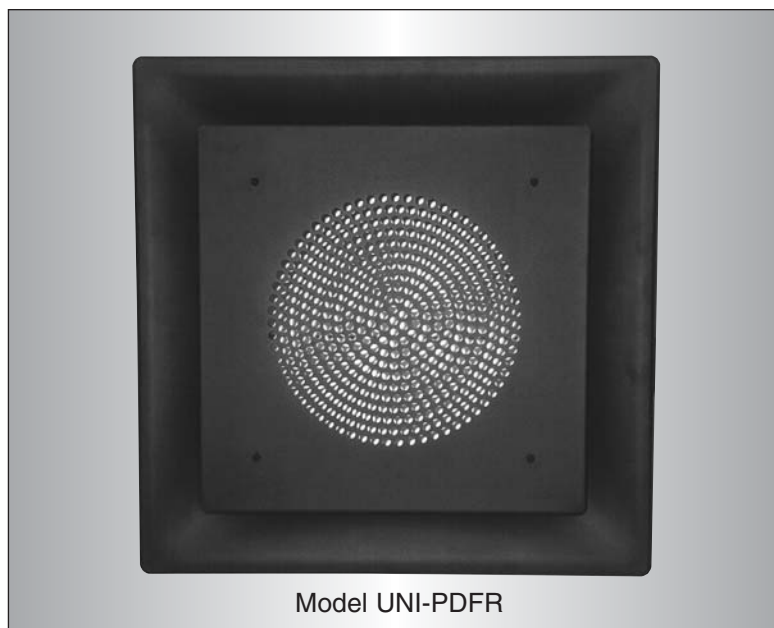
**Model:**  
**UNI-PDFR**



CATEGORY  
BZZU



CATEGORY  
40U18.1-1/2A



Model UNI-PDFR

The **Nailor Model UNI-PDFR** is a UL/ULC Classified fire rated ceiling diffuser assembly listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

The **Model UNI-PDFR** has been specially designed to provide both the unobtrusive appearance for architectural excellence and high airflow at minimum NC levels needed in theatre, auditorium and other high ceiling applications. A circular perforated aperture in the diffuser face provides both a horizontal and vertical apportion of the airflow. The horizontal portion provides a tight 360° ceiling diffusion pattern and the vertical portion provides a true and long downward projection.

The **Model UNI-PDFR** heavy duty ceiling diffusers are designed for effective heating and spot cooling applications where conditions and floor to ceiling heights are variable.

### FEATURES:

- Factory assembled, 'packaged' product ensures compliance with fire code, simplifies specification and minimizes field labor.
- Tested in accordance with UL Standard 263, "Fire Tests of Building Construction and Materials."
- Approved for use with flexible duct. Eliminates steel branch duct and drop. No costly independent hangers and supports are required.
- Engineered air diffusion pattern.
- Steel stamped shapes for uniformity.
- Suitable for theatres, auditoriums, factories, warehouses, convention halls, coliseums, shopping malls and other high ceiling applications.
- 360° horizontal discharge pattern plus vertical projection.
- Heavy gauge face plate features a hemmed edge for a professional, clean finish. Perforated face has 3/8" (10) diameter holes on 5/8" (16) staggered centers.
- The fixed ceiling radiation damper is standard. The adjustable version for balancing is not available on this model. Balancing should be performed by installing a remote damper at the branch duct take-off.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).

- All models must be installed in accordance with the installation instructions for UL/ULC Classification.

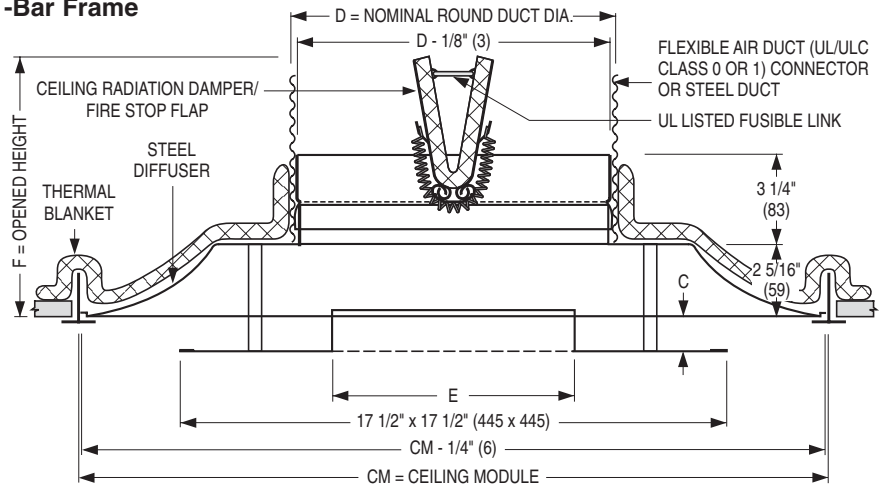
**Material:** Heavy gauge, corrosion-resistant steel.

**Finish:** BK Flat Black or AW Appliance White baked enamel. Other finishes are available.

**Performance Data:** See non-fire rated **Model UNI-PD** on page D107.

Dimensional Data  
Model UNI-PDFR

Type L Lay-in -Bar Frame



Available Sizes and Dimensional Data

		Imperial Modules								Metric Modules			
		Imperial Units (inches)				SI Units (mm)				SI Units (mm)			
Listed Neck Size	CM = 24 x 24				CM = 610 x 610				CM = 600 x 600				
	D	E	F	C	D	E	F	C	D	E	F	C	
12	12		9 13/16	1 3/16	305	286	249	30	305	286	249	30	
14	14	11 1/4	10 13/16		356		275		356		275		

## FIRE RATED ADJUSTABLE DOWNBLAST DIFFUSER

- HIGH PERFORMANCE
- ROUND NECK
- 3 HOUR RATING
- LAY-IN

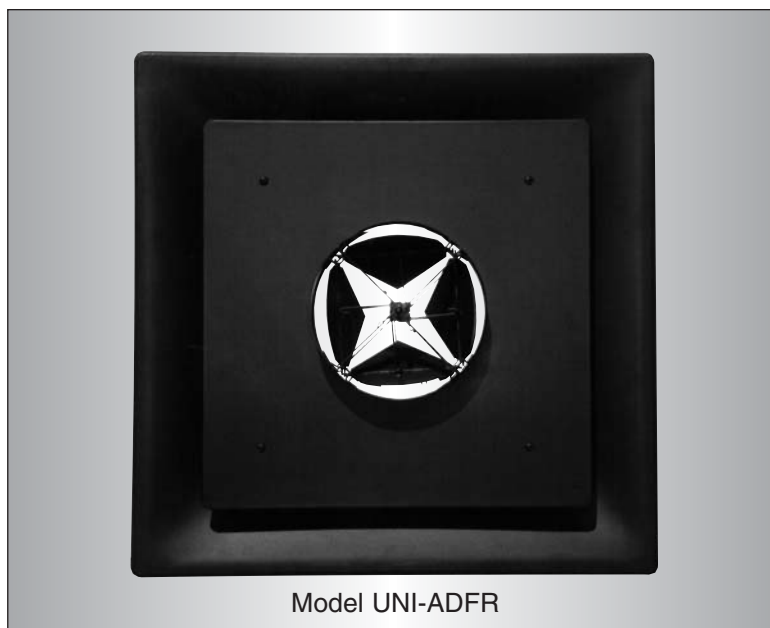
**Model:**  
**UNI-ADFR**



CATEGORY  
BZZU



CATEGORY  
40U18.1-1/2A



Model UNI-ADFR

The **Nailor Model UNI-ADFR** is a UL/ULC Classified fire rated ceiling diffuser assembly listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

The **Model UNI-ADFR** has been specially designed to provide both the unobtrusive appearance for architectural excellence and high airflow at minimum NC levels needed in theatre, auditorium and other high ceiling applications. Radial vanes in the adjustable face damper permit air pattern adjustment from full horizontal to approximately 50/50 horizontal/vertical. Full adjustment requires only a half turn and is easily accomplished from the floor using the ring operator and a pole (by others).

The **Model UNI-ADFR** heavy duty ceiling diffusers are designed for effective heating and spot cooling applications where conditions and floor to ceiling heights are variable. At the full vertical setting, they provide a true and long downward projection. At full horizontal setting, they produce the tight ceiling pattern that is required for excellent VAV performance.

### FEATURES:

- Factory assembled, 'packaged' product ensures compliance with fire code, simplifies specification and minimizes field labor.
- Tested in accordance with UL Standard 263, "Fire Tests of Building Construction and Materials."
- Approved for use with flexible duct. Eliminates steel branch duct and drop. No costly independent hangers and supports are required.
- Engineered air diffusion pattern.
- Steel stamped shapes for uniformity.
- Suitable for theatres, auditoriums, factories, warehouses, convention halls, coliseums, shopping malls and other high ceiling applications.
- 360° horizontal discharge pattern.
- 0 – 50% airflow vertical projection capability.
- Ring operator can be adjusted using a pole.
- Heavy gauge face plate features a hemmed edge for a professional, clean finish.
- The fixed ceiling radiation damper is standard. The adjustable version for balancing is not available on this model. Balancing should be performed by installing a remote damper at the branch duct take-off.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).
- All models must be installed in accordance with the installation instructions for UL/ULC Classification.

**Material:** Heavy gauge, corrosion-resistant steel.

**Finish:** BK Flat Black or AW Appliance White baked enamel. Other finishes are available.

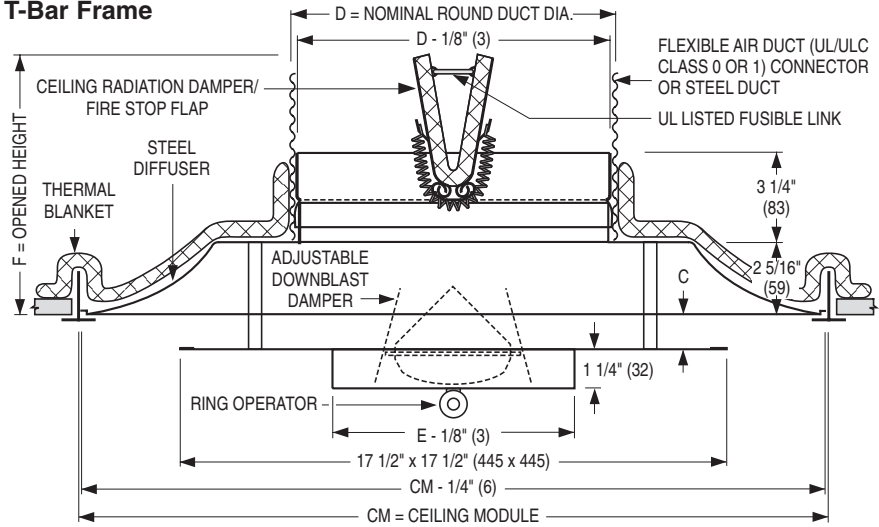
**Performance Data:** See non-fire rated **Model UNI-AD** on page D110.



Dimensional Data

Model UNI-ADFR

Type L Lay-in T-Bar Frame



Available Sizes and Dimensional Data

Listed Neck Size	Imperial Modules								Metric Modules			
	Imperial Units (inches)				SI Units (mm)				SI Units (mm)			
	CM = 24 x 24				CM = 610 x 610				CM = 600 x 600			
	D	E	F	C	D	E	F	C	D	E	F	C
12	12	8	9 13/16	1 3/16	305	203	249	30	305	203	249	30
14	14	10	10 13/16		356	254	275		356	254	275	

## FIRE RATED PERFORATED CEILING DIFFUSERS

- 1, 2, 3 OR 4-WAY ADJUSTABLE DISCHARGE PATTERN
- ROUND NECK
- 3 HOUR RATING
- LAY-IN

### Supply Models:

**4070, 4080** Flush Face  
**4075, 4085** Drop Face

### Return Models:

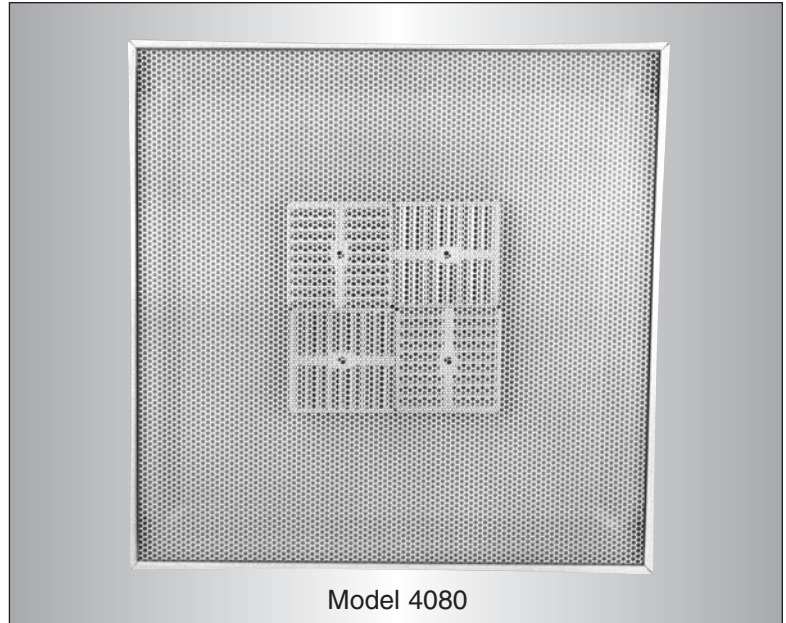
**4070R, 4080R** Flush Face  
**4075R, 4085R** Drop Face



CATEGORY  
BZZU



CATEGORY  
40U18.1-1/2A



The **Nailor Series 4070** and **4080** are UL/ULC Classified fire rated ceiling diffuser assemblies listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

The **Nailor Fire Rated Perforated Ceiling Diffuser** has been designed to provide the unobtrusive appearance required for architectural excellence and the high engineering performance required for use in heating and cooling applications. They have excellent performance in variable air volume systems and provide a tight horizontal discharge pattern without marking the ceiling.

### FEATURES:

- Hinged removable face plate with quick-release spring latches.
- Discharge pattern can adjust to vertical or 1, 2, 3 or 4-way horizontal, before or after installation.
- Discharge pattern is adjusted by dropping the perforated face and rotating the pattern controllers.
- Round necks permit use of flexible duct.
- The fixed ceiling radiation damper is standard. The adjustable ceiling radiation damper for balancing is optional.
- Dropping the perforated face gives access to this balancing feature.

- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).
- Perforated face with 3/16" (5) diameter holes on staggered 1/4" (6) centers (51% free area).
- Return models have the same face and frame construction as the supply models to match appearance. The deflectors are omitted for return applications.
- All models must be installed in accordance with the installation instructions for UL/ULC Classification.
- Ductless returns are also available.

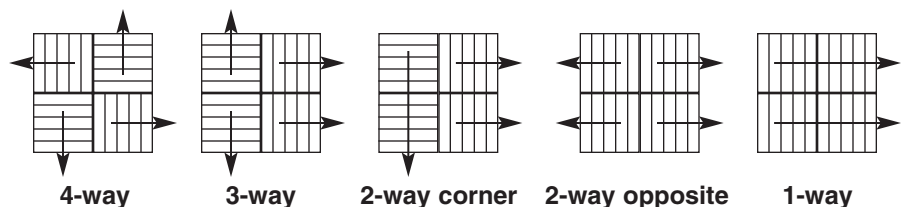
**Material:** Corrosion-resistant steel.

**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available.

**Performance Data:** See non-fire rated **Model 4320** (flush face) on page D142, **Model 4325** (drop face) on page D145 and **Models 4360** (flush face) and **4365** (drop face) on page D199.

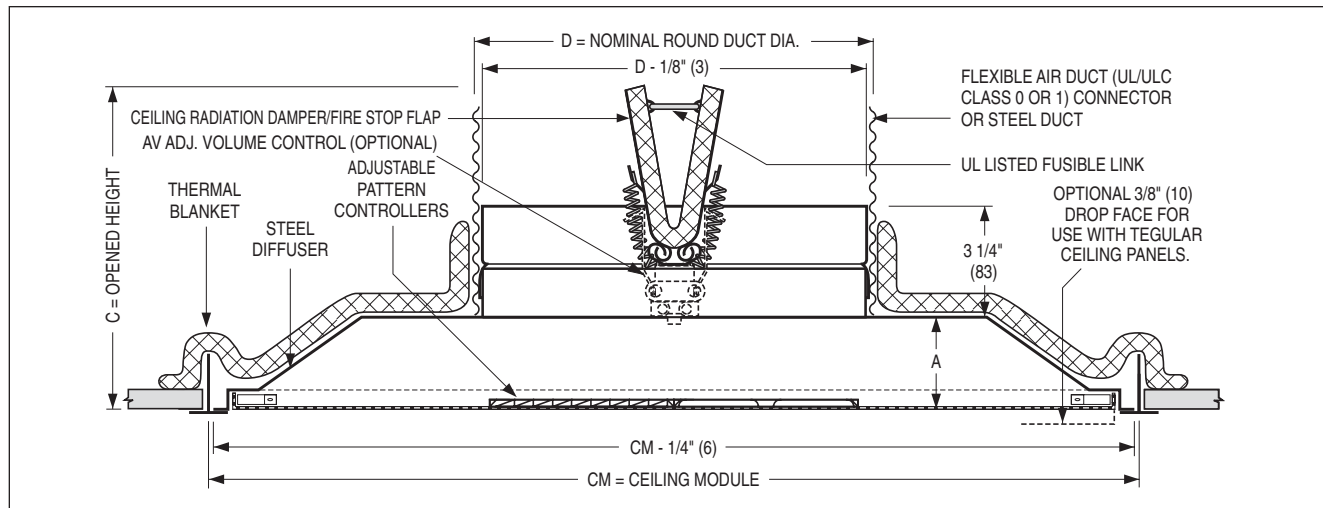
### Available Air Patterns:

All diffusers are shipped with the standard 4-way pattern, but the air pattern can be simply field adjusted by lowering the hinged face and rotating the spring loaded pattern controllers.



## Dimensional Data

Models 4070, 4075, 4080 and 4085



## Available Sizes and Dimensional Data

Listed Neck Size	Imperial Modules						Metric Modules		
	Imperial Units (inches)			SI Units (mm)			SI Units (mm)		
	CM = 12 x 12			CM = 305 x 305			CM = 300 x 300		
6	6		6 3/8	152		162	152		162
8	8	1 7/8	7 3/8	203	48	187	203	48	187
Listed Neck Size	Imperial Modules						Metric Modules		
	CM = 24 x 24			CM = 610 x 610			CM = 600 x 600		
	D	A	C	D	A	C	D	A	C
6	6		6 7/8	152		175	152		175
8	8		7 7/8	203		200	203		200
10	10	2 3/8	8 7/8	254	60	225	254	60	225
12	12		9 7/8	305		251	305		251
14	14		10 7/8	356		276	356		276

## Model Number Designation

**Supply Models:**

**4070, Flush Face**

**4075, Drop Face**

12 x 12 (300 x 300) module

Type L Lay-in Frame

**4080, Flush Face**

**4085, Drop Face**

24 x 24 (600 x 600) module

Type L Lay-in Frame

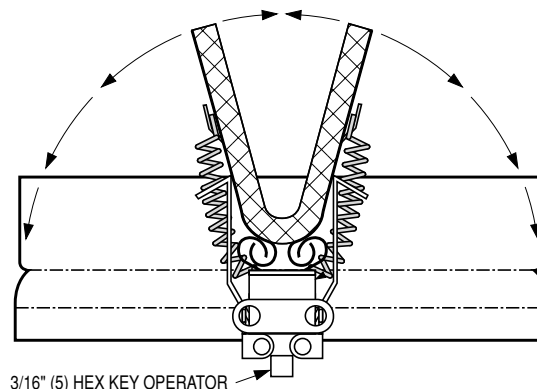
**Return Models:**

Add suffix 'R' to above model number.

## AV Fusible Link Adjustable Volume Control Option.

This UL Listed ceiling radiation damper option allows the ceiling radiation damper to be used as a balancing damper for volume control.

The ceiling damper blades are adjusted with a hex key and perform like a butterfly damper.



## FIRE RATED PERFORATED CEILING DIFFUSERS

- 1, 2, 3 OR 4-WAY ADJUSTABLE DISCHARGE PATTERN
- ROUND NECK
- 3 HOUR RATING
- SURFACE MOUNT

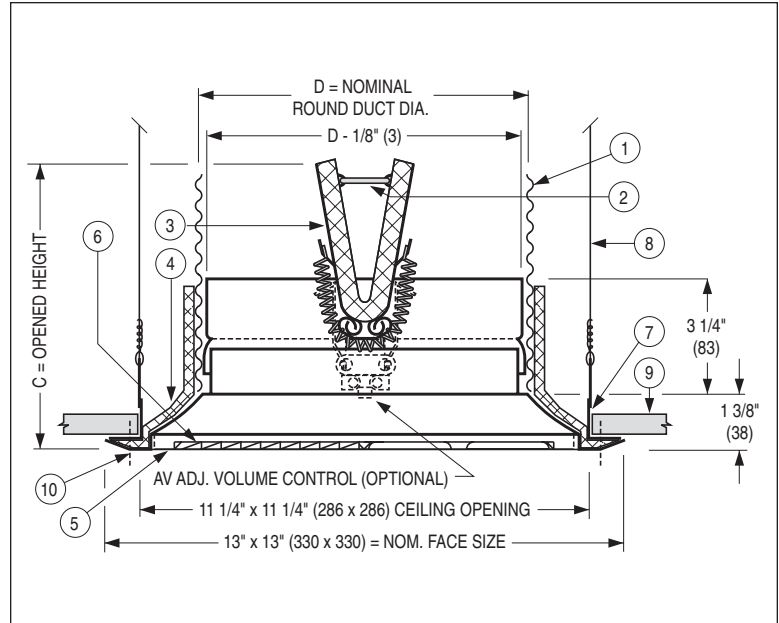


CATEGORY  
40U18.1-1/2A

### Supply Model:

**4070-SM**

**12 x 12 (300 x 300) Module**  
**Type S Surface Mount Frame**



### ITEMS:

- |   |  |                      |
|---|--|----------------------|
| 1. Flexible air duct (UL/ULC Class 0 or 1) connector or steel duct. | 4. Thermal blanket.                    | 9. Ceiling membrane. |
| 2. UL Listed fusible link. 212°F (100°C) standard.                  | 5. Corrosion-resistant steel diffuser. | 10. Mounting screws. |
| 3. Ceiling radiation damper/fire stop flap.                         | 6. Adjustable pattern controllers.     |                      |
|   | 7. Mounting support frame.             |                      |
|   | 8. Hanger wires (by others).           |                      |

Classified by Underwriters' Laboratories of Canada (ULC) for use in ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate air ducts and a hard (gypsum board) ceiling membrane with up to a 3 hour rating. For details of fire rated assemblies, see the current ULC List of Equipment and Materials Vol. III Fire Resistant Ratings. The use of this product in fire rated ceilings with ceiling membrane protection and/or UL Classified assemblies in the U.S.A. requires local approval by the authority having jurisdiction. The discharge pattern is 1, 2, 3, or 4-way horizontal and is adjusted by dropping the perforated face and rotating the pattern deflectors. Removable face has spring clips for easy access to the damper.

### OPTIONS:

- AV Fusible link adjustable volume control. Permits adjustment to damper blades for balancing.
- Non-standard temperature UL Listed fusible link (165°F (74°C)).

**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available.

**Performance Data:** See non-fire rated **Model 4320** on page D142.

### Available Sizes and Dimensional Data

Listed Neck Size	Imperial Modules				Metric Modules	
	Imperial Units (inches)		SI Units (mm)		SI Units (mm)	
	D	C	D	C	D	C
CM = 12 x 12			CM = 305 x 305		CM = 300 x 300	
6	6	5 7/8	152	149	152	149
8	8	6 7/8	203	175	203	175

## FIRE RATED PERFORATED CURVED BLADE DIFFUSERS

- 4-WAY ADJUSTABLE DISCHARGE PATTERN (STANDARD)
- ROUND NECK
- 3 HOUR RATING
- LAY-IN

### Supply Models:

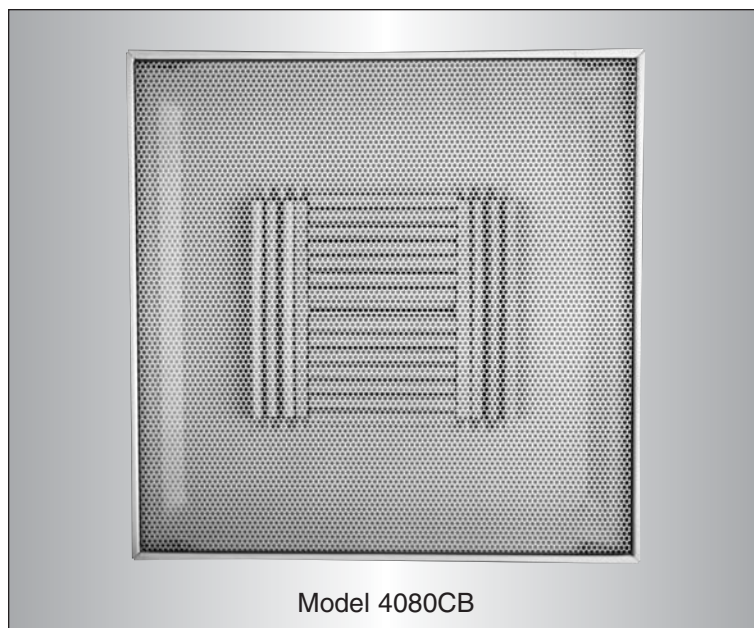
**4070CB, 4080CB** Flush Face  
**4075CB, 4085CB** Drop Face



CATEGORY  
BZZU



CATEGORY  
40U18.1-1/2A



Model 4080CB

The **Nailor Series 4070CB** and **4080CB** are UL/ULC Classified fire rated ceiling diffuser assemblies listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

The **Nailor Curved Blade Perforated Diffusers** provide the unobtrusive, smooth appearance preferred by many architects with superior features and performance characteristics. Designed to maximize throw, this model features individually adjustable, friction pivoted curved blade deflectors mounted directly under the neck. They project a tight, uniform horizontal blanket of air over a wide range of air volumes and provide excellent performance in variable air volume systems.

These models feature a 4-way adjustable discharge pattern as standard. The deflector blades can be adjusted to control both the angle of discharge and hence throw from full horizontal to vertical in each direction and also damper the air volume. By closing off the deflectors in one or more directions, directional control can also be achieved. They are optionally available with a factory supplied 1, 2 or 3-way adjustable discharge pattern controller (see page D149).

The **4075CB** and **4085CB** feature a dropped (extended) face panel that is available to compliment regular tile ceiling systems, so that the panel remains flush with the ceiling line.

### FEATURES:

- Hinged removable face plate with quick-release spring latches.
- Discharge pattern can be adjusted from horizontal to vertical, before or after installation.
- Discharge pattern is adjusted by dropping the perforated face and moving the curved blade deflectors.
- Round necks permit use of flexible duct.
- The fixed ceiling radiation damper is standard. The adjustable ceiling radiation damper for balancing is optional.

- Dropping the perforated face gives access to this balancing feature.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).
- Perforated face with 3/16" (5) diameter holes on staggered 1/4" (6) centers (51% free area).
- All models must be installed in accordance with the installation instructions for UL/ULC Classification.
- Ductless returns are also available.

**Material:** Corrosion-resistant steel.

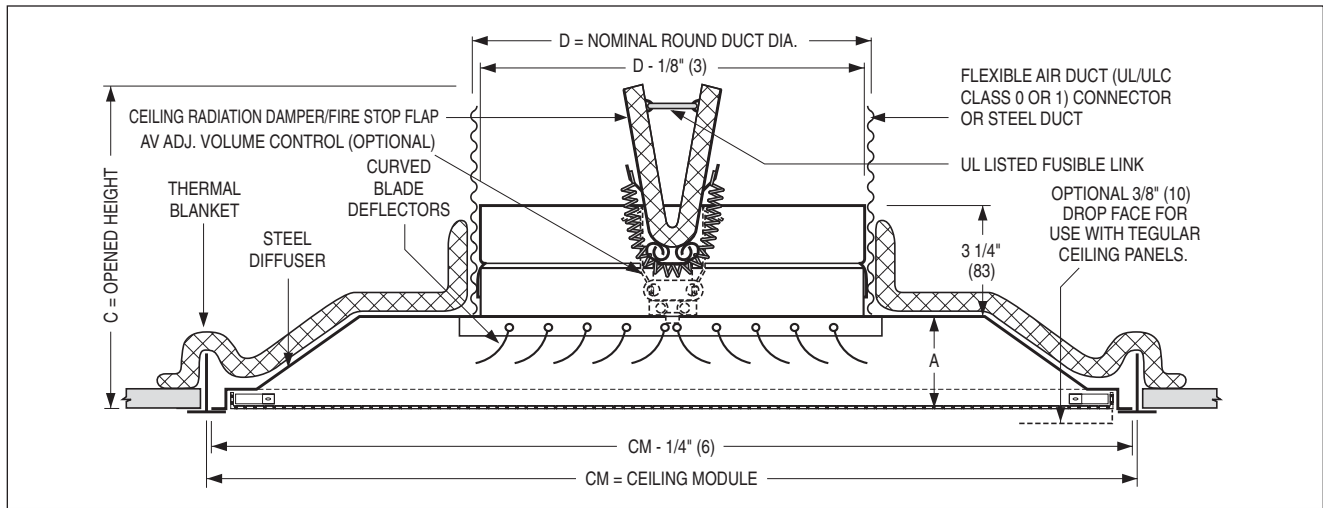
**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available.

**Performance Data:** See non-fire rated **Model 4320CB** on page D153.



## Dimensional Data

Models 4070CB, 4075CB, 4080CB and 4085CB



## Available Sizes and Dimensional Data

Listed Neck Size	Imperial Modules						Metric Modules		
	Imperial Units (inches)			SI Units (mm)			SI Units (mm)		
	CM = 12 x 12			CM = 305 x 305			CM = 300 x 300		
6	D	A	C	D	A	C	D	A	C
8	6	1 7/8	6 3/8	152	48	162	152	48	162
	8		7 3/8	203		187	203		187
Listed Neck Size	CM = 24 x 24			CM = 610 x 610			CM = 600 x 600		
	D	A	C	D	A	C	D	A	C
	6		6 7/8	152		175	152		175
8	8		7 7/8	203		200	203		200
10	10	2 3/8	8 7/8	254	60	225	254	60	225
12	12		9 7/8	305		251	305		251
14	14		10 7/8	356		276	356		276

## Model Number Designation

### Supply Models:

**4070CB, Flush Face**

**4075CB, Drop Face**

12 x 12 (300 x 300) module

Adjustable Curved Blades

Type L Lay-in Frame

**4080CB, Flush Face**

**4085CB, Drop Face**

24 x 24 (600 x 600) module

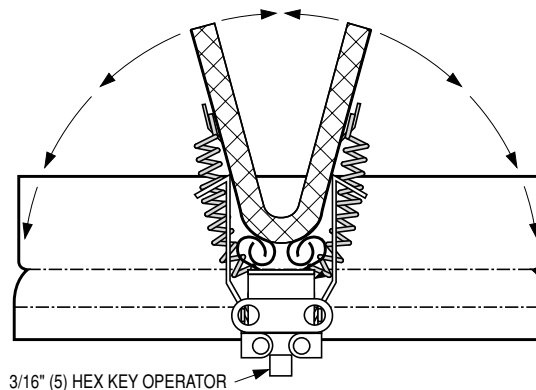
Adjustable Curved Blades

Type L Lay-in Frame

### AV Fusible Link Adjustable Volume Control Option.

This UL Listed ceiling radiation damper option allows the ceiling radiation damper to be used as a balancing damper for volume control.

The ceiling damper blades are adjusted with a hex key and perform like a butterfly damper.



## FIRE RATED SQUARE MODULAR CORE CEILING DIFFUSERS

- 1, 2, 3 OR 4-WAY ADJUSTABLE DISCHARGE PATTERN
- 3 HOUR RATING
- LAY-IN

**Square Neck Model:**  
**7500FRD**

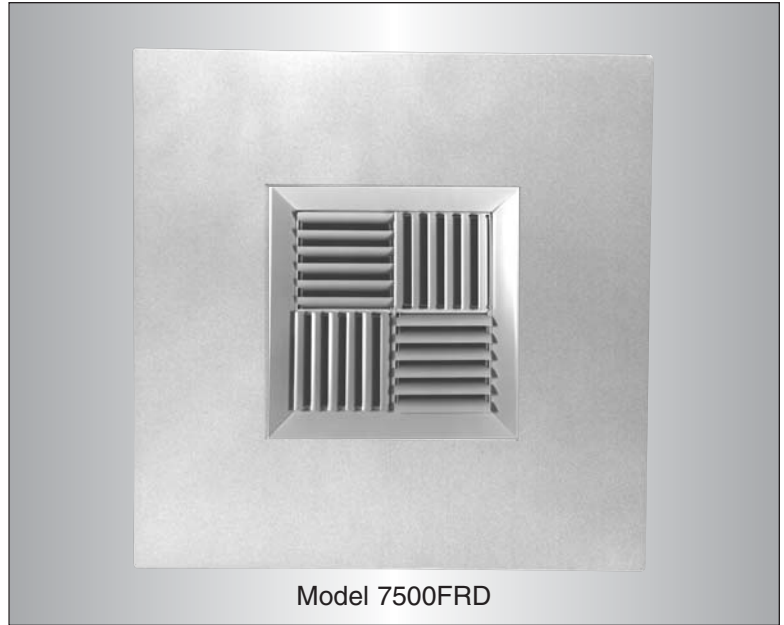
**Round Neck Model:**  
**7505FRD**



CATEGORY  
CABS



CATEGORY  
40U18.2 &  
40U18.2W



The **Nailor Model 7500FRD** is a UL/ULC Classified fire rated ceiling diffuser component assembly. The ceiling damper and thermal blanket accessory are listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements. This model is classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings. The **Model 7505FRD** is qualified for UL installation only.

**Nailor Modular Core Diffusers** provide a versatile 'modular core' design that is available in a comprehensive range of sizes and air capacities, providing optimum simplicity and flexibility for field adjustment of the discharge air pattern. They maintain a horizontal ceiling pattern from maximum to minimum flow and make an excellent choice for use in variable air volume systems.

These models feature four individual spring-loaded 'modular' pattern controllers mounted in the neck. They can be adjusted before or after installation, to provide a 1, 2, 3 or 4-way discharge pattern by simply rotating one or more of the pattern controllers which takes only a few seconds.

### FEATURES:

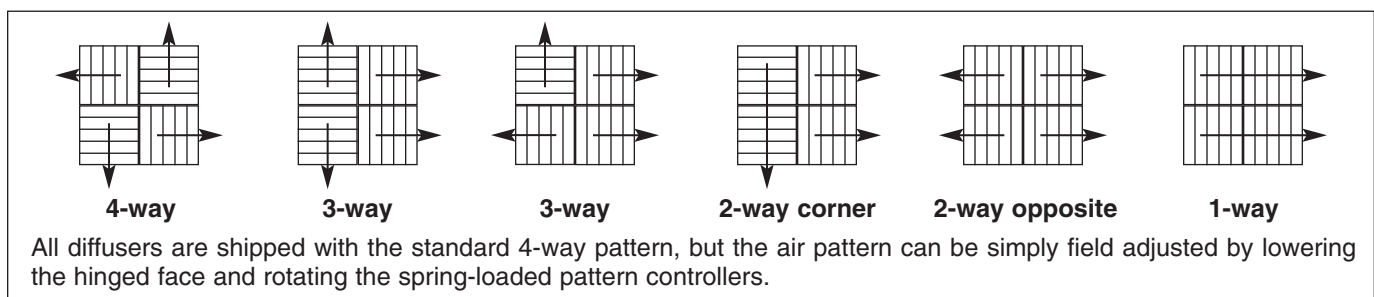
- Each diffuser has four separate individually adjustable spring-loaded modular cores.
- Simple adjustment for a 1, 2, 3 or 4-way horizontal discharge pattern without the use of tools.
- Square neck **Model 7500FRD** has ample collar depth and allows a solid duct connection.
- The fixed ceiling radiation damper is standard. The AV adjustable option is not available on this model as the core assembly restricts access. Balancing should be performed by installing a remote damper in the duct take-off.
- Round neck **Model 7505FRD** permits use of flexible duct.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).
- Must be installed in accordance with the installation instructions for UL/ULC Classification.

**Material:** Corrosion-resistant steel.

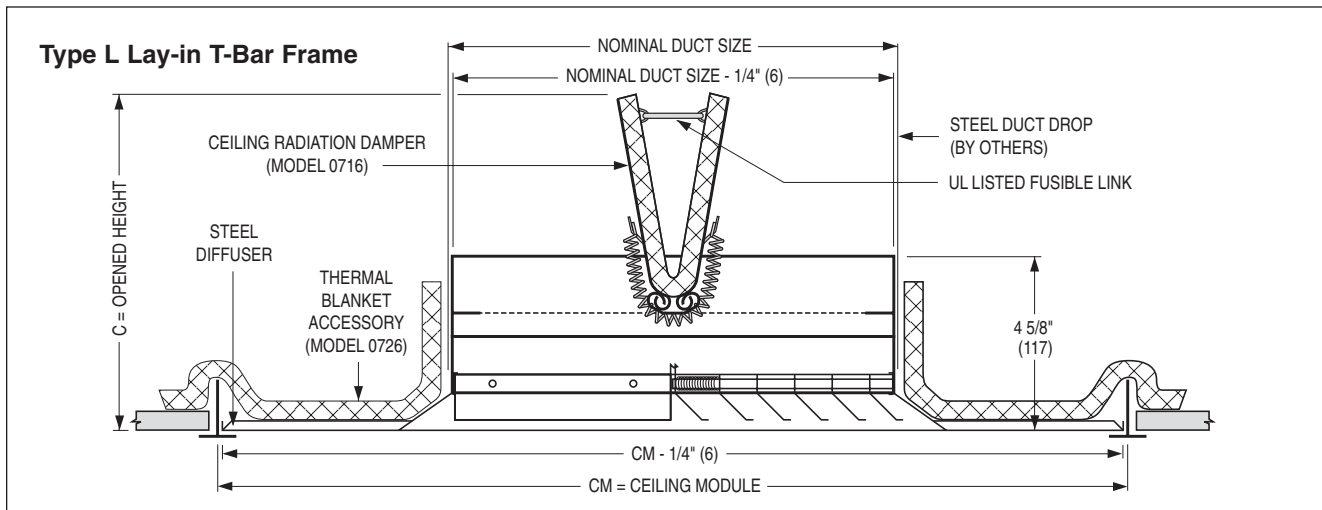
**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available.

**Performance Data:** See non-fire rated **Model 7500** on page D218.

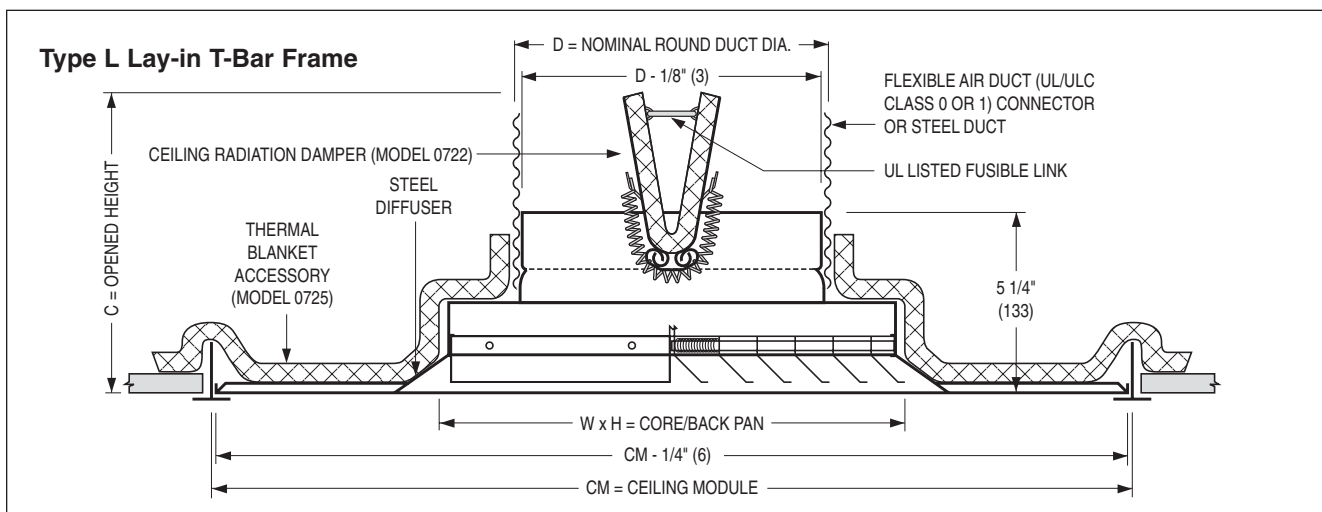
### Modular Core Adjustments



## Dimensional Data Model 7500FRD • Square Neck



## Model 7505FRD • Round Neck



## Available Sizes and Dimensional Data Model 7500FRD

Ceiling Module CM	Nominal Duct Size (square)	Opened Height C
12 x 12 (305 x 305)	6 x 6 (152 x 152)	5 3/4 (146)
	8 x 8 (203 x 203)	6 3/4 (171)
	9 x 9 (229 x 229)	7 1/4 (184)
24 x 24 (610 x 610)	6 x 6 (152 x 152)	5 3/4 (146)
	8 x 8 (203 x 203)	6 3/4 (171)
	9 x 9 (229 x 229)	7 1/4 (184)
	10 x 10 (254 x 254)	7 3/4 (197)
	12 x 12 (305 x 305)	9 (229)
	14 x 14 (356 x 356)	9 3/4 (248)
	15 x 15 (381 x 381)	10 1/4 (260)
	16 x 16 (406 x 406)	10 3/4 (273)
	18 x 18 (457 x 457)	11 3/4 (298)
	20 x 20 (508 x 508)	12 3/4 (324)

**Note:** If the square ceiling module is more than 3" (76) larger than the square neck (core/backpan), a module sized extended panel is utilized.

## Model 7505FRD

Ceiling Module CM	Core/Back Pan W x H	Round Neck D	Opened Height C
12 x 12 (305 x 305)	9 x 9 (229 x 229)	6 (152)	6 1/2 (165)
		8 (203)	7 1/2 (191)
24 x 24 (610 x 610)	9 x 9 (229 x 229)	6 (152)	6 1/2 (165)
		8 (203)	7 1/2 (191)
	10 x 10 (254 x 254)	6 (152)	6 1/2 (165)
		8 (203)	7 1/2 (191)
	12 x 12 (305 x 305)	8 (203)	7 1/2 (191)
		10 (254)	8 1/2 (216)
	15 x 15 (381 x 381)	10 (254)	8 1/2 (216)
		12 (305)	9 1/2 (241)
	18 x 18 (457 x 457)	14 (356)	10 1/2 (267)
		12 (305)	9 1/2 (241)

Dimensions are in inches (mm).

## FIRE RATED DUCTLESS RETURN GRILLES

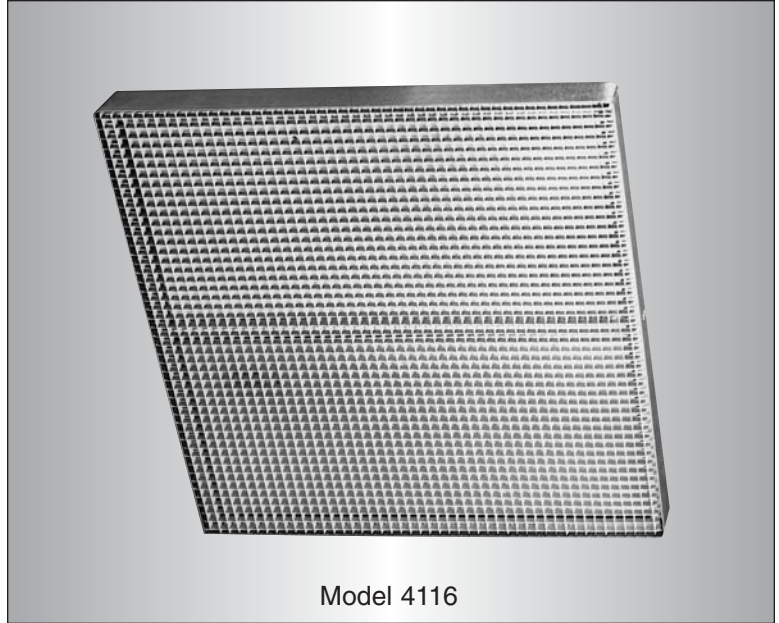
- VOLUME CONTROL OPTION
- 3 HOUR RATING
- LAY-IN



CATEGORY  
BZZU & CABS



CATEGORY  
40U18.2W



Model 4116

### Models:

**Perforated Face:**  
4111, 4112, 4113

**Eggcrate Face:**  
4114, 4115, 4116

**Open Face (grille by others):**  
4117, 4118, 4119

The **Nailor Series 4100** are UL/ULC Classified fire rated ceiling diffuser assemblies listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

These models have been designed to compliment the **Nailor** range of fire rated supply diffusers. Successfully tested and classified for use without the requirement of duct work or supplementary support, they simply lay in place. They enable the ceiling plenum to be utilized as a ductless return air system and so provide an extremely economical means of fire protection in return air applications.

### FEATURES:

- Available in both popular perforated and eggcrate face styles.
- Perforated face models are corrosion-resistant steel with 3/16" (5) diameter holes on staggered 1/4" (6) centers (51% free area).
- Eggcrate models feature an 1/2 x 1/2 (13 x 13 x 13) aluminum grid core.

- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).

- All models must be installed in accordance with installation instructions for UL/ULC Classification.

**Option:** AV Fusible Link Adjustable Volume Control. Permits field balancing of return air grille.

**Material:** Galvanized steel frame and blades. Non-asbestos UL Classified insulation.

**Finish:** AW Appliance White face is standard to match supply models. Other finishes are available.

**Performance Data:** See non-fire rated models. **Perforated Model 4302** on page D205. **Eggcrate Model 51EC** on page G95.

### Available Sizes and Dimensional Data

Model No.	Face Type	Ceiling Module		Opened Height A	
		Imperial (inches)	Metric (mm)	Standard	With AV Option
4111	Perforated	12 x 12	300 x 300	6 1/4 (159)	7 1/4 (184)
4112		24 x 12	600 x 300	6 1/4 (159)	7 1/4 (184)
4113		24 x 24	600 x 600	12 1/4 (311)	13 1/4 (337)
4114	Eggcrate	12 x 12	300 x 300	6 1/4 (159)	7 1/4 (184)
4115		24 x 12	600 x 300	6 1/4 (159)	7 1/4 (184)
4116		24 x 24	600 x 600	12 1/4 (311)	13 1/4 (337)
4117	Open	12 x 12	300 x 300	6 1/4 (159)	7 1/4 (184)
4118		24 x 12	600 x 300	6 1/4 (159)	7 1/4 (184)
4119		24 x 24	600 x 600	12 1/4 (311)	13 1/4 (337)

Dimensions are in inches (mm).

## Dimensional Data

### Models 4111 to 4119 • Perforated, Eggcrate or Open Face

#### Perforated Grille Models:

4111, 4112, 4113

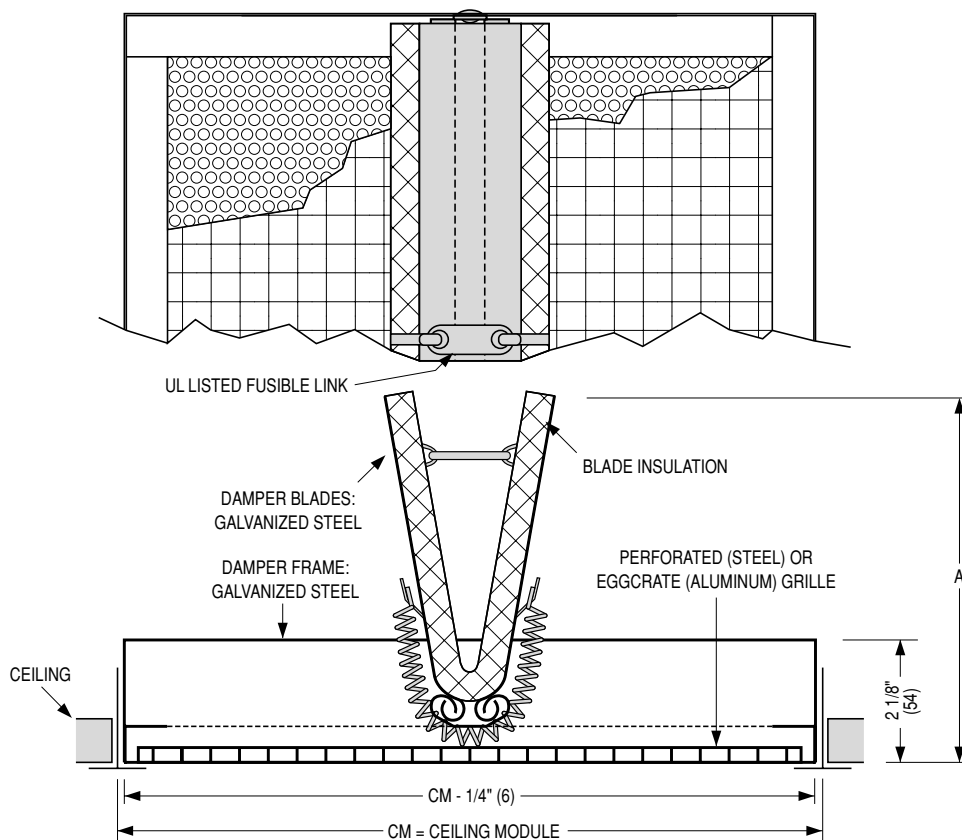
#### Eggcrate Grille Models:

4114, 4115, 4116

#### Open Face Models

(grille by others):

4117, 4118, 4119



### Models 4111 to 4119 • Perforated, Eggcrate or Open Face • With AV Option

#### Perforated Grille Models with Adjustable Volume Control:

4111 AV, 4112 AV, 4113 AV

#### Eggcrate Grille Models with Adjustable Volume Control:

4114 AV, 4115 AV, 4116 AV

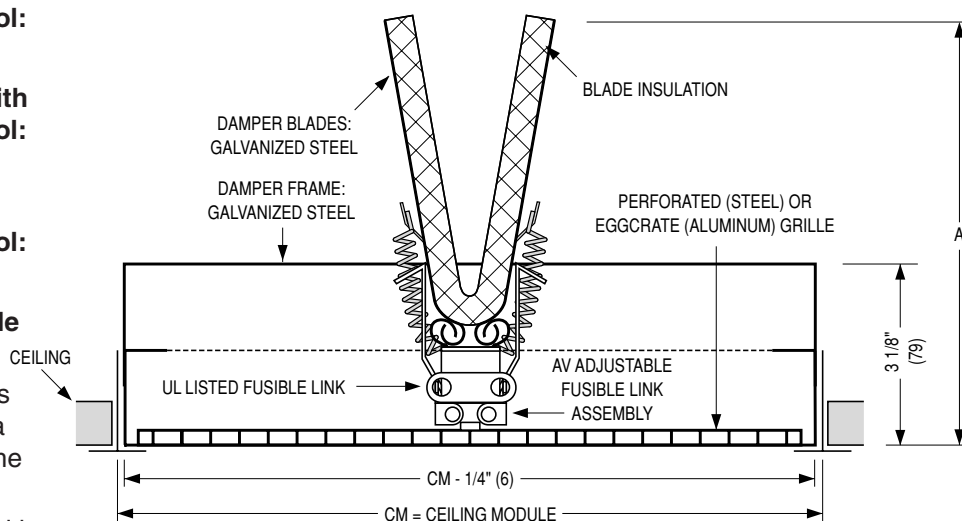
#### Open Face Models with Adjustable Volume Control:

4117 AV, 4118 AV, 4119 AV

#### AV Fusible Link Adjustable Volume Control Option.

This UL Listed option allows the damper to be used as a balancing damper for volume control.

The blades are adjusted with a 3/16" (5) hex key (by others) and perform like a butterfly damper.





## FIRE RATED DUCTLESS RETURN FILTER GRILLES

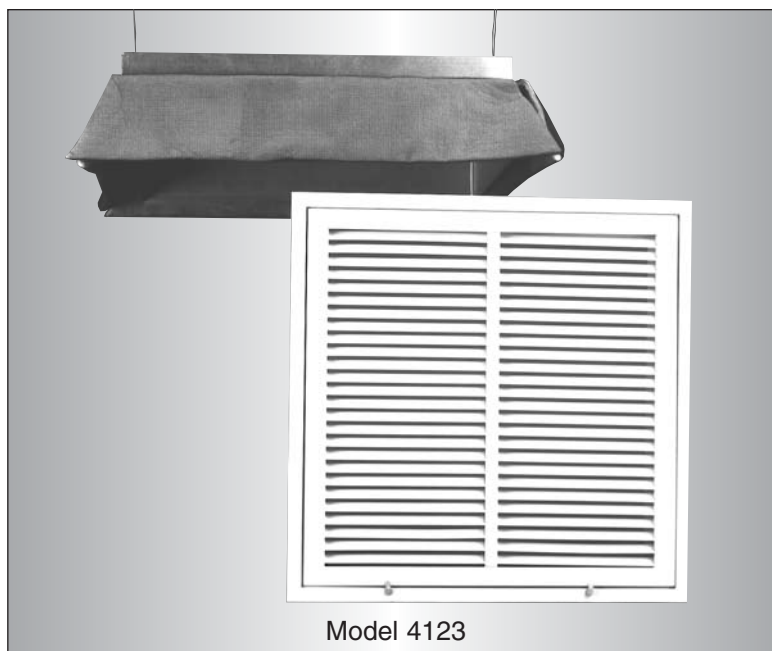
- VOLUME CONTROL OPTION
- 3 HOUR RATING
- LAY-IN



CATEGORY  
BZZU & CABS



CATEGORY  
40U18.2W



Model 4123

### Models:

**Louvered Face:**  
4121, 4122, 4123

**Eggcrate Face:**  
4124, 4125, 4126

The **Nailor Series 4100** are UL/ULC Classified fire rated ceiling diffuser assemblies listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

These models have been designed to compliment the **Nailor** range of fire rated supply diffusers. Successfully tested and classified for use without the requirement of duct work or supplementary support, they simply lay in place. They enable the ceiling plenum to be utilized as a ductless return air system and so provide an extremely economical means of fire protection in return air applications.

### FEATURES:

- Available in both popular louvered face and eggcrate face styles.
- Filter grille frames are constructed of corrosion-resistant steel and feature a hinged core secured by 1/4 turn fasteners.
- Louvered face models feature fixed 45° deflection blades on 3/4" (19) centers.
- Eggcrate models feature a 1/2 x 1/2 (13 x 13 x 13) aluminum grid core.

- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).

- All models must be installed in accordance with installation instructions for UL/ULC Classification.

**Option:** AV Fusible Link Adjustable Volume Control. Permits field balancing of return air grille.

**Material:** Galvanized steel frame and blades. Non-asbestos UL Classified insulation.

**Finish:** AW Appliance White face is standard to match supply models. Other finishes are available.

**Performance Data:** See non-fire rated models. **Louvered Face Model 61FB45** on page G41. **Eggcrate Model 61FE** on page G95.

### Available Sizes and Dimensional Data

Model No.	Filter Grille	Ceiling Module		Opened Height A
		Imperial (inches)	Metric (mm)	
4121	Louvered Face	12 x 12	300 x 300	10 (254)
4122		24 x 12	600 x 300	10 (254)
4123		24 x 24	600 x 600	16 (406)
4124	Eggcrate Face	12 x 12	300 x 300	10 (254)
4125		24 x 12	600 x 300	10 (254)
4126		24 x 24	600 x 600	16 (406)

Dimensions are in inches (mm).

## Dimensional Data

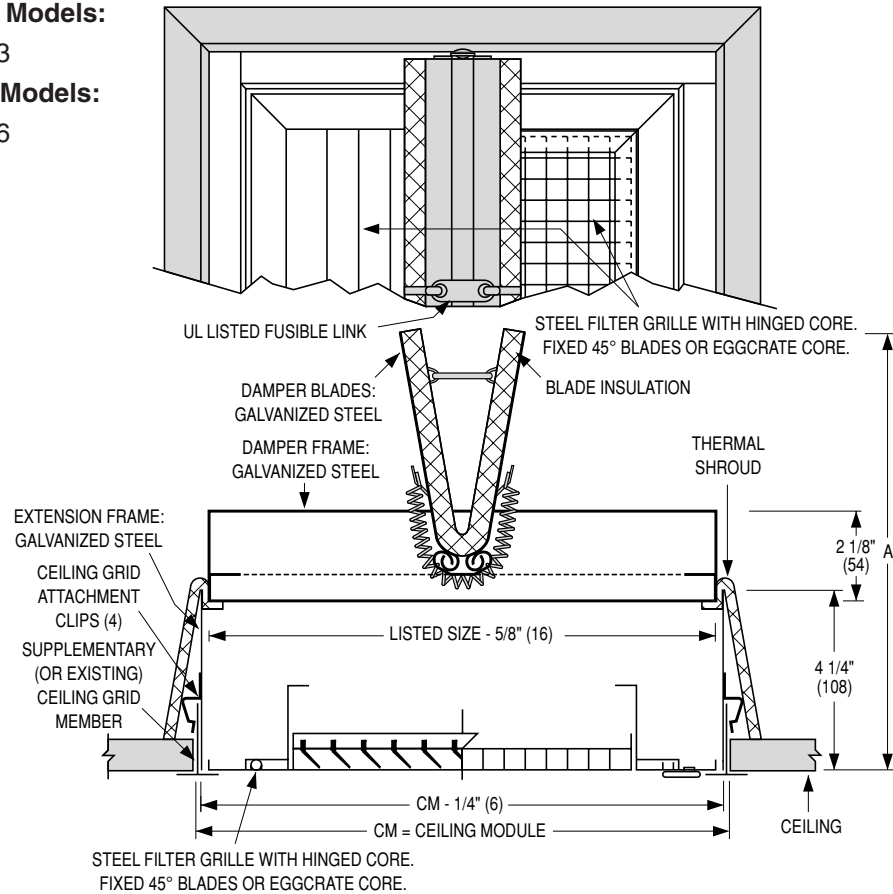
### Models 4121 to 4126 • Louvered or Eggcrate Face

#### Louvered Grille Models:

4121, 4122, 4123

#### Eggcrate Grille Models:

4124, 4125, 4126



### Models 4121 to 4126 • Louvered or Eggcrate Face • With AV Option

#### Louvered Grille Models with Adjustable Volume Control:

4121 AV, 4122 AV, 4123 AV

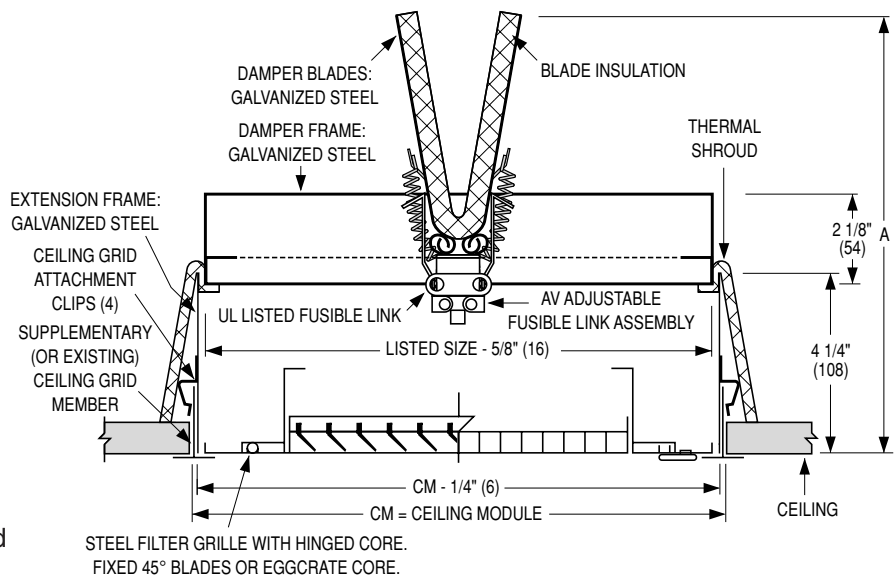
#### Eggcrate Grille Models with Adjustable Volume Control:

4124 AV, 4125 AV, 4126 AV

#### AV Fusible Link Adjustable Volume Control Option.

This UL Listed option allows the damper to be used as a balancing damper for volume control.

The blades are adjusted with a 3/16" (5) hex key (by others) and perform like a butterfly damper.



## FIRE RATED DUCTLESS RETURN CEILING DAMPER FOR OPTIONAL GRILLE

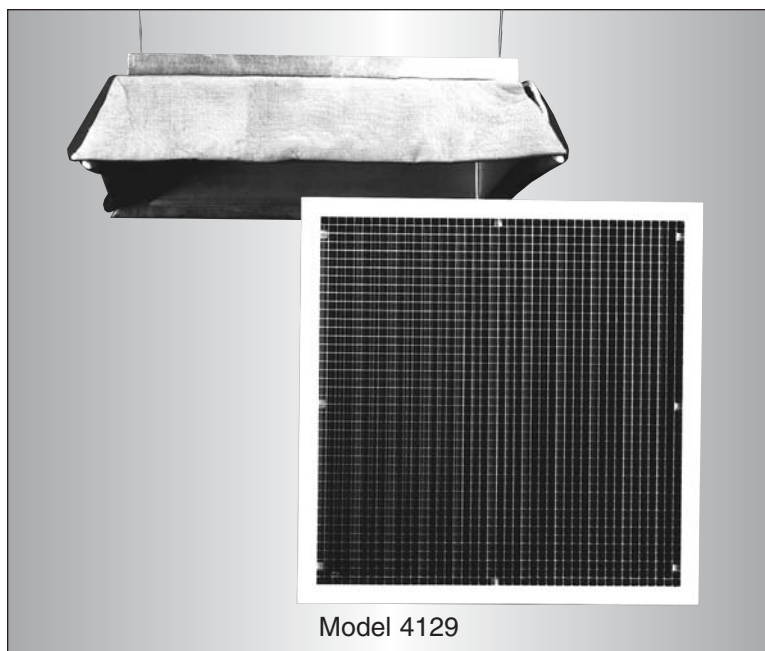
- RAISED TYPE
- 3 HOUR RATING
- LAY-IN



CATEGORY  
BZZU & CABS



CATEGORY  
40U18.2W



Model 4129

The **Nailor Series 4100** are UL/ULC Classified fire rated ceiling diffuser assemblies listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

This unique **Nailor** product features a raised ceiling radiation damper mounted on an extended support frame above the ceiling line. The integrity of the ceiling membrane protection is maintained by the addition of a peripheral, thermally retardant, shroud. The fire rated protected cavity allows the design engineer great flexibility. As the fire protection and integrity are supplied solely by the damper assembly, any type of return air grille, filter grille or register of steel or aluminum construction may be selected and installed in the fire rated ceiling. One such example is when a return air register with opposed blade damper is required.

### FEATURES:

- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).
- Permits selection of any **Nailor 6100 Series** steel or **5100 Series** aluminum return grille, which is manufactured to suit.
- All models must be installed in accordance with installation instructions for the UL/ULC Classification.

**Option:** AV Fusible Link Adjustable Volume Control. Permits field balancing. The ceiling damper blades are adjusted with a hex key and perform like a butterfly damper. This option would be specified when the selected return grille has no damper and volume control is still desired.

**Material:** Galvanized steel frame and blades. Non-asbestos UL Classified insulation.

**Performance Data:** Refer to relevant performance tables in catalog for grille or register selected.

### Available Sizes and Dimensional Data

Model No.	Ceiling Module		Opened Height A
	Imperial (inches)	Metric (mm)	
4127	12 x 12	300 x 300	10 (254)
4128	24 x 12	600 x 300	10 (254)
4129	24 x 24	600 x 600	16 (406)

Dimensions are in inches (mm).

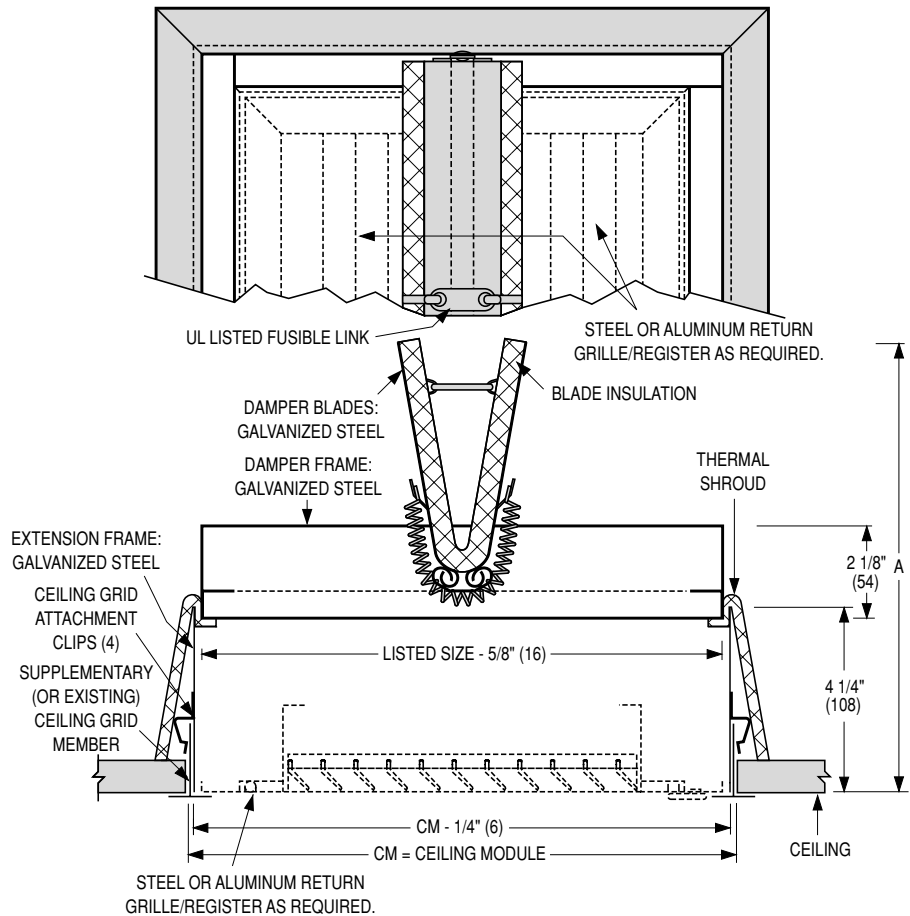
## Dimensional Data

### Models 4127, 4128 and 4129

#### Some Commonly Selected Grille and Register Options:

- **61EC (-O) Type L**  
Steel Return Air Eggcrate Grille (Register).
- **6145H (-O)**  
Steel Return Air Grille (Register). Fixed 45° Deflection blades on 3/4" (19) centers.
- **5145H (-O)**  
Aluminum Return Air Grille (Register). Fixed 45° Deflection blades on 3/4" (19) centers.
- **7145H (-O)**  
Premium Airfoil Blade Aluminum Return Air Grille (Register).
- **61FP**  
Steel Perforated Face Filter Grille.

**Note:** Maximum grille depth capacity for this model is 4" (102).

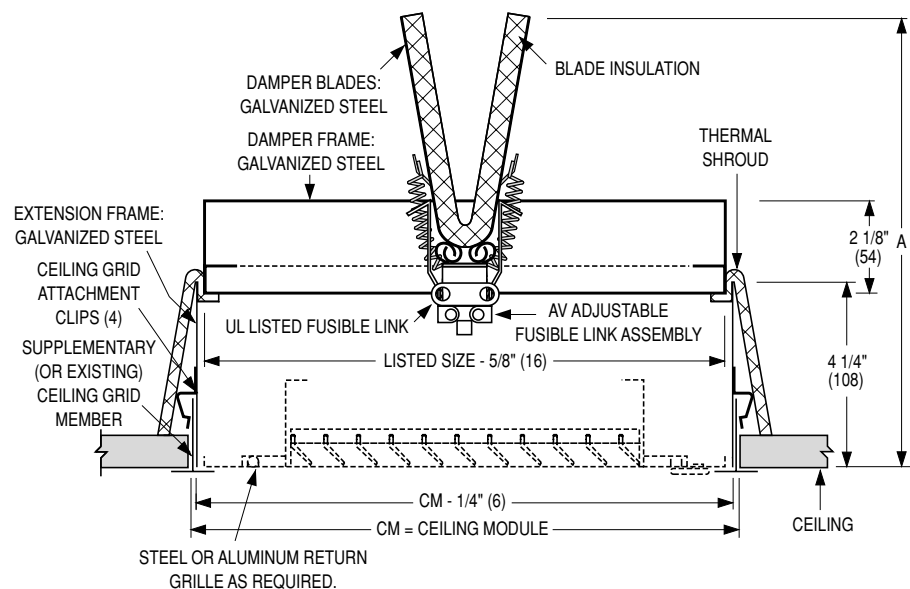


### Models 4127, 4128 and 4129 • With AV Option

#### Some Commonly Selected Grille Options:

- **6145H**  
Steel Return Air Grille. Fixed 45° Deflection blades on 3/4" (19) centers.
- **5145H**  
Aluminum Return Air Grille. Fixed 45° Deflection blades on 3/4" (19) centers.
- **61FP**  
Steel Perforated Face Filter Grille.

**Note:** Maximum grille depth capacity for this model is 2 1/4" (57).



## FIRE RATED OPEN FACE PLENUM DIFFUSER

- FOR USE WITH LINEAR TYPE DIFFUSERS
- 3 HOUR RATING
- LAY-IN



CATEGORY  
BZGU



Turned In Leg Model:

5200L

Hemmed Leg Model:

5200S

F

FIRE RATED PRODUCTS

The **Nailor Model Series 5200** is a UL Classified fire rated air terminal unit listed in Underwriters Laboratories Fire Resistance Directory. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory.

A maximum of 20 lineal ft. (6096) of 2" (51) wide throat opening, 10 lineal ft. (3048) of 4" (102) wide throat opening, or 5 lineal ft. (1524) of 6" (152) and 8" (203) width throat opening is allowed for each 113 sq. inch (72,903 mm<sup>2</sup>) duct outlet area permitted in specific design.

The **5200 Series** provides flexibility, in that a variety of steel or aluminum grilles, registers or linear type slot diffusers and bar grilles may be used.

### FEATURES:

- Available in 20", 24", 30", 36", 48" and 60" (500, 600, 750, 900, 1200 and 1500) nominal lengths to suit both imperial and metric ceiling systems.
- 6", 8", 10" or 12" (152, 203, 254 or 305) inlet sizes are available.
- Plenum casing width (throat) dimension is variable and fabricated to suit required grille or diffuser.

Minimum = 1 11/16" (43).

Maximum = 8" (203).

- **Model 5200L** features a flat lip for lay-in type cores.
- **Model 5200S** features a hemmed leg for surface mounting a grille or diffuser with Type C concealed mounting straps.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).

- All models must be installed in accordance with installation instructions for UL Classification.

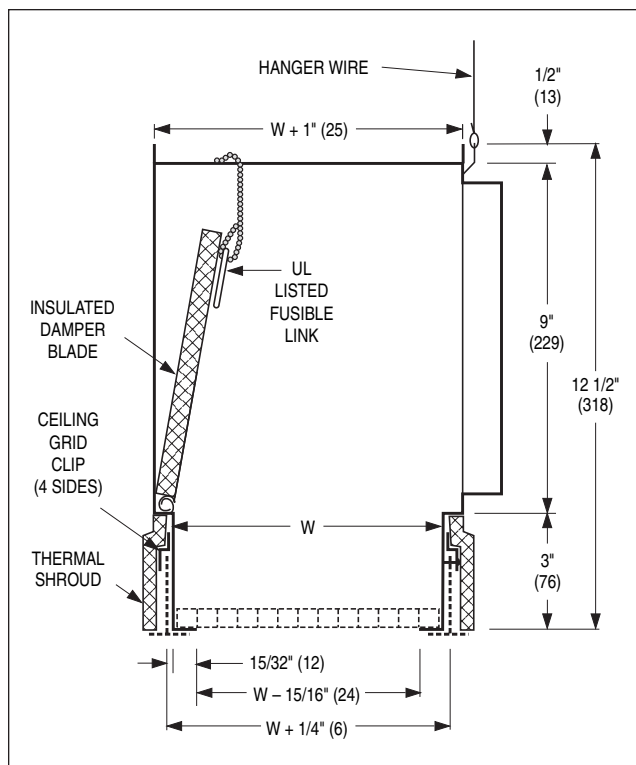
**Material:** Corrosion-resistant steel plenum and damper blades. Non-asbestos UL Classified insulation.

**Finish:** Exposed surfaces are finished in BK Black.

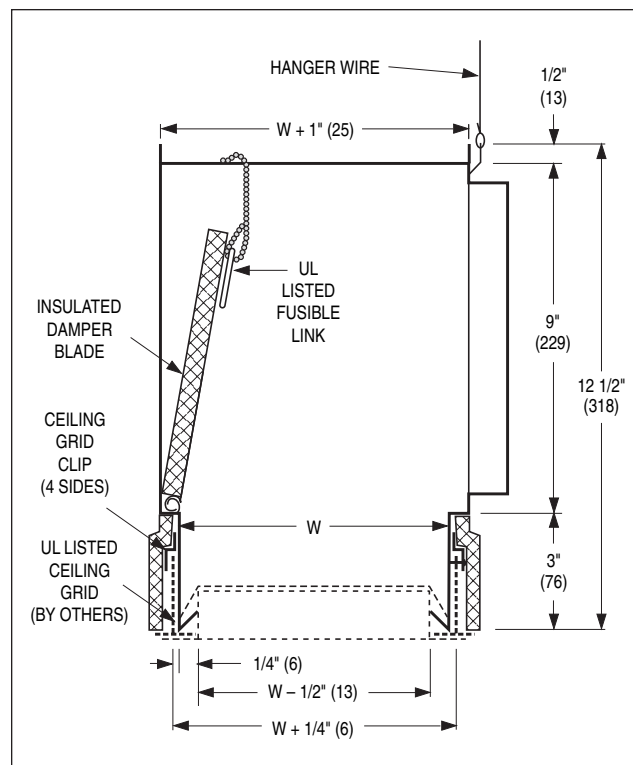


## Dimensional Data

### Model Series 5200 – Type L Turned In Leg • Lay-in Core Style



### Model Series 5200 – Type S Hemmed Leg • Surface Mount Diffuser



- 'W' Dimension (throat) is variable and manufactured to suit required grille or diffuser.  
Minimum 'W' =  $1 11/16" (43)$ .  
Maximum 'W' =  $8" (203)$ .
- Type L design is for flangeless lay-in core styles. e.g. Eggcrate Core **Model 51EC** Type C Core Only or Linear Slot Diffuser –

**Model Series 5000, Frame Type M.**  
Unit is installed by diagonally inserting it into plenum opening and allowing it to sit back on plenum flanges.

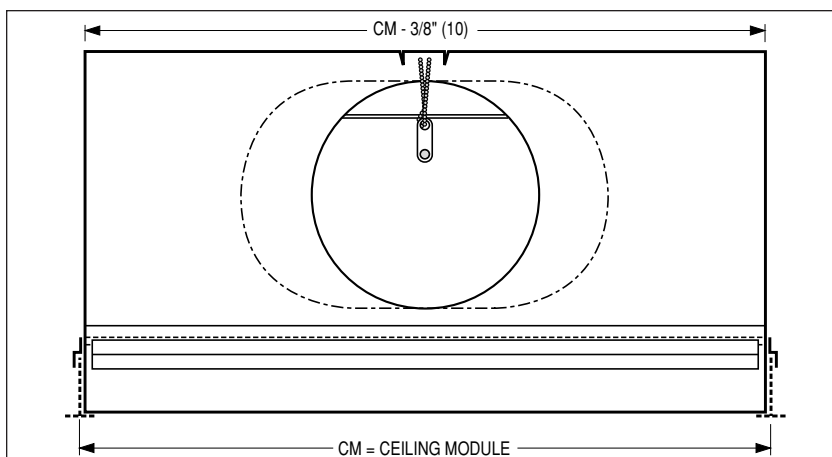
- Type S design is for flanged diffusers with concealed mounting straps which locate in hemmed plenum leg. e.g. Linear

Slot Diffuser – **Model Series 5000**, Frame Types C and D.

- Available inlet sizes:  
Round sizes are: 5", 6", 7" and 8" (127, 152, 178 and 203).  
Flat oval sizes are: 9", 10" and 12" (229, 254 and 305).

## Available Lengths

Nominal Length (CM)
20" (508)
24" (610)
30" (762)
36" (914)
48" (1219)
60" (1524)



## FIRE RATED PLENUM SLOT SUPPLY DIFFUSER

- ADJUSTABLE 'WIPER BLADE' PATTERN CONTROLLER
- 3 HOUR RATING
- LAY-IN



CATEGORY  
BZGU



### Models:

**5550WB** 1/2" (13) Slot Width

**5575WB** 3/4" (19) Slot Width

**5510WB** 1" (25) Slot Width

**5515WB** 1 1/2" (38) Slot Width

The **Nailor Series 5500WB** is a UL Classified fire rated air terminal unit listed in Underwriters Laboratories Fire Resistance Directory. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory.

The **5500WB Series** features a friction pivoted adjustable extruded aluminum pattern controller in each slot. A key feature is the gasketed 'wiper blade' design. The direction of airflow is adjustable through a full 180° from the face of the diffuser. In the horizontal discharge setting, either left or right, the gasket seal at the top of the blade seals tightly against the inside of the diffuser plenum casing or factory supplied center T-Bar, assuring positive directional control. The pattern controller may also be set for vertical discharge.

In the horizontal discharge setting, the coanda effect is maximized and a tight blanket of air is projected across the ceiling. The horizontal pattern is maintained throughout a wide range of cataloged air volumes from maximum to minimum flow and the **5500WB Series** therefore provides excellent performance in variable air volume applications.

### FEATURES:

- Full 180° pattern controller adjustment means there are no 'lefts or rights'.
- Available in 20", 24", 36", 48" and 60" (500, 600, 900, 1200 and 1500) nominal lengths to suit both imperial and metric ceiling systems.
- Choice of four slot widths.
- Choice of 1, 2, 3 or 4 parallel slots.
- Factory installed center tees on multi-slot models are standard. They are dropped slightly below the diffuser face to align flush with the ceiling grid.
- Pattern controller is split mid-way on units 36" (900) and longer, permitting a 2-way opposite blow pattern from a single slot.
- Return models are available. See page F46.
- Units must be installed in accordance with the installation instructions for UL Classification.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).

### Options:

- T1 Supplementary ceiling grid (T-Bar) member on inlet side (UL Listed).
- EX External foil back insulation.
- ID Inlet damper.

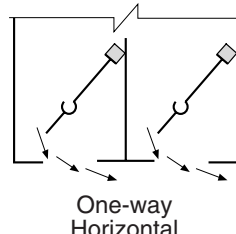
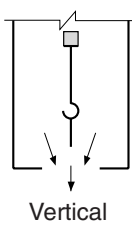
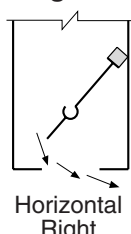
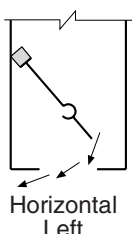
**Material:** Corrosion-resistant steel plenum, extruded aluminum pattern controllers and factory supplied center tees.

**Finish:** Black on pattern controllers and exposed surfaces. AW Appliance White on factory supplied T-Bars.

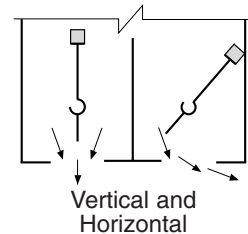
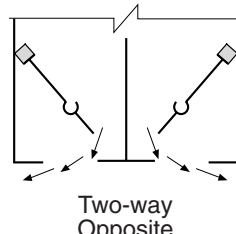
**Performance Data:** See non-fire rated **Model Series 5700** on page C12.

### Air Patterns

#### Single Slot

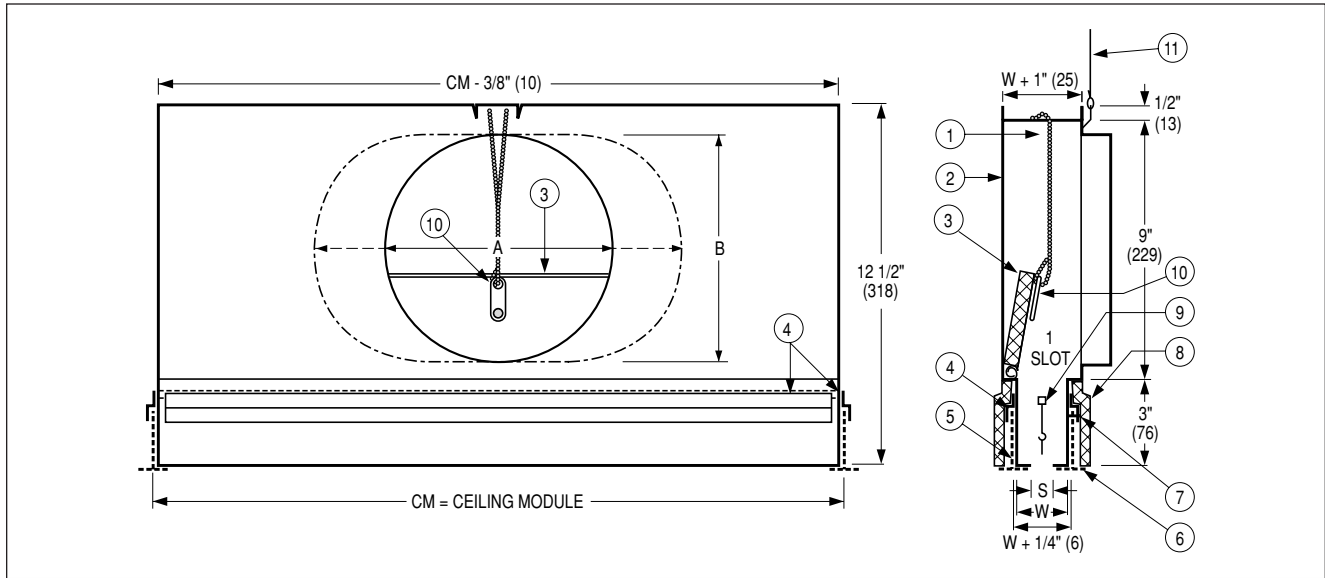


#### Multi-Slot



## Dimensional Data Model Series 5500WB

UNDERWRITER'S LABORATORIES, INC.®  
CLASSIFIED AIR TERMINAL UNITS  
LISTED FOR UP TO 3 HOURS  
CATEGORY BZGU

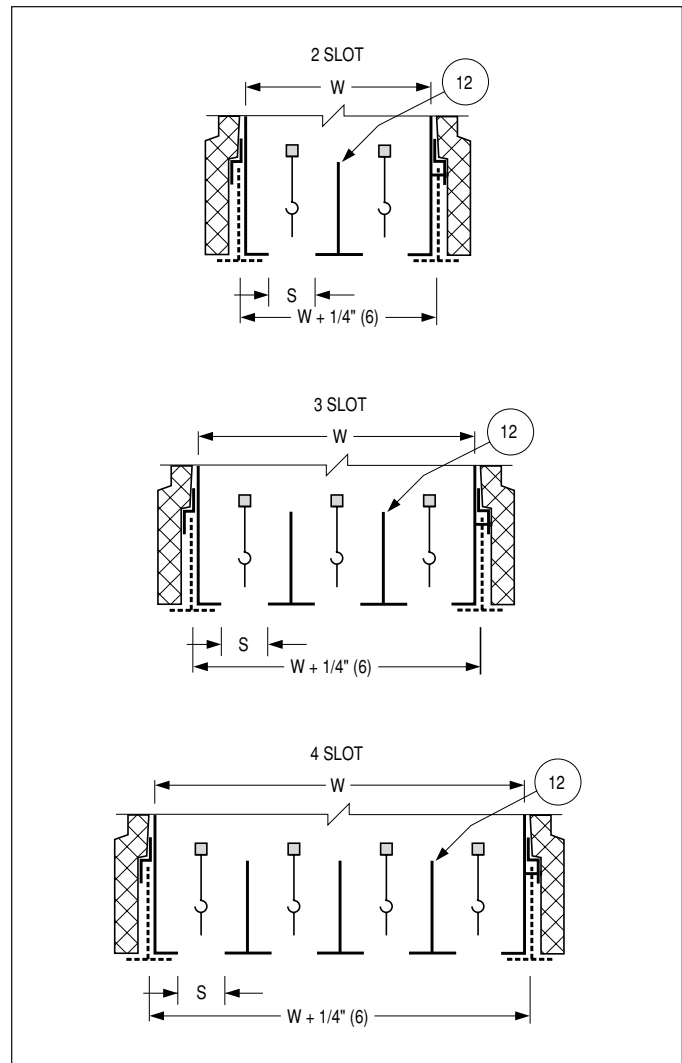


### Items:

1. Fusible link damper support chain.
2. Diffuser casing.
3. Insulated, hinged damper blade.
4. Clip for ceiling grid member – 4 sides.
5. Existing grid member.
6. Supplementary ceiling grid member by others. UL Listed.
7. #8 screws for grid member attachment.
8. Thermal shroud.
9. Adjustable pattern controller.
10. UL Listed fusible link (replaceable).
11. Hanger wire at casing mid-point.
12. Intermediate grid bars (shown solid) supplied and installed by factory.

		S (Slot Width)			
		1/2" (13)	3/4" (19)	1" (25)	1 1/2" (38)
W (Width)	1 slot	1 1/2" (38)	1 3/4" (44)	2" (51)	2 1/2" (64)
	2 slot	3" (76)	3 1/2" (89)	4" (102)	5" (127)
	3 slot	4 1/2" (114)	5 1/4" (133)	6" (152)	7 1/2" (191)
	4 slot	6" (152)	7" (178)	8" (203)	N/A

		Nominal Inlet Size			
		6 (152) Round	8 (203) Round	10 (254) Oval	12 (305) Oval
A		5 7/8 (149)	7 7/8 (200)	11 (279)	14 1/8 (378)
B		–	–	7 7/8 (200)	7 7/8 (200)

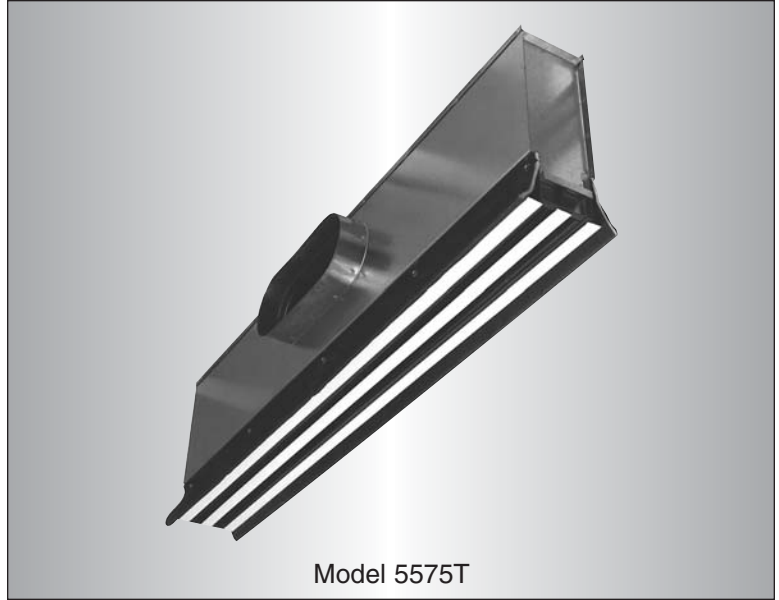


## FIRE RATED PLENUM SLOT DIFFUSER

- ADJUSTABLE 'ICE TONG' PATTERN CONTROLLER
- 3 HOUR RATING
- LAY-IN



CATEGORY  
BZGU



### Models:

- 5550T** 1/2" (13) Slot Width  
**5575T** 3/4" (19) Slot Width  
**5510T** 1" (25) Slot Width

F

FIRE RATED PRODUCTS

The **Nailor Series 5500T** is a UL Classified fire rated air terminal unit listed in Underwriters Laboratories Fire Resistance Directory. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory.

The **5500T Series** features the same 'ice tong' pattern controller as used in the **5000 Series** Linear Slot Diffuser, providing total flexibility in all applications. The direction of airflow is adjustable through a full 180° from the face of the diffuser and pattern controllers may also be adjusted for volume control.

In the horizontal discharge setting, the coanda effect is maximized and a tight blanket of air is projected across the ceiling. The horizontal pattern is maintained throughout a wide range of cataloged air volumes from maximum to minimum flow and the **5500T Series** therefore provides excellent performance in variable air volume applications.

### FEATURES:

- Full 180° pattern controller adjustment means there are no 'lefts or rights'. Pattern controllers also permit volume control.
- Available in 20", 24", 36", 48" and 60" (500, 600, 900, 1200 and 1500) nominal lengths to suit both imperial and metric ceiling systems.
- Choice of three slot widths.
- Choice of 1, 2, 3 or 4 parallel slots.
- Factory installed center tees on multi-slot models are standard. They are dropped slightly below the diffuser

face to align flush with the ceiling grid.

- Pattern controller is split mid-way on units 48" (1200) and longer, permitting a 2-way opposite blow pattern from a single slot.
- Return models are available. See page F46.
- Units must be installed in accordance with the installation instructions for UL Classification.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).

### Options:

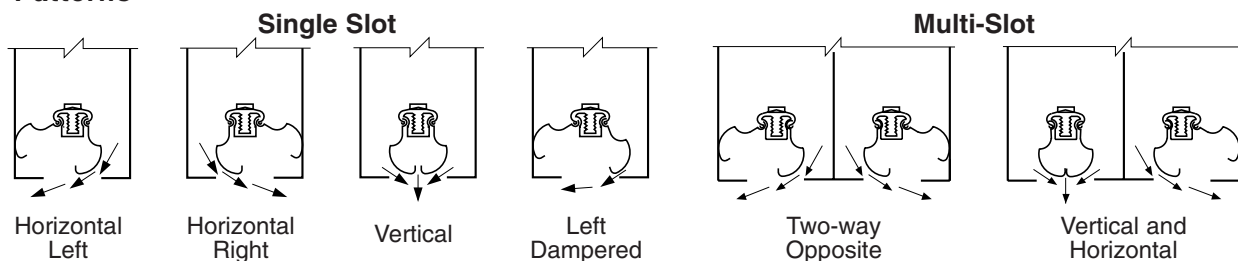
- T1 Supplementary ceiling grid (T-bar) member on inlet side (UL Listed).
- EX External foil back insulation.
- ID Inlet damper.

**Material:** Corrosion-resistant steel plenum and pattern controllers. Aluminum center tees.

**Finish:** Black on pattern controllers and exposed surfaces. AW Appliance White on center tees.

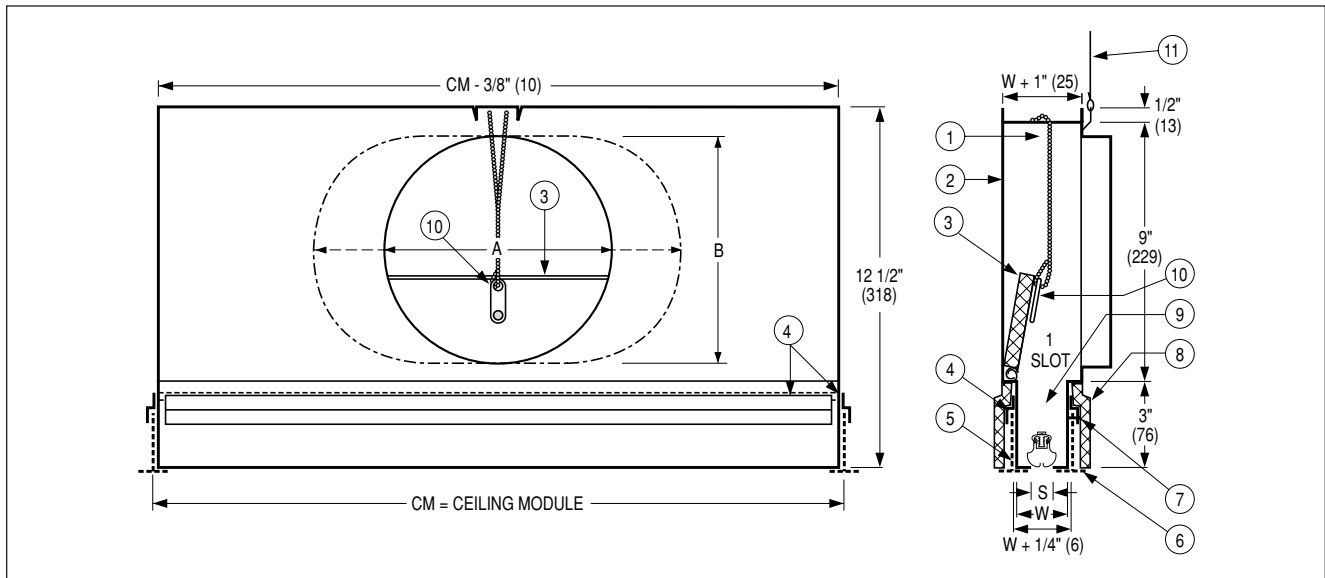
**Performance Data:** See non-fire rated **Model Series 5800** on page C22.

### Air Patterns



## Dimensional Data Model Series 5500T

UNDERWRITER'S LABORATORIES, INC.®  
CLASSIFIED AIR TERMINAL UNITS  
LISTED FOR UP TO 3 HOURS  
CATEGORY BZGU

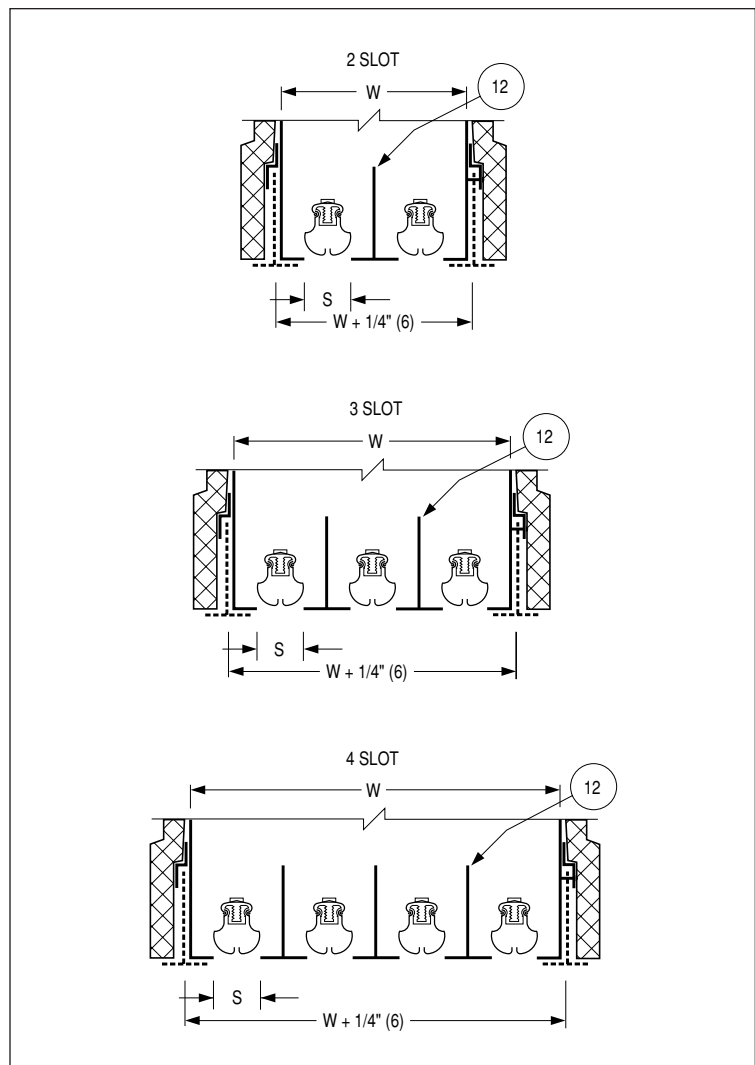


### Items:

1. Fusible link damper support chain.
2. Diffuser casing.
3. Insulated, hinged damper blade.
4. Clip for ceiling grid member – 4 sides.
5. Existing grid member.
6. Supplementary ceiling grid member by others. UL Listed.
7. #8 screws for grid member attachment.
8. Thermal shroud.
9. Adjustable pattern controller.
10. UL Listed fusible link (replaceable).
11. Hanger wire at casing mid-point.
12. Intermediate grid bars (shown solid) supplied and installed by factory.

		S (Slot Width)		
		1/2" (13)	3/4" (19)	1" (25)
W (Width)	1 slot	1 1/2" (38)	1 3/4" (44)	2" (51)
	2 slot	3" (76)	3 1/2" (89)	4" (102)
	3 slot	4 1/2" (114)	5 1/4" (133)	6" (152)
	4 slot	6" (152)	7" (178)	8" (203)

		Nominal Inlet Size			
		6 (152) Round	8 (203) Round	10 (254) Oval	12 (305) Oval
A		5 7/8 (149)	7 7/8 (200)	11 (279)	14 1/8 (378)
B		–	–	7 7/8 (200)	7 7/8 (200)





## FIRE RATED PLENUM SLOT SUPPLY DIFFUSER

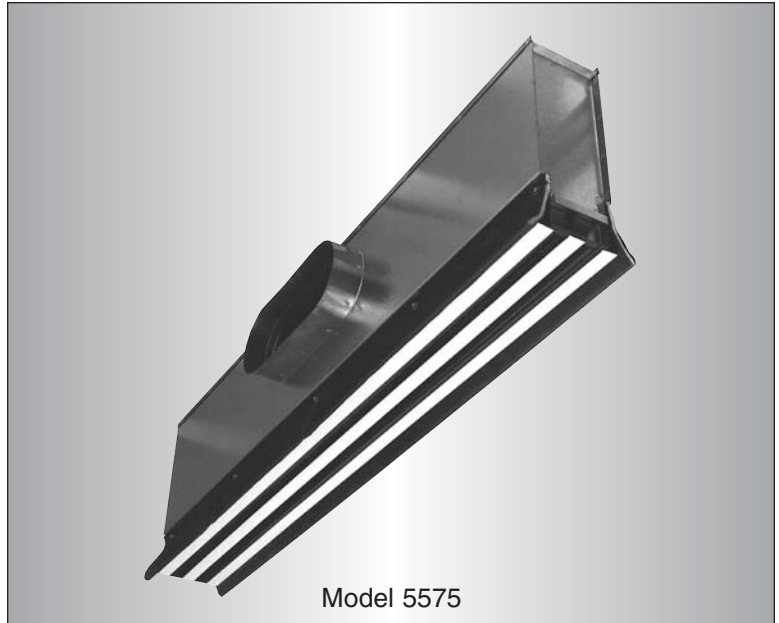
- CURVED BLADE 'FLIP-FLOP' PATTERN CONTROLLER
- 3 HOUR RATING
- LAY-IN



CATEGORY  
BZGU

Model:

5575 3/4" (19) Slot Width



F

FIRE RATED PRODUCTS

The **Nailor Series 5500** is a UL Classified fire rated air terminal unit listed in Underwriters Laboratories Fire Resistance Directory. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory.

These models feature a roll-formed curved blade pattern controller in each slot. Aerodynamically designed to produce a fixed horizontal discharge pattern, the controller is pivoted at either end and may be simply rotated with fingers from the diffuser face for either a left or right discharge direction.

In the horizontal discharge setting, the coanda effect is maximized and a tight blanket of air is projected across the ceiling. The horizontal pattern is maintained throughout a wide range of cataloged air volumes from maximum to minimum flow and the **5500 Series** therefore provides excellent performance in variable air volume applications.

### FEATURES:

- Simple 'Flip-Flop' pattern controller adjustment, from face of diffuser for left or right blow pattern.
- Available in 20", 24", 36", 48" and 60" (500, 600, 900, 1200 and 1500) nominal lengths to suit both imperial and metric ceiling systems.
- Choice of 1, 2, 3 or 4 parallel slots.
- Return models are same design, but omit pattern controllers. See page F46.
- Factory installed center tees on multi-slot models are standard.
- Blades are shipped locked. They may be set for left or right airflow pattern after installation.
- Units must be installed in accordance with the installation instructions for UL Classification.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).

### Options:

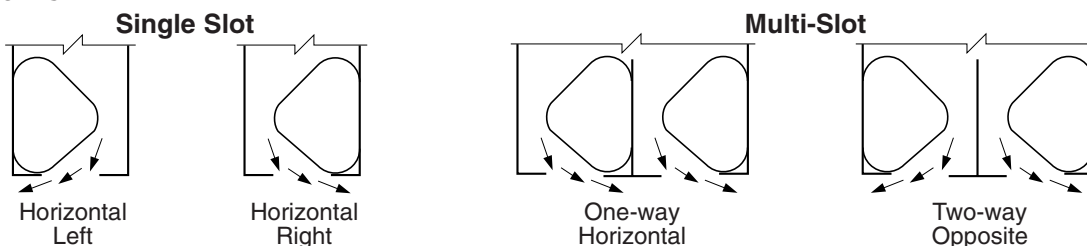
- T1 Supplementary ceiling grid (T-Bar) member on inlet side (UL Listed).
- EX External foil back insulation.
- ID Inlet damper.

**Material:** Corrosion-resistant steel.

**Finish:** Black on pattern controllers and exposed surfaces. AW Appliance White on center tees.

**Performance Data:** See non-fire rated Model 5675 on page C35.

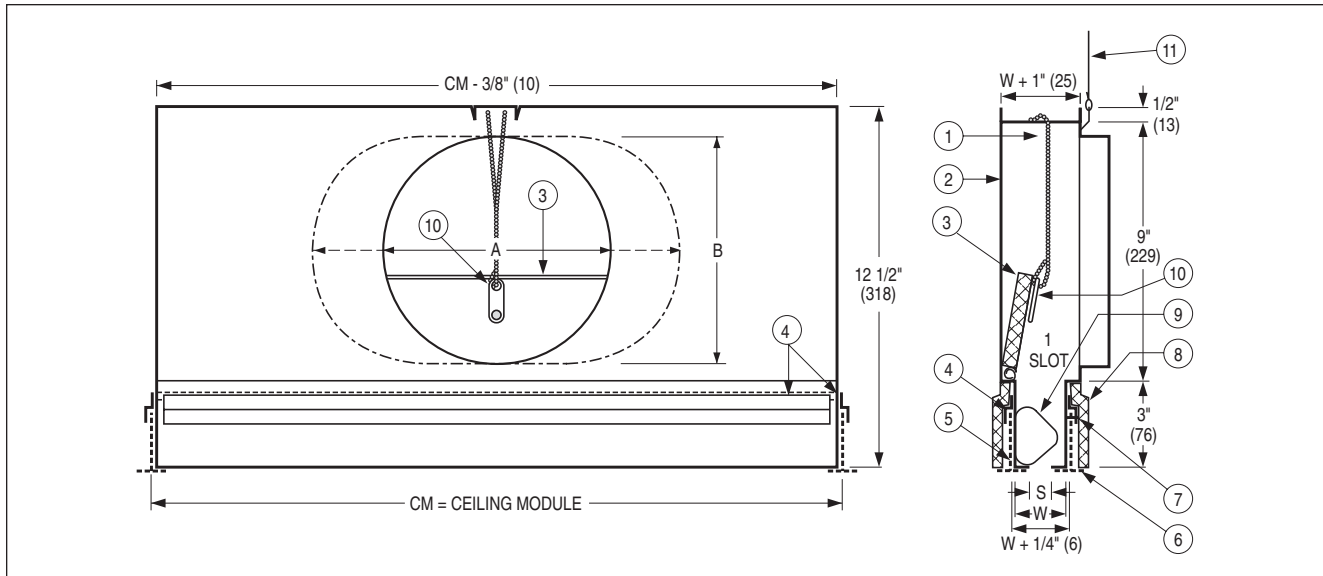
### Air Patterns



## Dimensional Data

### Model Series 5500

UNDERWRITER'S LABORATORIES, INC.®  
CLASSIFIED AIR TERMINAL UNITS  
LISTED FOR UP TO 3 HOURS  
CATEGORY BZGU

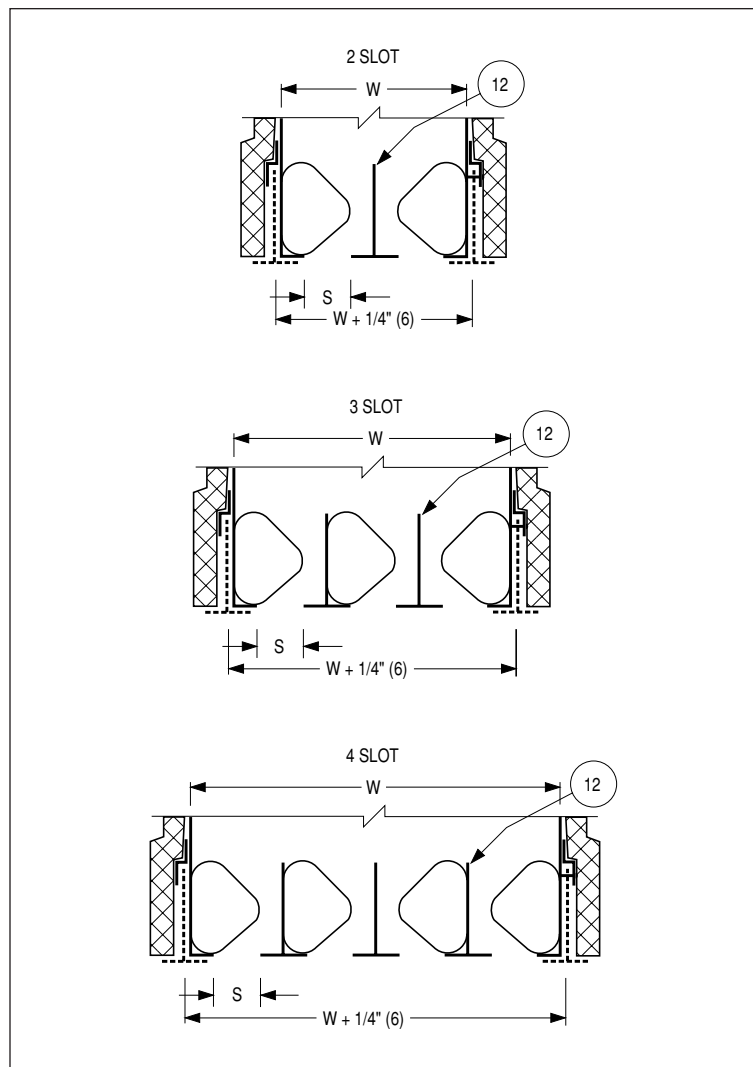


#### Items:

1. Fusible link damper support chain.
2. Diffuser casing.
3. Insulated, hinged damper blade.
4. Clip for ceiling grid member – 4 sides.
5. Existing grid member.
6. Supplementary ceiling grid member by others. UL Listed. Factory installed ceiling grid members are available. AW White only.
7. #8 screws for grid member attachment.
8. Thermal shroud.
9. Adjustable pattern controller. The position can be as shown or rotated 180° to opposite position.
10. UL Listed fusible link (replaceable).
11. Hanger wire at casing mid-point.
12. Intermediate grid bars supplied and installed by factory.

		S = 3/4" (19)
W Width	1 slot	1 11/16" (43)
	2 slot	3 3/8" (86)
	3 slot	5 1/16" (129)
	4 slot	6 3/4" (171)

	Nominal Inlet Size			
	6 (152) Round	8 (203) Round	10 (254) Oval	12 (305) Oval
A	5 7/8 (149)	7 7/8 (200)	11 (279)	14 1/8 (378)
B	–	–	7 7/8 (200)	7 7/8 (200)

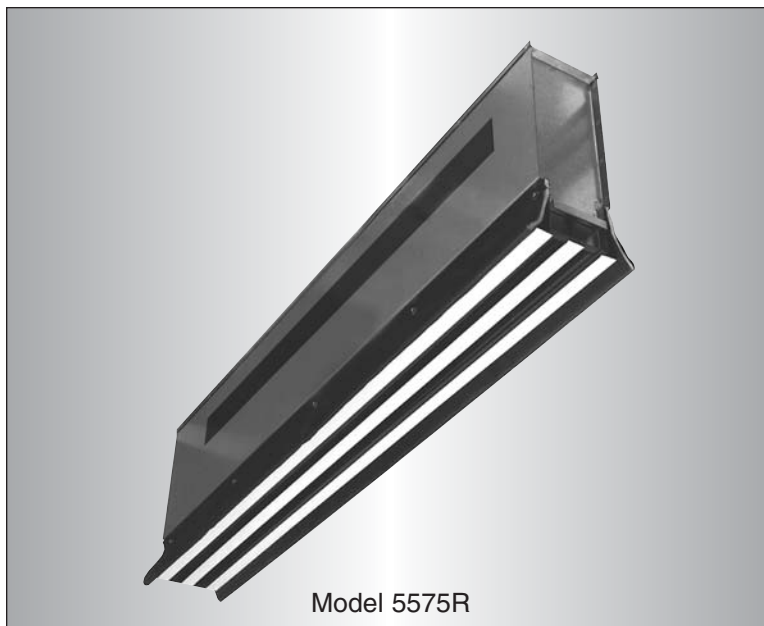


## FIRE RATED PLENUM SLOT RETURN DIFFUSER

- 3 HOUR RATING
- LAY-IN



CATEGORY  
BZGU



### Models:

- 5550R 1/2" (13) Slot Width
- 5575R 3/4" (19) Slot Width
- 5510R 1" (25) Slot Width
- 5515R 1 1/2" (38) Slot Width

F

FIRE RATED PRODUCTS

The **Nailor Series 5500R Return Diffusers** are a UL Classified fire rated air terminal unit listed in Underwriters Laboratories Fire Resistance Directory which compliments the **Model Series 5500** supply models. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory.

Available in the same module sizes as supply models. Pattern controllers are omitted.

Supplied with a rectangular opening as standard for ductless return applications.

Round/oval connections are an available option.

### FEATURES:

- Available in 20", 24", 36", 48" and 60" (500, 600, 900, 1200 and 1500) nominal lengths to suit both imperial and metric ceiling systems.
- Choice of four slot widths.
- Choice of 1, 2, 3 or 4 parallel slots.
- Factory installed center tees on multi-slot models are standard. They are dropped slightly below the diffuser face to align flush with the ceiling grid.
- Units must be installed in accordance with the installation instructions for UL Classification.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).

### Options:

- T1 Supplementary ceiling grid (T-Bar) member on inlet side (UL Listed).
- EX External foil back insulation.
- ID Inlet damper.

**Material:** Corrosion-resistant steel plenum. Aluminum center tees.

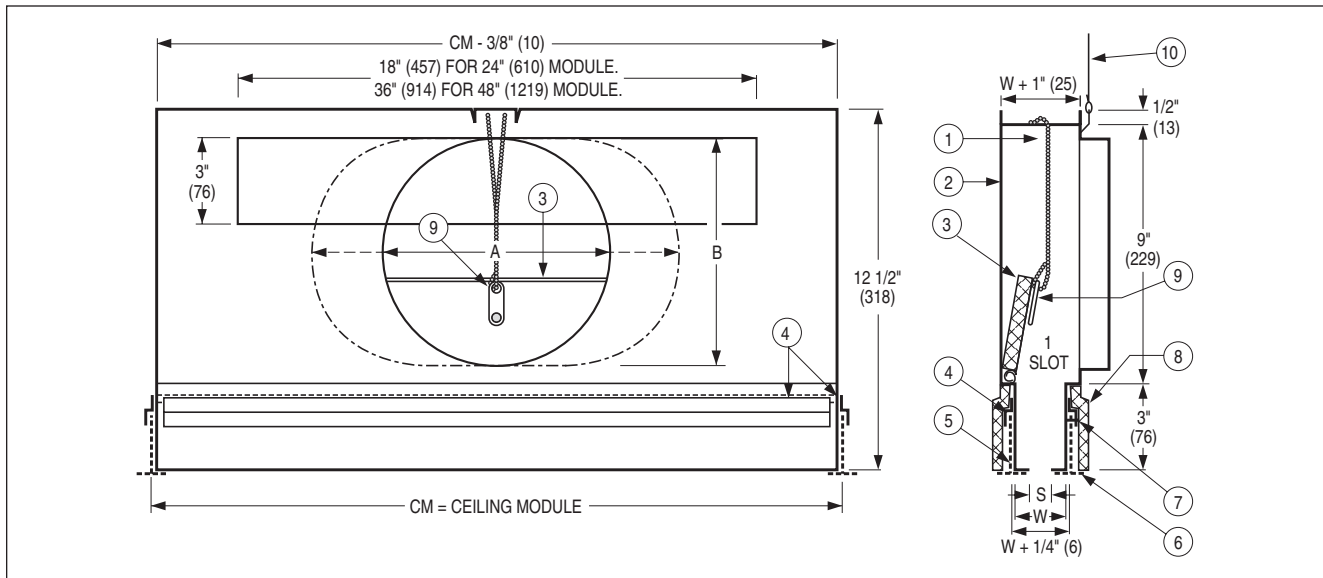
**Finish:** Black on pattern controllers and exposed surfaces. AW Appliance White on center tees.

**Performance Data:** See non-fire rated **Model Series 5700R** on page C42.

## Dimensional Data

### Model Series 5500R • Fire Rated Plenum Slot Return

UNDERWRITER'S LABORATORIES, INC.®  
CLASSIFIED AIR TERMINAL UNITS  
LISTED FOR UP TO 3 HOURS  
CATEGORY BZGU



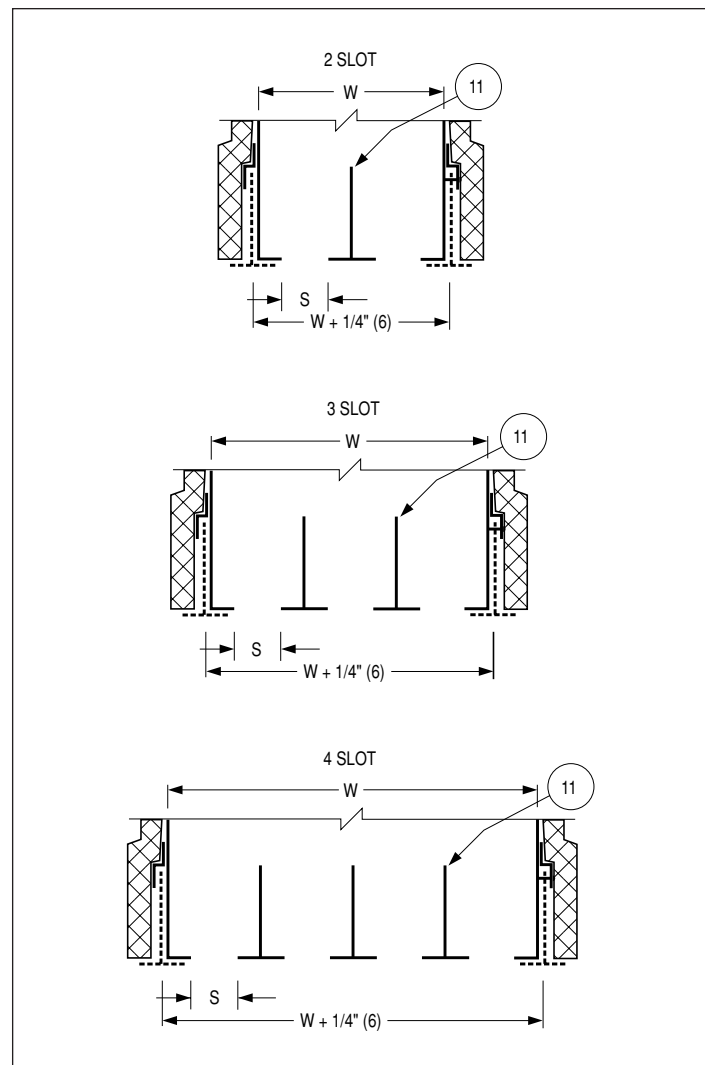
#### Items:

1. Fusible link damper support chain.
2. Diffuser casing.
3. Insulated, hinged damper blade.
4. Clip for ceiling grid member – 4 sides.
5. Existing grid member.
6. Supplementary ceiling grid member by others. UL Listed.
7. #8 screws for grid member attachment.
8. Thermal shroud.
9. UL Listed fusible link (replaceable).
10. Hanger wire at casing mid-point.
11. Intermediate grid bars (shown solid) supplied and installed by factory.

		S (Slot Width)			
		1/2" (13)	3/4" (19)	1" (25)	1 1/2" (38)
W (Width)	1 slot	1 1/2" (38)	1 3/4" (44)	2" (51)	2 1/2" (64)
	2 slot	3" (76)	3 1/2" (89)	4" (102)	5" (127)
	3 slot	4 1/2" (114)	5 1/4" (133)	6" (152)	7 1/2" (191)
	4 slot	6" (152)	7" (178)	8" (203)	N/A

#### Optional Round/Oval Connection.

		Nominal Inlet Size			
		6 (152) Round	8 (203) Round	10 (254) Oval	12 (305) Oval
A		5 7/8 (149)	7 7/8 (200)	11 (279)	14 1/8 (378)
B		–	–	7 7/8 (200)	7 7/8 (200)



**Notes:**

**F**

**FIRE RATED PRODUCTS**