

CURTAIN TYPE FIRE DAMPERS

CURTAIN TYPE FIRE DAMPER WITH BLADES IN AIR STREAM



SSA - 1 Series Type A

Constructed and Tested in Accordance with British Standards (BS 476: Part 20: 1987)

Fire Damper for use in Static/Dynamic Systems
 Fire Resistance: 1 1/2 HR and 3 HRS
 Dynamic Closure Rating: 2000 FPM
 Closed Damper Pressure Rating: 4 inch W.G.
 UL File No.: R22165



Description

Shutter type fire dampers provide an automatic means of localizing areas of fire in ventilation systems.

The SSA range of curtain bladed fire dampers are suitable for installation in walls and ceilings made from concrete or brickwork, and will stop the spread of fire through duct, walls or floors.

There is a wide choice of sizes available for low, medium and high velocity applications and include rectangular, square, circular and flat oval connections.

The dampers are fitted with standard release 74 °C fusible links (UL listed) unless otherwise specified.

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.

SSA-1-A-110

General construction as type SSA-1-A-100 damper but blades in stainless steel (Grade 304).

SSA-1-A-120

General construction as type SSA-1-A-100 damper but frame, blades and catchplates all from stainless steel (Grade 304).

SSA-1-A-100 Standard Construction

Frame:
 Built of 18 gauge (1.2mm) galvanized steel.

Blades:
 Built of 20 gauge (0.93mm) galvanized steel.

Finish:
 Mill galvanized.

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

Springs:
 Stainless steel closure springs.

Fire Rating:
 Up to 4 hours fire rating.

Minimum Size:
 100 x 100mm



CURTAIN TYPE FIRE DAMPER WITH BLADES IN AIR STREAM

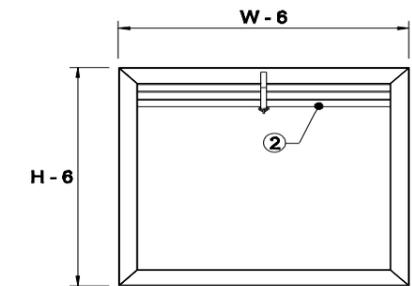
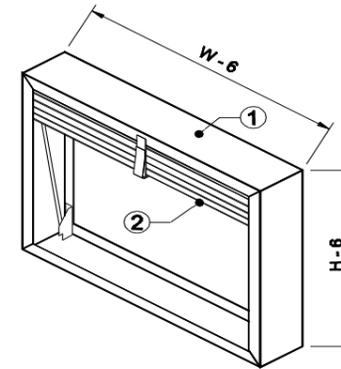
SSA - 1 SERIES [SSA-1-A-100, SSA-1-A-110, SSA-1-A-120]

Dimensions

- | | | |
|--------------------------------|------------------------------|------------------------------------|
| 1 - Galvanized or S/S Casing | 2 - Galvanized or S/S Blades | 3 - Fusible Link 74 °C (UL Listed) |
| 4 - Top Blade Riveted to Frame | 5 - S/S Closure Spring | 6 - Catch Plates |

Damper Blades in Air Stream

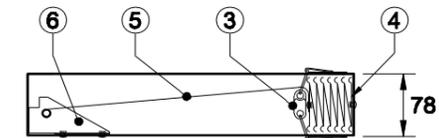
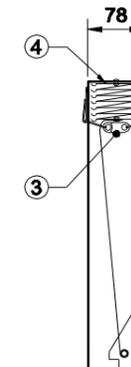
SSA-1-A-100, SSA-1-A-110, SSA-1-A-120



W x H = Duct Size

Vertical Mounting

Horizontal Mounting



CURTAIN TYPE FIRE DAMPER WITH BLADES OUTSIDE AIR STREAM



**DAMPER BLADES
OUTSIDE AIR STREAM**



**SSA - 1 Series
Type B**

Constructed and Tested in Accordance with British Standards (BS 476: Part 20: 1987)

Fire Damper for use in Static/Dynamic Systems
Fire Resistance: 1 1/2 HR and 3 HRS
Dynamic Closure Rating: 2000 FPM
Closed Damper Pressure Rating: 4 inch W.G.
UL File No.: R22165



Description

Shutter type fire dampers provide an automatic means of localizing areas of fire in ventilation systems.

The SSA range of curtain bladed fire dampers are suitable for installation in walls and ceilings made from concrete or brickwork, and will stop the spread of fire through duct, walls or floors.

There is a wide choice of sizes available for low, medium and high velocity applications and include rectangular, square, circular and flat oval connections.

The dampers are fitted with standard release 74 °C fusible links (UL listed) unless otherwise specified.

SSA-1-B-100 Standard Construction

Frame:
Built of 18 gauge (1.2mm) galvanized steel.

Blades:
Built of 20 gauge (0.93mm) galvanized steel.

Finish:
Mill galvanized.

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

Springs:
Stainless steel closure springs.

Fire Rating:
Up to 4 hours fire rating.

Minimum Size:
100 x 100mm

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.

SSA-1-B-110

General construction as type SSA-1-B-100 damper but blades in stainless steel (Grade 304).

SSA-1-B-120

General construction as type SSA-1-B-100 damper but frame, blades and catchplates all from stainless steel (Grade 304).



CURTAIN TYPE FIRE DAMPER WITH BLADES OUTSIDE AIR STREAM

SSA - 1 SERIES [SSA-1-B-100, SSA-1-B-110, SSA-1-B-120]

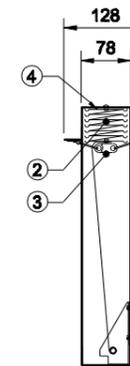
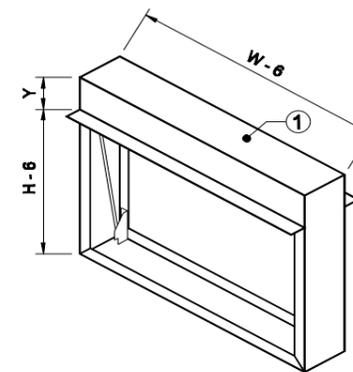
Dimensions

- 1 - Galvanized or S/S Casing
- 2 - Galvanized or S/S Blades
- 3 - Fusible Link 74 °C (UL Listed)
- 4 - Top Blade Riveted to Frame
- 5 - S/S Closure Spring
- 6 - Catch Plates

Damper Blades Outside Air Stream

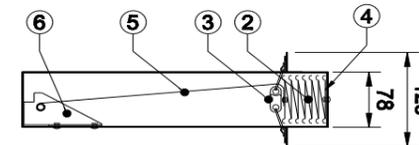
Vertical Mounting

SSA-1-B-100, SSA-1-B-110, SSA-1-B-120



W x H = Duct Size

Horizontal Mounting



Duct Height 'H'	Y	Overall Damper Height (H + Y - 6)
100	35	129
150	40	184
200	50	244
250	55	299
300	60	354
350	65	409
400	75	469
450	85	529
500	95	589
550	100	644
600	105	699
650	110	754
700	120	814
750	125	869
800	130	954
850	135	979
900	150	1044
950	155	1099
1000	165	1159



CURTAIN TYPE FIRE DAMPER FRAME AND BLADES



DAMPER FRAME AND BLADES
[100 & Free Area]

SSA - 1 Series Type C

Constructed and Tested in Accordance with British Standards (BS 476: Part 20: 1987)

Fire Damper for use in Static/Dynamic Systems
Fire Resistance: 1 1/2 HR and 3 HRS
Dynamic Closure Rating: 2000 FPM
Closed Damper Pressure Rating: 4 inch W.G.
UL File No.: R22165



Description

Shutter type fire dampers provide an automatic means of localizing areas of fire in ventilation systems.

The SSA range of curtain bladed fire dampers are suitable for installation in walls and ceilings made from concrete or brickwork, and will stop the spread of fire through duct, walls or floors.

There is a wide choice of sizes available for low, medium and high velocity applications and include rectangular, square, circular and flat oval connections.

The dampers are fitted with standard release 74 °C fusible links (UL listed) unless otherwise specified.

SSA-1-C-100 Standard Construction

Frame:
Built of 18 gauge (1.2mm) galvanized steel.

Blades:
Built of 20 gauge (0.93mm) galvanized steel.

Finish:
Mill galvanized.

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

Springs:
Stainless steel closure springs.

Fire Rating:
Up to 4 hours fire rating.

Minimum Size:
100 x 100mm

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.

SSA-1-C-110

General construction as type SSA-1-C-100 damper but blades in stainless steel (Grade 304).

SSA-1-C-120

General construction as type SSA-1-C-100 damper but frame, blades and catchplates all from stainless steel (Grade 304).



CURTAIN TYPE FIRE DAMPER FRAME AND BLADES

SSA - 1 SERIES [SSA-1-C-100, SSA-1-C-110, SSA-1-C-120]

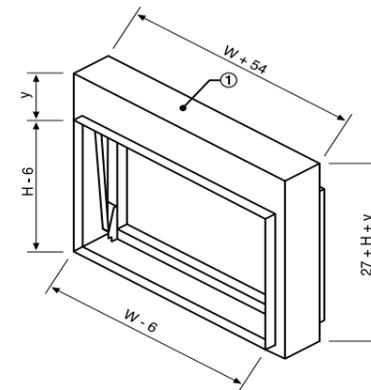
Dimensions

- 1 - Galvanized or S/S Casing
- 2 - Galvanized or S/S Blades
- 3 - Fusible Link 72 °C (UL Listed)
- 4 - Top Blade Riveted to Frame
- 5 - S/S Closure Spring
- 6 - Catch Plates

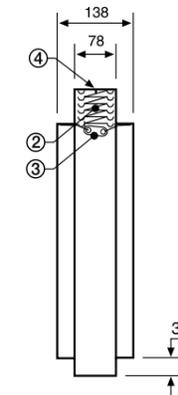
Damper Frame and Blades (100% Free Area)

Vertical Mounting

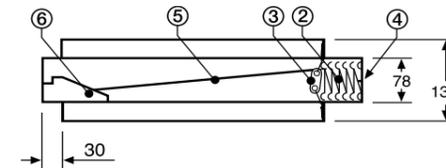
SSA-1-C-100, SSA-1-C-110, SSA-1-C-120



W x H = Duct Size



Horizontal Mounting



Duct Height 'H'	Y	Overall Damper Height (H + Y - 6)
100	35	129
150	40	184
200	50	244
250	55	299
300	60	354
350	65	409
400	75	469
450	85	529
500	95	589
550	100	644
600	105	699
650	110	754
700	120	814
750	125	869
800	130	954
850	135	979
900	150	1044
950	155	1099
1000	165	1159

CURTAIN TYPE FIRE DAMPER WITH ROUND SPIGOT



DAMPER WITH ROUND SPIGOT

SSA - 1 Series Type R

Constructed and Tested in Accordance with British Standards (BS 476: Part 20: 1987)

Fire Damper for use in Static/Dynamic Systems
 Fire Resistance: 1 1/2 HR and 3 HRS
 Dynamic Closure Rating: 2000 FPM
 Closed Damper Pressure Rating: 4 inch W.G.
 UL File No.: R22165



Description

Shutter type fire dampers provide an automatic means of localizing areas of fire in ventilation systems.

The SSA range of curtain bladed fire dampers are suitable for installation in walls and ceilings made from concrete or brickwork, and will stop the spread of fire through duct, walls or floors.

There is a wide choice of sizes available for low, medium and high velocity applications and include rectangular, square, circular and flat oval connections.

The dampers are fitted with standard release 74 °C fusible links (UL listed) unless otherwise specified.

SSA-1-R-100 Standard Construction

Frame:
Built of 18 gauge (1.2mm) galvanized steel.

Blades:
Built of 20 gauge (0.93mm) galvanized steel.

Finish:
Mill galvanized.

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

Springs:
Stainless steel closure springs.

Fire Rating:
Up to 4 hours fire rating.

Minimum Size:
100 mm diameter

Maximum Size:

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

For details of multiple sections consult SAFID.

SSA-1-R-110
General construction as type SSA-1-R-100 damper but blades in stainless steel (Grade 304).

SSA-1-R-120
General construction as type SSA-1-R-100 damper but frame, blades and catchplates all from stainless steel (Grade 304).



CURTAIN TYPE FIRE DAMPER WITH ROUND SPIGOT

SSA - 1 SERIES [SSA-1-R-100, SSA-1-R-110, SSA-1-R-120]

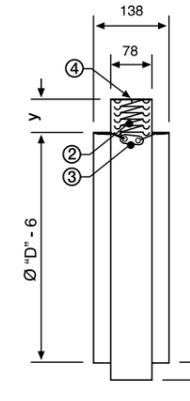
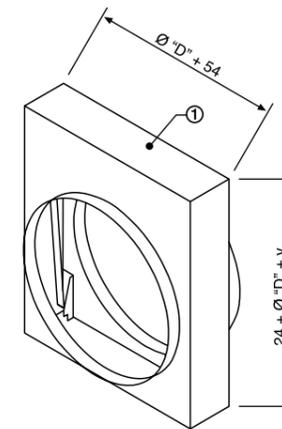
Dimensions

- 1 - Galvanized or S/S Casing
- 2 - Galvanized or S/S Blades
- 3 - Fusible Link 72 °C (UL Listed)
- 4 - Top Blade Riveted to Frame
- 5 - S/S Closure Spring
- 6 - Catch Plates

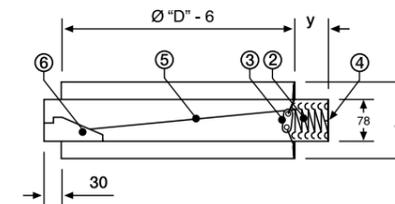
Round Type Damper with Spigot

Vertical Mounting

SSA-1-R-100, SSA-1-R-110, SSA-1-R-120



Horizontal Mounting



Duct Height 'H'	Y	Overall Damper Height (H + Y - 6)
100	40	170
150	50	230
200	55	285
250	60	340
300	65	395
350	75	455
400	85	515
450	95	575
500	100	630
550	105	685
600	110	740
650	120	800
700	125	855
750	130	910
800	135	965
850	150	1030
900	155	1085
950	165	1145
1000	170	1200

CURTAIN TYPE FIRE DAMPER WITH OVAL SPIGOT



OVAL TYPE DAMPER WITH SPIGOT

SSA - 1 Series Type O

Constructed and Tested in Accordance with British Standards (BS 476: Part 20: 1987)

Fire Damper for use in Static/Dynamic Systems
 Fire Resistance: 1 1/2 HR and 3 HRS
 Dynamic Closure Rating: 2000 FPM
 Closed Damper Pressure Rating: 4 inch W.G.
 UL File No.: R22165



Description

Shutter type fire dampers provide an automatic means of localizing areas of fire in ventilation systems.

The SSA range of curtain bladed fire dampers are suitable for installation in walls and ceilings made from concrete or brickwork, and will stop the spread of fire through duct, walls or floors.

There is a wide choice of sizes available for low, medium and high velocity applications and include rectangular, square, circular and flat oval connections.

The dampers are fitted with standard release 74 °C fusible links (UL listed) unless otherwise specified.

SSA-1-R-100 Standard Construction

Frame:
 Built of 18 gauge (1.2mm) galvanized steel.

Blades:
 Built of 20 gauge (0.93mm) galvanized steel.

Finish:
 Mill galvanized.

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

Springs:
 Stainless steel closure springs.

Fire Rating:
 Up to 4 hours fire rating.

Minimum Size:
 200 x 100 mm (W x H)

Maximum Size:

1000 x 900 (W x H), as single section.
 Multiple section assembly with unlimited size, where each section operates independently.

For details of multiple sections consult SAFID.

SSA-1-O-110

General construction as type SSA-1-O-100 damper but blades in stainless steel (Grade 304).

SSA-1-O-120

General construction as type SSA-1-O-100 damper but frame, blades and catchplates all from stainless steel (Grade 304).



CURTAIN TYPE FIRE DAMPER WITH OVAL SPIGOT

SSA - 1 SERIES [SSA-1-O-100, SSA-1-O-110, SSA-1-O-120]

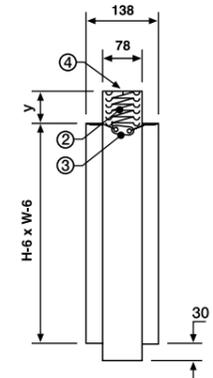
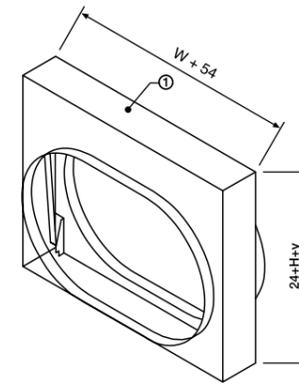
Dimensions

- 1 - Galvanized or S/S Casing
- 2 - Galvanized or S/S Blades
- 3 - Fusible Link 72 °C (UL Listed)
- 4 - Top Blade Riveted to Frame
- 5 - S/S Closure Spring
- 6 - Catch Plates

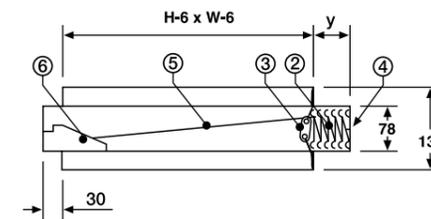
Oval Type Damper with Spigot

Vertical Mounting

SSA-1-O-100, SSA-1-O-110, SSA-1-O-120



Horizontal Mounting



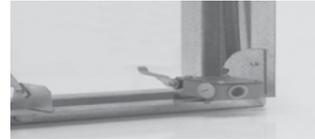
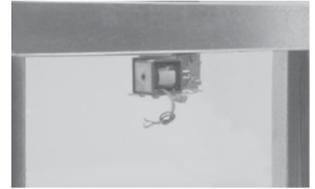
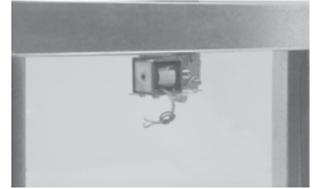
Duct Height 'H'	Y	Overall Damper Height H + Y - 6
100	40	170
150	50	230
200	55	285
250	60	340
300	65	395
350	75	455
400	85	515
450	95	575
500	100	630
550	105	685
600	110	740
650	120	800
700	125	855
750	130	910
800	135	965
850	150	1030
900	155	1085



Construction Variants	Description	Mounting Mode	Velocity Range
A	Blades in airstream, square, round or rectangular spigot, fitted with closing springs and catchplates.	Vertical/Horizontal Mounting	Low Medium
A1	As code A but includes side seals.	Vertical/Horizontal Mounting	Low Medium
A2	As code A but excludes closing springs and catchplates.	Vertical Mounting Only	Low Medium
B C R O	Variable height top case section to contain blades out of airstream. Fitted with closing springs and catchplates. Can be supplied with square or rectangular, circular or oval duct connections.	Vertical/Horizontal Mounting	Low Medium High
B1 C1 R1 O1	As code B, C series but includes side seals	Vertical / Horizontal Mounting	High

Accessories
Please see page 117 of this chapter.

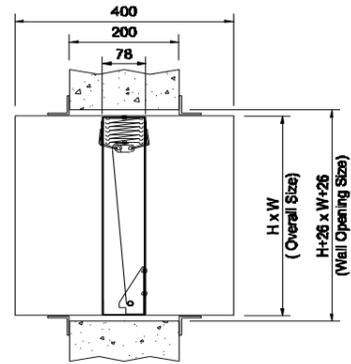
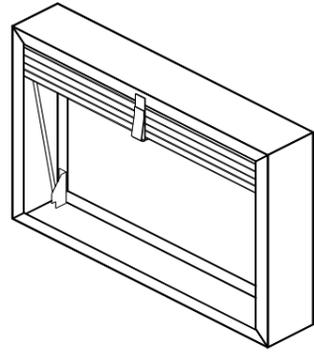


Construction or Construction Variants	Combined With	Code
Base Holder with Fuse Link (Standard Construction)		-
<p>Electrical Micro-Switch (Indicates Blades Closed)</p> <p>To provide "remote" indication of whether the blade is "open or closed". The microswitch can also be connected to any warning device or into the control circuit of a ventilation system to isolate the plant in event of fire.</p>	<p>Microswitch indicates blades "Closed"</p> 	S01
<p>Visual Indicator (Indicates Blades Closed)</p> <p>Mechanical device to indicate blade closure visible externally from the damper.</p>		S02
<p>Micro-switch with Visual Indicator</p>	<p>Mechanical device to indicate blade closure visible externally from the damper.</p>	S03
<p>Electro-Magnet-A.C and D.C Voltage</p> <p>Interruption of electrical current to activate closure of the curtain blade pack.</p> <p>As an alternative to the solenoid for systems that require normally "ENERGISED" actuators that automatically operate in the event of an interruption of electrical supply. (Voltage 24V, 110V & 240V). Standard fuse temperature 74°C.</p>		S04
<p>Solenoid - A.C. Voltage</p> <p>Electrically energised to activate closure of the curtain blade pack.</p> <p>Normally "DE-ENERGISED" activated by an electrical impulse from either/via a detector or control panel. The solenoid can be fitted for standard "direct link" operation.</p> <p>For maintenance/servicing the solenoid can be manually overridden for testing purposes.</p>		S05



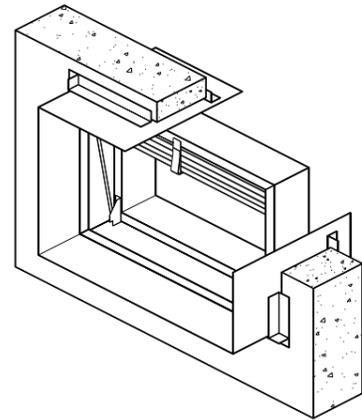
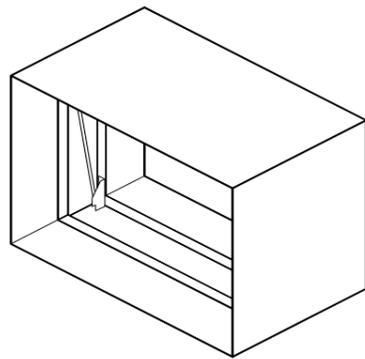
TYPE A: INSTALLATION DETAILS

SSA-1-A



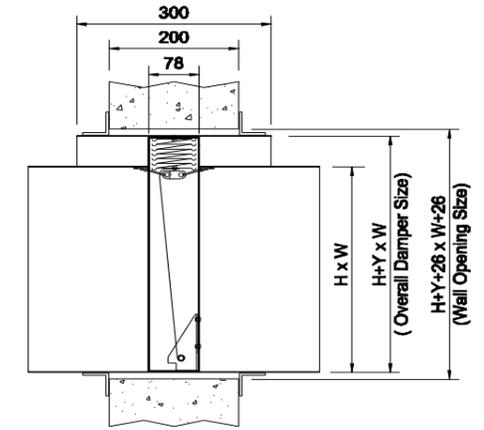
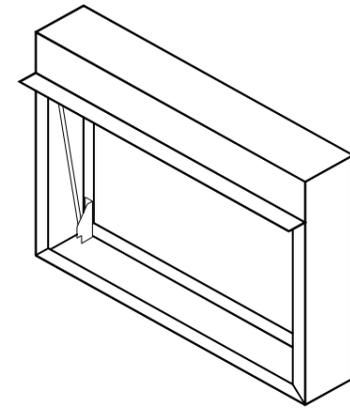
Damper Installed to Duct

Damper Installed to Wall



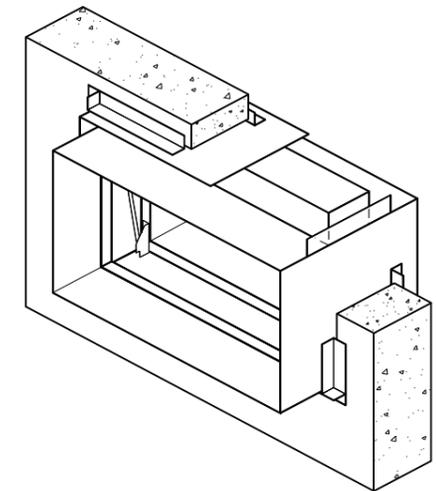
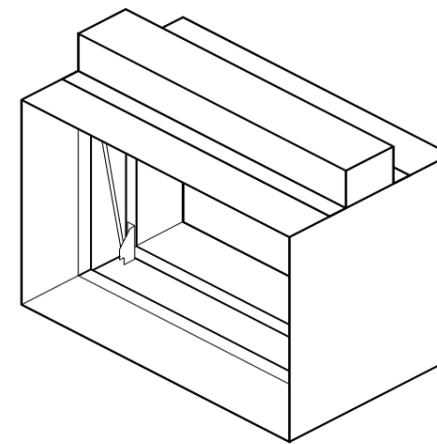
TYPE B: INSTALLATION DETAILS

SSA-1-B



Damper Installed to Duct

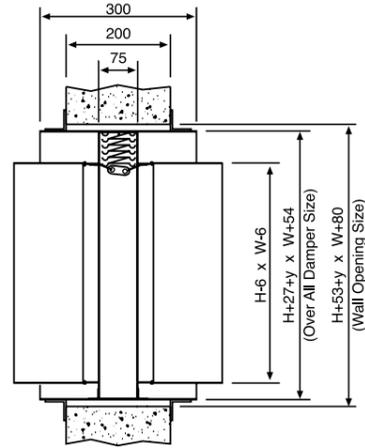
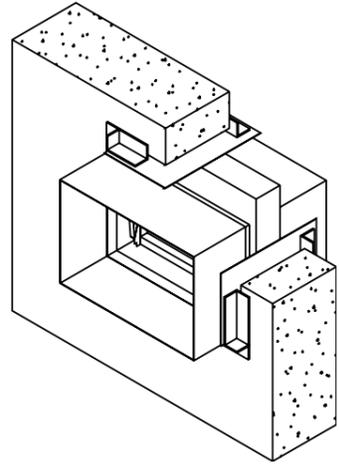
Damper Installed to Wall



TYPE C: INSTALLATION DETAILS
WITH SLEEVE AND PERIPHERAL ANGLE

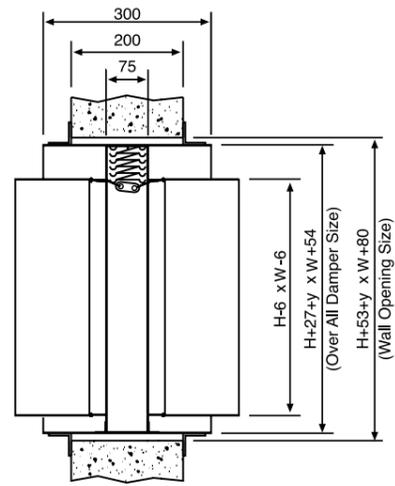
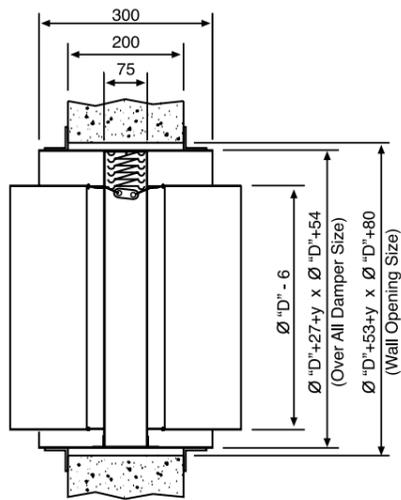
SSA-1-C

Damper with Rectangular Spigot



Damper with Round Spigot

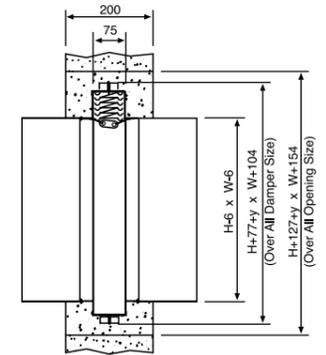
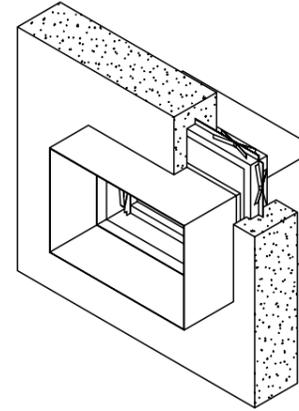
Damper with Oval Spigot



TYPE C: INSTALLATION DETAILS
WITH HEVAC FRAME

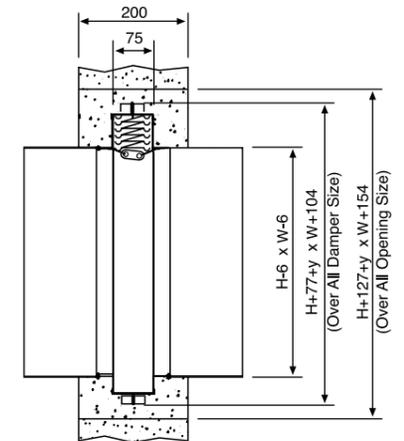
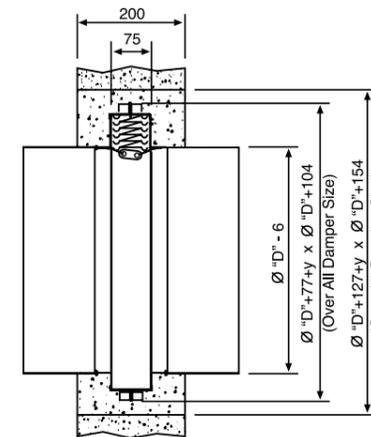
SSA-1-C

Damper with Rectangular Spigot



Damper with Round Spigot

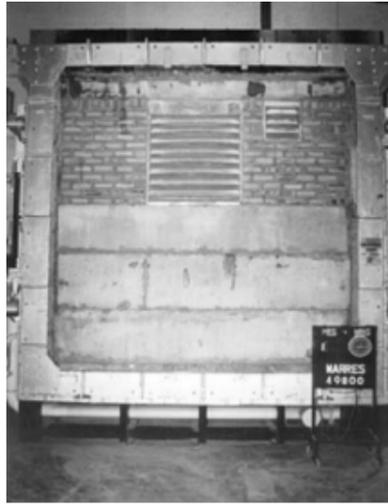
Damper with Oval Spigot



FIRE RESISTANCE TEST UTILIZING THE HEATING CONDITIONS OF (BRITISH STANDARDS 476 PART 20 1987)

TECHNICAL DATA

Warres 49800, Fire Resistance up to 1 hr



Warres 49800, Fire Resistance up to 2 hrs



Warres 49800, Fire Resistance up to 3 hrs



Warres 49800, Fire Resistance up to 4 hrs

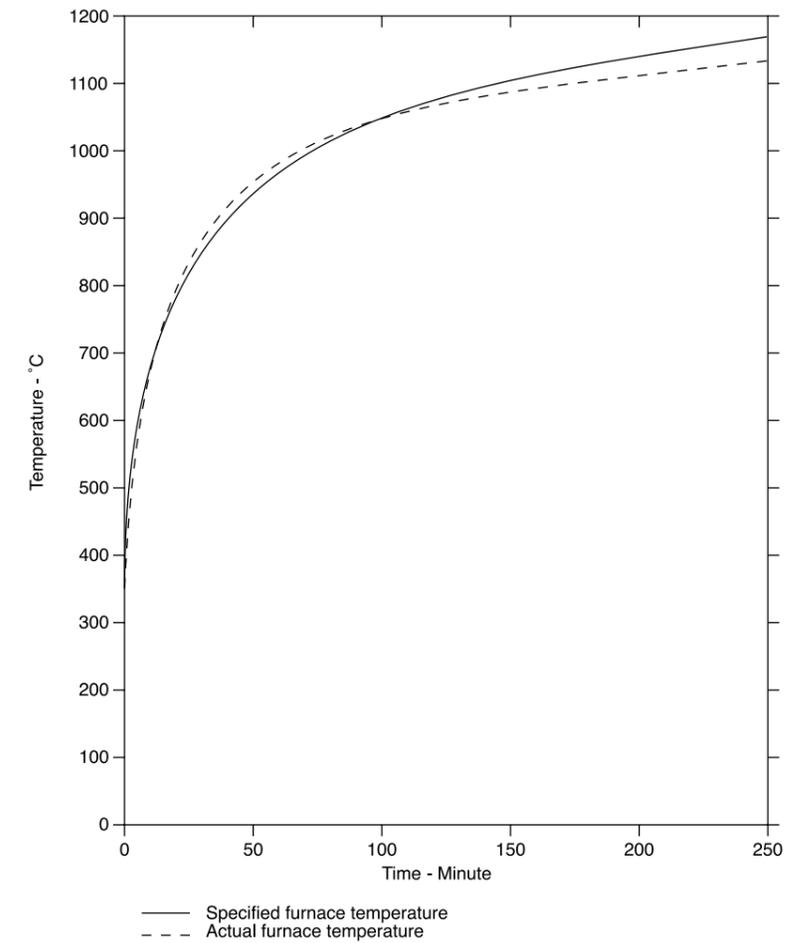


Fire Test BS 476 Part 20 1987

The fire dampers shown have been tested by an independent authority (Warrington Research Centre) according to British Standards 476 Part 20; 1987 for a period of 4 hours.

The time / temperature curve required by this test procedure is shown below, after 4 hours test the SSA retained its integrity with no significant openings being formed.

Fire Test BS 476 Part 20: 1987



ORDER REFERENCE DETAILS



Order Code SSA - 1 - B - 100 - V / 500 x 500 / S01

Type

SSA-1

Construction Variants

A = Blades in Air Stream

B = Blades out of Air Stream

C = Blades out of Air Stream

R = Blades out of Air Stream

(Circular Type)

O = Blades out of Air Stream

(Oval Type)

Variants - Seals

A1

B1

C1

R1

O1

100

110

120

Mounting

V = Vertical Damper

H = Horizontal Damper

Accessories
(See Page 117)

Duct Size

- Square or rectangular
Dimensions 'W' x 'H'
mm.

- Circular 'D' mm dia.
Flat oval 'W' x 'H' mm.

- All damper spigots
are manufactured
down on duct size
to fit inside ductwork
connections.

Specifications

Square or rectangular shutter type fire dampers for the isolation of fire zones in air conditioning systems. Designed and fabricated to maintain integrity and stability for 4 hours when tested to BS 476 Part 20; 1987. The SSA fire dampers consists of perimeter frame case and interlocking shutter type blades. As standard the case is complete with catchplates and constant tension closure springs. Suitable for either rectangular, circular or flat oval ducting and available in high or low pressure/velocity construction. Standard release 74°C fusible link.

Order Example

Standard

Make : SAFID

Type : SSA-1-A-100-500 x 500

Qty : 1

