LVH-A Series Intumescent Fire Dampers
Alternative Mounted Systems

1, 2 & 4 hour Fire Rating

For use in vertical and horizontal fire barriers

COMPLETE

DESIGN

FREEDOM

General

Lorient LVH-A series (**A**lternative mounted systems) intumescent fire damper installations introduce a new and exciting way of incorporating fire dampers into wall, floor and ceiling penetrations. The Lorient LVH-A series intumescent fire damper unit is not supplied with a conventional heavy gauge steel casing and integral mounting flanges. Instead, the slim line and light weight unit is built in or retrofit into the wall, floor and ceiling itself. The reticulating ducting and or cover grilles are fixed directly to the face of the wall and not to the damper assembly itself. This system still requires duct breakaway joints as per AS1682.2. This new and novel approach can allow for better coordination of onsite trades.

NEW angle free system available for direct connection to sheet metal risers saves time and ceiling space. For Do-it-yourself casings refer to the accessories section of the catalogue.

Lorient LVH-A series intumescent fire damper units have been fire tested in to AS1530.4 and air leakage tested to AS1682.1 to comply with the requirements of AS/NZS 1668.1.

KEY FEATURES

- New and innovative design
- Slim line design, only 44 mm thick
- No moving parts
- NEW angle free systems (for direct connection to sheet metal risers)
- Ideal for retrofit and upgrade applications
- Helps to coordinate on site trades
- Can be cast in-situ or retrofit
- Reduced maintenance (no Level 2 operational checks as per AS1851.6)
- Remote visual inspection option

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LVH-A Series Intumescent Fire Dampers

Description
Lorient intumescent fire dampers are designed to seal penetrations in fire barriers provided for movement of air via ducted or naturally ventilated means.

These intumescent fire dampers incorporate a number of parallel intumescent slats, reinforced with impact resistant steel edging, housed in a rigid steel frame. The LVH-A series fire damper is simply cast in or retrofit into the wall and floor and fixed in using retaining angles or tabs.

Function
There are no moving parts in a Lorient intumescent fire damper. Instead, fixed, evenly spaced parallel slats containing intumescent material swell when exposed to heat. A sudden increase in temperature resulting from the presence of hot flames or gases will cause the slats to swell (intumesce) to many times their original thickness, fusing together to provide an effective barrier to the passage of fire and hot smoke. Lorient LVH series intumescent fire dampers also provide a high degree of insulation from radiant heat, protecting any nearby combustible materials from ignition.

Design Freedom
The slimline and lightweight construction characteristics of these Lorient products gives the designer ultimate freedom to solve the most challenging fire rated scenarios. These dampers can be fixed within the wall, on the outside of the wall or floor, on top of or under a floor slab, or just about anywhere!!

For this reason , the Lorient LVH-A intumescent alternative mounted fire damper systems are being extensively used for both new building and fire upgrades of existing buildings.
An index of approved alternative mounted systems are included within this section of the catalogue.

Reliability
Lorient LVH series intumescent fire dampers are trouble free in operation which results in increased system reliability. The absence of moving parts alleviates concerns relating to clearances, corrosion and dust build up which may render a conventional mechanical type damper inoperative. Extensive fire testing has shown that the orientation does not effect fire performance and the symmetrical construction allows bi-directional air flow.

Installation Cost Savings
Strict perimeter clearances and associated hazardous fibrous packing materials are not required for the LVH-A series fire damper installations. Any clearances around the damper unit are sealed with Lorient intumescent mastic.

No moving parts and bi-directional air flow means that the LVH series fire damper can be installed in any orientation in both floors and walls. Once installed there are no operational checks needed. These benefits provide a quick, trouble free installation and commissioning.

Maintenance
Maintenance routines are usually conducted in accordance with AS1851.6. The latest version of the standard has made significant concessions for Level 2 type inspections for intumescent fire dampers, whereby exclusion of operational checks has been allowed due to the absence of any moving parts.

Design Specification
"All fire dampers shall be Lorient LVH-A series intumescent fire dampers. The installation shall be System XX and must comply with the requirements AS/NZS1668.1 and the air leakage test of AS1682.1. Equivalent fire dampers must allow bi-directional airflow and have no moving parts."

Sizing (All sizes are available)
Single module

max	600 x 600 mm

Multiple modules:

max(walls)	1200 x 600 mm
max(floors)	1200 x 600 mm

For larger sizes refer to the LVH-W & LVH-F systems in section 3 and 4

Note
1. When ordering, specify exact size required
2. No extra allowance for thermal expansion is needed as operation of intumescent damper is not impeded by distortion.
3. Hollow Block walls - LVH-W series intumescent fire dampers must be used in installations for this wall type.

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LVH-A Series Intumescent Fire Dampers

Construction

Damper casing:
No heavy gauge casing.

Intumescent slats:
Evenly spaced, fixed parallel aerodynamic slats, with a 20 mm pitch.

Fixing method:
Simple angles, tabs or Z sections depending on the system chosen.

Bearings/linkages:
None.

Fusible link:
None.

Technical Details

Operation:
A sudden increase in temperature resulting from the presence of flames or hot gases causes the intumescent slats to swell (intumesce) to many times their original thickness, fusing together to provide a solid barrier to the passage of fire and hot smoke.

Damper closing time:
Lorient LVH series intumescent fire dampers are fully closed before 120 seconds as required by AS/NZS1668.1.

Maximum air velocity:
As there are no moving parts in the Lorient LVH series intumescent fire dampers, air velocity will not impede their operation. In terms of AS1682.2 clause 5.1.4 there is no limiting velocity for their effective operation during fire conditions.

Air-flow orientation:
Bi-directional air flow allows the Lorient LVH series fire damper assemblies to be installed in any orientation.

Pressure drop:
Although Lorient LVH series intumescent fire dampers have slats in the air flow, their aerodynamic design and pitch results in minimal pressure drops as shown by independent testing. The method of using free area to calculate pressure drops yield very conservative results. Extensive pressure drop data can be found in Section 9 of this catalogue.

Fire testing:
LVH-A series fire dampers have been fire tested to AS1530.4 and approved for use in most wall, floor and ceiling types. Approval numbers and maximum fire ratings appropriate to the system are referenced on each installation instruction.

Smoke Leakage testing:
LVH-A series fire dampers provide an almost hermetic seal when closed. Extensive smoke leakage tests have been successfully conducted in accordance with AS1682.1 clause 5.3 after fire exposure and to ISO10294-1 during fire exposure.

Noise testing:
LVH-A series fire dampers have been tested by Noise Control & Research Laboratories for dB noise levels at various design velocities. Results are available on request.

Dust & Lint testing:
Extensive testing has been performed at Mechlab, Australia to conclude that excessive dust and lint will not accumulate in the LVH-A series damper in the most onerous environments. Tests were performed at 90% relative humidity (bathroom exhaust scenario) for various dust and lint classifications at many design velocities. The full report is available on request.

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LVH-A Series Intumescent Fire Dampers

Index of Alternative mounted systems

System no.

Walls

AW1.	**Masonry wall with Angle fixings**
AW2.	**Masonry wall with Tab plate fixings**
AW3.	**Masonry wall with Z section fixings**
AW4.	**Fire rated plasterboard wall with Angle fixings**
AW5.	**Fire rated plasterboard wall with Tab plate fixings**
AW6.	**Fire rated plasterboard wall with Z section fixings**
AW7.	**Masonry wall face fixed with Angle fixings**
AW8.	**Masonry wall Modular system with Angle Fixings**
AW9.	**Masonry wall Modular system with Z section fixings**
AW10.	**Shaftwall with Sheetmetal Riser system (angles free system)**
AW11.	**Masonry wall with Sheetmetal Riser system (angles free system)**
AW12.	**Air Transfer damper for natural ventilation or pressure relief.**

Floors

AF1.	**Masonry floor with Angle fixings**
AF2.	**Masonry floor with Z Section fixings**
AF3.	**Fixing to soffit of Masonry Floors with Angle Fixings**
AF4.	**Fixing on top of Masonry Floors with Angle Fixings**
AF5.	**Masonry floor modular system**

Independent duct connection alternatives

BA1.	**TDF connection directly to wall**
BA2.	**Angle flange connection directly to wall**
BA3.	**Channel connection directly to wall**

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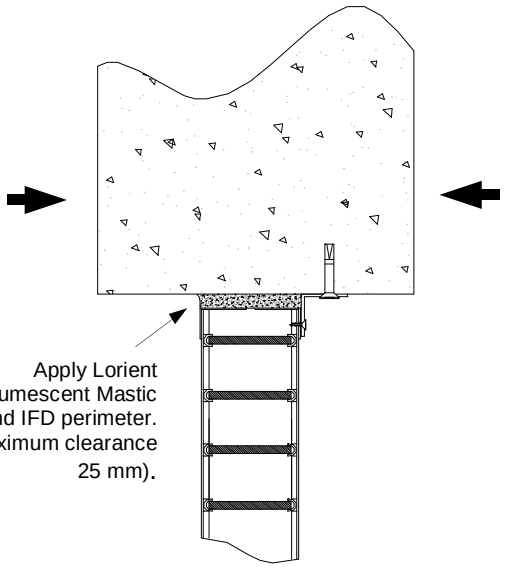
LVH-A series installation instruction

Masonry Wall with Angle Fixings

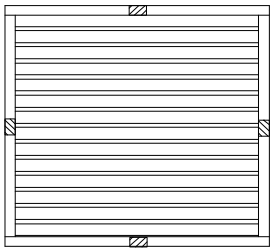
SYSTEM
AW1

FRL
-/120/-

APPROVAL(S)
FCO-1854

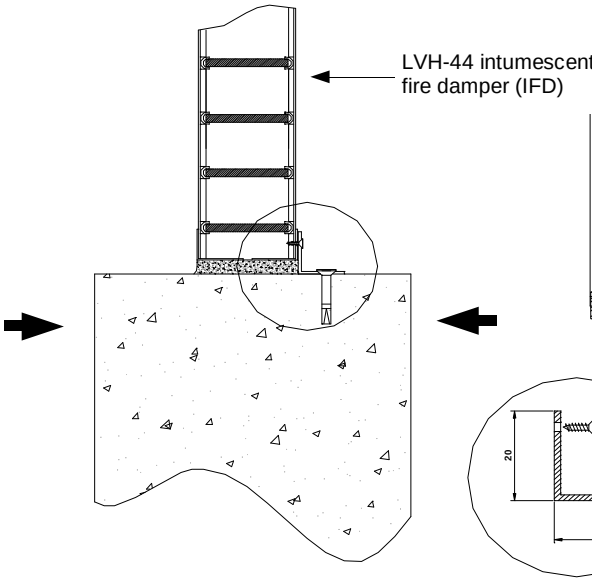


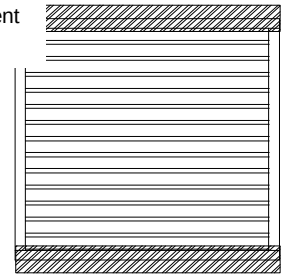
Independent
duct fixing complete with breakaway joints required. See B series system data sheets in this section.



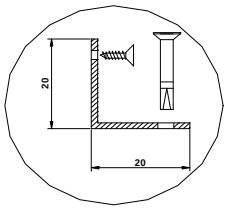
Fixing option 1
20mm wide angle tabs, central to all four sides or at 200mm maximum centres

OR





Fixing option 2
Full width angles top and bottom only with 200mm fixing centres



FIXING ANGLE
(by others)
20 x 20 x 1mm thick minimum galvanized steel angles fixed to damper unit with self drilling screws and to wall with masonry anchors.

1. Fix each mounting angle onto the LVH-44 IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres to **one side only**.
2. Insert IFD into masonry wall opening. (note: Lorient's IFD does not have to be centrally positioned in the opening).
3. Fix each angle to the masonry wall with a minimum of two M6 x 40mm expanding masonry anchors at 200mm centres.
4. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD as shown (note: maximum clearance of 25mm applies)
5. Connect ductwork (or cover grille) directly to wall using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
6. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent visual maintenance inspections.

Note: The maximum size for this method of installation is 600 x 600mm. Larger sizes can be used with a different mounting detail. Please see AW8 system data sheet.

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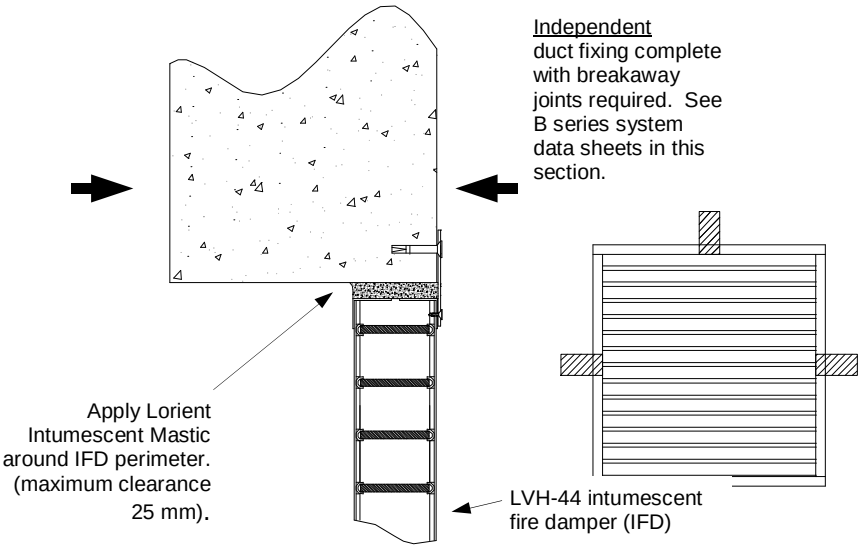
LVH-A series installation instruction

Masonry Wall with Tab Plate Fixings

SYSTEM
AW2

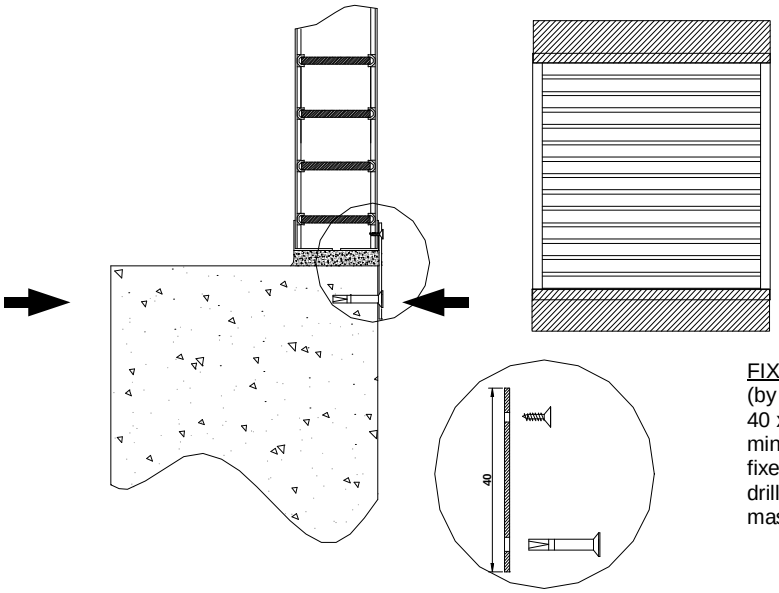
FRL
-/120/-

APPROVAL(S)
FCO-1854



Fixing option 1
20mm wide tabs, central to all four sides or at 200mm maximum centres

OR



Fixing option 2
Full width tabs top and bottom only with 200mm fixing centres

FIXING TAB
(by others)
40 x 20 x 1mm thick minimum galvanized steel tabs fixed to damper unit with self drilling screws and to wall with masonry anchors.

1. Fix each mounting tab onto the LVH-44 IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres to **one side only**.
2. Insert IFD into masonry wall opening. (note: Lorient's IFD does not have to be centrally positioned in the opening).
3. Fix each tab to the masonry wall with a minimum of two M6 x 40mm expanding masonry anchors at 200mm centres.
4. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD as shown (note: maximum clearance of 25mm applies).
5. Connect ductwork (or cover grille) directly to wall using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
6. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent visual maintenance inspections.

Note: The maximum size for this method of installation is 600 x 600mm. Larger sizes can be used with a different mounting detail. Please see AW8 system data sheet.

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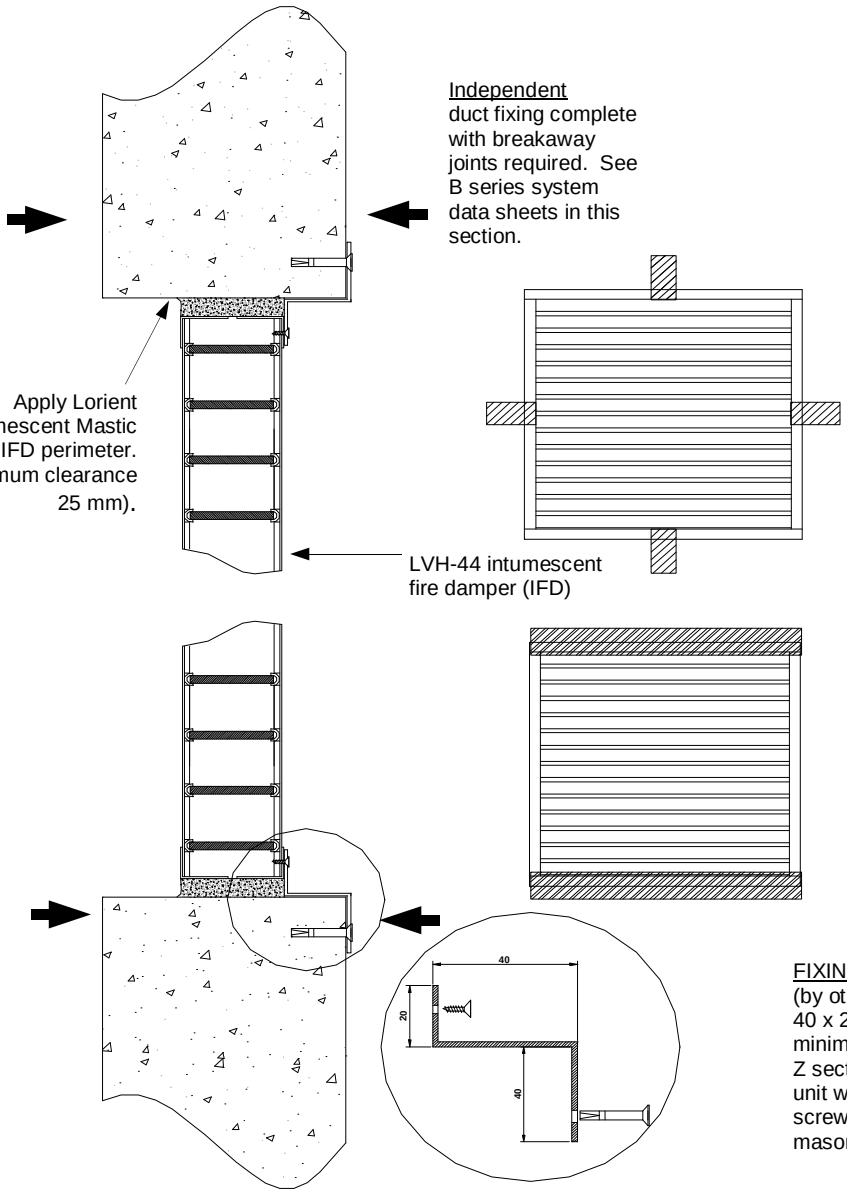
LVH-A series installation instruction

Masonry Wall with Z section fixings

SYSTEM
AW3

FRL
-/120/-

APPROVAL(S)
FCO-1854



1. Fix each mounting Z section onto the LVH-44 IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres to **one side only**.
2. Insert IFD into masonry wall opening. (note: Lorient's IFD does not have to be centrally positioned in the opening).
3. Fix each Z section to the masonry wall with a minimum of two M6 x 40mm expanding masonry anchors at 200mm centres.
4. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD as shown (note: maximum clearance of 25mm applies).
5. Connect ductwork (or cover grille) directly to wall using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
6. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent visual maintenance inspections.

Note: The maximum size for this method of installation is 600 x 600mm. Larger sizes can be used with a different mounting detail. Please see AW9 system data sheet.

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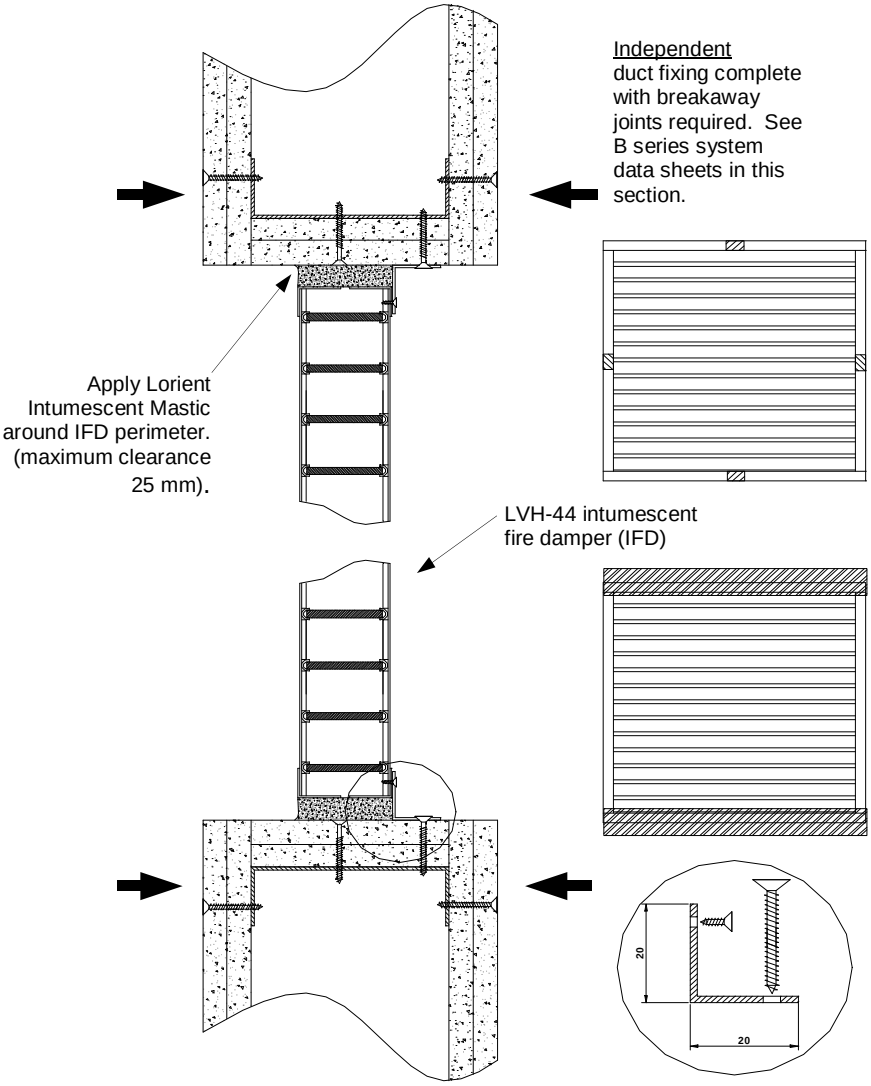
LVH-A series installation instruction

Fire rated plasterboard wall with Angle Fixings

SYSTEM
AW4

FRL
-/120/-

APPROVAL(S)
FCO-1854



Fixing option 1
20mm wide angles, central to all four sides or at 200mm maximum centres

OR

Fixing option 2
Full width angles top and bottom only with 200mm fixing centres

FIXING ANGLE
(by others)
20 x 20 x 1mm thick minimum galvanized steel angles fixed to damper unit with self drilling screws and to wall with plasterboard screws.

1. Fix each mounting angle onto the LVH-44 IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres to **one side only**.
2. Insert IFD into fire rated plasterboard wall opening. (note: Lorient's IFD does not have to be centrally positioned in the opening).
3. Fix each angle to the fire rated plasterboard wall with a minimum of two 7g x 50mm bugle head self drilling screws at 200mm centres.
4. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD as shown (note: maximum clearance of 25mm applies).
5. Connect ductwork (or cover grille) directly to wall using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
6. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent visual maintenance inspections.

Other plasterboard wall systems available (including shaftwalls) - contact our office for details.

Note: The maximum size for this method of installation is 600 x 600mm. Larger sizes can be used with a different mounting detail. Please see AW8 system data sheet.

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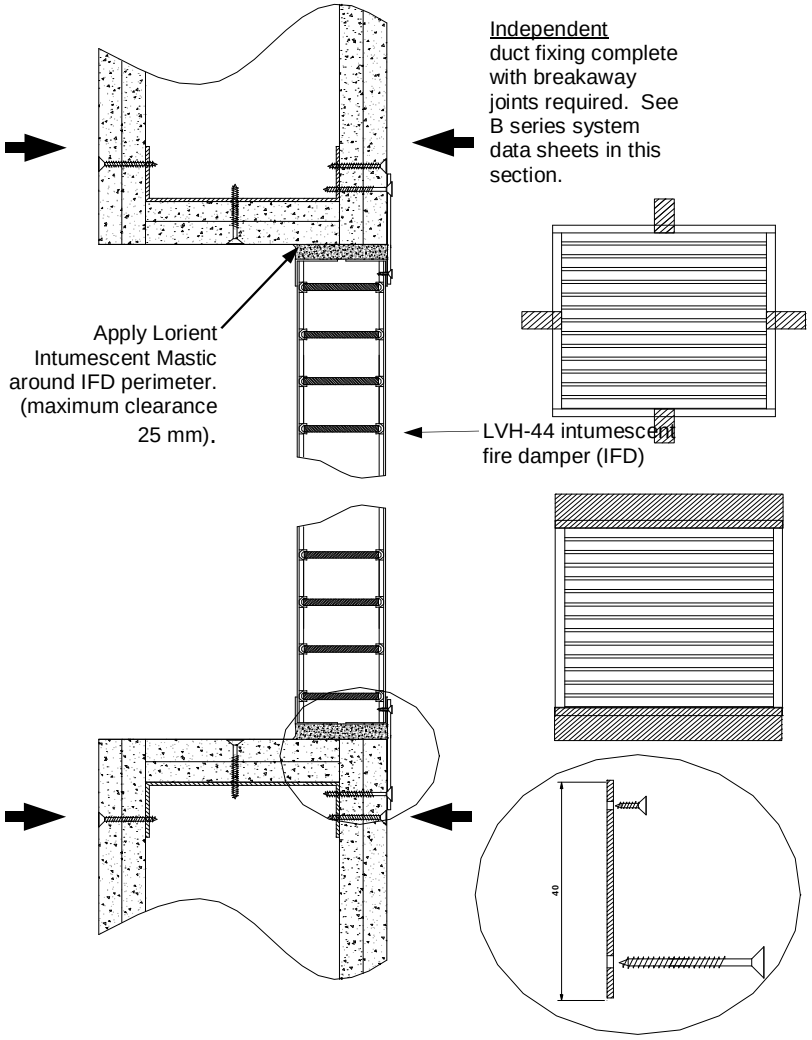
LVH-A series installation instruction

Fire rated plasterboard wall with Tab Plate Fixings

SYSTEM
AW5

FRL
-/120/-

APPROVAL(S)
FCO-1854



Fixing option 1
20mm wide tabs, central to all four sides or at 200mm maximum centres

OR

Fixing option 2
Full width tabs top and bottom only with 200mm fixing centres

FIXING TAB
(by others)
40 x 20 x 1mm thick minimum galvanized steel tabs fixed to damper unit with self drilling screws and to wall with plasterboard screws.

1. Fix each mounting tabs onto the LVH-44 IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres to **one side only**.
2. Insert IFD into fire rated plasterboard wall opening. (note: Lorient's IFD does not have to be centrally positioned in the opening).
3. Fix each tab to the fire rated plasterboard wall with a minimum of two 7g x 50mm bugle head self drilling screws at 200mm centres.
4. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD as shown (note: maximum clearance of 25mm applies).
5. Connect ductwork (or cover grille) directly to wall using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
6. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent visual maintenance inspections.

Other plasterboard wall details available (including shaftwalls) - contact our office for details.

Note: The maximum size for this method of installation is 600 x 600mm. Larger sizes can be used with a different mounting detail. Please see AW8 system data sheet.

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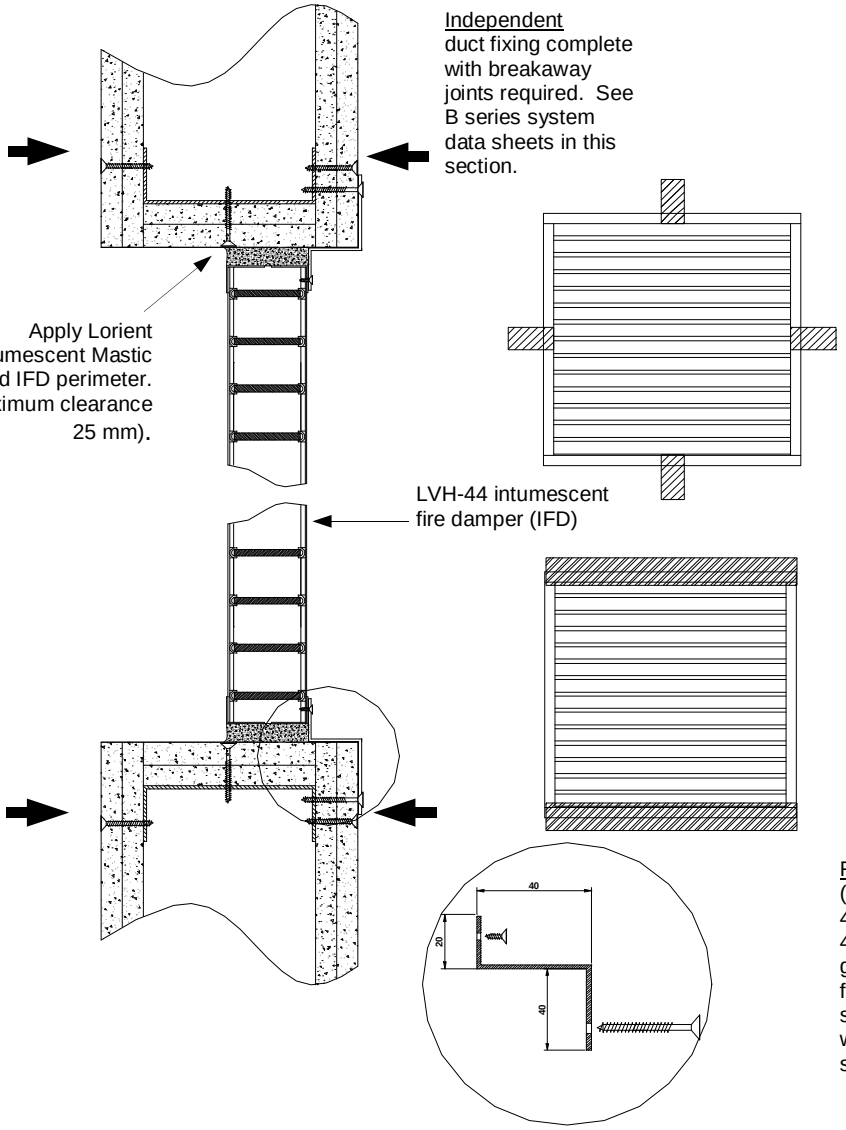
LVH-A series installation instruction

Fire rated plasterboard wall with Z section Fixings

SYSTEM
AW6

FRL
-/120/-

APPROVAL(S)
FCO-1854



1. Fix each Z section onto the LVH-44 series IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres to **one side only**.
2. Insert IFD into fire rated plasterboard wall opening. (note: Lorient's IFD does not have to be centrally positioned in the opening).
3. Fix each Z section to the fire rated plasterboard wall with a minimum of two 7g x 50mm bugle head self drilling screw at 200mm centres.
4. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD as shown (note: maximum clearance of 25mm applies).
5. Connect ductwork (or cover grille) directly to wall using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
6. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent visual maintenance inspections.

Other plasterboard wall details available (including shaftwalls) - contact our office for details.

Note: The maximum size for this method of installation is 600 x 600mm. Larger sizes can be used with a different mounting detail. Please see AW9 system data sheet.

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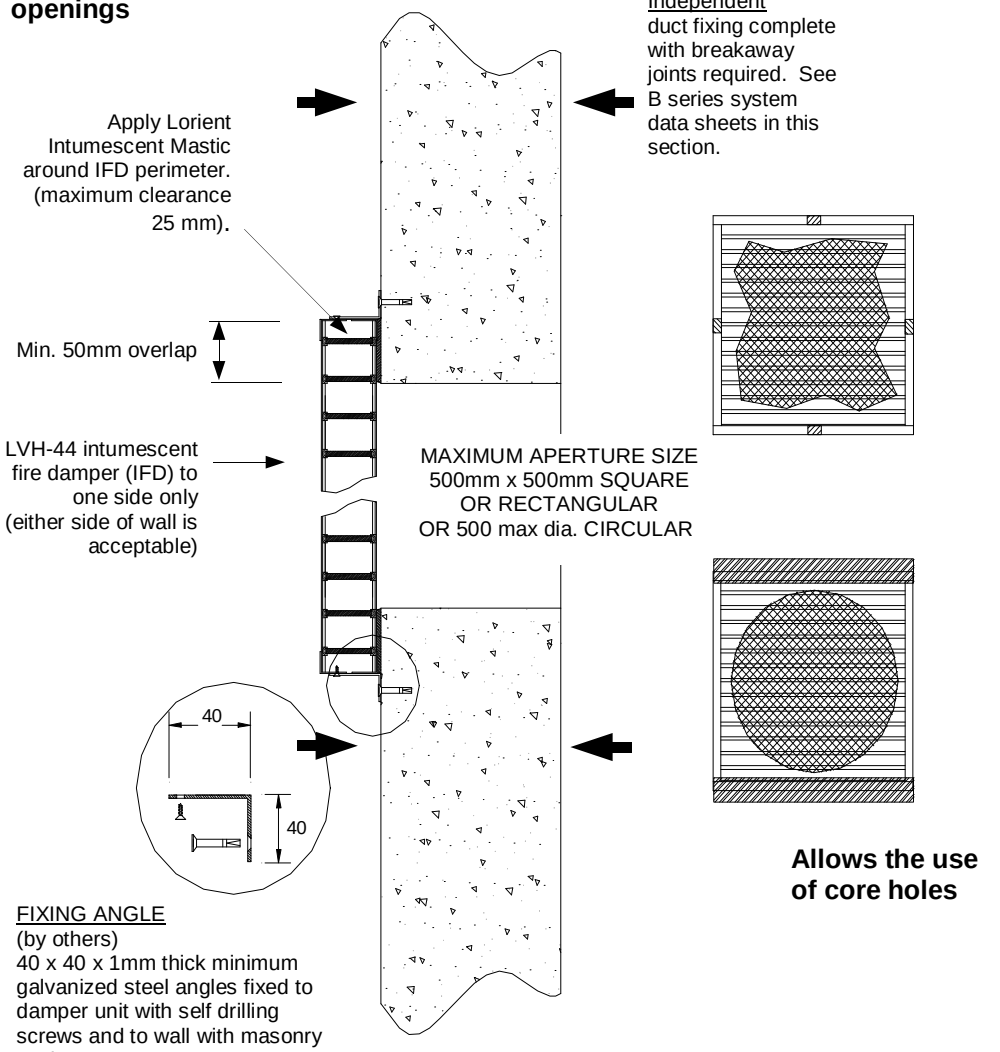
Masonry wall face fixed with angle fixings

SYSTEM
AW7

FRL
-/120/-

APPROVAL(S)
FCO-1740

Ideal for fire rating poorly prepared openings



Fixing option 1
20mm wide angles, central to all four sides or at 200mm maximum centres

OR

Fixing option 2
Full width angles top and bottom only with 200mm fixing centres

Allows the use of core holes

1. Measure penetration ensuring damper is 100mm larger than penetration in masonry wall.
2. Fix each mounting angle onto the LVH-44 IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres.
3. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD between the face of the IFD and the wall.
4. Mount IFD onto masonry wall opening.
5. Fix each angle to the masonry wall with a minimum of two M6 x 40mm expanding masonry anchor at 200mm centres.
6. Connect ductwork (or cover grille) directly to wall using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets)
7. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent visual maintenance inspections.

Note: The maximum size IFD for this system is 600 x 600mm. (max opening of 500 x 500mm)

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(*Version 3.0)*

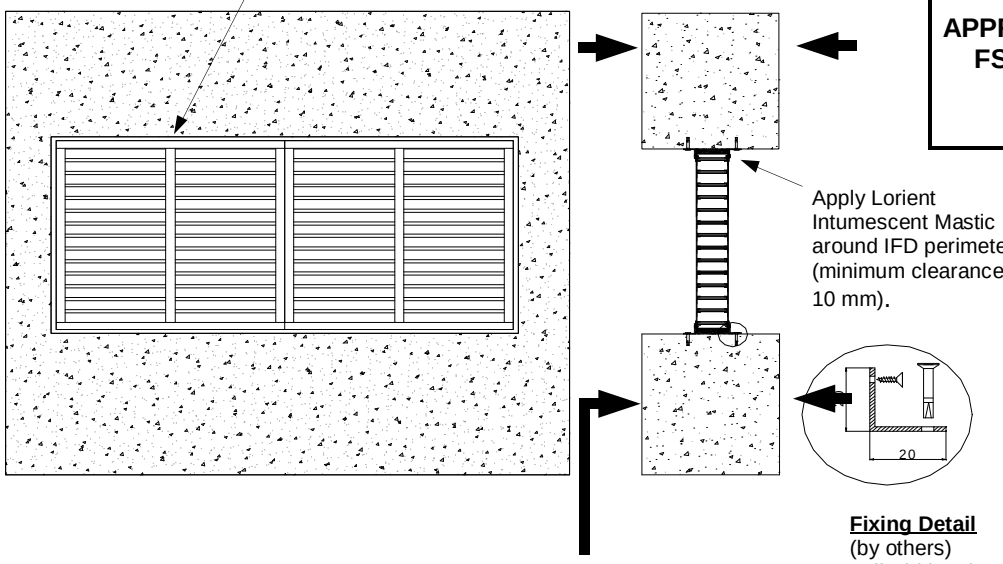
LVH-A series installation instruction

Masonry wall modular system with angle fixings

SYSTEM
AW8

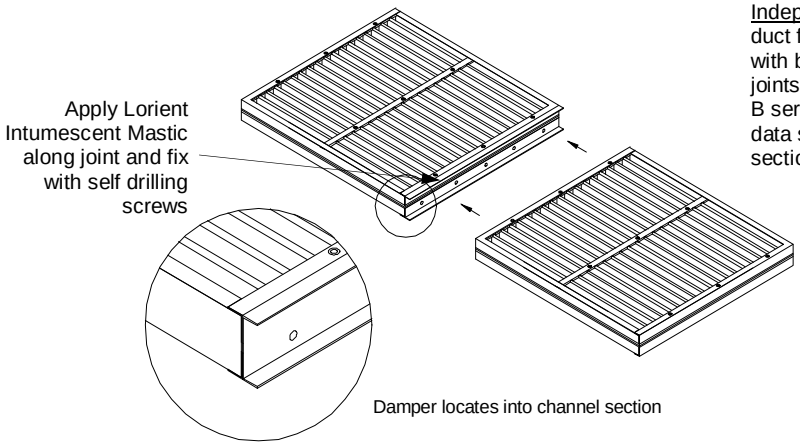
FRL
-/120/-

APPROVAL(S)
FSV-0750



Fixing Detail
(by others)
Full width galvanised steel angles (20 x 20 x 1mm) around perimeter of damper on both sides with 200mm fixing centres.

Independent duct fixing complete with breakaway joints required. See B series system data sheets in this section.



1. Slide the IFD modules together ensuring a bead of Lorient Intumescent Mastic is used along the joint. Screw fix using 10g x 22mm wafer head self drilling screws at 200mm centres.
2. Fix each mounting angle onto the LVH-44 IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres to **both sides of modular damper**.
3. Insert Modular IFD into masonry wall opening. (note: Lorient's IFD does not have to be centrally positioned in the opening).
4. Fix each angle to the masonry wall with a minimum of two M6 x 40mm expanding masonry anchors at 200mm centres.
5. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD as shown (note: maximum clearance of 25mm applies).
6. Connect ductwork (or cover grille) directly to wall using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
7. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent maintenance inspections.

Note: The maximum size for this method of installation is 1200 x 600mm. Larger sizes can be used with a different mounting detail. Please see LVH-W series.

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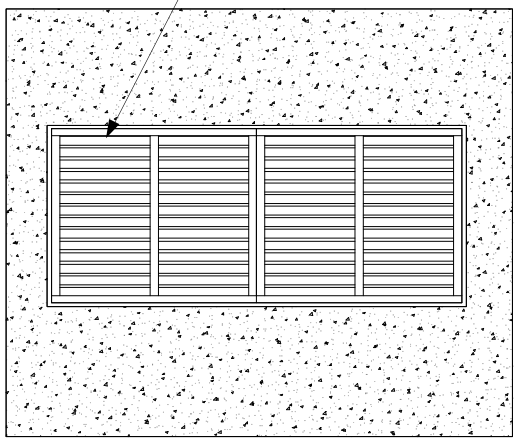
LVH-A series installation instruction

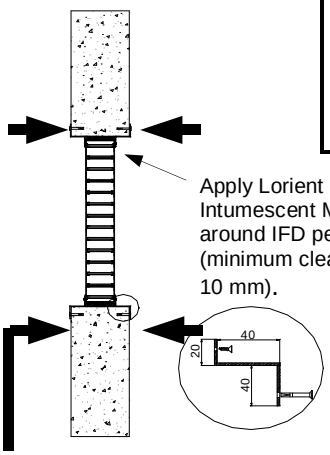
Masonry wall modular system with Z section fixings

SYSTEM
AW9

FRL
-/120/-

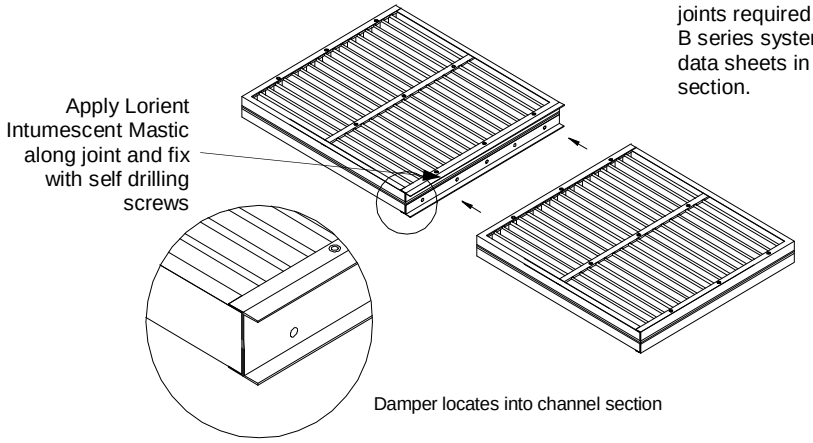
APPROVAL(S)
FSV-0750





Independent
duct fixing complete with breakaway joints required. See B series system data sheets in this section.

Fixing Detail
Full width galvanised steel Z sections (40 x 20 x 1mm thick minimum) around both sides of damper perimeter with 200mm fixing centres.



1. Slide the IFD modules together ensuring a bead of Lorient Intumescent Mastic is applied along the joint. Screw fix using 10g x 22mm wafer head self drilling screws at 200mm centres.
2. Fix each Z section onto the LVH-44 series IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres to **both sides of modular damper**.
3. Insert IFD into masonry wall opening. (note: Lorient's IFD does not have to be centrally positioned in the opening).
4. Fix each Z section to the masonry wall with a minimum of two M6 x 40mm expanding masonry anchors at 200mm centres.
5. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD as shown. (note: maximum clearance of 25mm applies).
6. Connect ductwork (or cover grille) directly to wall using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets)
7. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent visual maintenance inspections.

Note: The maximum size for this method of installation is 1200 x 600mm. Larger sizes can be used with a different mounting detail. Please see LVH-W series.

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LVH-A series installation instruction

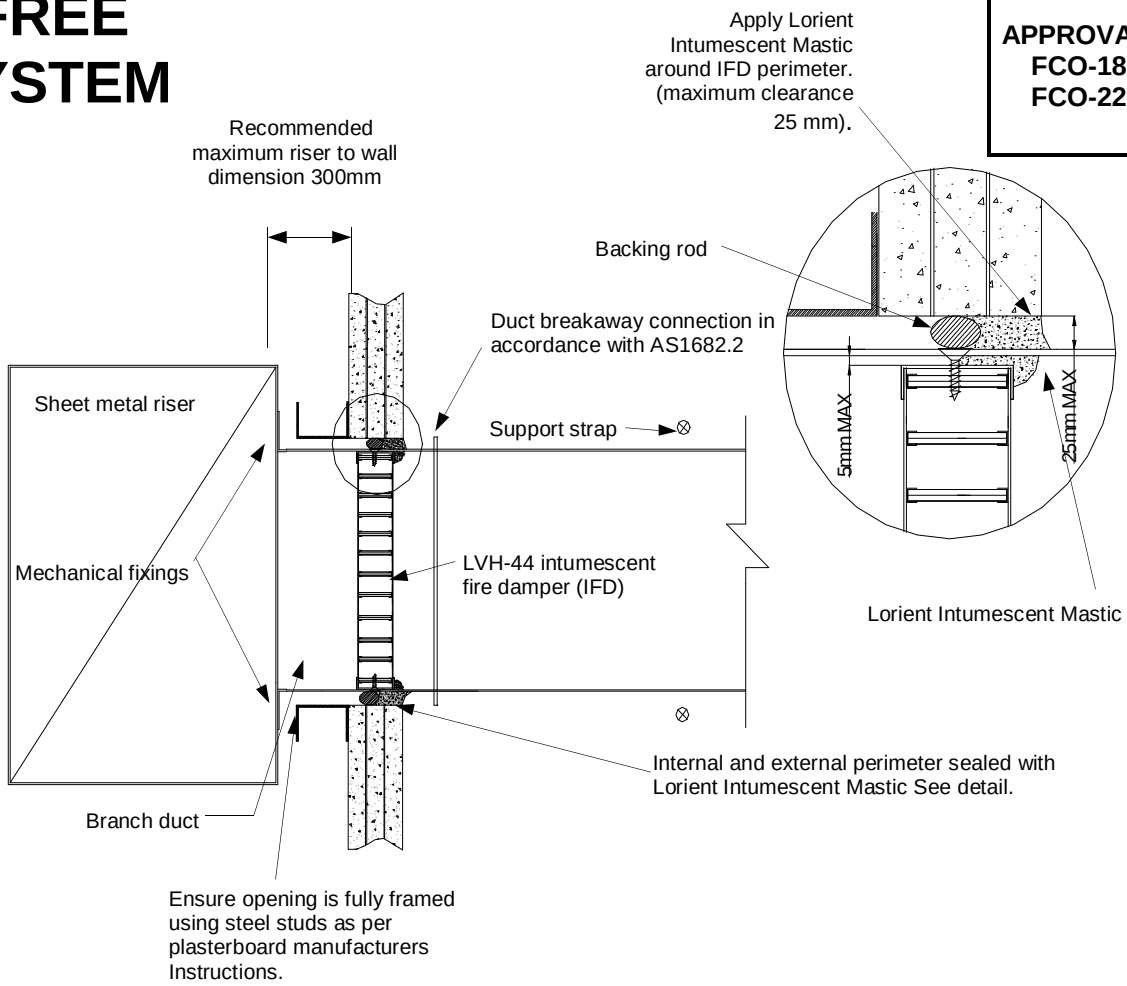
Sheet metal riser system with fire rated plasterboard wall

SYSTEM
AW10

FRL
-/120/-

APPROVAL(S)
FCO-1869
FCO-2276

ANGLE FREE SYSTEM



1. Ensure opening is fully framed using steel studs as per plasterboard manufacturers instructions.
2. Insert LVH-44 IFD into the branch duct opening. (note: Lorient's IFD does not have to be centrally positioned in the wall opening).
3. Fix the IFD into the branch duct using 10g x 22mm wafer head self drilling screws at 200mm centres **on two opposite sides.**
4. Apply a bead of Lorient Intumescent Mastic internally in the branch duct around the perimeter of the IFD (note: maximum clearance of 5mm between the IFD and the branch duct).
5. Fix label(s) supplied in prominent position(s) for identification during subsequent maintenance inspections.
6. Connect the branch duct complete with Lorient IFD directly to sheet metal riser using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
7. Apply a bead of Lorient Intumescent Mastic around the external perimeter of the branch duct in between the shaft wall (note: maximum clearance of 25mm applies here).

Note: The maximum size for this method of installation is 300 x 300mm. Please contact our office for other sizes.

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LVH-A series installation instruction

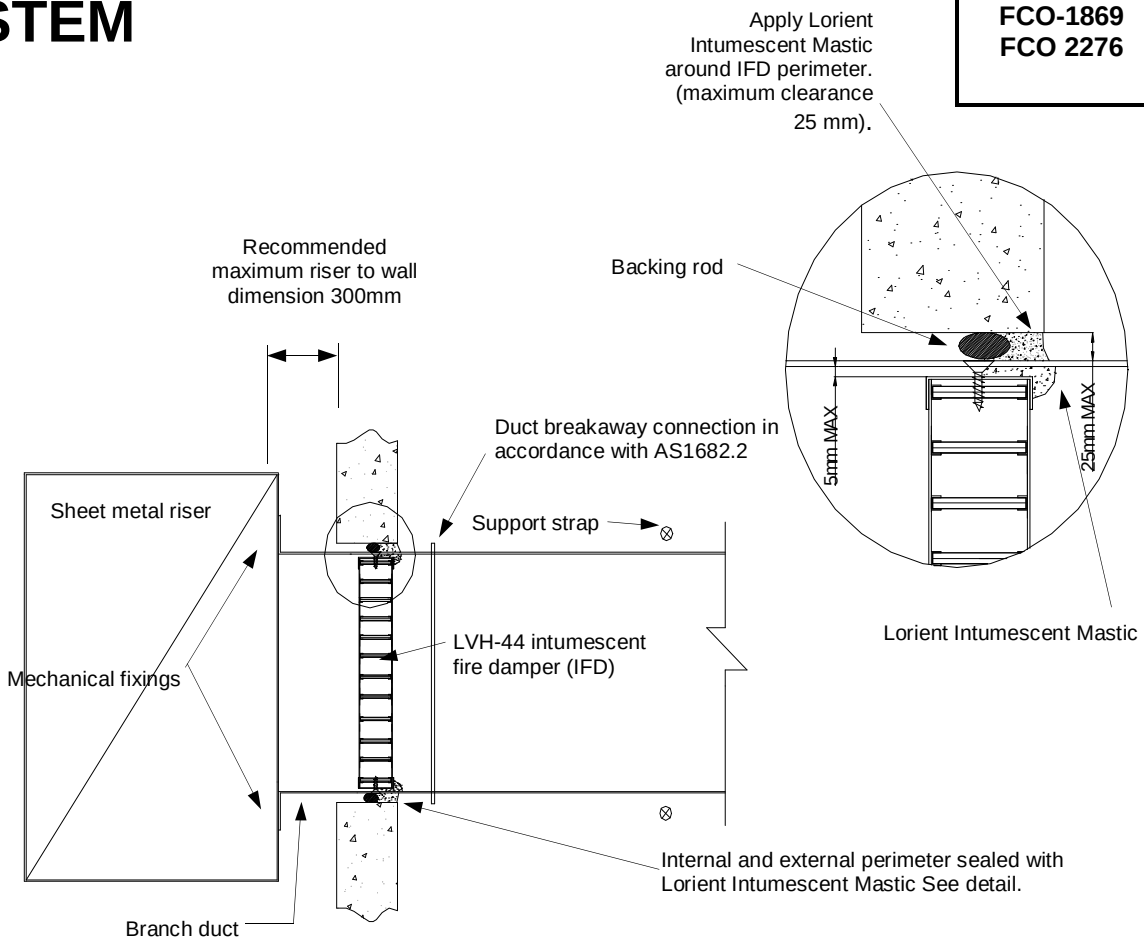
Sheet metal riser system with masonry wall

SYSTEM
AW11

FRL
-/120/-

APPROVAL(S)
FCO-1869
FCO 2276

ANGLE FREE SYSTEM



1. Insert LVH-44 IFD into the branch duct opening. (note: Lorient's IFD does not have to be centrally positioned in the wall opening).
2. Fix the IFD to the branch duct using 10g x 22mm wafer head self drilling screws at 200mm centres **on two opposite sides.**
3. Apply a bead of Lorient Intumescent Mastic internally in the branch duct around the perimeter of the IFD (note: maximum clearance of 5mm between the IFD and the branch duct).
4. Fix label(s) supplied in prominent position(s) for identification during subsequent maintenance inspections.
5. Connect the branch duct complete with Lorient IFD directly to sheet metal riser using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
6. Apply a bead of Lorient Intumescent Mastic around the external perimeter of the branch duct in between the shaft wall (note: maximum clearance of 25mm applies here).

Note: The maximum size for this method of installation is 300 x 300mm. Please contact our office for other sizes.

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LORIENT

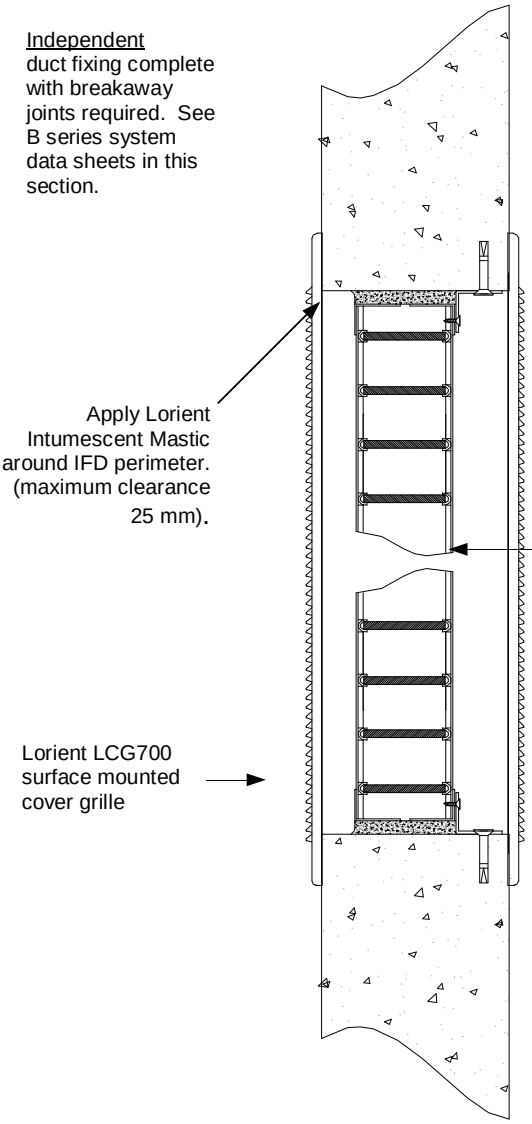
LVH-A series installation instruction

Air transfer damper for natural ventilation or pressure relief

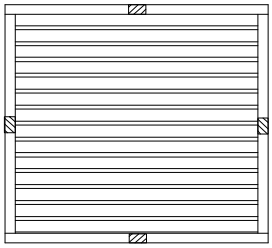
SYSTEM
AW12

FRL
-/120/-

APPROVAL(S)
FCO-1854

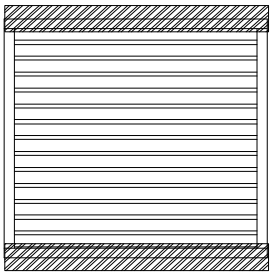


Ideal for slender wall thicknesses

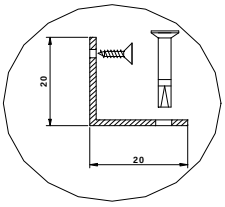


Fixing option 1
20mm wide angle tabs, central to all four sides or at 200mm maximum centres

OR



Fixing option 2
Full width angles top and bottom only with 200mm fixing centres



FIXING ANGLE
(by others)
20 x 20 x 1mm thick minimum galvanized steel angles fixed to damper unit with self drilling screws and to wall with masonry anchors.

1. Fix each mounting angle onto the LVH-44 IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres to **one side only**.
2. Insert the IFD into the masonry wall opening. (note: Lorient's IFD does not have to be centrally positioned in the opening).
3. Fix each angle to the masonry wall with a minimum of two M6 x 40mm expanding masonry anchors at 200mm centres
4. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD as shown (note: maximum clearance of 25mm applies).
5. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent maintenance inspections.
6. Connect cover grille directly to wall.

Note: The maximum size for this method of installation is 600 x 600mm. Larger sizes can be used with a different mounting detail. Please AW8 system data sheet.

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LORIENT

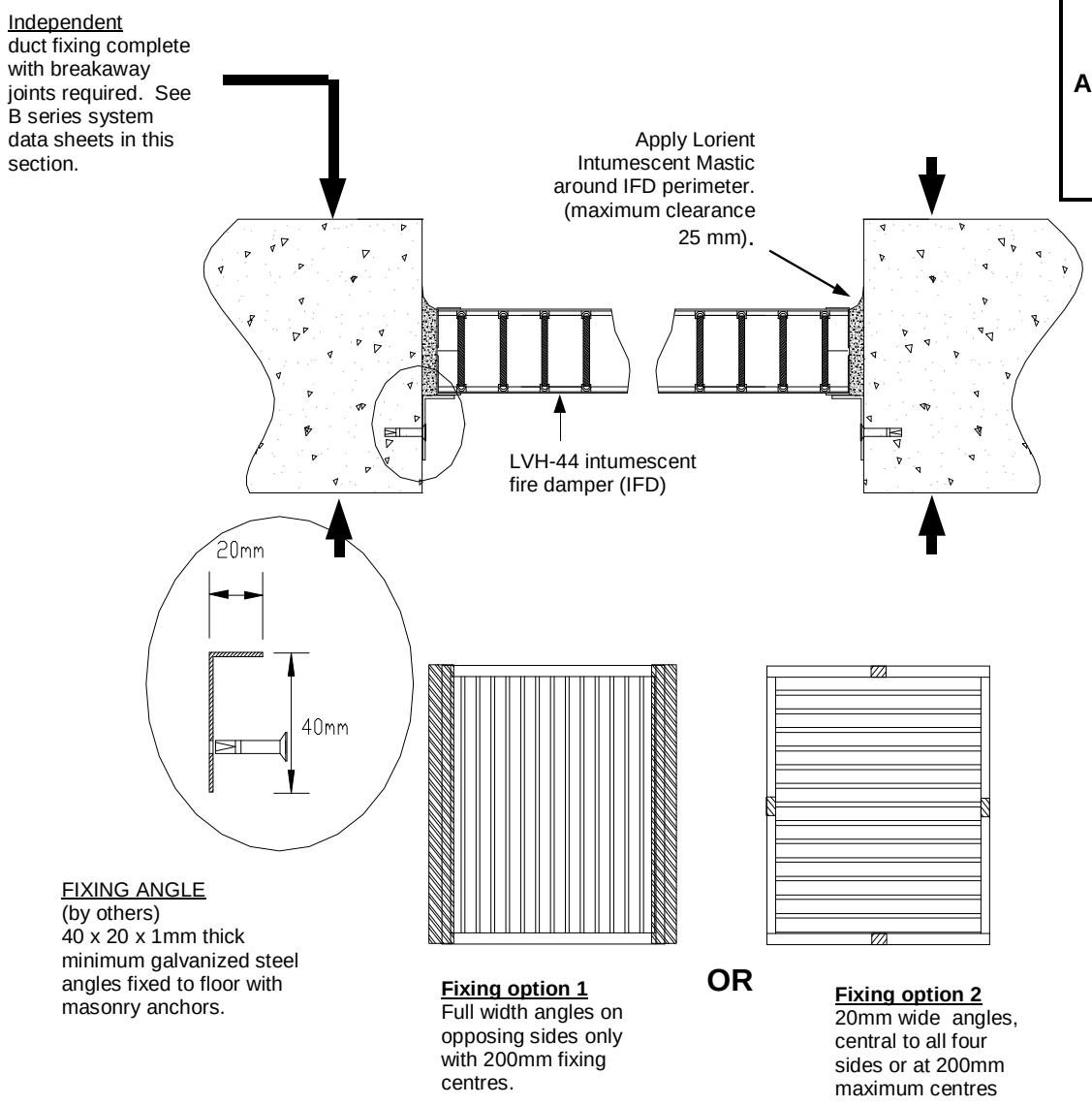
LVH-A series installation instruction

Concrete floor with angle fixings

SYSTEM
AF1

FRL
-/120/-

APPROVAL(S)
FCO-1854



1. Fix each mounting angle onto the LVH-44 IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres to **one side only**.
2. Insert the IFD into the masonry floor opening. (note: Lorient's IFD does not have to be centrally positioned in the opening)
3. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD as shown (note: maximum clearance of 25mm applies)
4. Connect ductwork (or cover grille) directly to floor using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets)
5. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent maintenance inspections.

Note: The maximum size for this method of installation is 600 x 600mm. Larger sizes can be used with a different mounting detail. Please see AF6 system data sheet.

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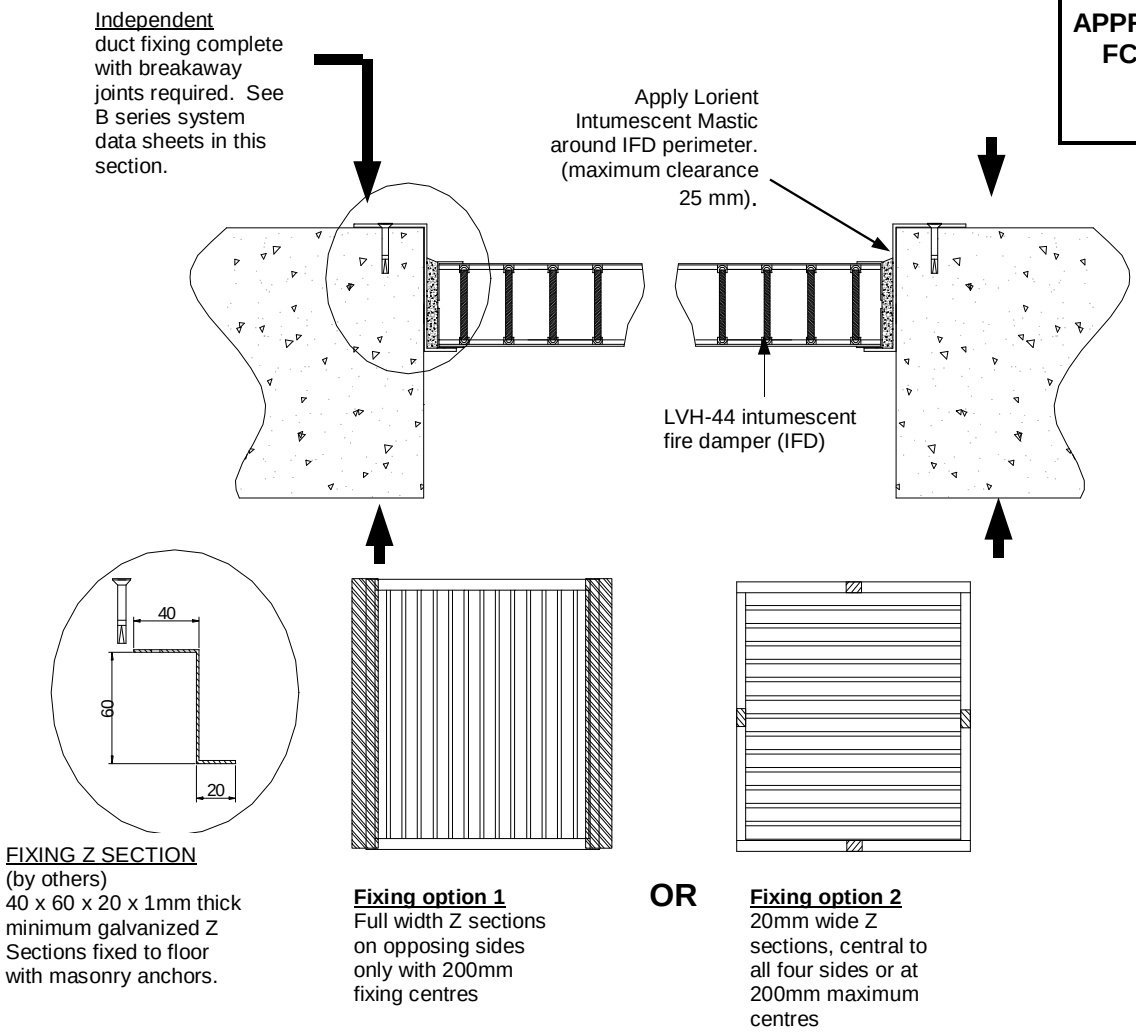
LVH-A series installation instruction

Concrete floor with Z section fixings

SYSTEM
AF2

FRL
-/120/-

APPROVAL(S)
FCO-1854



FIXING Z SECTION
(by others)
40 x 60 x 20 x 1mm thick minimum galvanized Z Sections fixed to floor with masonry anchors.

Fixing option 1
Full width Z sections on opposing sides only with 200mm fixing centres

OR

Fixing option 2
20mm wide Z sections, central to all four sides or at 200mm maximum centres

1. Fix each Z section onto the LVH-44 series IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres to **one side only**.
2. Insert the IFD into the masonry floor opening. (note: Lorient's IFD does not have to be centrally positioned in the opening).
3. Apply a bead of Lorient Intumescent Mastic around the perimeter of the IFD as shown (note: maximum clearance of 25mm applies).
4. Connect ductwork (or cover grille) directly to floor using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
5. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent maintenance inspections.

Note: The maximum size for this method of installation is 600 x 600mm. Larger sizes can be used with a different mounting detail. Please see AF6 system data sheet.

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Fixing to soffit of masonry floors with angle fixings

SYSTEM
AF3

FRL
-/120/-

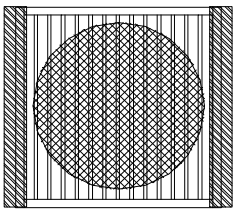
APPROVAL(S)
FCO-1740

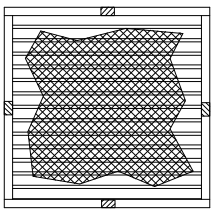
Independent
duct fixing complete with breakaway joints required. See B series system data sheets in this section.

Fixing option 1
Full width angles top and bottom only with 200mm fixing centres

OR

Fixing option 2
20mm wide angles, central to all four sides or at 200mm maximum centres

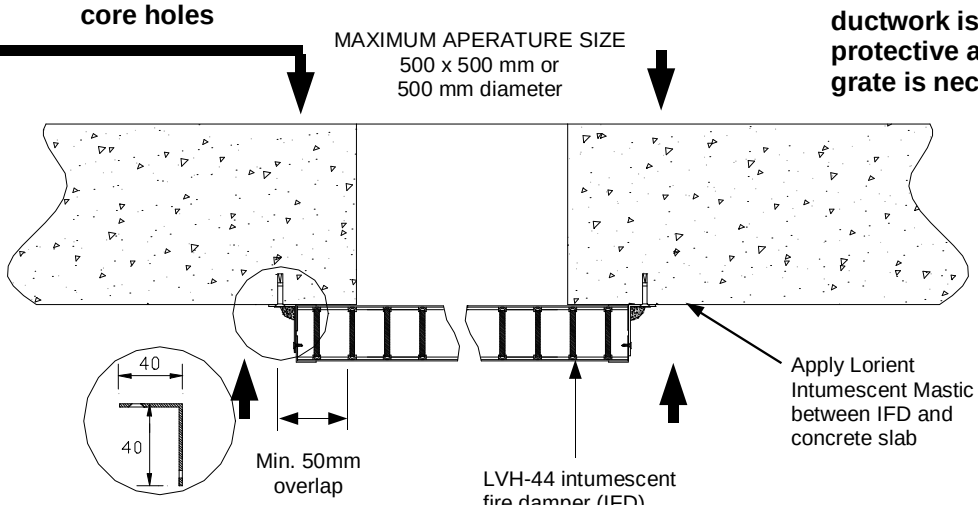




Ideal for fire rating poorly prepared openings

Allows the use of core holes

Note: If no reticulating ductwork is above the slab a protective and load-bearing grate is necessary.



FIXING ANGLE
(by others)
40 x 40 x 1mm thick minimum galvanized steel angles fixed to damper unit with self drilling screws and to floor with masonry anchors.

1. Measure penetration ensuring damper is 100mm larger than penetration in concrete floor.
2. Fix each mounting angle onto the LVH-44 IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres.
3. Apply a bead of Lorient Intumescent Mastic between the face of the IFD and the concrete slab.
4. Mount IFD onto masonry floor opening.
5. Fix each angle to the masonry wall with a minimum of two M6 x 40mm expanding masonry anchor at 200mm centres.
6. Connect ductwork(or cover grille) directly to floor using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
7. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent maintenance inspections.

Note: The maximum size for this surface mounted method of installation is 600 x 600mm.

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LVH-A series installation instruction

Fixing on top of masonry floors with angle fixings

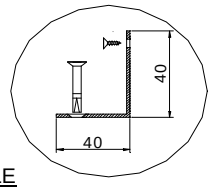
SYSTEM
AF4

FRL
-/120/-

APPROVAL(S)
FCO-1740

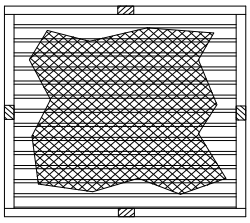
Note: If no reticulating ductwork is above the slab a protective and load-bearing grate is necessary.

Ideal for fire rating poorly prepared openings



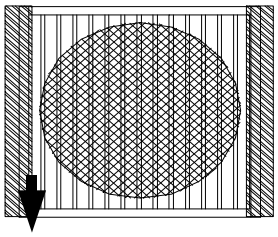
FIXING ANGLE
(by others)
40 x 40 x 1mm thick minimum galvanized steel angles fixed to damper unit with TEK screws and to wall with masonry anchors.

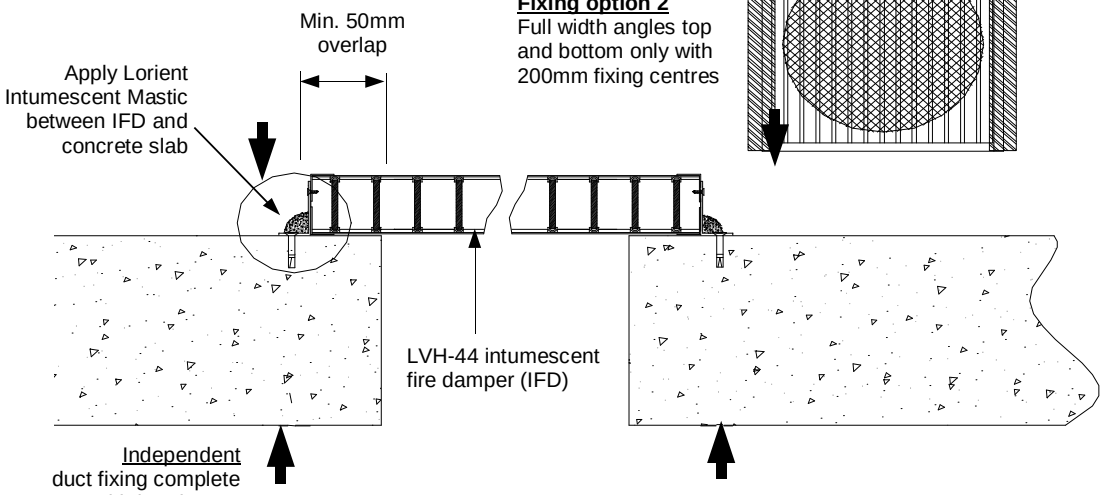
Fixing option 1
20mm wide angles, central to all four sides or at 200mm maximum centres



OR

Fixing option 2
Full width angles top and bottom only with 200mm fixing centres





1. Measure penetration ensuring damper is 100mm larger than penetration in concrete floor.
2. Fix each mounting angle onto the LVH-44 IFD using a minimum of two 10g x 22mm wafer head self drilling screws at 200mm centres.
3. Apply a bead of Lorient Intumescent Mastic between the face of the IFD and the concrete slab.
4. Mount IFD onto masonry floor opening.
5. Fix each angle to the masonry wall with a minimum of two M6 x 40mm expanding masonry anchor at 200mm centres.
6. Connect ductwork (or cover grille) directly to wall using approved breakaway connections to ensure compliance with AS1682.2 (see B series system data sheets).
7. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent maintenance inspections.

Note: The maximum size for this surface mounted method of installation is 600 x 600mm.

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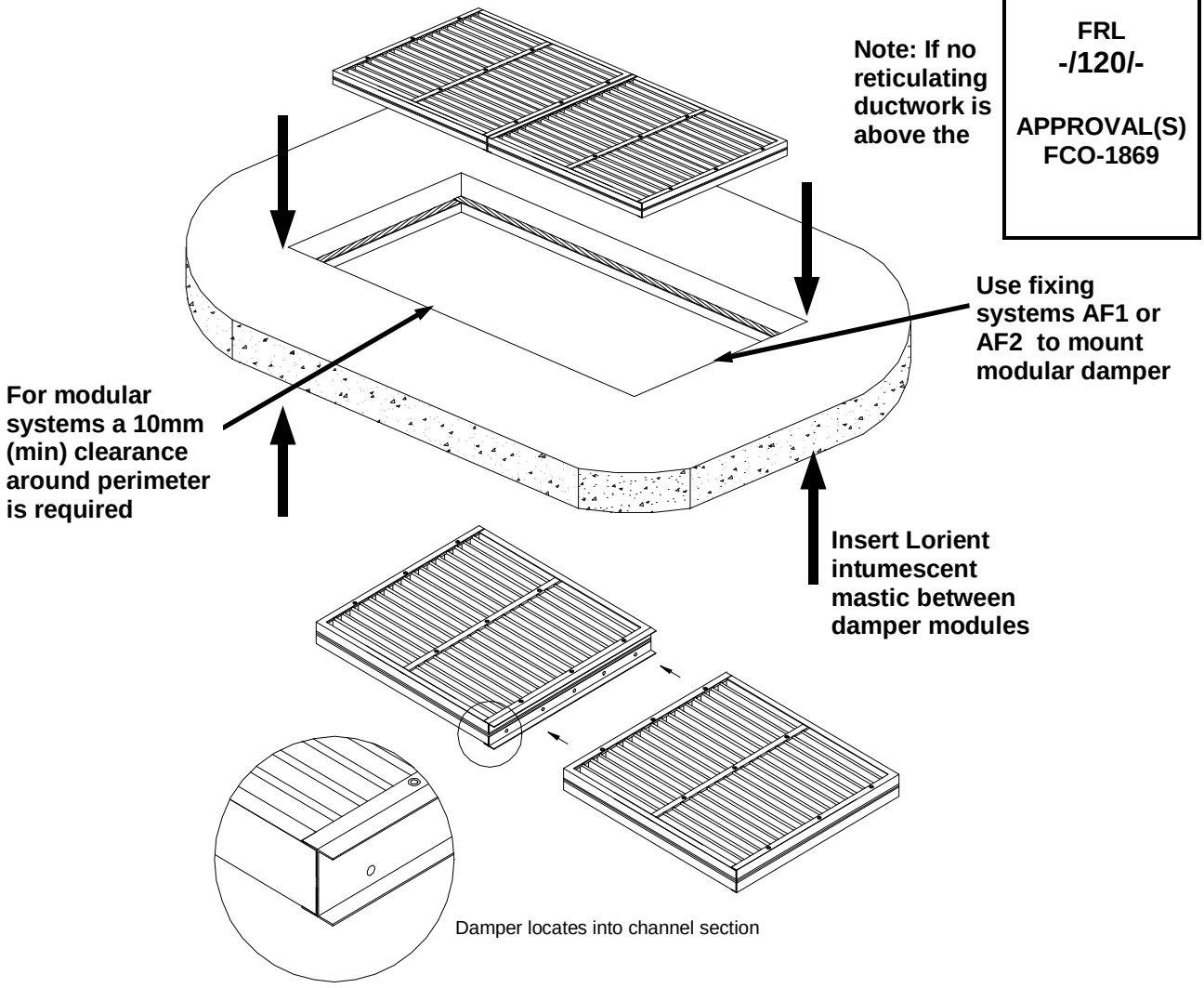
LVH-A series installation instruction

Concrete floor modular system up to 1200 x 600mm

SYSTEM
AF5

FRL
-/120/-

APPROVAL(S)
FCO-1869



This system can be installed using any one of the following three Systems:
System AF1: ANGLE FIXING DETAIL (using continuous perimeter angles are required)
System AF2: Z SECTION FIXING DETAIL (using continuous perimeter angles are required)

1. Slide the damper modules together ensuring a bead of Lorient intumescent mastic is used in between damper modules. (no fixings are required between modules)
2. Refer to the relevant systems above for specific mounting detail alternatives.
3. Apply bead of Lorient Intumescent Mastic around perimeter of damper between damper and floor.
4. Connect ductwork (or cover grille) directly to floor using approved breakaway connections to comply with AS1682.2 (see B series system data sheets)
5. Fix label(s) supplied by an approved Lorient distributor in a prominent position(s) for identification during subsequent maintenance inspections.

Note: The maximum size for this method of installation is 1200 x 600mm. Larger sizes can be used with a different mounting detail. Please see LVH-F series.

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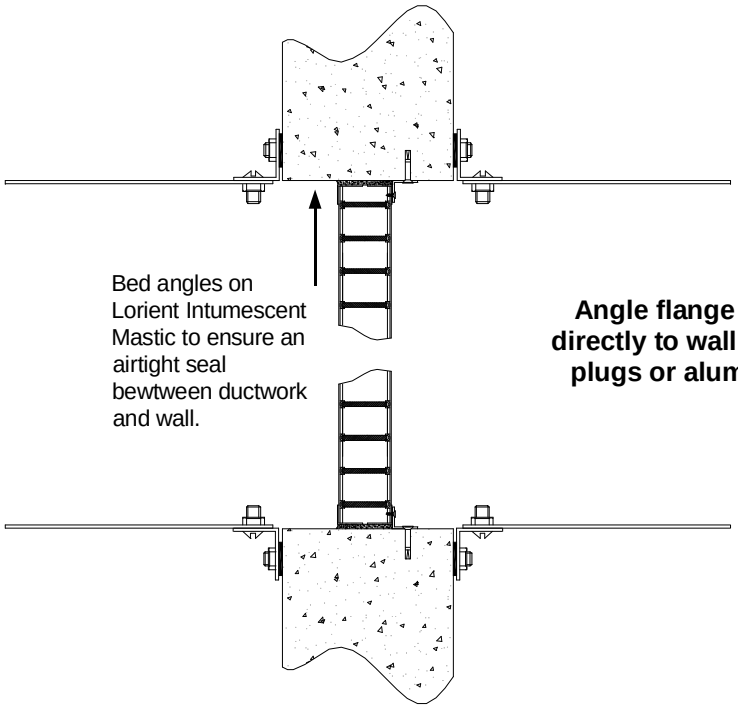
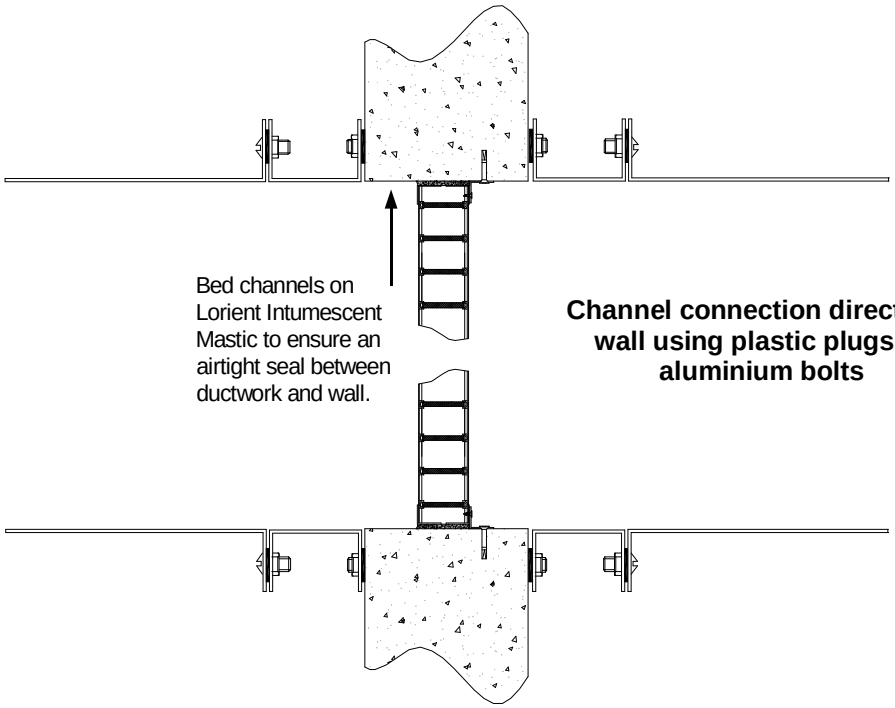
Intumescent fire damper independent duct connection alternatives

SYSTEM
BA1



Angle flange connection directly to wall using plastic plugs or aluminium bolts

SYSTEM
BA2



Channel connection directly to wall using plastic plugs or aluminium bolts

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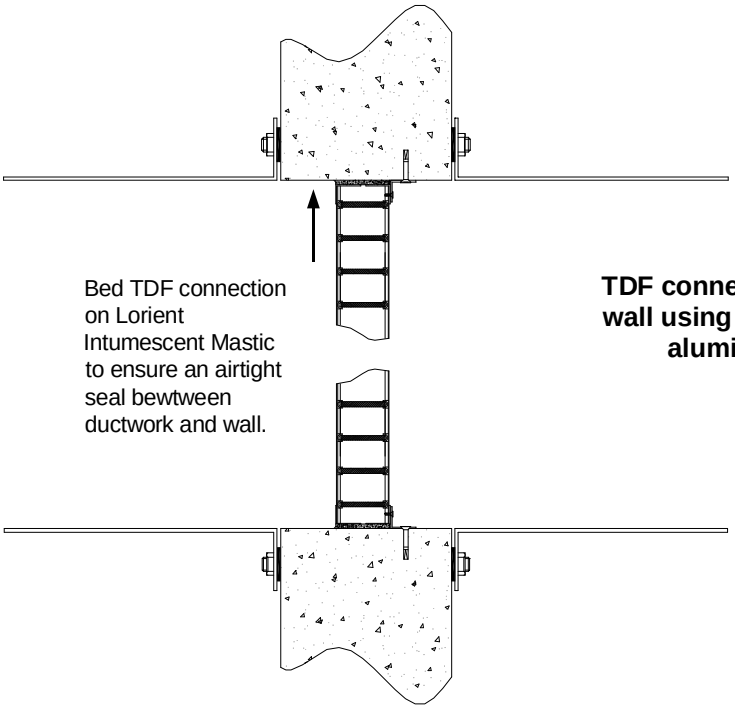
Intumescent fire damper independent duct connection alternatives

SYSTEM
BA3



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