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
- Formed steel construction is durable and inexpensive.
- Optional 304 stainless steel construction.
- Perforated material is 51% free area.
- Minimum grille size is 4" x 4".
- Maximum grille size is 48" x 36." Panels can be joined for larger sizes (p. A312).
- Register uses model RXEA 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).
- UL-listed fusible link (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).

Model Numbering System

<table>
<thead>
<tr>
<th>R</th>
<th>S</th>
<th>F</th>
<th>A</th>
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</tbody>
</table>

R - Register or Grille
S - Steel Grille
T - Steel Register
L - Stainless Steel
K - Stainless Steel Register (Stainless Steel Damper)

FRACTIONAL SIZE
0 - 0" 1 - 1/8" 2 - 1/4" 3 - 3/8" 4 - 1/2" 5 - 5/8" 6 - 3/4" 7 - 7/8"

FINISH
11 - Bright White (Default)
01 - Off-White
04 - Gray
22 - Satin Polish w/One Coat Clear Lacquer

HEIGHT
04 - 4" Minimum

WIDTH
004 - 4" Minimum

MOUNTING
Y - Std. Screws (Default)
N - No Screw Holes
B - Tamper-proof Screws
C - Concealed Hangers
T - Panel: 24"x24" T-bar Ceiling

ADD ONS
G - Gasket (Default)
F - Fusible Link
Q - Gasket & Fusible Link

www.carnes.com A-283
Multi-Panel Construction for the following Registers & Grilles

**Multi-Panel Construction**

- **Steel**
  - Louvered Return: RSLA, RTLA
  - Perforated Return: RSFA, RTFA

**In-Line Construction**

- Height: Up to 36”
- Width: Over 96”
- Horizontal Blade Alignment
- Two Sections
- Height: Up to 48”
- Width: Over 72”
- Vertical Blade Alignment
- Three or More Sections

**Ganged Construction**

- Height: 38-72”
- Width: Up to 48”
- Horizontal Blade Alignment
- Two Sections
- Height: Over 72”
- Width: Up to 48”
- Horizontal Blade Alignment
- Three or More Sections

**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.
5. Either the vertical or horizontal joint can be sheared down, but not both.
6. Maximum single panel width is 48” listed size.
7. Maximum blade length on louvered face models is listed size 48”.
8. Maximum single panel height is 36” listed size.
9. Panels are made in even inch increments unless specified otherwise.
10. Blade alignment is always parallel to center support.
11. The center support can be aligned vertically or horizontally, depending on the blade alignment desired. It is shown here mounted horizontally.
12. Grille dimensions shown are listed size dimensions.

**Center Support Attachment to Wall Opening**

- Duct Height
- Duct Width
- W: 50” - 96”
- H: 38” - 74”
- Joining Strips

**Cross-Sectional View of Center Support with Grilles Attached**

- Center Support install flush with wall
- Wall Angle
- Wall
- 2-1/2” (64)
- 1/2” (13)
- 1-1/4” (32)
- 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 as pictured.
4. Grille dimensions shown are nominal dimensions.
5. Panel flanges are sheared and aligned with joining strips.

**Multi-Panel Ganged Construction**

**Notes:**
1. Maximum single panel width and height are 48” nominal size.
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.

**Cross-Sectional View of Center Support**

**Center Support**
- Installs flush with wall

**Wall Angle**
- Wall

**Center Support Mounted flush with wall (Shown aligned horizontally).**

**Notes:**
- Maximum single panel width and height is 48” nominal size, regardless of blade alignment.
- Panels are made in even inch increments unless specified otherwise.
- Front blade alignment is as pictured.
- Grille dimensions shown are nominal dimensions.
- Panel flanges are sheared and aligned with joining strips.
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 Location for the following Registers & Grilles

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<tr>
<th>Style</th>
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<th>Aluminum</th>
<th>Stainless Steel</th>
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<tr>
<td>Single Deflection</td>
<td>RSSB, RTSB</td>
<td>RASM, RNSM</td>
<td>RLSB, RKSB</td>
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<td>Double Deflection</td>
<td>RSDB, RTDB</td>
<td>RADM, RNDM</td>
<td>RLDDB, RKDB</td>
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<td>RARM, RNRM</td>
<td>RLRB, RKRB</td>
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<tr>
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<tr>
<td>Perforated Return</td>
<td>RSFA, RTFA</td>
<td>RAFM, 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).

### Screw Hole Locations

#### 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”.