

Heating, Ventilation & Air Movement Equipment

Units 2 & 3 Bull Ring Trading Estate, Green Street, Digbeth, Birmingham, B12 0NB. Tel: 0121 766 8126 Fax: 0121 766 7239 www.ajs-vent.co.uk



## FIRE DAMPER RANGE

### **PRODUCT RANGE**

#### Model Range Includes

- A Blades in airstream. (Rectangular Duct)
- B Blades out of airstream. (Rectangular Duct)
- C Blades out of airstream. (Spiral/Circular Duct)
- D Induct / Internal. (Rectangular Duct)
- E MFD / Single Blade. (Spiral/Circular Duct)

#### Factory Fitted Installation Options

- Drywall Frame.
- Fire Curtain Frame.
- Hanging Cleats.
- HEVAC Frame.

#### **Material Options**

- Galvanised steel.
- Stainless steel.

### **Description / Full Features:**

The AJS fire damper range is designed for low - medium & high air velocity ductwork systems. Manufactured by us in the UK, providing a curtain type fire damper designed specifically to prevent the spread of flames through ductwork systems in fire conditions. The fire damper is activated via a fusible link element set to trigger @ 72°C. Operation of the fusible link can be manually tested, allowing the blade pack to close instantly under spring tension, locked in place via radius locking ramps providing a solid barrier to flames.

### Certification

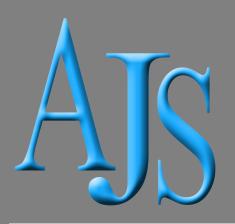
• Independently tested by Warrington Fire Research Centre achieving a full 4 hour rating.

### AJS are proud to be associated with:









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## TYPE A FIRE DAMPER

### **PRODUCT RANGE**

### Damper Model

- ⊺уре А
  - Blades partially in airstream.
  - Galvanised mild steel casing and blades

#### **Duct Connection Type**

Rectangular Slip joint / Spigot.

#### **Factory Fitted Installation Options**

- Drywall Frame.
- Fire Curtain Frame.
- Hanging Cleats.
- HEVAC Frame.

### **Material Options**

- Galvanised steel.
- Stainless steel.

### **Description / Full Features:**

The AJS Type A - fire damper range (blades partially in airstream) is designed for low & medium air velocity ductwork systems. Manufactured by us in the UK, providing a curtain type fire damper designed specifically to prevent the spread of flames through ductwork systems in fire conditions.

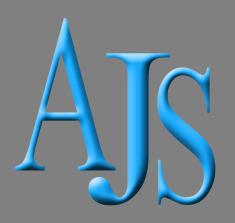
- A continuous series of 0.8mm galvanised mild steel (as standard) folded and interlocked hinged blades make up the fire curtain barrier, contained within the fully welded (airtight) damper casing of 1.2mm galvanised steel.
- The trailing curtain blade is fixed to the head/top of the damper casing, held open via a fusible link element set to trigger @ 72°C.
- Two constant force stainless steel type 302 coiled band springs, exerting a pull of not less than 35n attached to the leading blade & the radius locking ramps, (profiled to the curtain/blade assembly) fitted to the base/bottom of the damper casing, facilitates the curtain/blade closure, creating both a positive lockdown of the curtain/blades & barrier to flames within the ductwork system.

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## TYPE B FIRE DAMPER

### **PRODUCT RANGE**

#### **Damper Model**

- 🔰 Туре В
  - Blades out of airstream.
  - Galvanised mild steel casing and blades

#### **Duct Connection Type**

Rectangular Slip joint / Spigot.

#### **Factory Fitted Installation Options**

- Drywall Frame.
- Fire Curtain Frame.
- Hanging Cleats.
- HEVAC Frame.

### **Material Options**

- Galvanised steel.
- Stainless steel.

### **Description / Full Features:**

The AJS Type B - fire damper range is designed for use in high air velocity systems. Manufactured by us in the UK, provides a curtain type fire damper specifically preventing the spread of flames in fire conditions within the ductwork, whilst allowing minimal airflow restriction through the system.

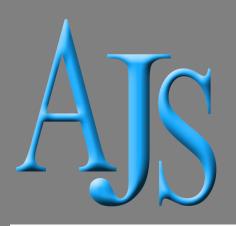
- A continuous series of 0.8mm galvanised mild steel (as standard) folded and interlocked hinged blades make up the fire curtain barrier, contained within the fully welded (airtight) damper casing of 1.2mm galvanised steel.
- The trailing curtain blade is fixed to the head/top of the damper casing, held open via a fusible link element set to trigger @ 72°C.
- Two constant force stainless steel type 302 coiled band springs, exerting a pull of not less than 35n attached to the leading blade & the radius locking ramps, (profiled to the curtain/blade assembly) fitted to the base/bottom of the damper casing, facilitates the curtain/blade closure, creating both a positive lockdown of the curtain/blades & barrier to flames within the ductwork system.

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## TYPE C FIRE DAMPER

### **PRODUCT RANGE**

### Damper Model

- Type C
  - Blades out of airstream.
  - Galvanised mild steel casing and blades.

#### **Duct Connection Type**

Circular Slip joint / Spigot.

### **Factory Fitted Installation Options**

- Drywall Frame.
- Fire Curtain Frame.
- Hanging Cleats.
- HEVAC Frame.

### **Material Options**

- Galvanised steel.
- Stainless steel.

### **Description / Full Features:**

The AJS Type C – standard fire damper range (blades out of airstream) is designed for low to high air ductwork velocities associated with the ventilation & air conditioning industry. Manufactured by us in the UK, we provide a curtain type fire damper specifically to prevent the spread of flames in fire conditions, whilst allowing maximum airflow throughout the system.

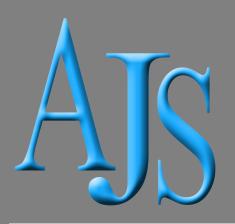
- A continuous series of 0.8mm galvanised mild steel (as standard) folded and interlocked hinged blades make up the fire curtain barrier, contained within the fully welded (airtight) damper casing of 1.2mm galvanised steel.
- The trailing curtain blade is fixed to the head/top of the damper casing, held open via a fusible link element set to trigger @ 72°C.
- Two constant force stainless steel type 302 coiled band springs, exerting a pull of not less than 35n attached to the leading blade & the radius locking ramps, (profiled to the curtain/blade assembly) fitted to the base/bottom of the damper casing, facilitates the curtain/blade closure, creating both a positive lockdown of the curtain/blades & barrier to flames within the ductwork system.

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# TYPE D FIRE DAMPER

### **PRODUCT RANGE**

### **Damper Model**

- Type D
  - Galvanised mild steel casing and blades.

### Duct Connection Type.

• Rectangular Induct / Internal Installation.

### **Material Options**

- Galvanised steel.
- Stainless steel.

### **Description / Full Features:**

The AJS Type D - fire damper range is designed for internal / induct installation of low & medium air velocity systems. Manufactured by us in the UK providing a curtain type fire damper designed specifically to prevent the spread of flames through ductwork systems in fire conditions.

- A continuous series of 0.8mm galvanised mild steel (as standard) folded and interlocked hinged blades make up the fire curtain barrier, contained within the fully welded (airtight) damper casing of 1.2mm galvanised steel.
- The trailing curtain blade is fixed to the head/top of the damper casing, held open via a fusible link element set to trigger @ 72°C.
- Two constant force stainless steel type 302 coiled band springs, exerting a pull of not less than 35n attached to the leading blade & the radius locking ramps, (profiled to the curtain/blade assembly) fitted to the base/bottom of the damper casing, facilitates the curtain/blade closure, creating both a positive lockdown of the curtain/blades & barrier to flames within the ductwork system.

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Manufacturer & Stockist of Heating, Ventilation & Air Movement Equipment

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## CURTAIN FIRE DAMPER DETAILED SPECIFICATION

### **Engineering Specification**

- Fire Damper shall be steel curtain dampers consisting of continuous series of folded and interlocked blades contained within and arranged to close the opening of surrounding frame.
- The frame and component parts to be not less than 1.2mm galvanised steel.
- The blades to be 0.8mm galvanised mild steel shaped on both edges to form a continuous interlocking hinge extending the full length of the blade. The assembly of the blade is to be fixed to the damper frame by the first blade to be riveted flat to the frame with zinc plated steel semi tubular rivets.
- The damper framework to be of formed section to provide two continuous internal flanges covering the blade perimeters by not less than 25mm.
- The number of blades to be sufficient only to close the opening in the frame in the fully extended position with a maximum clearance between the edges of the blade and the casing of 5mm.
- The damper blades to be held in the open position by means of approved pattern fusible link set to operate at 72°C unless otherwise specified.
- The link to be arranged in an exposed position in the centre of the leading blade consisting of brass parts so positioned and fixed as not to impede the operation of the damper blades upon fusing of the link.
- The damper in a vertical position to be suitably marked top.
- All dampers to be closed by two constant force coiled band springs exerting a pull of not less than 35n to be of stainless steel type 302 19mm wide.
- The tail end of the spring to be mounted and fixed to the leading blade by semi tubular rivets.
- The coil end of the spring to be retained around a corrosive resistance steel pivot fixed to a locking bracket in such a way it will not become dislodged from the pivot by side movement.
- The locking bracket to provide maximum cover over the coiled spring to prevent damage and to be secured to the damper by not less than two semi tubular rivets or two solid rivets.
- Locking bracket to be secured in such a position that at no time do they obstruct or interfere with the operation of the damper but will positively lock the leading blade when the damper is in the closed position.

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## **Fire Damper**

### Installation, Maintenance & Operating Instructions

#### MAINTENANCE

- The damper must be kept clean and free from any contamination or foreign items.
- If possible operate the blades against airflow to ensure free, easy movement.
- It is advised that the damper is inspected periodically to ensure efficient operation, to include walls, partitions or floors.
- Inspection of closure springs and the fusible link is recommended on an annual basis as is cleaning of the blades and inner casings.
- Due to the possible build-up of dust use of oils is not recommended.
- The period for inspections should not exceed a twelve month interval but can be ascertained by experience or local regulations, where excessive dust or dirty conditions prevail, inspections should be carried out more frequently.

#### OPERATION

- These dampers are primarily designed for use in ductwork systems to stop the spread of flames and fire.
- It is assumed that the airflow through the damper is filtered and Environmentally controlled with regard to humidification and corrosive Atmospheres to National and International Specifications.

#### INSTALLATION

- Remove all packaging, including the "tape" or "tie" from the fusible link.
- The ductwork and damper spigots must be carefully matched with the specified sealing material used during installation.
- Ensure that the ductwork is adequately supported, this is particularly important where large dampers are concerned.
- It is important that the damper is free of any foreign matter, that there is no distortion to the assembly and that it is square and that there is no surface damage that could restrict blade movement.
- If the product is stored prior to installation it must be stacked and stored in clean, dry conditions to prevent dust as well as avoiding excessive temperatures or humidity.
- When handling dampers, care should always be taken to avoid subjecting them to excessive stresses for which they are not designed.
- Once installed disconnect the fusible link to operate the damper blades, pay particular attention when re-setting the fusible link correctly into its latches.
- All dampers to be installed with airflows and pressures conforming to the test data as detailed in the manufacturers technical information. Excessive airflows and/or pressures could result in permanent damage and/or malfunction of the damper.

#### Additional Notes

- All fire damper installations must be carried out to the satisfaction of the appropriate district surveyor, fire officer and/or specifying
  authority as other approved methods of installations may well be used.
- It is important to ensure that the installation is in conformance to the relevant building codes of practice that are current at time of installation, i.e. HVCA's DW144

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# TYPE E FIRE DAMPER

### **PRODUCT RANGE**

### **Damper Model**

- ► Type E
  - Galvanised mild steel casing and blades.

### Duct Connection Type.

Circular Slip joint / Spigot.

### Material

• Galvanised steel.

### **Description / Full Features:**

The AJS Type E - fire damper range (single blade) is used as a closing device and is designed for specifically to prevent the spread of flames through ductwork systems in fire conditions.

- Equipped with fusible link set to trigger @ 70°C and spring mechanism for closure.
- External setting device.
- Factory fitted rubber sealing gasket joints and Installation plate/frame as standard.
- Horizontal or vertical installation.
- Maximum velocity of air flow through the damper : 15 m/s
- Operation is not dependant on air flow direction.

#### Certification

• Fire Resistance tested by Warrington Fire Research Centre achieving a full 130 minute rating.

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