Ruskin DFD35/OW and DFD35SS/OW dampers meet the requirements for fire dampers established by:
- National Fire Protection Association NFPA Standards 90A, 92A, 92B and 101
- ICC International Building Codes
- CSFM California State Fire Marshal Listing #3225-245:005

NOTES:
1. Dimensions in inches, parentheses ( ) indicate millimeters.
2. Unit furnished approximately 1/4" (6) smaller than given opening dimensions.
Ruskin Company certifies that the DFD35/OW and DFD3SS/OW shown hereon are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance for the DFD35/OW and DFD3SS/OW.

To determine the AMCA Licensed air performance:
Locate the applicable feet per minute face velocity on the bottom of the velocity vs. pressure drop chart below. Move up the chart to the most appropriate size damper line. From the intersection point, move left to determine the pressure drop on the left side of the chart.
DUCT TRANSITION CONNECTIONS
FD35SS dampers may be supplied with Round, Oval and Rectangular duct connections.

<table>
<thead>
<tr>
<th>Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
<td>Units Under 6&quot; (152) Tall</td>
</tr>
<tr>
<td>WR</td>
<td>Round Welded (High Pressure)</td>
</tr>
<tr>
<td>WC</td>
<td>Rectangular Welded (High Pressure)</td>
</tr>
<tr>
<td>WO</td>
<td>Oval Welded (High Pressure)</td>
</tr>
</tbody>
</table>

The square damper size will be 2" (51) larger in width and height than the round, oval or rectangular duct size ordered.

MINIMUM and MAXIMUM SIZES
WR Round Transitions
Minimum 6" (152) diameter
Maximum 34" (864) diameter

WO Rectangular and Oval Transitions
Minimum 6" x 4" (152 x 102) diameter
Maximum 34" x 32" (864 x 813) diameter

"BC" Style Transitions
Minimum height 4" (102) 'B' style transitions are utilized on units where the damper height is less than 6" (152).
Consult Ruskin for other available styles and sizes.
Furnish and install locations shown on plans or as described in schedules AMCA Certified firedampers constructed and tested in accordance with UL Safety Standard 555 that meet or exceed the following specifications. Fire Dampers shall be produced in an ISO 9001 certified factory.

Damper frame, where size permits, shall be constructed using Uniframe Design Concept (UDC) and shall be minimum 16 gage (1.52) galvanized steel [or stainless steel] formed into a structural hat channel superior to 13 gage (2.30) channel frame. Top and bottom frame members on dampers less than 13” (330) high shall be low profile design to maximize the free area of these smaller dampers. Damper blades shall be single skin 16 gage (1.52) galvanized steel [or stainless steel] with three longitudinal grooves for reinforcement. Bearings shall be stainless steel sleeve turning in an extruded hole in the frame for maximum life.

Each fire damper shall have a 1 1/2 hour fire protection rating and shall be supplied with a 165°F (74°C) or 212°F (100°C) fusible link. Submittal information shall include the fire protection, maximum velocity and pressure ratings and the manufacturer's UL installation instructions.

Fire dampers shall be approved for vertical or horizontal mounting as required by the location and are approved for installation "out of the wall or floor." Dampers shall be installed using steel sleeves, angles and other materials and practice required to provide an installation in accordance with the damper manufacturer's installation instructions. In addition, the fire dampers shall be AMCA licensed for air performance. Each fire damper shall be labeled for use in dynamic systems. Static only damper labels are not permissible. The damper shall be rated for dynamic closure at 2000 fpm (10.2 m/s) and 4” w.g. (1 kPa) static pressure and shall be tested and rated to close with airflow in either direction.

Fire dampers shall be Ruskin model DFD35/OW (or DFD35SS/OW). (Consult www.ruskin.com for electronic version of this “Quick” spec as well as for complete 3-part CSI MasterFormat Specifications)

The drawings show the position of the damper mounted in the factory sleeve. The standard location permits the damper to be installed outside the plane of the wall or floor. For damper styles WR, WC, WO and BC only the duct connection portion extends through the wall and the damper assembly is mounted flush with the wall.

**DAMPER SLEEVE DIMENSIONAL DATA**

The drawings show the position of the damper mounted in the factory sleeve. The standard location permits the damper to be installed outside the plane of the wall or floor. For damper styles WR, WC, WO and BC only the duct connection portion extends through the wall and the damper assembly is mounted flush with the wall.

**STYLE A SLEEVE LENGTH FORMULA:**

To determine correct sleeve length necessary:
Add wall or floor depth 7 1/2” (191) + 3” (76)

**Example:**
Wall depth 4” (102) + 7 1/2” (191) + 3” (76) = 15” (381)

**STYLE W, WC & WO SLEEVE LENGTH FORMULA:**

To determine correct sleeve length necessary:
Add wall or floor depth 16” (406) + 3” (76)

**Example:**
Wall depth 4” (102) + 16” (406) + 3” (76) = 23” (584)

**STYLE BC SLEEVE LENGTH FORMULA:**

To determine correct sleeve length necessary:
Add wall or floor depth 14” (356) + 3” (76)

**Example:**
Wall depth 4” (102) + 14” (356) + 3” (76) = 21” (533)

(Consult www.ruskin.com for electronic version of this “Quick” spec as well as for complete 3-part CSI MasterFormat Specifications)