BLADE TYPE FIRE DAMPERS
Product Description

Blade type fire dampers provide an automatic means of localizing areas of fire in ventilation systems that greatly contribute to the safety of life and property in the early stage of fire. It prevents the spread of fire through ventilation ductworks or wall openings. These type of dampers offer an effective fire barrier maintaining the integrity in a fire situation. It is suitable for installation in sheet metal ductworks, openings in walls or floor slabs made from concrete, bricks and in lightweight partition walls.

SAFID introduces "ERL" Thermoelectric Tripping Device (heat sensor) to replace the existing high torque spring/fusible link fire closure mechanism in all Blade Type Fire Dampers. The "ERL" is thermally responsive bimetal disc/sensor that open and close the electrical contacts at a specific factory calibrated temperature setting. The "ERL" is available in fixed temperature setting at 165°F (74 °C) only. The "ERL" requires factory installation and wiring together with the qualified actuator to meet "UL" requirements.

Dampers which allow remote resetting of the damper from a remote location are dangerous. All damper moving parts must be inspected and cycled at every six months and in accordance to the latest NFPA90A/92A and local codes.
Types

Galvanized Steel Construction as Standard.
1. Sleeve Type, Model: MFD - 40 - 100
2. Circular Type, Model: MFD - 50 - 100
3. Oval Type, Model: MFD - 60 - 100
4. With factory installed Sleeve, Model: MFD - 80 - 100

Optional Construction:
Same as the standard construction but blades, stub shaft (latch) with 4 pieces Ø6mm bolts and nuts, axles and linkage brackets with axle in stainless steel Grade 304.

Optional: Blades from stainless steel Grade 316 or 316L.
1. Sleeve Type, Model: MFD - 40 - 110
2. Circular Type, Model: MFD - 50 - 110
3. Oval Type, Model: MFD - 60 - 110
4. With factory installed Sleeve, Model: MFD - 80 - v9110

Same as the standard construction but frame, blades, installation sleeve and all accessories in stainless steel Grade 304.

Optional: Frame, blades and installation sleeve from stainless steel Grade 316 or 316L.
1. Sleeve Type, Model: MFD-40-120
2. Circular Type, Model: MFD-50-120
3. Oval Type, Model: MFD-60-120
4. With factory installed Sleeve, Model: MFD-80-120

Standard Construction

Finish:
M5 Galvanized

Sleeve:
1.5mm thick (Ga.16) galvanized steel sheet.

Frame:
150 x 24.5 x 1.5mm thick (Ga.16) galvanized steel hat channel.

Blades:
1.5mm thick (Ga.16) galvanized steel “Triple Vee” (3V) groove type (standard).

Blade Stop:
1.5mm thick (Ga.16) galvanized steel sheet bend at 45° angle.

Linkage:
Side linkage concealed in frame (Standard).

Linkage Bar:
Stainless steel type 304, 15mm x 3mm thick.

Linkage Bracket:
GI 50mm x 60mm x 3mm thick, fixed with 1 square axle 9.5 mm and Ø6.3mm Pin.

Crank:
3mm thick galvanized steel sheet 32mm x 107mm with 6.6mm wide slot.

Axle:
Zinc plated steel square bar 9.5 x 9.5 mm.

Stub Shaft (Latch):
Die pressed galvanized steel sheet, 58mm x 68mm x 1.5mm thick (Ga.16).

Bearings:
Sintered bronze oilite type.

Side Seal (Jamb Seal):
Compression type SS grade 304, 0.3mm thick.

Blade Tip Seal:
Blade tip seals are high temperature Durometer Dense Silicone.

Jack Shaft:
GI rod Ø12mm across the blade length with 10mm square end x 25mmL to suit actuator.

Jack Shaft Holder:
Die pressed GI steel 152.9mm x 82.2mm x 1.5mm thick with Ø12.7mm ball bearing.

Minimum Size:
200W x 150H mm with single blade construction up to 250mm height.

Maximum Size:
914W x 914H mm - Single section and 1828W x 1828H - Multiple Section.

Mounting:
Vertical

UL Test Ratings

Fire Resistance: 1 1/2 Hour and 3 Hours
Types

MFD With Factory Installed Sleeve, ERL and Actuator
Model: MFD - 80

1. Sleeve
2. Damper Frame
3. Blade
4. Linkage Bracket
5. Lock Washer and Galvanized Round Washer
6. Kneelock
7. Crank
8. Linkage Bar
9. Actuator
10. Auxiliary Switch Cable for Indicating Damper Blades Position
11. Thermoelectric Tripping Device (ERL)
12. Power Supply
13. Blade Stop
14. Stainless Steel Side Seal
15. Blade Tip Seal
16. Stub Shaft (Latch)
17. Jackshaft
18. Axle
19. Bearing
BLADE TYPE FIRE DAMPERS

Dimensions - Single Section

MFD With Factory Installed Sleeve, ERL and Actuator
Model: MFD - 80
Height: Up to 220 mm

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Thermoelectric Tripping Device (ERL)
Model: BAE65 US or SFN (165°F Klixon)
Bimetallic Manual Reset Type
165°F (74°C) rated

Schedule of Damper Sizes and Actuator Types
A. Single section damper with two position (open/closed) spring return type actuators:
1. BELIMO Model: FSLF-S-US (24 / 230VAC) with built-in auxiliary switch. Torque: 3.5 Nm
   Damper size: W = 610 mm maximum, H = 406 mm maximum
2. Model: MS8104F1210/MS4604F1210 (24 / 230VAC) with built-in auxiliary switch. Torque: 3.4 Nm
   Damper size: W = 610 mm maximum, H = 610 mm maximum
3. BELIMO Model: FSNF-S-US (24 / 230VAC) with built-in auxiliary switch. Torque: 8 Nm
   Damper size: W = 610 mm maximum, H = 610 mm maximum
4. Model: MS4609F1210/MS8109F1210 (24 / 230VAC) with built-in auxiliary switch. Torque: 9 Nm
   Damper size: W = 914 mm maximum, H = 610 mm maximum
5. Model: MS8209F / MS4709F (24 / 230VAC) Rotation CW, without built-in auxiliary switch. Torque: 9 Nm
   Damper size: W = 914 mm maximum, H = 914 mm maximum
6. Model: MS8120F1200 / MS4620F1203 (24 / 230VAC) with built-in auxiliary switch. Torque: 20 Nm
   Damper size: W = 914 mm maximum, H = 914 mm maximum

Refer to technical data sheet of actuator or contact SAFID for the actuator specifications.
BLADE TYPE FIRE DAMPER

Dimensions - Multiple Section

MFD With Factory Installed Sleeve, ERL and Actuator
Model: MFD - 80
Width: Up to 1828 mm
Height: Up to 914 mm

Thermoelectric Tripping Device (ERL)
Model:
BAE166 US or SFN (165°F Klixon)
Bimetallic Manual Reset Type
165°F (74°C) rated

Schedule of Damper Sizes and Actuator Types
A. Multiple section damper with two position (open/close) spring return type actuators:
1. Model: MS8120F / MS4620F (24/230VAC) with built-in auxiliary switch. Torque: 20 Nm
Note: Location of the actuator can be INSIDE or OUTSIDE the airstream.
Refer to technical data sheet of actuator or contact SAFID for the actuator specifications.

Note: Location of the actuator can be INSIDE or OUTSIDE the airstream.
Refer to technical data sheet of actuator or contact SAFID for the actuator specifications.
**Dimensions - Multiple Section**

**MFD With Factory Installed Sleeve, ERL and Actuator**

Model: MFD - 80

Width: Up to 1118 mm

Height: Up to 1220 mm

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**Thermoelectric Tripping Device (ERL)**

Model:

- BAE66 US or SFN (165°F Klixon)
- Bimetallic Manual Reset Type
- 165°F (74°C) rated

**Schedule of Damper Sizes and Actuator Types**

**A. Multiple section damper with two position (open/close) spring return type actuators:**

   - Torque: 20 Nm
   - Note: Location of the actuator can be INSIDE or OUTSIDE the airstream.
   - Refer to technical data sheet of actuator or contact SAFID for the actuator specifications.

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**Front View**

**Side View**
**Installation Details**

<table>
<thead>
<tr>
<th>MFD With Factory Installed Sleeve, ERL and Actuator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model: MFD - 80</td>
</tr>
</tbody>
</table>

**Notes:**
1. Airflow can be at opposite direction.
2. The actuator and ERL can be located in either side of the wall.
3. Refer to installation manual for further installation detail.

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**ACTUATORS**

**Actuators**

- **BELIMO Actuator**
  - Model: FSLF
  - BELIMO Actuator
  - Model: FSNF
  - BELIMO Actuator
  - Model: BF
  - Honeywell Actuator
  - Model: MS4620P1203
  - Thermoelectric Tripping Device (ERL)
  - Model: BA6165 US or SF74 (165 °F) Klaxon

**Sequence of Operation**

The ERL (Thermoelectric Tripping Device) resettable link has a thermal sensor switch that interrupts the power supply to the fire damper actuator as soon as the duct temperature exceeds 165°F caused by a fire. When the power supply is interrupted, the energy stored in the spring of the fire damper actuator moves the damper blades back to its safe position. The damper blades can be open again by pressing the reset button on ERL after the temperature cooled down below 165°F.

**Typical Wiring Diagram**
Air Performance

Pressure Drop
The test method for pressure drop of Combination Fire/Smoke Damper was conducted as per ANSI / AMCA Standard 500-D, Figure 5.3 which simulate the actual site condition when installed in ventilation, supply and return air conditioning ductworks.

AMCA Test Figure 5.3

Pressure Drop at Face Area Velocity
A. Damper Size 12 in. x 12 in. - Fully Open Blades
B. Damper Size 24 in. x 24 in. - Fully Open Blades
A. Damper Size 36 in. x 36 in. - Fully Open Blades
**Order Details**

<table>
<thead>
<tr>
<th>Order Code</th>
<th>MFD-80 - 100 - 3V - PB - R - A1S - V1 - ER / 500 x 500</th>
</tr>
</thead>
</table>

**Variants**
- MFD-40 = Sleeve Type
- MFD-50 = Circular Spigot
- MFD-60 = Oval Spigot
- MFD-80 = Factory Installed Sleeve

**Types**
- 100 = Galvanized Steel Construction
- 110 = Blades of Stainless Steel Grade 304
- Optional: Grade 316 or 316L
- 120 = Stainless Steel Construction S/S Grade 304
- Optional: Grade 316 or 316L

**Types of Blades**
- 3V = V Groove Type

**Linkage**
- PB = Slide Linkage Parallel

**External Controls**
- R = Right Hand (Standard Supply)
- L = Left Hand

**Actuators**
- BELIMO, BF-S-ME
- BELIMO, FSNF-S-US
- BELIMO, FSLF-S-US
- Honeywell, MS620F203

**Duct Size**
Width x Height or Diameter. All damper’s spigot sizes (slip-in type) will be manufactured less than duct size to fit inside the ductwork connections.

**Type of Sensor**
- ERL = Thermoelectric Tripping Device
  - Model: BAЕ166 US, SF74 (165 °F Klixon)

**Power Supply**
- V1 = 24 VAC
- V2 = 230 VAC

**Specifications**
Blade type fire dampers with the following specifications shall be used in Heating, Ventilating and Air Conditioning (HVAC) duct systems passing through openings in masonry walls, concrete floor slabs, and in gypsum walls or partitions which required to have a fire resistance rating to restrict the spread of fire. It shall be also used in Smoke Proof Stair Enclosure if the wall penetrations required to be fire rated in accordance with NFPA 90A Standard for Installation of Air Conditioning and Ventilating Systems, and with NFPA 101 Life Safety Code.

Blade type fire dampers shall be tested and classified by Underwriters Laboratories Inc. (UL) in accordance with the standards; UL 555 Standard for Safety, Fire Dampers.

Blade type fire dampers with Fire Resistance Rating of 1½ hour shall be used in fire barrier with Fire Resistance Rating of less than 3 hours, and dampers with 3 hours Fire Resistance Rating shall be used in fire barrier with Fire Resistance Rating of 3 hours or more.

The fire dampers shall be fitted with UL Listed spring return actuator and Thermoelectric Tripping Device (ERL) with temperature rating of 165°F (74°C). ERL shall cut-off power supply to the actuator in case of fire that will activate the built-in spring return to close the damper blades.

Damper blades shall be with external linkage and parallel action, Ga.16 galvanized steel with 3V groove type for longitudinal reinforcement. Blade’s tip seal shall be Type 60 Durometer Dense Silicone, meets gasket requirements in accordance with UL 555S. Blade’s axle shall be 9.5 x 9.5 mm square forced-fit to one stub shaft, secured to blade with 4 pieces of bolt & nut, and with sintered bronze oilite axle bearing. Jamb seal/side seal shall be stainless steel to fill gap between blade’s end and vertical frame. Jackshaft shall be Ø12 mm galvanized steel with a crank and kneelock secured to the linkage bracket. Damper frame shall be Ga.16 galvanized steel formed into hat channel shape.
FD SERIES [FD 30 - 100, FD 30 - 110, FD 30 - 120]

### Description
Blade type fire dampers type FD 30 provide means of localizing areas of fire in ventilation systems. It prevents the distribution of fire through ventilation ductworks. FD offers an effective barrier maintaining integrity in a fire situation. It is suitable for installation in sheet metal ductworks or in walls or ceiling slabs made from concrete, brick and lightweight partition walls. FD is available in rectangular, square, circular and flat oval duct fixings.

### Standard Construction
- **Frame:** 180mm x 30mm x 1.5mm (16 ga.) galvanized steel, formed channel for flange connections.
- **Blades:** 250mm max. width, 1.5mm (16 ga.) galvanized steel.
- **Finish:** Mill galvanized.
- **Linkage:** Parallel blade have standard face linkage operation. Linkage consist of 6mm dia. 5/5 pivot pins.
- **Case Bearings:** Made sintered bronze (oilite), operational temp resistance up to 200 °C.
- **Fusible Link:** Standard release 74 °C (165 °F) UL listed. Other temperatures available on request.
- **Spring:** Stainless steel closure spring mounted internally with catch device to prevent blades from opening until manually released.

### Minimum Size:
100 x 200mm, dampers up to 250mm high are single blade construction.

### Maximum Size:
1000 x 1000mm, as single section. Multiple section assembly with unlimited size, where each section operates independently.

For details of multiple sections consult SAFID.

### FD 30 - 110
General construction as type FD 30 - 100 damper but blades, shafts and blade to spindle fixing in stainless steel (Grade 304).

### FD 30 - 120
General construction as type FD 30 - 100 damper but with case, blades shafts and blade to shaft fixing and linkage all from stainless steel (Grade 304).

<table>
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<th>No. of Blades</th>
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<td>900</td>
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</table>

### Dimensions
- 1 - Casing
- 2 - Blade
- 3 - Face Linkage
- 4 - Linkage Bar
- 5 - Landing Angles
- 6 - Fusible Link 74 °C (UL listed)
- 7 - Catch Device
- 8 - Closing Spring
- 9 - Side Seal

### Flange Type, Parallel Blades
FD 30 - 100, 110, 120
Description
Blade type fire dampers FD 40 provide an automatic means of localizing areas of fire in ventilation systems. It prevent the distribution of fire through ventilation ductworks. FD offer an effective barrier maintaining integrity in a fire situation up to 3 hrs. It is suitable for installation in sheet metal ductworks or in walls or ceiling slabs made from concrete, brick and lightweight partition walls. FD is available in rectangular, square, circular and flat oval duct fixings.

Standard Construction
Frame: 100mm x 40mm x 1.5mm (16 ga.) galvanized steel, structurally designed hat section.
Blades: 300mm max. width,1.5mm (16 ga.) galvanized steel.
Finish: Mill galvanized.
Linkage: Parallel blade have standard face linkage operation.
Case Bearings: Made sintered bronze (oilite), operational temp. resistance up to 200 °C.
Fusible Link: Standard release 74 °C (165 °F) UL listed.
Spring: Stainless steel closure spring mounted internally with catch device to prevent blades from opening until manually released.

Minimum Size:
150 x 200mm, dampers up to 300mm high are single blade construction.

Maximum Size:
1000 x 1000mm, as single section. Multiple section assembly with unlimited size, where each section operates independently.

For details of multiple sections consult SAFID.

FD 40 - 110
General construction as type FD 40 - 100 damper but blades, shafts and blade to spindle fixing in stainless steel (Grade 304).

FD 40 -1 20
General construction as type FD 40 - 100 damper but with case, blades, shafts and blade to shaft fixing and linkage all from stainless steel (Grade 304).
Description
Blade type fire dampers FD 50 provide an automatic means of localizing areas of fire in ventilation systems. It prevents the distribution of fire through ventilation ductworks. FD offer an effective barrier maintaining integrity in a fire situation up to 3 hrs. It is suitable for installation in sheet metal ductworks or in walls or ceiling slabs made from concrete, brick and lightweight partition walls. FD is available in rectangular, square, circular and flat oval duct fixings.

Standard Construction
Frame: 180mm x 1.5mm (16 ga.) galvanized steel, L = 405mm.
Blades: 250mm max. width,1.5mm (16 ga.) galvanized steel.
Finish: Mill galvanized.
Linkage: Parallel blade have standard face linkage operation. Linkage consist of 6mm dia. S/S pivot pins.
Case Bearings: Made sintered bronze (oilite), operational temp. resistance up to 200 °C.
Fusible Link: Standard release 74 °C (165 °F) UL listed. Other temperatures available on request.
Spring: Stainless steel closure spring mounted internally with catch device to prevent blades from opening until manually released.

Minimum Size:
200mm diameter, dampers up to 250mm high are single blade construction.

Maximum Size:
1000mm diameter, as single section. Multiple section assembly with unlimited size, where each section operates independently.

For details of multiple sections consult SAFID.

FD 50 - 100
General construction as type FD 50 - 100 damper but blades, shafts and blade to spindle fixing in stainless steel (Grade 304).

FD 50 - 110
General construction as type FD 50 - 100 damper but with case, blades shafts and blade to shaft fixing and linkage all from stainless steel (Grade 304).

FD 50 - 120
General construction as type FD 50 - 100 damper but with case, blades shafts and blade to shaft fixing and linkage all from stainless steel (Grade 304).

Circular Spigot Type, Parallel Blades

FD SERIES [FD 50 - 100, FD 50 - 110, FD 50 - 120]

Dimensions
1 - Casing
2 - Blade
3 - Face Linkage
4 - Linkage Bar
5 - Landing Angles
6 - Fusible Link 74 °C (UL listed)
7 - Catch Device
8 - Closing Spring
9 - Side Seal

Circular Spigot Type

Parallel Blade (PB)
Description

Blade type fire dampers FD 60 provide an automatic means of localizing areas of fire in ventilation systems. It prevents the distribution of fire through ventilation ductworks. FD offer an effective barrier maintaining integrity in a fire situation up to 3 hrs. It is suitable for installation in sheet metal ductworks or in walls or ceiling slabs made from concrete, brick and lightweight partition walls. FD is available in rectangular, square, circular and flat oval duct fixings.

Standard Construction

Frame (Spigot Type):
180mm x 1.5mm (16 ga.) galvanized steel, L=405mm.

Blades:
250mm max. width, 1.5mm (16 ga.) galvanized steel.

Finish:
Mill galvanized.

Linkage:
Parallel blade have standard face linkage operation. Linkage consist of 6mm dia. S/S pivot pins.

Case Bearings:
Made sintered bronze (oilite), operational temp. resistance up to 200 °C.

Fusible Link:
Standard release 74 °C (UL listed) Other temperatures available on request.

Spring:
Stainless steel closure spring mounted internally with catch device to prevent blades from opening until manually released.

Minimum Size:
300 x 200mm, dampers up to 250mm high are single blade construction.

Maximum Size:
1000 x 900mm, as single section. Multiple section assembly with unlimited size, where each section operates independently.

For details of multiple sections consult SAFID.

FD 60 - 100
General construction as type FD 60 - 100 damper but blades, shafts and blade to spindle fixing in stainless steel (Grade 304).

FD 60 - 110
General construction as type FD 60 - 100 damper but with case, blades shafts and blade to shaft fixing and linkage all from stainless steel (Grade 304).

FD 60 - 120
General construction as type FD 60 - 100 damper but with case, blades shafts and blade to shaft fixing and linkage all from stainless steel (Grade 304).

For details of multiple sections consult SAFID.

Oval Spigot Type, Parallel Blades

Dimensions

FD SERIES [FD 60 - 100, FD 60 - 110, FD 60 - 120]

<table>
<thead>
<tr>
<th>1</th>
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<tbody>
<tr>
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<td>Blade</td>
<td>Face Linkage</td>
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<td>Linkage Bar</td>
<td>Landing Angles</td>
<td>Fusible Link 74 °C (UL listed)</td>
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<tr>
<td>Catch Device</td>
<td>Closing Spring</td>
<td>Side Seal</td>
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</table>

Oval Spigot Type

Standard Sizes

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</table>
Description

Blade Type Fire Dampers FD 70 provide an automatic means of localizing areas of fire in ventilation systems. It prevents the distribution of fire through ventilation ductworks. FD offer an effective barrier maintaining integrity in a fire situation up to 3 hrs. It is suitable for installation in sheet metal ductworks or in walls or ceiling slabs made from concrete, brick and lightweight partition walls. FD is available in rectangular, square, circular and flat oval duct fixings.

Standard Construction

Frame (Spigot Type):
180mmx1.5mm (16 ga) galvanized steel, L=405mm.

Blades:
300mm max. width,1.5mm (16 ga.) galvanized steel.

Finish:
Mill galvanized.

Linkage:
Parallel blade have standard face linkage operation. Linkage consist of 6mm dia. S/S pivot pins.

Case Bearings:
Made sintered bronze (oilite), operational temp. resistance up to 200 °C.

Fusible Link:
Standard release 74 °C (165 °F) UL listed
Other temperatures available on request.

Spring:
Stainless steel closure spring mounted internally with catch device to prevent blades from opening until manually released.

Minimum Size:
150 x 200mm, dampers up to 300mm high are single blade construction.

Maximum Size:
1000 x 1000mm, as single section. Multiple section assembly with unlimited size, where each section operates independently.

For details of multiple sections consult SAFID.

FD 70 - 110
General construction as type FD 70 - 100 damper but blades, shafts and blade to spindle fixing in stainless steel (Grade 304).

FD 70 - 120
General construction as type FD 70 - 100 damper but with case, blades shafts and blade to shaft fixing and linkage all from stainless steel (Grade 304).

Rectangular Spigot Type, Parallel Blades

Minimum Size:
150 x 200mm, dampers up to 300mm high are single blade construction.

Maximum Size:
1000 x 1000mm, as single section. Multiple section assembly with unlimited size, where each section operates independently.

For details of multiple sections consult SAFID.

FD 70 - 110
General construction as type FD 70 - 100 damper but blades, shafts and blade to spindle fixing in stainless steel (Grade 304).

FD 70 - 120
General construction as type FD 70 - 100 damper but with case, blades shafts and blade to shaft fixing and linkage all from stainless steel (Grade 304).

RECTANGULAR SPIGOT TYPE
BLADE TYPE FIRE DAMPER

FD 70 - 100
FD SERIES
RECTANGULAR SPIGOT TYPE

FD 70 - 110
FD SERIES
[FD 70 - 100, FD 70 - 110, FD 70 - 120]

Dimensions

<table>
<thead>
<tr>
<th>No.</th>
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<tbody>
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<tr>
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</tr>
<tr>
<td>6</td>
<td>Fusible Link 74 °C (UL listed)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Catch Device</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Closing Spring</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Side Seal</td>
<td></td>
</tr>
</tbody>
</table>

Rectangular Spigot Type

Standard Sizes

<table>
<thead>
<tr>
<th>Width (mm)</th>
<th>Height (mm)</th>
<th>No. of Blades</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>200</td>
<td>1</td>
</tr>
<tr>
<td>150</td>
<td>250</td>
<td>1</td>
</tr>
<tr>
<td>200</td>
<td>300</td>
<td>1</td>
</tr>
<tr>
<td>250</td>
<td>350</td>
<td>2</td>
</tr>
<tr>
<td>300</td>
<td>400</td>
<td>2</td>
</tr>
<tr>
<td>350</td>
<td>450</td>
<td>2</td>
</tr>
<tr>
<td>400</td>
<td>500</td>
<td>3</td>
</tr>
<tr>
<td>450</td>
<td>550</td>
<td>3</td>
</tr>
<tr>
<td>500</td>
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</tr>
<tr>
<td>550</td>
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<td>4</td>
</tr>
<tr>
<td>600</td>
<td>700</td>
<td>4</td>
</tr>
<tr>
<td>650</td>
<td>800</td>
<td>4</td>
</tr>
<tr>
<td>700</td>
<td>850</td>
<td>5</td>
</tr>
<tr>
<td>750</td>
<td>900</td>
<td>6</td>
</tr>
<tr>
<td>800</td>
<td>950</td>
<td>6</td>
</tr>
<tr>
<td>850</td>
<td>1000</td>
<td>6</td>
</tr>
<tr>
<td>900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>950</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Installation Details with Sleeve and Peripheral Angle

FD

FD 60, Circular Spigot Type

FD 60, Oval Spigot Type

FD 70, Rectangular Spigot Type

Installation Details with HEVAC Frame

FD

FD 50, Circular Spigot Type

FD 60, Oval Spigot Type

FD 70, Rectangular Spigot Type
**Product Range**

**Construction Variants - FD 100, 110, 120 - Casing**

<table>
<thead>
<tr>
<th>Construction Variants</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD 30</td>
<td>Standard supply construction frame 180mm x 30mm from 1.5mm (16 gauge) galvanized steel sheet.</td>
</tr>
<tr>
<td>FD 40</td>
<td>Sleeve case inverted channel frame 180mm width from 1.5mm (16 gauge) galvanized steel sheet.</td>
</tr>
<tr>
<td>FD 50</td>
<td>Spigot case detail from 1.5mm galvanized steel sheet. Total length 405mm including circular spigot.</td>
</tr>
<tr>
<td>FD 60</td>
<td>Spigot case detail from 1.5mm galvanized steel sheet. Total length 405mm including oval spigot.</td>
</tr>
<tr>
<td>FD 70</td>
<td>Spigot case detail from 1.5mm galvanized steel sheet. Total length 405mm including rectangular spigot.</td>
</tr>
</tbody>
</table>

**Seals**

<table>
<thead>
<tr>
<th>Construction Variants</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>No seals, not applicable</td>
</tr>
<tr>
<td>S1</td>
<td>Side seals, fitted to close gap between case and blades.</td>
</tr>
</tbody>
</table>

**Switches**

<table>
<thead>
<tr>
<th>Accessories &amp; Types</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S01</td>
<td>Microswitch</td>
</tr>
</tbody>
</table>

**Linkage**

<table>
<thead>
<tr>
<th>Construction Variants</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB</td>
<td>Standard supply construction internal face linkage, parallel blade operation only.</td>
</tr>
</tbody>
</table>

**Bearings**

<table>
<thead>
<tr>
<th>Construction Variants</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Construction sintered bronze oilite.</td>
</tr>
<tr>
<td>B2</td>
<td>Stainless steel</td>
</tr>
</tbody>
</table>

**Specifications**

Rectangular, square, circular and flat oval blade type fire damper designed for fire isolation of sections of ducting in ventilation systems. Basically consisting of a flanged casing, shut-off blades with overlapping interlocking joints with side seals to close gap between case and blades, with internal fusible link control and stainless steel closing spring. Blades are connected by internal linkage for parallel blade operation.

**Order Details**

**Order Code**

| FD 30 | 100 | PB | S1 | B1 | 500 x 500 |

**Duct Size**

- Square or rectangular dimensions 'W' x 'H' mm.
- Circular 'D' mm diameter.
- Flat Oval 'W' x 'H' mm.
- All damper spigots are manufactured down on duct size to fit inside ductwork connections.

**Order Example**

Standard
Make: SAFID
Type: FD 30 - 100 - PB - S1 - B1 - 500 x 500
Qty: 1