APPLICATION
Ruskin Model DIBD2 is a 1 1/2 hour UL classified dynamic (fans on) or static (fans off) curtain style fire damper for use in HVAC systems that remain in operation during a fire. Fire dampers are used for the protection of openings in walls, partitions, or masonry floors with fire resistance ratings of less than 3 hours and shall have a 1 1/2 hour fire protection rating. The DIBD2 can be installed vertically in walls or horizontally in masonry floors and is rated for airflow in either direction.

DYNAMIC CLOSURE RATINGS
4000 fpm (20.3 m/s) vertical mount only, up to 24” x 24” (610 x 610).
3000 fpm (15.2 m/s) vertical and horizontal mount, up to 24” x 24” (610 x 610).
2000 fpm (10.2 m/s) vertical or horizontal mount on all sizes.
4 in. w.g. (1 kPa) maximum pressure on all sizes.

STANDARD CONSTRUCTION
Frame and Blades Material
Galvanized steel or stainless steel (in gauges required by UL listing R-5531).

Closure Springs
301 stainless steel constant force or spring clip type.
Note: Vertical units 24” x 24” (610 x 610) and smaller utilize spring clips only and do not have constant force springs.

Fusible Link
165°F (74°C) is standard. 212°F (100°C) and 285°F (141°C) are available as options.

DAMPER SIZES
See pages 2 - 5 for minimum and maximum UL sizes.
See pages 6 - 9 for construction details on multiple section assemblies.

OPTIONS
• True Round Fire Damper - See model FDR25
• Stainless Steel Construction – See model (D)IBD2SS
• FM Approvals as Specification Tested Product
• SP200 Switch Package to allow remote indication of damper blade position
• FAST Angles factory supplied one-side installation. Other angles of various sizes and gauges also available for one-side or two-side installation
• Factory Sleeves of various lengths and gauges to ensure field compliance with UL installation requirements
• MCP Control panels for monitoring purpose
• Grille Mounting See (D)IBD2G or (D)IBD20G models
• ‘GA’ Grille Access See (D)IBD2GA models
• ‘OW’ Out of Wall See (D)IBD2/OW models

NOTES:
1. Dimensions shown in parentheses ( ) indicate millimeters.
2. Single section dampers ordered with either 12” (305), 14” (356), or 16” (406) long sleeve; the DIBD20, 40, 60, 230, 430, and 630 models may be substituted.
DAMPER STYLES AND SIZES

A Style
Frame and blades in air stream
Sleeve optional
75 - 85% free area

MINIMUM SIZE 2000 fpm (10.2 m/s)
Vertical Installation – 4”w x 4”h (102 x 102)
Horizontal Installation – 6”w x 6”h (152 x 152)

MAXIMUM SIZE 2000 fpm (10.2 m/s)

Single Section
Vertical Installation – 33”w x 36”h (838 x 914)
Horizontal Installation – 24”w x 24”h (610 x 610)

Multiple Section Assembly
Vertical Installation – 72”w x 48”h (1829 x 1219) or
48”w x 72”h (1219 x 1829) or 120”w x 24”h (3048 x 610)
Horizontal Installation – 36”w x 48”h (914 x 1219) or
48”w x 36”h (1219 x 914).
The minimum width or height becomes 9” x 9”
(229 x 229) when dampers width or height is over 24” (610).

MINIMUM SIZE UNITS ABOVE 2000 fpm (10.2 m/s)
Vertical or Horizontal Installation – 9”w x 9”h (229 x 229)

MAXIMUM SIZE UNITS ABOVE 2000 fpm (10.2 m/s)
Vertical or Horizontal Installation – 24”w x 24”h (610 x 610)

Note: See page 7 of this document for overall damper dimensional information.
DAMPER STYLES AND SIZES

B Style
Blades out of air stream
Sleeve optional
60 - 90% free area

MINIMUM SIZE 2000 fpm (10.2 m/s)
Vertical Installation – 4" x 4" (102 x 102)
Horizontal Installation – 6" x 4" (152 x 102)

MAXIMUM SIZE 2000 fpm (10.2 m/s)

Single Section
Vertical Installation – 33" x 32" (838 x 813)
Horizontal Installation – 24" x 21" (610 x 533)

Multiple Section Assembly
Vertical Installation – 72" x 45" (1829 x 1143) or
48" x 69" (1219 x 1753) or 120" x 21" (3048 x 533)
Horizontal Installation – 36" x 42" (914 x 1067) or
48" x 30" (1219 x 813).
The minimum width or height becomes 9" x 8" when damper's width or height is over 21" (533).

BC and WB Style
Blades out of air stream
BC style: Fully sealed sleeve
WB style: Fully welded sleeve
80 - 90% free area

See Style B for Minimum and Maximum Sizes

BC and WB Style w/Sleeve
A = Duct Width
B = Duct Height
H = Overall Damper Height

BC and WB Style w/o Sleeve
BC Style w/Sleeve

See Style A for Construction Details

Note: See pages 8 and 11 of this document for overall damper dimensional information.

APPLICATION
Ruskin FDR25 is a true round fire damper designed for use in fire rated walls and floors and is the perfect choice when using round duct.
The FDR25 is rated for maximum velocity of 2,000 fpm and 4" w.g. static pressure. The integral frame and unique "cinch plate" design provides a low cost, high performing damper.

DAMPER SIZES

MINIMUM SIZE
6" (152) diameter

MAXIMUM SIZE
Vertical/Horizontal – 24" (610) diameter

OPTION
• 304 or 316 Stainless Steel Construction

For use in Round duct duct sizes 24" (610)
FDR25 True Round Fire Damper 1 1/2 hour UL 555 Listed
To Replace square to round transitions for Increased Performance
DAMPER STYLES AND SIZES

CR AND WR Style – Round Transition
Frame and blades out of air stream
Sleeve required
95 - 100% free area
CR Style – sealed assembly
WR Style – fully welded

**MINIMUM SIZE 2000 fpm (10.2 m/s)**
- Vertical Installation – 3" diameter (76)
- Horizontal Installation – 4" diameter (102)

**MAXIMUM SIZE 2000 fpm (10.2 m/s)**
- Single Section
  - Vertical Installation – 31" diameter (787)
  - Horizontal Installation – 20" diameter (508)
- Multiple Section Assembly
  - Vertical Installation – 40" diameter (1118)
  - Horizontal Installation – 34" diameter (864)

**MINIMUM SIZE UNITS ABOVE 2000 fpm (10.2 m/s)**
- Vertical or Horizontal Installation – 7" diameter (178)

**MAXIMUM SIZE UNITS ABOVE 2000 fpm (10.2 m/s)**
- Vertical or Horizontal Installation – 20" diameter (508)

D = Diameter
H = Overall Damper Height
X = Blade Package Height

**Note:** See pages 10 and 11 of this document for "X" dimension and overall damper dimensional information.

C AND WC Style – Square or Rectangle Transition
Frame and blades out of air stream
Sleeve required
95 - 100% free area
C Style – sealed assembly
WC Style – fully welded

**MINIMUM SIZE 2000 fpm (10.2 m/s)**
- Vertical or Horizontal Installation – 4"w x 3"h (102 x 76)

**MAXIMUM SIZE 2000 fpm (10.2 m/s)**
- Single Section
  - Vertical Installation – 31"w x 31"h (787 x 787)
  - Horizontal Installation – 22"w x 20"h (559 x 508)
- Multiple Section Assembly
  - Vertical Installation – 70"w x 44"h (1778 x 1118) or 46"w x 68"h (1168 x 1727) or 118"w x 20"h (2997 x 508)
  - Horizontal Installation – 34"w x 42"h (864 x 1067) or 46"w x 32"h (1168 x 813)
  - The minimum width or height becomes 7"w x 7"h (178 x 178) when damper's width or height is over 21" (533)

**DIBD2 MINIMUM SIZE UNITS ABOVE 2000 fpm (10.2 m/s)**
- Vertical or Horizontal Installation – 7"w x 7"h (178 x 178)

**DIBD2 MAXIMUM SIZE UNITS ABOVE 2000 fpm (10.2 m/s)**
- Single Section only
  - Vertical or Horizontal Installation – 22"w x 20"h (559 x 508)

A = Duct Width
B = Duct Height
H = Overall Damper Height

**Note:** See pages 9 and 11 of this document for overall damper dimensional information.
DAMPER STYLES AND SIZES

CO AND WO Style – Oval Transition
Frame and blades out of air stream
Sleeve required
95 - 100% free area
CO Style – sealed assembly
WO Style – fully welded
MINIMUM SIZE 2000 fpm (10.2 m/s)
Vertical or Horizontal Installation – 4"w x 3"h (102 x 76)
MAXIMUM SIZE 2000 fpm (10.2 m/s)
Single Section
Vertical Installation – 31"w x 31"h (787 x 787)
Horizontal Installation – 22"w x 20"h (559 x 508)
Multiple Section Assembly
Vertical Installation – 70"w x 44"h (1778 x 1118) or
46"w x 68"h (1168 x 1727) or 118"w x 20"h (2997 x 508)
Horizontal Installation – 34"w x 42"h (864 x 1067) or
46"w x 32"h (1168 x 813).
The minimum width or height becomes 7"w x 7"h
(178 x 178) when damper's width or height is over 21" (533).
DIBD2 MINIMUM SIZE UNITS ABOVE 2000 fpm (10.2 m/s)
Vertical or Horizontal Installation – 7"w x 7"h (178 x 178)
DIBD2 MAXIMUM SIZE UNITS ABOVE 2000 fpm (10.2 m/s)
Single Section only
Vertical or Horizontal Installation – 22"w x 20"h (559 x 508)

\[
\begin{align*}
A &= \text{Duct Width} \\
B &= \text{Duct Height} \\
H &= \text{Overall Damper Height}
\end{align*}
\]

Note: See page 9 of this document for overall damper dimensional information.

LR Style – Round Transition
Round enclosure - frame and blades out of air stream
Sleeve optional non-sealed assembly
95 - 100% free area
MINIMUM SIZE 2000 fpm (10.2 m/s)
Vertical Installation – 3" diameter (76)
Horizontal Installation – 4" diameter (102)
MAXIMUM SIZE 2000 fpm (10.2 m/s)
Single Section
Vertical Installation – 31" diameter (787)
Horizontal Installation – 20" diameter (508)
Multiple Section Assemblies
Not available in style LR. See Style CR for larger assemblies.

\[
\begin{align*}
D &= \text{Diameter} \\
H &= \text{Overall Damper Height} \\
X &= \text{Blade Package Height}
\end{align*}
\]

Note: See page 10 of this document for "X" dimension and overall damper dimensional information.
DAMPER STYLES AND SIZES

LO Style – Oval Transition
Frame and blades out of air stream
Sleeve optional non-sealed assembly
95 - 100% free area
MINIMUM SIZE 2000 fpm (10.2 m/s)
Vertical or Horizontal Installation – 4"w x 3"h (102 x 76)
MAXIMUM SIZE 2000 fpm (10.2 m/s)
Single Section
Vertical Installation – 31"w x 31"h (787 x 787)
Horizontal Installation – 21"w x 21"h (533 x 533)
Multiple Section Assemblies
Not available in Style LO. See Style CO for larger assemblies

NOTE: Transition collars to be sealed (by others).

R Style – Round Transition
Round enclosure. Blades partially in the air stream
Sleeve optional non-sealed assembly
85 - 95% free area
MINIMUM SIZE 2000 fpm (10.2 m/s)
Vertical Installation – 3" diameter (76)
Horizontal Installation – 4" diameter (102)
MAXIMUM SIZE 2000 fpm (10.2 m/s)
Single Section
Vertical Installation – 31" diameter (787)
Horizontal Installation – 21" diameter (533)
Multiple Section Assemblies
Not available in Style R. See Style CR for larger assemblies

NOTE: Transition collars to be sealed (by others).

Note: See page 9 of this document for overall damper dimensional information.

Note: See page 10 of this document for overall damper dimensional information.
Dampers normally fabricated approximately \(\frac{1}{4}\) (6) less than given duct dimensions. A (width) and B (height) dimensions shown describe maximum UL Classified sizes. Multiple section damper assemblies ordered without sleeves are shipped in individual sections, for field assembly. Multiple section dampers ordered with factory furnished sleeves are normally shipped in complete assemblies.

### DIBD2 A STYLE DAMPERS

#### SINGLE SECTION UNITS

**24” (610) wide and 24” (610) high and under**

<table>
<thead>
<tr>
<th>‘B’ Damper Height</th>
<th>‘x’ Dim. Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>4” (102) thru 7” (178)</td>
<td>1(\frac{1}{2})” (39)</td>
</tr>
<tr>
<td>7.01” (179) thru 12” (305)</td>
<td>2” (51)</td>
</tr>
<tr>
<td>12.01” (306) thru 17” (432)</td>
<td>3(\frac{1}{2})” (89)</td>
</tr>
<tr>
<td>17.01” (433) thru 24” (610)</td>
<td>3(\frac{1}{2})” (89)</td>
</tr>
</tbody>
</table>

**33” (838) wide by 36” (914) high**

<table>
<thead>
<tr>
<th>‘B’ Damper Height</th>
<th>‘x’ Dim. Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>6” (152) thru 10” (254)</td>
<td>1(\frac{1}{2})” (39)</td>
</tr>
<tr>
<td>10.01” (255) thru 17” (432)</td>
<td>2” (51)</td>
</tr>
<tr>
<td>17.01” (433) thru 24” (610)</td>
<td>3(\frac{1}{2})” (89)</td>
</tr>
</tbody>
</table>

#### TWO SECTION HIGH UNITS

<table>
<thead>
<tr>
<th>‘B’ Damper Height</th>
<th>‘x’ Dim. Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.01” (611) thru 34” (864)</td>
<td>2” (51)</td>
</tr>
<tr>
<td>34.01” (865) thru 42” (1067)</td>
<td>3(\frac{1}{2})” (89)</td>
</tr>
<tr>
<td>42.01” (1068) thru 48” (1219)</td>
<td>3” (76)</td>
</tr>
</tbody>
</table>

#### THREE SECTION HIGH UNITS

<table>
<thead>
<tr>
<th>‘B’ Damper Height</th>
<th>‘x’ Dim. Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>48.01” (1220) thru 51” (1295)</td>
<td>2” (51)</td>
</tr>
<tr>
<td>51.01” (1296) thru 63” (1600)</td>
<td>2(\frac{1}{2})” (64)</td>
</tr>
<tr>
<td>63.01” (1601) thru 72” (1829)</td>
<td>3(\frac{3}{4})” (96)</td>
</tr>
</tbody>
</table>

#### HORIZONTAL INSTALLATION

<table>
<thead>
<tr>
<th>‘B’ Damper Height</th>
<th>‘x’ Dim. Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>6” (152) thru 10” (254)</td>
<td>1(\frac{1}{2})” (39)</td>
</tr>
<tr>
<td>10.01” (255) thru 17” (431)</td>
<td>2” (51)</td>
</tr>
<tr>
<td>17.01” (433) thru 24” (610)</td>
<td>3” (76)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>‘A’ Dim. 48” Max (1219)</th>
<th>‘B’ Dim. 48” Max (1219)</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘A’ Dim. 120” Max (3048)</td>
<td>‘A’ Dim. 36” Max (914)</td>
</tr>
</tbody>
</table>

#### VERTICAL INSTALLATION

<table>
<thead>
<tr>
<th>‘B’ Damper Height</th>
<th>‘x’ Dim. Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>6” (152) thru 10” (254)</td>
<td>1(\frac{1}{2})” (39)</td>
</tr>
<tr>
<td>10.01” (255) thru 17” (432)</td>
<td>2” (51)</td>
</tr>
<tr>
<td>17.01” (433) thru 24” (610)</td>
<td>3” (76)</td>
</tr>
<tr>
<td>24.01” (611) thru 34” (864)</td>
<td>2” (51)</td>
</tr>
<tr>
<td>34.01” (865) thru 42” (1067)</td>
<td>3(\frac{1}{2})” (89)</td>
</tr>
<tr>
<td>42.01” (1068) thru 48” (1219)</td>
<td>3” (76)</td>
</tr>
</tbody>
</table>

For 2000 fpm (10.2 m/s) and 4 in. wg. (1 kPa) MAX.
## ASSEMBLY AND DIMENSIONAL INFORMATION

For 2000 fpm (10.2 m/s) and 4 in. wg. (1 kPa) MAX.

### B, BC and WB DAMPERS VERTICAL INSTALLATION

\[ \text{'X' dim. + 'B' dim.} = \text{H dim.} \]

#### Single Section Units

24" (610) wide and 20" (508) high and under

<table>
<thead>
<tr>
<th>'B' Damper Height</th>
<th>'x' Dim.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; (102) thru 8&quot; (203)</td>
<td>13/4&quot; (44)</td>
</tr>
<tr>
<td>8.01&quot; (204) thru 16&quot; (406)</td>
<td>23/4&quot; (70)</td>
</tr>
<tr>
<td>16.01&quot; (407) thru 20&quot; (508)</td>
<td>33/4&quot; (95)</td>
</tr>
</tbody>
</table>

#### Multiple Section Wide and High

Above 21" (533) thru 69" (1153) high

<table>
<thead>
<tr>
<th>'B' Damper Height</th>
<th>'x' Dim.</th>
</tr>
</thead>
<tbody>
<tr>
<td>22&quot; (559) thru 26&quot; (660)</td>
<td>13/4&quot; (44)</td>
</tr>
<tr>
<td>26.01&quot; (661) thru 69&quot; (1753)</td>
<td>23/4&quot; (70)</td>
</tr>
</tbody>
</table>

#### Horizontal Installation

\[ \text{'X' dim. + 'B' dim.} = \text{H dim.} \]

#### Single Section Units

24" (610) wide and 20" (508) high and under

<table>
<thead>
<tr>
<th>'B' Damper Height</th>
<th>'x' Dim.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; (102) thru 12&quot; (305)</td>
<td>13/4&quot; (44)</td>
</tr>
<tr>
<td>12.01&quot; (306) thru 23&quot; (584)</td>
<td>23/4&quot; (70)</td>
</tr>
<tr>
<td>23.01&quot; (585) thru 32&quot; (813)</td>
<td>33/4&quot; (95)</td>
</tr>
</tbody>
</table>

#### Multiple Section Wide and High

Above 21" (533) and under

<table>
<thead>
<tr>
<th>'B' Damper Height</th>
<th>'x' Dim.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; (102) thru 12&quot; (305)</td>
<td>13/4&quot; (44)</td>
</tr>
<tr>
<td>12.01&quot; (306) thru 21&quot; (533)</td>
<td>23/4&quot; (70)</td>
</tr>
</tbody>
</table>

## HORIZONTAL INSTALLATION

\[ \text{'X' dim. + 'B' dim.} = \text{H dim.} \]

#### Single Section Units

24" (610) wide and 21" (533) high and under

<table>
<thead>
<tr>
<th>'B' Damper Height</th>
<th>'x' Dim.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; (102) thru 10&quot; (254)</td>
<td>13/4&quot; (44)</td>
</tr>
<tr>
<td>10.01&quot; (255) thru 21&quot; (533)</td>
<td>23/4&quot; (70)</td>
</tr>
</tbody>
</table>

#### Multiple Section High and 36" (914) wide and under

<table>
<thead>
<tr>
<th>'B' Damper Height</th>
<th>'x' Dim.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8&quot; (203) thru 12&quot; (305)</td>
<td>13/4&quot; (44)</td>
</tr>
<tr>
<td>12.01&quot; (306) thru 21&quot; (533)</td>
<td>23/4&quot; (70)</td>
</tr>
<tr>
<td>21.01&quot; (534) thru 24&quot; (610)</td>
<td>31/2&quot; (99)</td>
</tr>
<tr>
<td>24.01&quot; (611) thru 42&quot; (1067)</td>
<td>51/2&quot; (140)</td>
</tr>
</tbody>
</table>

#### Multiple Section High and Over 36" (914) wide

<table>
<thead>
<tr>
<th>'B' Damper Height</th>
<th>'x' Dim.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8&quot; (203) thru 12&quot; (305)</td>
<td>13/4&quot; (44)</td>
</tr>
<tr>
<td>12.01&quot; (306) thru 15&quot; (381)</td>
<td>23/4&quot; (70)</td>
</tr>
<tr>
<td>15.01&quot; (382) thru 22&quot; (559)</td>
<td>31/2&quot; (99)</td>
</tr>
<tr>
<td>22.01&quot; (560) thru 30&quot; (762)</td>
<td>51/2&quot; (140)</td>
</tr>
</tbody>
</table>
**ASSEMBLY AND DIMENSIONAL INFORMATION**

For 2000 fpm (10.2 m/s) and 4 in. wg. (1 kPa) MAX.

### C, WC, CO, WO and LO STYLE DAMPERS VERTICAL INSTALLATION

\[ 'X' \text{ dim.} + 'B' \text{ dim.} = 'H' \text{ dim.} \]

#### Single Section Units

- **22” (559) wide and 19” (483) high and under**
  - 'B' Damper Height | 'x' Dim.
    |---|---|
    3” (76) thru 7” (178) | 23/4” (70)
    7.01” (179) thru 15” (381) | 33/4” (95)
    15.01” (382) thru 19” (483) | 43/4” (121)

#### Single Section Units

- **Above 24” (610) wide or 20” (508) high through 33” (838) wide by 32” (813) high**
  - 'B' Damper Height | 'x' Dim.
    |---|---|
    4” (102) thru 11” (280) | 23/4” (70)
    11.01” (281) thru 22” (559) | 33/4” (95)
    22.01” (560) thru 31” (787) | 43/4” (121)

#### Typical Style CO, WO and LO Construction

Single section shown

(See C & WC construction for max. sizing)

LO Style is limited to single section only.

### HORIZONTAL INSTALLATION

\[ 'X' \text{ dim.} + 'B' \text{ dim.} = 'H' \text{ dim.} \]

#### Single Section Units

- **22” (559) wide and 20” (508) high and under**
  - 'B' Damper Height | 'x' Dim.
    |---|---|
    4” (102) thru 9” (229) | 23/4” (70)
    9.01” (230) thru 20” (508) | 33/4” (95)

#### Multiple Section Wide and Single Section High 20” (508) and under

- 'B' Damper Height | 'x' Dim.
  |---|---|
  4” (102) thru 11” (280) | 23/4” (70)
  11.01” (280) thru 20” (508) | 33/4” (95)

#### Multiple Section Wide and High Above 20” (533) thru 68” (1727) high

- 'B' Damper Height | 'x' Dim.
  |---|---|
  20.01” (534) thru 25” (635) | 27/4” (70)
  25.01” (636) thru 68” (1727) | 33/4” (95)

#### Multiple Section High or Wide Over 34” (864) wide

- 'B' Damper Height | 'x' Dim.
  |---|---|
  7” (178) thru 11” (280) | 23/4” (70)
  12.01” (306) thru 20” (508) | 33/4” (95)
  20.01” (509) thru 24” (610) | 31/2” (89)
  24.01” (611) thru 42” (1067) | 51/2” (140)

### Typical style C and WC Construction

X dim. + B dim. = H dim.
CR, WR and LR STYLE DAMPERS

VERTICAL INSTALLATION

'X' dim. + 'Dia' dim. = 'H' dim.

VERNICAL INSTALLATION

HORIZONTAL INSTALLATION

'X' dim. + 'Dia' dim. = 'H' dim.

LR STYLE DAMPERS VERTICAL AND HORIZONTAL INSTALLATION

LR Style is limited to single section only.
Furnish and install at locations shown on the plans, or as described in schedules for curtain type fire dampers suitable for vertical wall or horizontal masonry floor or ceiling. Dynamic fire dampers tested, constructed and labeled in accordance with the latest edition of UL Standard 555. Dampers shall have a fire rating of 1 1/2 hours and shall meet the requirements of the latest edition of NFPA90A. Fire dampers shall be produced in an ISO 9001 certified factory.

Damper frame and blades shall be galvanized steel in gauges required by UL listing R-5531 installed in a factory mounted sleeve and shipped loose mounting angle. Damper blades shall be steel interlock to provide fire shield in gauges required by UL listing R-5531. Closure spring dampers shall be of 301 stainless steel and shall be constant force type.

Each dynamic fire damper shall include a steel sleeve and mounting angles furnished by the damper manufacturer to ensure appropriate installation. Submittal information shall include the fire protection rating, maximum velocity/pressure ratings and the manufacturer's UL installation instructions. The dampers shall be installed in accordance with the manufacturer's UL installation instructions. Dynamic fire dampers shall be in all respects equivalent to Ruskin model DIBD2.

Each damper shall include a 165°F (74°C), 212°F (100°C) or 285°F (141°C) fusible link and shall be labeled for use in dynamic systems. Dampers labeled for use in static systems only are not permitted. The damper shall be rated for dynamic closure at 2000 fpm (10.16 m/s) and 4 inches w.g. (1 kPa) static pressure and shall be rated to close with airflow in either direction.

**Optional FM Approvals Specification**

Each fire damper shall be listed in Factory Mutual (FM) Approvals Specification Tested Product and labeled accordingly. Dynamic fire dampers shall be Ruskin model DIBD2 (Consult www.ruskin.com for electronic version of this “Quick” spec as well as for complete 3-part CSI MasterFormat Specifications).