Application
Perforated return R&G are used as return or exhaust units that match the appearance of perforated supply diffusers. They are well suited for locations where the occupant can see into the duct, and can be mounted on the wall or in the ceiling.

Standard Features
- Extruded aluminum construction is humidity and corrosion resistant.
- Perforated material is 51% free area.
- Minimum grille size is 4" x 4".
- Maximum grille size is 36" x 36." Panels can be joined for larger sizes (p. A312).
- Register model RWFB uses model RXEA opposed blade damper (p. A437).
- Register model RNFB uses model RXDA opposed blade damper (p. A437).
- Standard finish is electrocoat acrylic baked enamel.
- Standard color is #11 bright white.

Optional Features
- Tamper-proof screws (p. A342).
- Concealed hangers (p. A343).
- Unit can be set in T-bar panel (Opt. T), and certain sizes can be sheared (Opt. S) to fit T-bar grids (p. A341).
## Multi-Panel Construction

### Multi-Panel Construction for the following Registers & Grilles

<table>
<thead>
<tr>
<th>Single Deflection</th>
<th>Steel</th>
<th>Stainless Steel</th>
<th>Aluminum</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSSB, RTSB</td>
<td>RLSB, RMSB,</td>
<td>RASM, RNSM</td>
<td></td>
</tr>
<tr>
<td>RSDB, RTDB</td>
<td>RLD, RMDB,</td>
<td>RADM, RNDM</td>
<td></td>
</tr>
<tr>
<td>RSAB, RTAB</td>
<td>RLAB, RMAB,</td>
<td>RARM, RNRM</td>
<td></td>
</tr>
<tr>
<td>RSAB, RTAB</td>
<td>RKAB</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### In-line Construction

![Diagram of in-line construction]

**Notes:**
1. Maximum single panel width and height is 36” listed size regardless of blade alignment.
2. Panels are made in even inch increments unless specified otherwise.
3. Front blade alignment is as pictured.
4. Grille height & width dimensions shown are listed size dimensions.
5. Panel flanges are sheared and aligned with joining strips.

### Ganged Construction

**Notes:**
1. Maximum single panel width is 36” listed size.
2. Maximum single panel height is 36” listed size.
3. Panels will be made in even inch increments unless specified otherwise.
4. Front blade alignment is always parallel to center support.
5. Either the vertical or horizontal joint can be sheared down, but not both.
6. The center support can be aligned vertically or horizontally, depending on blade alignment desired. It is shown here mounted horizontally.
7. Grille height and width dimensions shown are listed size dimensions.
8. Metric dimensions are shown in millimeters.
Multi-Panel Construction

Multi-Panel Construction for the following Registers & Grilles

<table>
<thead>
<tr>
<th>Steel</th>
<th>Louvered Return</th>
<th>Perforated Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS LA, RT LA</td>
<td>RS FA, RT FA</td>
<td></td>
</tr>
</tbody>
</table>

In-Line Construction

- Height: Up to 36"
- Width: Over 96"
- Horizontal Blade Alignment
- Three or More Sections

- Height: Over 72"
- Width: Up to 48"
- Horizontal Blade Alignment
- Three or More Sections

- Height: 38-72"
- Width: Up to 48"
- Horizontal Blade Alignment
- Two Sections

- Height: Over 96"
- Width: Up to 36"
- Vertical Blade Alignment
- Two Sections

Ganged Construction

Notes:
1. Panels will be made in even inch increments unless specified otherwise.
2. Dimensions shown are listed size dimensions.
3. Max. blade length on louvered face models is nominal 48".
4. Panels are sheared and aligned with joining strips.

Center Support Attachment to Wall Opening

1. Center Support install flush with wall
2. 2-3/8" (60)
3. Duct Height
4. Duct Width
5. W: 50" - 96"
6. H: 38" - 74"
7. 1/2" (13)
8. 1/4" (6)
9. Joining Strips
10. 1/4" (6)

Cross-Sectional View of Center Support with Grilles Attached

1. 2-1/2" (64)
2. 1/2" (13)
3. 1-1/4" (32)
4. 2" (51)


**Multi-Panel In-Line Construction**

**Notes:**
1. Maximum single panel width and height is 48” nominal size, regardless of blade alignment.
2. Panels are made in even inch increments unless specified otherwise.
3. Front blade alignment is always parallel to center support.
4. Either the vertical or horizontal joint can be sheared down, but not both.
5. The center support can be aligned vertically or horizontally, depending on blade alignment desired.
6. Grille dimensions shown are nominal dimensions.
7. Panel flanges are sheared and aligned with joining strips.

**Multi-Panel Ganged Construction**

**Notes:**
1. Maximum single panel width and height is 48” nominal size, regardless of blade alignment.
2. Panels are made in even inch increments unless specified otherwise.
3. Front blade alignment is always parallel to center support.
4. Either the vertical or horizontal joint can be sheared down, but not both.
5. The center support can be aligned vertically or horizontally, depending on blade alignment desired.
6. Grille dimensions shown are nominal dimensions.

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**Cross-Sectional View of Center Support**

- Height: 50-96"
- Width: Up to 48"
- Two Sections
- Any Blade Alignment

- Height: Over 96"
- Width: Up to 48"
- Three or more Sections
- Any Blade Alignment

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Center Support installs flush with wall

Center Support Mounted flush with wall (Shown aligned horizontally).
All Sections of Butted Grilles or Registers will be made in Listed Sizes as Standard.

STANDARD REGISTERS AND GRILLES
Applies to all models except louvered return air registers and grilles and door partition grilles. Registers and grilles over 36” x 36” butting two or more grilles together.

NOTES:
Extruded aluminum supporting members with mounting angles, are furnished where required.
Center support may run vertically or horizontally, depending upon combination of grilles used.
Combination of panels will be furnished to fit duct opening with satisfactory clearance.
## Screw Hole Locations for the following Registers & Grilles

<table>
<thead>
<tr>
<th></th>
<th>Steel</th>
<th>Aluminum</th>
<th>Stainless Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Deflection</td>
<td>RSSB</td>
<td>RASM</td>
<td>RLSB</td>
</tr>
<tr>
<td></td>
<td>RTSB</td>
<td>RNSM</td>
<td>RMSB</td>
</tr>
<tr>
<td>Double Deflection</td>
<td>RSDB</td>
<td>RADM</td>
<td>RLDB</td>
</tr>
<tr>
<td></td>
<td>RTDB</td>
<td>RNDM</td>
<td>RMDB</td>
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<tr>
<td>0° Fixed Return</td>
<td>RSRB</td>
<td>RARM</td>
<td>RLRB</td>
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<tr>
<td></td>
<td>RTRB</td>
<td>RNRM</td>
<td>RMRB</td>
</tr>
<tr>
<td>45° Fixed Return</td>
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<td>RAAM</td>
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<tr>
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<td>RTAB</td>
<td>RNAM</td>
<td>RMAB</td>
</tr>
<tr>
<td>Louvered Return</td>
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<td></td>
<td>RTL A</td>
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<tr>
<td>Perforated Return</td>
<td>RSFA</td>
<td>RAFM</td>
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</tr>
<tr>
<td></td>
<td>RTFA</td>
<td>RNFM</td>
<td>—</td>
</tr>
</tbody>
</table>

### Notes:
- Screw holes on the face are standard on Registers and Grilles.
- Steel R&G can be ordered without screw holes, for use with concealed hangers (Opt. N).
- The screw holes is 5/32” in diameter.
- Each Register or Grille is provided with the appropriate number of screws as standard.
- The standard screw is #8 x 1-1/4” pan head screw, with a flat blade head.
- Tamper-proof screws are available as an option (Opt. B).

### Diagrams

#### One Screw hole per Side
Nominal Size Range 4” through 18”.

#### Two Screw holes per Side
Nominal Size Range 19” through 31”.

#### Three Screw holes per Side
Nominal Size Range 32” through 48”.

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