Eggcrate Return
This aluminum face return diffuser features 1/2" x 1/2" x 1/2" (13 x 13 x 13) eggcrate that provides a high free area. It is offered with either a round or square neck for ducted return applications. The backpan or frame is available in both corrosion-resistant steel and aluminum construction.

Steel Frame/Backpan – Model 4260 See Page D216
Aluminum – Model 4260AA See Page D216

Modular Core
This steel diffuser has four individual, corrosion-resistant steel, spring-loaded modular pattern controllers. The pattern controllers are shipped in a 4-way discharge pattern and can easily be field adjusted to provide a 1, 2, or 3-way discharge pattern. They are available with square necks and optional round transitions.

Steel Core
Steel – Model 7500 See Page D220
Suffix '-O' adds a steel OBD.

Curved Blade
The curved blade deflectors for this diffuser are individually adjustable and integrated in a modular sized panel to suit many ceiling systems. If ordered with directional vanes a 1 or 2-way discharge pattern is available. If directional vanes are not required, the curved blade deflectors are offered in a 1, 2, 3, or 4-way discharge pattern.

Steel Construction
Directional Vanes – Model 61CCD See Page D226
No Directional Vanes – Model 61CC See Page D226

Aluminum Construction
Directional Vanes – Model 51CCD See Page D226
No Directional Vanes – Model 51CC See Page D226

Options & Accessories
Nailor offers an extensive selection of accessories for ceiling diffusers. Air balancing devices, air extractors and a selection of mounting frames are several of the accessories available.

Options
Mounting Frames See Page D233
Options See Page D234
Finishes See Page D234

Accessories
Air Balancing Devices See Page D235
Volume Extractors See Page D240
EXCLUSIVE WARRANTY FOR NAILOR STEEL GRILLES, REGISTERS AND DIFFUSERS

LIMITED WARRANTY – SERIES 61C, 6100, 61EC, 61F, RNS, RNS2, UNI, 4300, 6500, 7500 AND 61CC

Nailor Industries Inc. (‘Nailor’) warrants to the original and each subsequent owner of a new Nailor Series Grille, Register or Ceiling Air Diffuser in the model series titled above, constructed of corrosion-resistant steel that should rust become visible on the exposed portion of any individual product covered by this agreement Nailor will replace the rusted unit. Any diffuser affected by chemicals or misuse, including, without limitation, the failure to perform reasonable and necessary maintenance, will not be covered by this warranty. This warranty is for sixty (60) months from the date of the shipment by Nailor.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

The rusted unit will be shipped by the owner at its cost to Nailor for replacement. The cost of the replacement, including the cost of shipment to the owner, but excluding any costs for either the removal or preparation for shipment of the rusted unit and the re-installation of the replacement unit, will be borne by Nailor. A reasonable time should be allowed after shipment to Nailor for the replacement of the rusted unit.

This is the only warranty given with the purchase. Any warranties implied by law are limited to sixty (60) months from the date of shipment by Nailor. Nailor neither assumes nor authorizes any person to assume for it any other liability in connection with any diffuser covered by this agreement.

No payment or other compensation will be made for indirect or consequential damage such as, damage or injury to person or property or loss of revenue or profit which might be paid, incurred or sustained by reason of the use or inability to use a Nailor product listed above, even if such loss or damage could have been foreseen by Nailor.

Some states do not allow the exclusion of limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above may not apply to you.
The Nailor 7500 Series Diffusers have been specially designed to provide a versatile 'modular core' product which 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.

The 7500 Series 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 by simply rotating one or more of the pattern controllers which takes only a few seconds.

**FEATURES:**
- Square neck is standard.
- Round transition adaptors are available (SR option).
- Each diffuser features four individually adjustable 'spring-loaded' modular cores.
- Simple adjustment for a 1, 2, 3 or 4-way horizontal discharge pattern without the use of tools.
- Inlet collar has 1 1/2" (38) depth for easy duct connection.
- A wide variety of frame styles to suit most ceiling applications.
- Optional extended panels to suit modular T-Bar ceiling systems.
- Optional opposed blade damper with screwdriver slot operator is adjustable from the diffuser face by removing a modular core.

**Material:** Corrosion-resistant steel blades and frame.

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

### Modular Core Adjustments

All diffusers are shipped with the standard 4-way pattern, but the air pattern can be simply field adjusted by rotating the spring loaded pattern controllers.
Dimensional Data and Frame Types

Model Series 7500

Available Duct Sizes

<table>
<thead>
<tr>
<th>Frame Types S and BS</th>
<th>6 x 6 (152 x 152)</th>
<th>12 x 12 (305 x 305)</th>
<th>18 x 18 (457 x 457)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8 x 8 (203 x 203)</td>
<td>14 x 14 (356 x 356)</td>
<td>20 x 20 (508 x 508)</td>
</tr>
<tr>
<td></td>
<td>9 x 9 (229 x 229)</td>
<td>15 x 15 (381 x 381)</td>
<td>22 x 22 (559 x 559)</td>
</tr>
<tr>
<td></td>
<td>10 x 10 (254 x 254)</td>
<td>16 x 16 (406 x 406)</td>
<td>24 x 24 (610 x 610)</td>
</tr>
</tbody>
</table>
Dimensional Data and Frame Types

Model Series 7500

Extended Panel Diffusers
Frame Types L, SP, TL, F and M

If the ceiling module is more than 3" (76) larger than the neck size of the diffuser in either or both dimensions, a module-sized extended panel will be added.

See the table (below) for the maximum duct size for each module size.

<table>
<thead>
<tr>
<th>Ceiling Module Size CM – Frame Types L, SP, M, TL and F</th>
<th>Available Duct Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial Modules (inches)</td>
<td>Metric Modules (mm)</td>
</tr>
<tr>
<td>12 x 12, 24 x 12</td>
<td>300 x 300, 600 x 300</td>
</tr>
<tr>
<td>20 x 20</td>
<td>500 x 500</td>
</tr>
<tr>
<td>24 x 24</td>
<td>600 x 600</td>
</tr>
</tbody>
</table>
HOW TO SPECIFY OR TO ORDER
(Show complete Model Number and Size, unless "Default" is desired).

Modular Core Ceiling Diffusers – Model Series 7500

**MODEL**
- Steel 7500

**DAMPER**
- No Damper (default) —
- Opposed Blade (steel) O

**NECK SIZE (inches)**
- 6 x 6, 8 x 8, 9 x 9, 10 x 10
- 12 x 12, 14 x 14, 15 x 15,
- 16 x 16, 18 x 18, 20 x 20,
- 22 x 22, 24 x 24

**CEILING MODULE SIZE**
(For Frame Types L, SP, M, TL and F)

<table>
<thead>
<tr>
<th>Imperial (in.)</th>
<th>Metric (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 x 12</td>
<td>300 x 300</td>
</tr>
<tr>
<td>20 x 20</td>
<td>500 x 500</td>
</tr>
<tr>
<td>24 x 12</td>
<td>600 x 300</td>
</tr>
<tr>
<td>24 x 24</td>
<td>600 x 600</td>
</tr>
</tbody>
</table>

**ACCESSORIES**
- None (default) —
- Earthquake Tabs EQT
- Square to Round Transition Collar (04 thru 16 specify) SR

**AIR BALANCING DEVICES**

<table>
<thead>
<tr>
<th>Square Neck</th>
<th>Round Neck</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Equalizing Grid EGL</td>
<td>- Radial Sliding Blade Damper 4250</td>
</tr>
<tr>
<td>- Damper/Equalizing Grid DEGL</td>
<td>- Radial Opposed Blade Damper 4275</td>
</tr>
<tr>
<td>- Butterfly Damper 4675</td>
<td>- Equalizing Grid EGR</td>
</tr>
<tr>
<td>- Equalizing Grid EGR</td>
<td>- Damper/Equalizing Grid DEGR</td>
</tr>
</tbody>
</table>

**FINISH**
- Appliance White (default) AW
- Aluminum AL
- Special Custom Color SP

**FRAME TYPE**
- Surface Mount S
- Bevelled Surface Mount BS
- Lay-in T-Bar L
- Spline SP
- Metal Pan Snap-in M
- Fineline® F
- Tegular (Drop Face) TL

Notes:
1. Consult individual models as to limitations of panel and neck size combinations.
2. If more than one accessory is required, list in order.

SUGGESTED SPECIFICATION:
Furnish and install **Nailor Model Series 7500 Modular Core Ceiling Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall have a heavy gauge, corrosion-resistant steel frame and core. The modular deflectors shall consist of four square, individually adjustable pattern deflectors, factory installed in a 4-way pattern, that are easily field rotated to provide throws in a 1, 2, or 3-way pattern. The diffuser shall have a square duct connection collar that is an integral part of the frame assembly and not be less than 1 1/2" (38) high. The finish shall be AW Appliance White baked enamel (optional finishes are available).

(Optional) An opposed blade damper, constructed of heavy gauge corrosion-resistant steel and operable from the face of the diffuser, shall be provided with all units.

The manufacturer shall provide published performance data for the diffuser, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 2006.
### MODULAR CORE CEILING DIFFUSERS

#### Performance Data

**Models 7500 and 7200 • Square Neck**

<table>
<thead>
<tr>
<th>Nominal Neck Size</th>
<th>Neck Velocity, FPM</th>
<th>Velocity Pressure</th>
<th>Total Pressure</th>
<th>Airflow, CFM</th>
<th>Throw</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 x 6</td>
<td>200</td>
<td>.003</td>
<td>.008</td>
<td>50</td>
<td>1-2-3</td>
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<tr>
<td></td>
<td>300</td>
<td>.006</td>
<td>.018</td>
<td>75</td>
<td>2-2-5</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td>.010</td>
<td>.033</td>
<td>100</td>
<td>2-3-6</td>
</tr>
<tr>
<td></td>
<td>500</td>
<td>.016</td>
<td>.051</td>
<td>125</td>
<td>4-6-11</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>.022</td>
<td>.073</td>
<td>150</td>
<td>8-11-16</td>
</tr>
<tr>
<td></td>
<td>700</td>
<td>.031</td>
<td>.100</td>
<td>175</td>
<td>7-10-13</td>
</tr>
<tr>
<td></td>
<td>800</td>
<td>.040</td>
<td>.131</td>
<td>200</td>
<td>9-11-15</td>
</tr>
<tr>
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<td>1000</td>
<td>.062</td>
<td>.204</td>
<td>250</td>
<td>11-14-20</td>
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</tbody>
</table>

#### Nominal Neck Size

<table>
<thead>
<tr>
<th>Neck Size</th>
<th>Factor</th>
</tr>
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<tbody>
<tr>
<td>6 x 6</td>
<td>0.1134</td>
</tr>
<tr>
<td>8 x 8</td>
<td>0.1932</td>
</tr>
<tr>
<td>9 x 9</td>
<td>0.2551</td>
</tr>
<tr>
<td>10 x 10</td>
<td>0.3024</td>
</tr>
<tr>
<td>12 x 12</td>
<td>0.4526</td>
</tr>
<tr>
<td>14 x 14</td>
<td>0.5883</td>
</tr>
<tr>
<td>15 x 15</td>
<td>0.6804</td>
</tr>
<tr>
<td>16 x 16</td>
<td>0.7728</td>
</tr>
</tbody>
</table>

**Performance Notes:**

1. All pressures are in inches w.g. To obtain static pressure, subtract the velocity pressure from the total pressure.
2. Throws are given at 150, 100 and 50 fpm terminal velocities, under isothermal conditions.
3. NC (Noise Criteria) values are based on 10 dB room absorption, re 10^-12 watts. Dash (-) in spaces indicates an NC level of less 15.
4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.
## Performance Data
### Models 7500 and 7200 • Square Neck

<table>
<thead>
<tr>
<th>Neck Size</th>
<th>Nominal Neck Size</th>
<th>Neck Velocity FPM</th>
<th>Velocity Pressure</th>
<th>Total Pressure</th>
<th>Airflow, CFM</th>
<th>NC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>200</td>
<td>.003</td>
<td>.013</td>
<td>450</td>
<td>—</td>
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<tr>
<td>18 x 18</td>
<td>18-19</td>
<td>300</td>
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<td>.029</td>
<td>675</td>
<td>15</td>
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<tr>
<td></td>
<td>4-8-16</td>
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<td>.010</td>
<td>.051</td>
<td>900</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>5-10-18</td>
<td>500</td>
<td>.016</td>
<td>.080</td>
<td>1125</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>6-14-22</td>
<td>600</td>
<td>.022</td>
<td>.115</td>
<td>1350</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>7-15-26</td>
<td>700</td>
<td>.031</td>
<td>.157</td>
<td>1575</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>8-17-28</td>
<td>800</td>
<td>.051</td>
<td>.205</td>
<td>1800</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>9-18-29</td>
<td>900</td>
<td>.062</td>
<td>.259</td>
<td>2025</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>10-20-30</td>
<td>1000</td>
<td></td>
<td>.320</td>
<td>2250</td>
<td>50</td>
</tr>
</tbody>
</table>

### Performance Notes:
1. All pressures are in inches w.g. To obtain static pressure, subtract the velocity pressure from the total pressure.
2. Throws are given at 150, 100 and 50 fpm terminal velocities, under isothermal conditions.
3. NC (Noise Criteria) values are based on 10 dB room absorption, re 10⁻¹² watts. Dash (-) in spaces indicates an NC level of less 15.
4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

### Neck Size Square in Inches | Ak Factor
---|---
18 x 18 | 0.9541
20 x 20 | 1.2096
22 x 22 | 1.4636
24 x 24 | 1.7304
CEILING DIFFUSER OPTIONS AND ACCESSORIES

MOUNTING FRAMES
• Surface mount adapter frames for plaster and sheet rock ceilings are available in steel and aluminum. They simplify installation, save time and allow ceiling plenum access.

OPTIONS
• A selection of optional items that are available on ceiling diffusers.

FINISHES
• Selection of standard and non-standard finishes to choose from.
• Baked enamel paint in custom colors to suit architect.

AIR BALANCING DEVICES
• Dampers for round and square necks.
• Equalizing grids.
• Volume extractors.
Effective air balancing of an HVAC System requires the correct selection, specification and installation of the right product to suit the system design.
Nailor offers a comprehensive range of models and options to cover all applications.
Nailor balancing devices are:
• Easy to select and specify. Many items can be ordered or specified as diffuser accessories.
• Designed to offer a smooth, accurate and predictable response during adjustment for precise air metering.
• Designed to provide quick access and adjustment.
• Engineered with attention to optimizing airflow, in order to minimize noise, turbulence and pressure drop.

Model DFA
Drywall/Plaster Frame
Surface Mount
Ceiling Adapter

Model OBD
Opposed Blade Damper
Steel, Neck Mount

Model OBDD
Opposed Blade Damper
Steel, Duct Mount

Model DEGR
Damper with Equalizing Grid

Model EGR
Equalizing Grid

Model 4675
Radial Opposed Blade Damper

Model 4250
Radial Sliding Blade Damper

Model 4275
Radial Opposed Blade Damper

Model EX-1
Volume Extractor
Mounting Frames

MODELS: DFS (Steel), DFA (Aluminum)
Drywall/Plaster Frame

The DF Series are for mounting in finished drywall or plaster ceilings to accept any standard lay-in type grille, register, diffuser or other ceiling component. Installation of the air outlet is as simple as inserting them in a standard lay-in T-Bar type ceiling system.

The DF Series simplifies and reduces installation time compared with surface mount type diffusers. This is especially true where flexible duct is utilized.

A major benefit is that the DF Series allows access to the ceiling plenum space above for maintenance purposes without the need for separate access doors. The finished appearance is professional and aesthetically pleasing.

Standard Finish: AW Appliance White baked enamel. Other finishes are available.

Model DFS is installed quickly and easily using adjustable fastening angle brackets which adapt to various ceiling thicknesses. Frames are roll-formed corrosion-resistant steel with staked and mitered corners.

<table>
<thead>
<tr>
<th>IMPERIAL MODULES</th>
<th>METRIC MODULES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial Units (inches)</td>
<td>S.I. Units (mm)</td>
</tr>
<tr>
<td>12 x 12</td>
<td>305 x 305</td>
</tr>
<tr>
<td>16 x 16</td>
<td>406 x 406</td>
</tr>
<tr>
<td>20 x 20</td>
<td>508 x 508</td>
</tr>
<tr>
<td>24 x 12</td>
<td>610 x 305</td>
</tr>
<tr>
<td>24 x 24</td>
<td>610 x 610</td>
</tr>
</tbody>
</table>

Ceiling opening = CM + 1/4" (6)

Model DFA requires framing of the ceiling opening with 'C' channel or wood studs for attachment with mounting screws (by others).

<table>
<thead>
<tr>
<th>IMPERIAL MODULES</th>
<th>METRIC MODULES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial Units (inches)</td>
<td>S.I. Units (mm)</td>
</tr>
<tr>
<td>12 x 12</td>
<td>305 x 305</td>
</tr>
<tr>
<td>16 x 16</td>
<td>406 x 406</td>
</tr>
<tr>
<td>20 x 20</td>
<td>508 x 508</td>
</tr>
<tr>
<td>24 x 12</td>
<td>610 x 305</td>
</tr>
<tr>
<td>24 x 24</td>
<td>610 x 610</td>
</tr>
<tr>
<td>24 x 12</td>
<td>1219 x 305</td>
</tr>
<tr>
<td>24 x 24</td>
<td>1219 x 610</td>
</tr>
<tr>
<td>36 x 24</td>
<td>914 x 610</td>
</tr>
<tr>
<td>48 x 12</td>
<td>1219 x 305</td>
</tr>
<tr>
<td>48 x 24</td>
<td>1219 x 610</td>
</tr>
<tr>
<td>60 x 12</td>
<td>1524 x 305</td>
</tr>
</tbody>
</table>

Ceiling opening = CM + 1/4" (6)
OPTIONS:

EQT Earthquake Tabs
Earthquake (seismic) retaining safety tabs are available; factory installed on diffusers when required by local building code that units be independently restrained and safety wired to supporting structure.

SC Safety Chain
An optional safety chain is available on all of Nailor’s round ceiling diffusers.

GK Foam Gaskets
Foam gasket is available on a selection of surface mount diffusers.

SR Square to Round Transition Collar
Transition collars are for use on Nailor square neck diffusers where a round duct connection is required.

EXTERNAL FOIL BACK INSULATION

EX External Insulation Blanket - Factory Installed
An optional 1 1/2" thick foil back insulation is available installed on a majority of Nailor ceiling diffusers. The insulation has an R value of 4.2.

EXB External Insulation Blanket - Ships Loose
This insulation is the same as above but is shipped loose for field installation.

MIB Molded Insulation Blanket - Factory Installed
The molded insulation is available as an option on various 24" x 24" square diffusers. The insulation has an R value of 6.0.

FINISHES:

BAKED ENAMEL PAINT

AW Appliance White (standard)
A white finish that is currently the industry standard. Closely matches standard finishes supplied by the majority of T-Bar ceiling system manufacturers. (No additional cost).

AL Aluminum
Contains suspended metal particles to give the appearance of a silver grey metallic or anodized finish. (No additional cost).

WH Off-White
Has a creamy appearance. (Additional cost)

BK Black
This black has a matte finish. (Additional cost)

BA Black Interior/Appliance White Face
Optional on perforated diffusers. AW Appliance White is applied on the perforated face and BK Black is applied on the interior of the backpan for a discreet appearance. (No additional cost)

SP Special
The Nailor range of diffusers are available in any color for special architectural consideration. Custom colors are individually mixed to match customer supplied samples. (Additional cost)

ACRYLIC

AAW Acrylic Appliance White
Extra protection for your diffusers. This color matches the industry standard white finish. (Additional cost).

ASP Acrylic Special Finish
Extra protection for your diffusers. Custom colors are individually mixed to match customer supplied samples. (Additional cost)

ALSO AVAILABLE

MI Mill Finish
(No additional cost).

PPA Paint Prepared Metal (Washed only)
(No additional cost).

PC Prime Coat
(Additional cost)
Radial Opposed Blade Damper

A unique method of controlling volume through a diffuser providing premium design quality and performance. The multi-blade perimeter design offers true radial flow at any setting.

A screwdriver slot, accessible through the diffuser, requires only a half turn to adjust from fully closed to fully open. The damper is designed to fit directly on the neck of the diffuser. Simple, convenient and accurate installation and operation.

Available with an optional operator arm. Model 4275-OA allows damper adjustment on the UNI Diffusers without removing the inner cone assembly.

Radial Sliding Blade Damper

The Model 4250 is a neck mounted radial sliding blade damper used in round neck diffuser applications to provide fine volume control. Gang operated radial blades slide at right angles to the duct with minimal protrusion above the diffuser neck; allowing the damper to work effectively in flexible duct applications.

Available in sizes 6", 8", 10", 12" and 14" (152, 203, 254, 305 and 356).

Butterfly Damper

The Model 4675 Butterfly Damper is an economical damper for volume balancing in round neck diffusers. Adjustable friction pivots hold the blades at the required setting. Adjusted from the face of the diffuser.

Not recommended for use with flexible duct.
Air Balancing Devices

OPPOSED BLADE DAMPERS

Nailor Opposed Blade Dampers feature heavy gauge, roll-formed, corrosion-resistant steel or extruded aluminum blades and frame with miscellaneous steel components.

The gang operated multi-blade design with blades closing at 45 degrees permits fine volume control for accurate balancing with minimum disturbance to the airflow pattern. Blades are individually pivoted on 1" (25) centers.

DIFFUSER MOUNT MODELS:

- **OBD Steel**
- **OBD-A Aluminum**

This style of damper mounts directly on the neck and are sized to suit most Nailor diffusers. Uses steel barbed S-clips for easy field mounting or removal when ordered separately. Supplied as standard with a screwdriver slot operator (Type SL).

Can be specified as an integral part of the diffuser model by adding a - O (steel) or - OA (aluminum) suffix to the diffuser model.

Available with Type DL Lever Operator for use with 6200, 6400 and 6500 Series Pattern Diffusers and 6600 Series Plaque Diffusers. Permits balancing without removing the diffuser inner core assembly.

**Type SL Operator**

The SL Operator incorporates a screwdriver slot, which adjusts from the face of the diffuser. This operator is the standard supplied when ordered separately.

**Type DL Operator**

The DL Operator incorporates a lever that adjusts without the use of tools. The lever operator extends through the diffuser face.
CEILING DIFFUSER OPTIONS AND ACCESSORIES

Air Balancing Devices

**DUCT MOUNT MODELS:**

- **OBDD**  Steel
- **OBDD-A**  Aluminum

Designed to be field mounted independently in the duct, separate from and behind the diffuser. They are sized to suit and offer a friction fit in nominally sized ducts. They are secured with 1/2" (13) long sheet metal screws (by others) through the double walled sub-frame.

Min. Size = 4" x 2 1/2" (102 x 64)  Max. Size = 24" x 24" (610 x 610)

**Type SL Operator**

These models are supplied with a screwdriver slot face operator that is accessed from inside the duct by removing the diffuser.

**Type EH Operator**

These duct mount models feature an external 3/16" (5) hex operator accessible from outside the duct; from the side of the duct when blades run vertically and from underneath the duct when blades run horizontally.

**Type EN Operator**

These duct mount models feature an external glass-filled nylon screwdriver slot operator accessible from outside the duct; from underneath the duct when blades run vertically, and from the side of the duct when blades run horizontally.

**Type QD Operator** *

A snap-in shaft extension with 'mini' hand locking quadrant is available as an optional accessory.

**Type QX Operator** *

A snap-in shaft extension with 'mini' hand locking quadrant and 2" (51) stand-off bracket for externally insulated ducts. Order damper with blades parallel to horizontal duct dimension to ensure quadrant is located on vertical side of the duct.

*Not available on Model OBDD-A
Equalizing Grid for Round Necks

The Model EGR is a duct mounted grid that equalizes the airflow into the branch duct or diffuser neck and provides directional control. They are shipped loose for field installation. The individually adjusted vanes are friction pivoted to hold the desired setting.

Recommended method of installation is flush with the take-off collar and with the vanes perpendicular to the direction of the approaching airflow.

Equalizing Grid for Square and Rectangular Necks

The Models EGS and EGL are duct mounted grids that equalize the airflow into the branch duct or diffuser neck and provide directional control. They are shipped loose for field installation. The individually adjusted vanes are friction pivoted to hold the desired setting.

Recommended method of installation is flush with the take-off collar and with the vanes perpendicular to the direction of the approaching airflow.

The suffix 'S' or 'L' indicates blades are parallel to the short or long dimension.

Damper with Equalizing Grid for Round Necks

The Model DEGR is a duct mounted combination damper with equalizing grid.

It performs as a volume extractor with dampering to near shut-off as well as equalizing the airflow into the branch duct or diffuser neck and providing directional control.

The individual adjustable vanes are friction pivoted to hold the desired setting.

Damper blade may be adjusted to any angle and locked in position with adjusting wires under screw heads.
Air Balancing and Directional Control Devices

Damper with Equalizing Grid for Square and Rectangular Necks
The Models DEGS and DEGL are duct mounted combination dampers with equalizing grids. They perform as a volume extractor with dampering to near shut-off as well as equalizing the airflow into the branch duct or diffuser neck and providing directional control.

The individual adjustable vanes are friction pivoted to hold the desired setting.

Damper blade may be adjusted to any angle and locked in position with adjusting wires under screw heads.

The suffix 'S' or 'L' indicates blades are parallel to the short or long dimension.

Quadrant Blanks for RNS and RNSA Round Neck Diffusers
The Model 4295 Quadrant Blanks are for insertion into the diffuser neck to provide one, two or three-way discharge as may be required to accommodate nearby airflow obstructions. Quadrant Blanks are available for all neck sizes. Hinge pins on the unit clip easily into pre-set holes on the collar for simple installation.
**MODEL SERIES**
- **EX** Blows on 2” centers
- **EXD** Blows on 1” centers

The **Model Series EX Volume Extractors** uniformly divert air from the main duct into the branch take-off and across the face of a grille or diffuser. Gang-operated parallel blades available on 2” (51) or 1” (25) centers pivot from full open to full closed with blades overlapping for shut-off. The curved blade design improves airflow by reducing turbulence, thereby reducing noise and pressure drop.

Specify or order: Length x Width. (Length is first dimension. Blades are parallel to width, second dimension).

**FEATURES:**
- **Material:** Galvanized steel.
- **Minimum size:** 6” x 4” (152 x 102).
- **Maximum size:** 36” x 36” (914 x 914).

**Operator Types**
- **EX/EXD-1**
  - Standard unit with adjusting strap.
- **EX/EXD-1-R**
  - Rod operator for external operation.
- **EX/EXD-2**
  - Linkage with 7/16” (11) square hole (2 per unit). Remote operator (eg. Young Regulator #1) by others.
- **EX/EXD-3**
  - Screw gear operator. Adjusts with 3/16” (48) wrench (by others).

**Optional Accessories**
- **RLD**
  - Locking device for Models EX/EXD-1-R.