Application
The CFD-521 ceiling radiation damper employs butterfly style blades for point-of-origin control of radiant heat in HVAC systems. The CFD-521 is installed horizontally in the ceiling membrane of combustible floor-ceiling or roof-ceiling assemblies with fire resistance ratings up to and including 1 hour.

Standard Construction
Frame: 20 gauge (1) galvanized steel with integral outlet box.
Blades: 22 gauge (0.85) galvanized steel – butterfly. Insulated with ceramic refractory material for dampers larger than 114 in.² (735 cm²).
Transition: Round, with 2" (51) deep collar, located on W side of outlet box.
Plaster Ground: 5/8" (16) deep x 1" (25) wide.
Closure Device: Fusible link.
Fire Closure Temperature: 165°F (75°C).
Minimum Size: 4" x 6" (102 x 152)
Maximum Size: Square: 18" x 18" (457 x 457) Rectangular: 24" (610) W or 20" (508) H with a maximum area of 324 in.² (2090 cm²).

Options
☐ Alternate Transition: ☐ None (field adaptation required).
☐ Round ☐ Oval ☐ Square/Rectangular
☐ Side: ☐ H ☐ P ☐ Q
☐ Collar depth: ☐ 4" (102)
☐ Alternate Plaster Ground:
☐ 1 ½" (32) deep x 1 ½" (32) wide
☐ 2" (51) deep x 1" (25) wide ☐ 4" (102) deep x 1" (25) wide
☐ Alternate 212°F (100°C) fire closure temperature.
☐ VC — Volume control device factory mounted.
☐ WHI installation angle set:
2 angles 1" x 1 ½" x 28" long (25 x 13 x 711) x 20 ga. (1.0)
2 angles 1" x 1 ½" x 3" long (25 x 13 x 76) x 20 ga. (1.0)

Ratings

Listings
UL 555C listing: R14603
CSFM listing: 3226-0368:104
Warnock Hersey listing #: WHI-495-PSH-0177, -0178
Meets NFPA Standards: 90A and 101
Meets Building Code Standards: IBC, NBC, NFPA, SBC and UBC

Outlet Box Height Table
<table>
<thead>
<tr>
<th>Duct Diameter</th>
<th>Damper Height</th>
<th>Outlet Box Height 'L'</th>
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<tbody>
<tr>
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<td>H ≤ 16&quot; (406)</td>
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<td>11&quot; (279) &lt; D ≤ 12&quot; (305)</td>
<td>-</td>
<td>15&quot; (381)</td>
</tr>
</tbody>
</table>
### Dimensional Details for Alternate Plaster Ground Options

Model **CFD-521** with 2" (51) Deep x 5/8" (16) Wide Plaster Ground
*Damper dimensions furnished approximately net O.D.

Model **CFD-521** with 4" (102) Deep x 5/8" (16) Wide Plaster Ground
*Damper dimensions furnished approximately net O.D.

### Damper Size Limitations for Round, Oval and Square/Rectangular Duct Transitions

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### Sleeve table for transitions