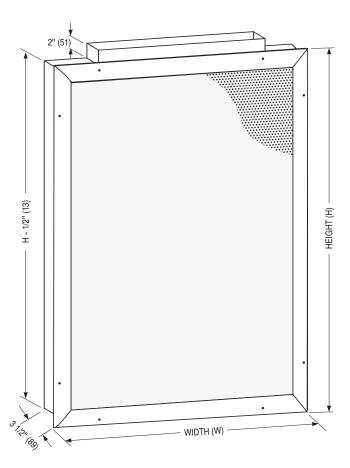
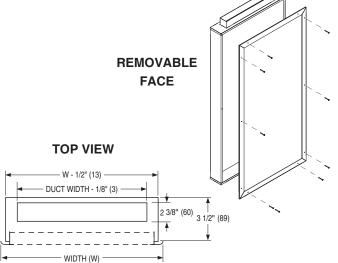


# RECTANGULAR 1-WAY DISPLACEMENT DIFFUSER INTERNAL WALL MOUNT • FLAT FACE STEEL PERFORATED FACE

**MODEL: DWF1** 

# Model DWF1 • 1-Way Discharge Air Pattern





## **Dimensional Data:**

| Unit Size (W x H)   | Duct Size                                    |
|---|--|
| 15 x 24 (381 x 610)<br>15 x 30 (381 x 762)<br>15 x 36 (381 x 914)<br>15 x 48 (381 x 1219) | 12 x 2 1/2 (305 x 64)                        |
| 24 x 24 (610 x 610)<br>24 x 30 (610 x 762)<br>24 x 36 (610 x 914)<br>24 x 48 (610 x 1219) | 18 x 2 1/2 (457 x 64), 20 x 2 1/2 (508 x 64) |
| 30 x 24 (762 x 610)<br>30 x 30 (762 x 762)<br>30 x 36 (762 x 914)<br>30 x 48 (762 x 1219) | 18 x 2 1/2 (457 x 64), 20 x 2 1/2 (508 x 64) |
| 36 x 24 (914 x 610)   | 18 x 2 1/2 (457 x 64), 20 x 2 1/2 (508 x 64) |
| 48 x 24 (1219 x 610)  | 18 x 2 1/2 (457 x 64), 20 x 2 1/2 (508 x 64) |

W x H = Nominal Grille / Register Size

### **DESCRIPTION:**

- Construction: Heavy gauge corrosion-resistant coated steel plenum. Extruded aluminum diffuser frame mechanically interlocked with reinforced mitered corners for strength. Standard 18 ga. (1.3) perforated face has 3/32" (2) dia. holes on 3/16" (5) staggered centers, providing 23% free area. Removable face for easy installation.
- 2. An equalization baffle is provided behind the diffuser face to ensure an even distribution of low velocity supply air.
- Internal wall mount displacement diffusers are especially designed to supply air at a very low velocity to minimize the potential for drafts and enhance occupant comfort.
- 4. Surface mount frame has a 1 1/4" (32) face border and a 1" (25) overlap margin.
- Standard fastening is Type A countersunk screw holes for surface mount.
- 6. Standard finish is AW Appliance White.

# **OPTIONS:**

- 1. Construction:
  - ☐ 16GP Heavy Duty 16 ga. (1.6) Perforated Face
- 2. Inlet Type:
  - ☐ REC Rectangular
- 3. Inlet Location:
  - ☐ T Top ☐ B Bottom
- 4. Finish:
  - AW Appliance White (default)
  - ☐ AL Aluminum
  - ☐ BK Black
  - ☐ BW British White
  - ☐ SP Special \_
- 5. Protective Film:
  - ☐ PFC Protective Film Cover on Face and Inlet

SCHEDULE TYPE:

PROJECT:

ENGINEER:

DATE

B SERIES

SUPERSEDES

DRAWING NO.

CONTRACTOR:

1 - 8 - 20

DWF

9 - 6 - 17

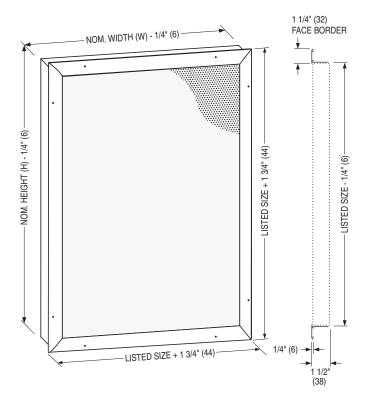
DWF1



# RECTANGULAR 1-WAY DISPLACEMENT DIFFUSER SIDE WALL MOUNT • GRILLE TYPE STEEL PERFORATED FACE

MODEL: DWG1

## Model DWG1 • 1-Way Discharge Air Pattern



#### **Dimensional Data:**

| Unit Size (W x H)  |
|--|
| 15 x 18 (381 x 457)<br>15 x 24 (381 x 610)<br>15 x 30 (381 x 762)<br>15 x 36 (381 x 914)<br>15 x 48 (381 x 1219)   |
| 24 x 18 (610 x 457)<br>24 x 24 (610 x 610)<br>24 x 30 (610 x 762)<br>24 x 36 (610 x 914)<br>24 x 48 (610 x 1219)<br>24 x 60 (610 x 1524)<br>24 x 72 (610 x 1829) |
| 30 x 18 (762 x 457)<br>30 x 24 (762 x 610)<br>30 x 30 (762 x 762)<br>30 x 36 (762 x 914)   |
| 36 x 18 (914 x 457)<br>36 x 24 (914 x 610)<br>36 x 30 (914 x 762)<br>36 x 36 (914 x 914)<br>36 x 48 (914 x 1219)<br>36 x 60 (914 x 1524)<br>36 x 72 (914x 1829)  |
| 48 x 18 (1219 x 457)<br>48 x 24 (1219 x 610)<br>48 x 30 (1219 x 762)<br>48 x 36 (1219 x 914)   |
| 60 x 18 (1524 x 457)<br>60 x 24 (1524 x 610)<br>60 x 30 (1524 x 762)<br>60 x 36 (1524 x 914)   |

#### **DESCRIPTION:**

- Construction: Extruded aluminum diffuser frame mechanically interlocked with reinforced corners for strength. Standard 18 ga. (1.3) corrosion-resistant coated steel perforated face has 3/32" (2) dia. holes on 3/16" (5) staggered centers, providing 23% free area.
- 2. An equalization baffle is provided behind the diffuser face to ensure an even distribution of low velocity supply air.
- 3. Wall mounted displacement diffusers are especially designed to supply air at a very low velocity to minimize the potential for drafts and enhance occupant comfort.
- 4. Standard sizes are shown. Custom sizes are available.
- 5. Surface mount frame has a 1 1/4" (32) face border and a 1" (25) overlap margin.
- Standard fastening is Type A countersunk screw holes for surface mount.
- 7. Standard finish is AW Appliance White.

#### **OPTIONS:**

- 1. Construction:
  - ☐ 16GP Heavy Duty 16 ga. (1.6) Perforated Face
- 2. Finish:
  - ☐ AW Appliance White (default)
  - ☐ AL Aluminum
  - ☐ BK Black
  - ☐ BW British White
  - ☐ SP Special \_\_\_\_\_

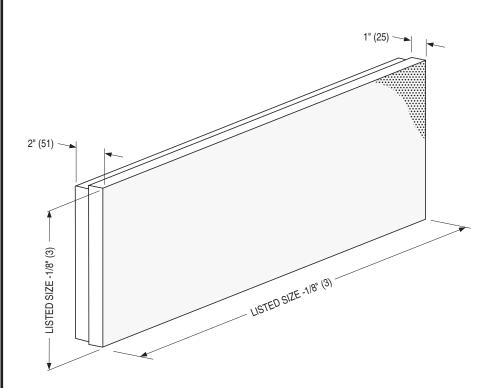
|                | •                              |                               |             |            |  |
|----------------|--------------------------------|-------------------------------|-------------|------------|--|
| SCHEDULE TYPE: |                                | Dimensions are in inches (mm) |             |            |  |
| PROJECT:       | Dimensions are in inches (mm). |                               |             |            |  |
| ENGINEER:      | DATE                           | B SERIES                      | SUPERSEDES  | DRAWING NO |  |
| CONTRACTOR     | 5 - 5 - 22                     | DW                            | 2 - 25 - 20 | DWG1       |  |

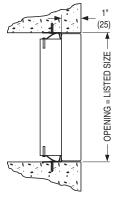


# RECTANGULAR 1-WAY DISPLACEMENT DIFFUSER RISER/RECESSED WALL MOUNT • FLAT FACE STEEL PERFORATED FACE

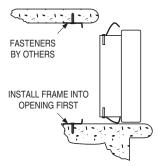
**MODEL: DWR1** 

# Model DWR1 • 1-Way Discharge Air Pattern





RECESSED MOUNT DETAIL



**RISER MOUNT DETAIL** 

## **DESCRIPTION:**

- Construction: Heavy gauge corrosion-resistant coated steel. Standard 18 ga. (1.3) perforated face plate has 3/32" (2) dia. holes on 3/16" (5) staggered centers, providing 23% free area.
- 2. An equalization baffle is provided behind the diffuser face to ensure an even distribution of low velocity supply air.
- 3. Riser/Recessed in-wall mounted displacement diffusers are especially designed to supply air at a very low velocity to minimize the potential for drafts and enhance occupant comfort.
- 4. Minimum size is 6" x 4" (152 x 102).

Maximum size is 60" x 36" (1524 x 914).

Available in intermediate sizes in 2" (102) increments.

- Diffuser is supplied with mounting frame for spring clip mounting into wall or riser opening.
- 6. Standard finish is AW Appliance White.

## OPTIONS:

- 1. Construction:
  - ☐ 16GP Heavy Duty 16 ga. (1.6) Perforated Face
- 2. Inlet Type:
  - ☐ REC Rectangular
- 3. Finish:
  - ☐ AW Appliance White (default)
  - ☐ AL Aluminum
  - ☐ BK Black
  - BW British White
  - ☐ SP Special \_\_\_\_\_
- 4. Protective Film:
  - ☐ PFC Protective Film Cover on Face and Inlet
- 5. Plaster Frame:
  - ☐ PMF Plaster/Mud Frame

| SCHEDULE TYPE: | Dimensions are in inches (mm)  |          |            |             |
|----------------|--------------------------------|----------|------------|-------------|
| PROJECT:       | Dimensions are in inches (mm). |          |            |             |
| ENGINEER:      | DATE                           | B SERIES | SUPERSEDES | DRAWING NO. |
| CONTRACTOR:    | 2 - 25 - 20                    | DW       | 1 - 8 - 20 | DWR1        |



# STANDARD AND OPTIONAL FINISHES FOR GRILLES AND DIFFUSERS

Nailor offers a selection of standard colors and finishes available on our grilles, registers and diffusers. For painted finishes, our state-of-the-art paint systems provide environmentally friendly finishing solutions with uniform coverage and coating thickness. The result is an exceptionally durable finish that resists scratching, corrosion and general wear. Additional facilities for special requirements, as well as a selection of anodized or brushed finishes, complete our ability to provide unmatched beauty and durability for any application.

## NAILOR POWDER COAT PROPERTIES

| FILM THICKNESS       | 2.0 to 3.0 mils                                    |
|----------------------|--|
| HARDNESS             | 2 H  |
| IMPACT<br>RESISTANCE | Direct: 160 inch - lbs.<br>Reverse 160 inch - lbs. |
| SALT SPRAY           | 1000 hours   |

# **ELECTROCOATING PROPERTIES**

| FILM THICKNESS       | .8 to 1.2 mils |
|----------------------|----------------|
| HARDNESS             | НВ ТО Н        |
| IMPACT<br>RESISTANCE | 80 inch - lbs  |
| SALT SPRAY           | 100 hours      |



## **POWDER COAT**

Nailor's powder coat is a high-tech thermosetting polyester powder coating with superior physical properties that provide excellent color and gloss retention. The finish offers extreme durability and hardness that resists scratching, chipping and general wear. Surface preparation includes degreasing and a chemical cleaning followed by a clean rinse before a final powder coat finish is applied and baked. The environmentally friendly Nailor powder coat system assures uniform coverage and color consistency resulting in a long lasting superior finish. Colors, including simulated anodizing, which is far more economical than color anodizing, can be selected from Nailor's standard color chart or non-standard colors and can be matched from sample chips provided to Nailor.

# **ELECTROCOATING**

E-Coat is an environmentally friendly coating that provides complete coverage and a wide range of performance properties, formulated to meet corrosion, durability and other performance specifications. Electrocoating is a highly automated process in which paint is electrically deposited onto a metal foundation. Film build thickness is uniform and overall application efficiencies are in excess of 90%. Paint is consistent on all part-to-part surfaces, preventing sags, runs or drips. E-Coat offers flexibility, better first yield pass and quicker production times compared to other forms of paint applications. Electrocoating is an excellent solution that offers superior properties and uniform finish.

# **CLEAR ANODIZING** (Aluminum products only)

Clear anodizing is a clear oxide coating that exemplifies an aluminum surface's natural oxide coating producing a hard, scratch resistant surface that is resistant to general wear and mild chemicals. The process provides a natural looking, virtually maintenance free finish that will endure for many years.

# **COLOR ANODIZING** (Aluminum products only)

Color anodizing is an electrolytic process where, after standard anodizing procedures, colored metallic pigments penetrate the oxide surface pores producing a corrosion resistant, colorfast finish. The process results in a natural metallic appearance that requires little maintenance.

### **BRUSHED AND CLEAR COAT**

Available on specific aluminum products (consult applicable product page for availability). Surface is brushed to achieve a scratch finish texture before being degreased and chemically cleaned. A clear lacquer coating is then applied to provide a durable protective finish.

## #4 BRUSHED SATIN POLISHED (Stainless Steel products only)

Surface is polished to ASTM A480 #4 standard to achieve a bright durable finish that is resistant to mild chemicals and corrosion. A final coating is not required due to the inherent anti-corrosion properties of the stainless steel.

## **PRIME COAT**

Prime coat provides a stable base for painting in the field. Surface pretreatment includes degreasing and a chemical cleaning before an alkyd prime coat is applied. After a thorough cleaning for dust, etc. that can contaminate the final finish and cause premature flaking or peeling, finish coat should be field applied as soon as possible.

# PAINT PREPARED ALUMINUM (Aluminum products only)

Allows for field applied paint. Surface preparation includes degreasing and a chemical cleaning followed by a clean rinse. Finish coat should be field applied as soon as possible.

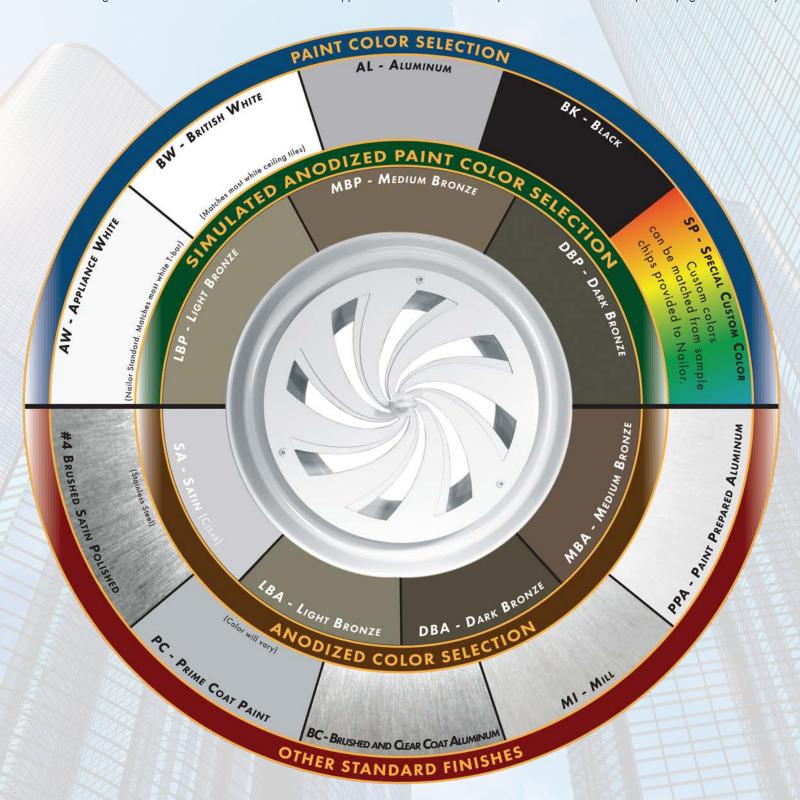
## **MILL FINISH**

Surface is left untreated and requires cleaning, degreasing, etc. in the field before final finish can be applied if required.



# STANDARD AND OPTIONAL FINISHES FOR GRILLES AND DIFFUSERS

The following standard colors and finishes are available on applicable Nailor air distribution products. Consult individual product pages for availability



The pictured finishes have been represented as best as possible within printing limitations. However, actual finish may vary. Contact your Nailor representative for a color chip sample on the material specified for a more accurate representation.

**DBK** - Black (for registers ordered with factory mounted dampers) - **BA** - Perforated Diffusers (4300 series only) Appliance White (AW) face with black back pan and pattern controllers.