ALANDALOSIA

FOR AIR OUTLET

CATALOGUE NO 20

FIRE DAMPER

Air Outlet Andalosia

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OUR PRODUCTS

SELECTION GUIDE

1- SQUARE CEILING DIFFUSER
2- ROUND CEILING DIFFUSER
3- SWIRL DIFFUSER
4- PERFORATED CEILING DIFFUSER
5- LINEAR SLOT DIFFUSER
6- LINEAR CEILING DIFFUSER
7- LINEAR BAR GRILL
8- REGISTER
9- FLOOR & PERFPRATED FLOOR GRILL
10- TRANSFER GRILL
11- ACCESS PANEL
12- LOUVER
13- SAND TRAP LOUVER
14- JET NOZZLE
15- BALL JET NOZZLE
16- DRUM JET NOZZLE
17- DISC VALVE
18- NON RETURN DAMPER(SHUTTER)
19- VOLUME DAMPER
20 - FIRE DAMPER
21- SMOKE DAMPER
22- DUCT ACCESS DOOR

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Air Outlet **Andalosia**

INTERTEK

INTRODUCTION

FIRE DAMPERS

Fire dampers are installed in an air-distribution system, and are designed to close automatically upon detection of heat, to interrupt migratory air flow, and to restrict the passage of flame. They are required in order to maintain the required integrity of a fire resistance assembly when ducts penetrate fire-rated walls, partitions, or floors.

Fire dampers are required by either the model building or mechanical codes or National Fire Protection Association (NFPA) 90A,Standard for the Installation of Air Conditioning and Ventilating Systems. .

TYPES

Fire dampers are available in two types,
static fire dampers and dynamic fire dampers.

STATIC FIRE DAMPER

A fire damper that is listed and approved for use in duct systems where the HVAC system blower will be cycled off during an alarm (fan off) , probably turned off by means of an automatic fire detector.
Also referred to as a standard fire damper.

DYNAMIC FIRE DAMPER

A fire damper that is listed and approved for applications where the HVAC system blower may continue to run during an alarm.
Dynamic fire dampers are rated to close against moving air measured in feet-per-minute (fpm)velocity.

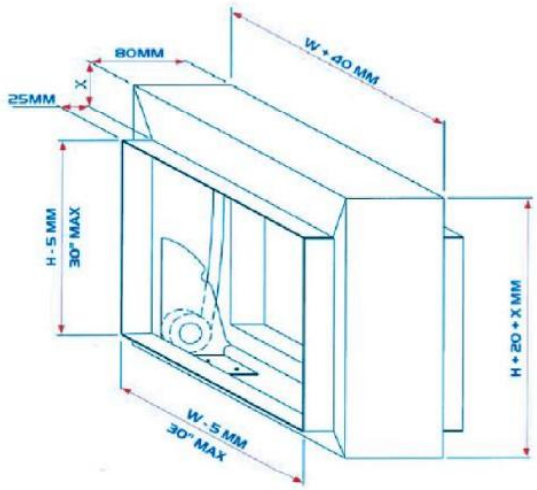
1) DUCT MOUNTED TYPE "

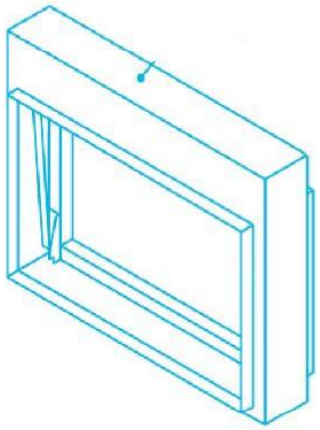
A fire damper with blade and frames out of air stream
It is aprooved for use in walls , floors and partitions with fire rating of 1 $\frac{1}{2}$ hour.

SPECIFICATIONS

FRAME

Formed from GADGE 16 (1.5) galvanized steel sheet .

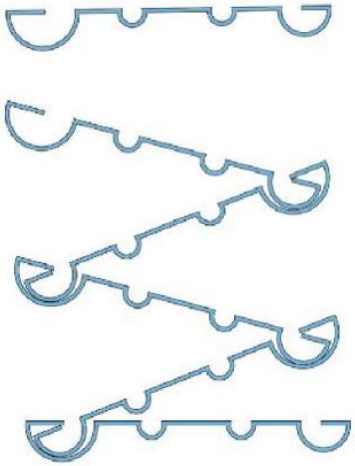




Vertical Mounting

BLADES

The blades are roll formed interlocking blades manufactured from 0.8 mm galvanised steel.
The blades are connected together to work as curtin.



Curtain Blade
8 mm thichness

FUSIBLE LINK

Standard release 74 °C. (165 °F) UL listed.
Other temperatures available on request.
Fusible links are held across the retracted damper blade pack, preventing it from closing at normal temperatures.

MICRO-SWITCH

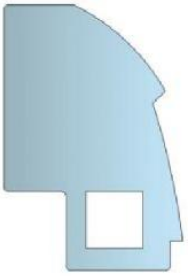
The micro-switch is a single pole, double throw switch with a set of normally open contacts and a set of normally closed contacts.
The micro-switch will trip when the fire damper curtain closes When the switch is tripped, the contacts that close can complete an alarm circuit to a control station that alerts the operator of which fire damper is closed. Also, the contacts that open can shut down the HVAC system blower motor

CLOSURE SPRING

Different stainless steel springs are used to positively close the fire damper curtain when the fusible link opens. Springs are required for all fire dampers used in horizontal applications and all dynamic fire dampers.
They are installed on both sides of the fire damper.

LOCKING RAMP

On a fire damper, the locking ramp catches and locks the leading blade of the curtain when it closes. .



Locking Ramp

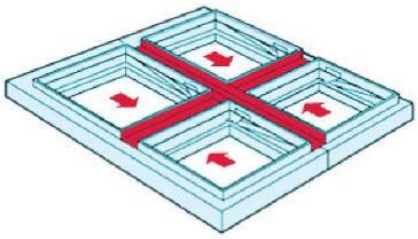
FIRE RATING

Fire dampers with a 1½ hour rating can be installed in fire barriers .

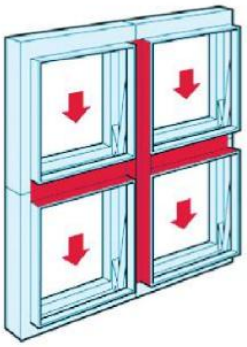
SIZES

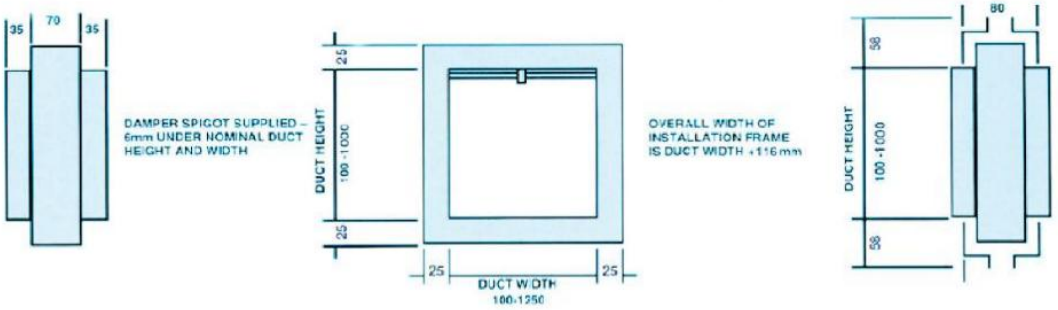
MINIMUM SIZE 100 x 100mm:
MAXIMUM SIZE 1000 x 1000mm, as single section,
Multiple section assembly with unlimited size, where each section operates independently.

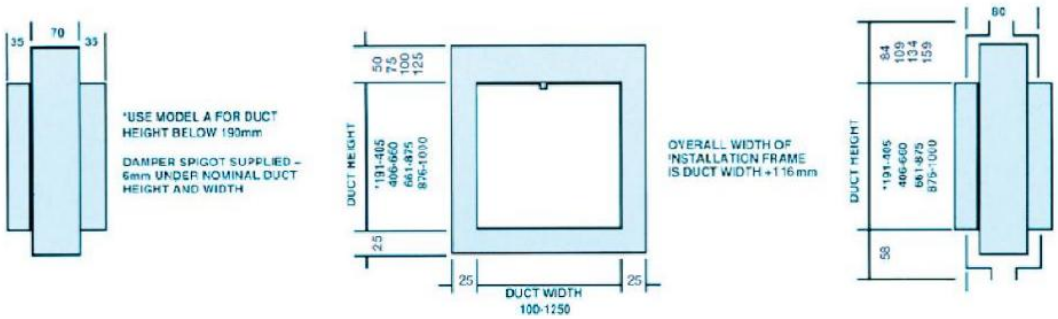
Horizontal



Vertical







2) SLEEVE TYPE "

it is used when the air flow interruption from the stuck of blades in the fire damper frame is not a prime concern or considration . it is easiest and fastest type to install .

SPECIFICATIONS

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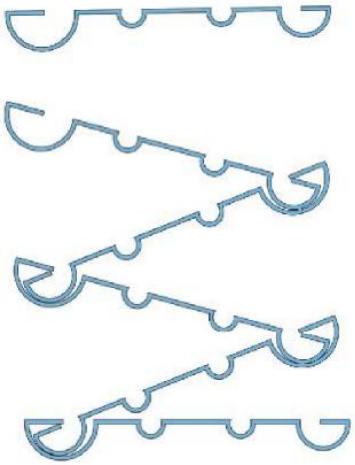
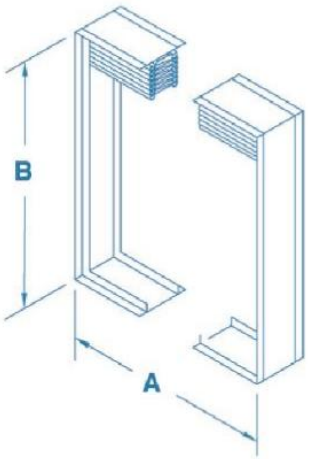
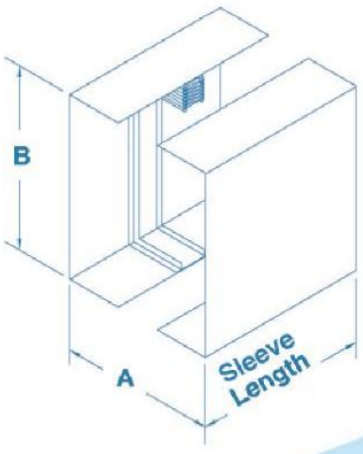


Curtain Blade
8 mm thichness

SLEEVE

Of various lengths and gauges to insure field compliance with UL installation requirement





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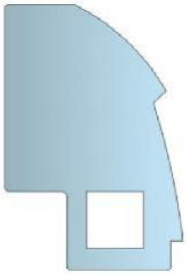

Locking Ramp

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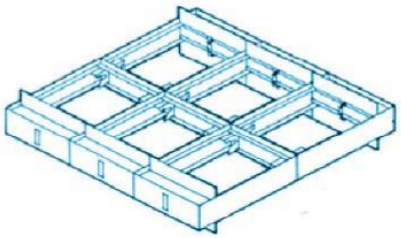
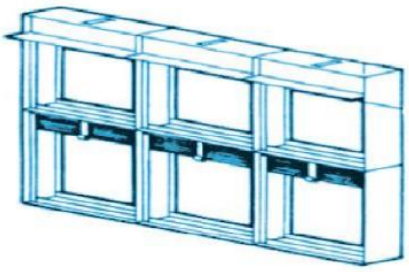


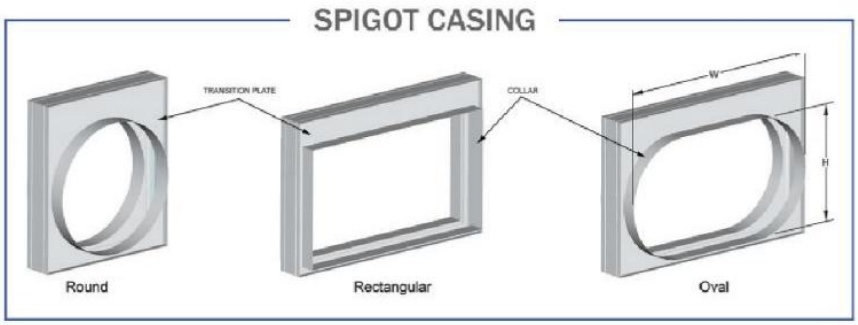
Vertical

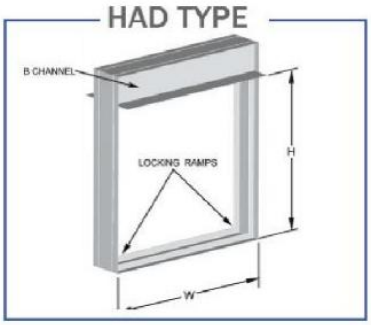


It can be manufactured as the follwing cases :-

1- Hat type : to hide the blade stuck inside the frame .

2- Spigotted Casing:
The spigotted casing with continuously welded corners and spigot connections, makes these dampers suitable for inclusion into air distribution systems to these galvanised casings are manufactured with either Square, Rectangular or Circular duct connections.





MAINTENANCE

1. Check interior and exterior sides of dampers for any major defects or material disintegration, rust, wear, corrosion, or any signs of damage that may prevent proper functioning of damper.
2. Make sure all items linked to damper are in good condition, such as closure spring and fusible links. If part is inoperable, repair or replace part.
3. Blades should be visually checked through their complete cycle for defects, binding or misalignment.
Check blades and see that they are fully closed when operated.
4. Move blade package back to its open position and replace the fusible link.

TESTING PROCEDURE

1. With the fusible link intact, heat or remove the link with a temperate heat source. Allow blade package to drop.
(Be sure to keep hands out of path of blades and blade package)
2. After testing procedure check that all blades are completely closed.
(Damper should be operated under normal airflow conditions).
3. Record date of testing procedure and label on a sheet.
4. Repeat testing procedure on a set periodic routine:

INSTALLATION

Fire dampers are required in the penetrations of fire-rated walls, floors and partitions. All fire dampers must be sleeved and all sleeves must be secured in place with retaining angles (and break away connections when attached to duct systems).