Kilargo

Intumescent Fire Dampers

IFD Series Products

Installation Selector

PENETRATION	SYSTEM	BUILDING ELEMENT	FRL	PRODUCT
WALL	WM1	Masonry	-/120/-	IFD44
	WM2	Masonry	-/240/-	IFD44
	WM3	Masonry	-/120/-	IFD44
	WM4	Masonry	-/120/-	IFD44
	WM5	Masonry	-/120/-	IFD-O
	WM6	Masonry	-/240/-	IFD-O
	WM7	Masonry	-/120/-	IFD-OSS
	WM8	Masonry	-/120/-	IFD-O
	WM10	Masonry	-/120/-	IFD Hi-Flo
	WM11	Masonry	-/120/-	IFD44
	WH1	Hebel75SS	-/120/-	IFD44
	WH2	Hebel75SS	-/120/-	IFD-O
	WH3	Hebel75SW	-/120/-	IFD-O
	WH4	Hebel75SW	-/120/-	IFD-O
	WH5	Hebel75SW	-/120/-	IFD44
	WH6	Hebel75SW	-/120/-	IFD-O
	WH7	Hebel75SW	-/120/-	IFD44
	WH8	Hebel75SSW	-/120/-	IFD44
	WS1	CSR Security wall	-/90/90	IFD44
	WS2	CSR Security wall	-/90/-	IFD-O
	WP1	16mm FR Pl/Board x 1 layer	-/90/-	IFD44
	WP2	16mm FR Pl/Board x 3 layers	-/120/-	IFD44
	WP3	16mm FR Pl/Board x 2 layers	-/120/-	IFD-O
	WP4	16mm FR Pl/Board 25mm liner + 2 layers	-/120/-	IFD-O
	WP5	16mm FR Pl/Board x 3 layers + 1 layer/pad	-/120/-	IFD-O
	WP6	16mm FR Pl/Board x 3 layers	-/120/-	IFD-O
	WP7	16mm FR Pl/Board x 2 layers	-/120/-	IFD44
	WP8	13mm FR Pl/Board x 1 layers	-/60/-	IFD44
	WP9	13mm FR Pl/Board x 2 layers	-/90/-	IFD44
	WP10	13mm FR Pl/Board x 1 layer	-/60/-	IFD44
	WP11	13mm FR Pl/Board x 2 layers	-/90/-	IFD44
	WV1	Retrofit Vermiculux Board	-/120/-	IFD44
	WV2	Vermiculux Board	-/120/-	IFD44
	WV3	Vermiculux Board & 2 x 2 layers FR Pl/board	-/120/-	IFD44
	WSP1	Speedpanel wall fixed to underside of slab	-/120/-	IFD44
	WSP2	Speedpanel wall fixed to slab above floor	-/120/-	IFD44
	WSP3	Speedpanel wall	-/120/-	IFD44
	WSP4	Speedpanel wall & 2 layers x 13mm FR Pl/board	-/120/-	IFD44
	WSP5	Speedpanel wall	-/120/-	IFD-O
SHAFTWALL DUCT	WSRF1	Retrofit - Masonry or 16mm FR Pl/Board x 3 layers	-/120/-	IFD44
	WSW1	Masonry	-/120/-	IFD44
	WSW2	Masonry	-/120/-	IFD44
	WSW3	Masonry	-/120/-	IFD44
	WSW4	16mm FR Pl/Board x 3 layers	-/120/-	IFD44
	WSW5	16mm FR Pl/Board x 3 layers	-/120/-	IFD44
	WSW6	16mm FR Pl/Board x 3 layers	-/120/-	IFD-O
	WSW7	16mm FR Pl/Board x 3 layers	-/120/-	IFD44
	WSW8	16mm FR Pl/Board x 2 layers	-/120/-	IFD44
	WSW9	16mm FR Pl/Board x 2 layers	-/120/-	IFD-O
	WSW10	13mm FR Pl/Board x 1 layer	-/60/-	IFD44
	WSW11	13mm FR Pl/Board x 2 layers	-/90/-	IFD44
	WSW12	16mm FR Pl/Board x 1 layer	-/60/-	IFD44
FLOOR / SLAB	FL1	Concrete slab	-/120/-	IFD44
	FL2	Concrete slab	-/240/180	IFD44
	FL3	Concrete slab	-/120/120	IFD44
	FL4	Concrete slab	-/120/-	IFD-O
	FL5	Concrete slab	-/120/-	IFD44
	FL6	Concrete slab	-/120/-	IFD-O
	FL7	Concrete slab	-/120/-	IFD44
	FLV1	Vermiculux Board	-/120/-	IFD44
	FLV2	Retrofit Vermiculux OR Promatect Board	-/120/-	IFD44
	FLV3	Retrofit Vermiculux OR Promatect Board	-/120/-	IFD44
CEILING	CE1	FR P/Board 2 ply ceiling	-/60/60	IFD44
	CE2	FR P/Board 2 ply ceiling	-/60/60	IFD44
	CE3	FR P/Board 2 ply ceiling	-/90/90	IFD-O
	CE4	FR P/Board 2 ply ceiling	-/90/90	IFD Hi-Flo
DOOR	FD1	IFD-D in FireCore fire doors	-/120/30	IFD-D
	FD2	IFD-D in Pyropanel fire doors	-/120/30	IFD-D
	FD3	IFD-D in E-Core fire doors	-/120/30	IFD-D

APPLICATION / MOUNTING DETAIL	MAX. SIZE	CONDITION
Mounted in steel casing in penetration	1200mm x >10m, >10m x 1200mm	
Mounted in steel casing in penetration	250 x 250mm	
NO casing in penetration	600mm x >10m, >10m x 600mm	
NO casing - surface mounted over penetration	600 x 600mm	max hole size 500 x 500mm
Steel sleeve in penetration	350mm diameter	
Steel sleeve in penetration	150mm diameter	
Stainless steel sleeve in penetration	350mm diameter	
Spiral duct sleeve grouted into penetration (angle free)	300mm diameter	
Hi-Flo steel sleeve in penetration	200mm diameter	
NO casing with various fixing brackets	600mm x >10m	
Mounted in steel casing in penetration	1200 H x 600mm W *dual panel	400mm max if single in panel
Steel sleeve in penetration	350mm dia. *dual panel	350mm max if single in panel
Mounted in steel casing in penetration	1200 H x 600mm W *dual panel	400mm max if single in panel
Steel sleeve in penetration	350mm dia. *dual panel	350mm max if single in panel
Mounted in steel casing tight to underside of slab	300 x 300mm	
Steel sleeve positioned tight to underside of slab	150mm diameter	
Mounted in steel casing to underside of slab with 3 angles	300 x 300mm	
Mounted in riser branch (angle free system)	300 x 300mm	
Mounted in steel casing in penetration	600 x 600mm	
Steel sleeve in penetration	300mm diameter	
Mounted in steel casing in penetration	1000 x 1000mm	
Mounted in steel casing in penetration	600 x 600mm	
Steel sleeve in penetration	350mm diameter	
Steel sleeve in penetration	350mm diameter	
Steel sleeve in penetration	350mm diameter	
Steel sleeve in penetration	350mm diameter	
NO casing in penetration	600 x 600mm	
Mounted in steel casing in penetration	1000 x 1000mm	
Mounted in steel casing in penetration	1000 x 1000mm	
NO casing in penetration	600 x 600mm	
NO casing in penetration	600 x 600mm	
NO casing - surface mounted over penetration	600 x 600mm	
NO casing in penetration	800 x 800mm	
NO casing in penetration	800 x 800mm	
Mounted in steel casing in penetration	1000 x 1000mm	
Mounted in steel casin g in penetration	1000 x 1000mm	
Mounted in steel casing in penetration	1000 x 1000mm	
Mounted in steel casing in penetration	1000 x 1000mm	
Mounted in steel casing in penetration	300mm diameter	
Retrofit fixing tabs in existing damper housings	300 x 300mm	
Mounted in riser branch (angle free system)	300 x 300mm or 90,000mm^2	
Mounted in riser branch tight to slab with packer	300 x 300mm or 90,000mm^2	
Mounted in riser branch (angle free system)	300 x 300mm or 90,000mm^2	
Mounted in riser branch tight to slab with packer	300 x 300mm or 90,000mm^2	
Mounted in riser branch tight to slab with IBS rod & mastic	300 x 300mm or 90,000mm^2	
Mounted in riser branch (angle free system)	300mm diameter	
Mounted in riser branch (angle free system)	300 x 300mm or 90,000mm^2	
Mounted in riser branch (angle free system)	300 x 300mm or 90,000mm^2	
Mounted in riser branch (angle free system)	300mm diameter	
Mounted in riser branch (angle free system)	300 x 300mm or 90,000mm^2	
Mounted in riser branch (angle free system)	300 x 300mm or 90,000mm^2	
Mounted in riser branch (angle free system)	300 x 300mm or 90,000mm^2	
No casing in penetration	Up to 1200mm x >10m or >10m x 1200mm	
Mounted in steel casing in penetration	300 x 300mm	
Mounted in steel casing in penetration	600 x 600mm	
Steel sleeve in penetration	300mm diameter	
NO casing - surface mounted over or under penetration	600 x 600mm	max hole size 500 x 500mm
NO steel sleeve in penetration	250mm diameter	
Mounted in steel casing in penetration	1200 x 1200mm	
NO casing in penetration	800 x 800mm	
NO casing - surface mounted over penetration	800 x 800mm	
NO casing - surface mounted under penetration	800 x 800mm	
P/Board clad encl. (60 min RISF Incipient rated)	600 x 600mm	
P/Board clad encl. open end (60 min RISF Incipient rated)	300 x 300mm	exhausting into ceiling void
P/Board panel & IFD (90 min RISF Incipient rated)	150mm diameter	
P/Board clad 3 way enclosure (90 min RISF Incipient rated)	440 x 440mm	
Fitted to 37mm Mini & 47mm Maxi fire doors	600 x 300mm or 450 x 450mm	
Fitted to pandor, FR & pyrolite fire doors	600 x 300mm, 450 x 450mm, 600 x 600mm	
Fitted to 37mm Mini & 47mm Maxi fire doors	600 x 300mm or 450 x 450mm (up to 2 off per leaf)	

Choose only
the original for
reliability & trusted
performance

Contents

At Kilargo, we provide simple and smart solutions to maximise the safety, comfort and performance of commercial and multi-occupancy buildings.

Our innovative products are designed to contain the spread of fire, smoke and sound with many also providing weather protection and energy savings. We deliver integrated and cost-effective systems that are ideal for any commercial building, high-rise complex, health or education facility.

Kilargo is built on a 30-year commitment to be the best. Previously Lorient Australia, we stand proudly at the forefront of the industry, driving standards and delivering products that lead the way in design, manufacturing and quality.

At Kilargo, we're respected experts in the principles of fire, smoke and sound. Our straight-talking approach makes it easy for clients to meet and exceed building regulations, knowing they've chosen the right system to ensure building integrity.

We know that our work can protect lives and influence reputations, so we don't just sell products. We build solid partnerships through understanding, flexibility, seamless service and genuine enthusiasm.

Kilargo is a proud Australian company with a global presence. The vast majority of our products are manufactured and sourced in Australia, meaning fast turnaround and short lead times. We also enjoy direct links to suppliers, partners and customers in the United Kingdom, Asia, the Middle East and New Zealand. Our products are rigorously, independently and regularly tested and all come with the Kilargo Integrity Seal: your guarantee that they're backed by our passion for excellence, innovation, service, partnership, expertise and sustainability.

For us, it's about providing exceptional products for great buildings: helping you to meet regulations, protect people and property, and enhance well-being. Choosing Kilargo simply means choosing the best solution for your project, every time.

The Kilargo Integrity Seal represents what our clients can expect from our products and our service.

When it comes with the Kilargo Integrity Seal, it's backed by our passion for excellence, innovation, service, partnership, expertise and sustainability. Every day, we strive to meet six key commitments – to bring you real confidence.

Excellence, Every Time

Our products perform and last. We subject every Kilargo product to tough, independent and regular testing. We have earned a reputation for exceptional quality and reliability in commercial and multi-occupancy buildings across Australia and around the world.

The Latest and Best

With Kilargo, you know you're getting the latest thinking in building safety, comfort and energy efficiency. We create, innovate and update. We are industry leaders in research and product development – and we're constantly involved in new developments internationally.

Superb Service, No Fuss

We keep our promises, tackle challenges with gusto, and deliver on time and on budget. Most of our products are manufactured and sourced domestically, meaning fast turnaround and short lead times. We pride ourselves on being technical specialists with a straight-talking approach. We make it quick and easy for you: from selection to installation.

Real Partnership

We know that our work can influence reputations and protect lives. That's why we don't sell products and walk away. We strive to truly understand our clients' needs and build enduring partnerships. That way, we see things through your eyes – so we're proactive, resourceful and always ready when you need us.

Great Team, Unbeatable Experience

With Kilargo, you get a great team that knows its stuff. We employ the best people and we're respected experts in the principles of fire, smoke and sound. We've been an internationally respected leader in the commercial building industry for more than 30 years – and we're proud to drive standards and quality further every day.

Bigger Commitment

We see the bigger picture … and our passion for the built environment extends to the natural environment. We continue to meet and exceed all relevant environmental legal requirements, reduce and manage our waste and emissions, and use resources as efficiently as possible.

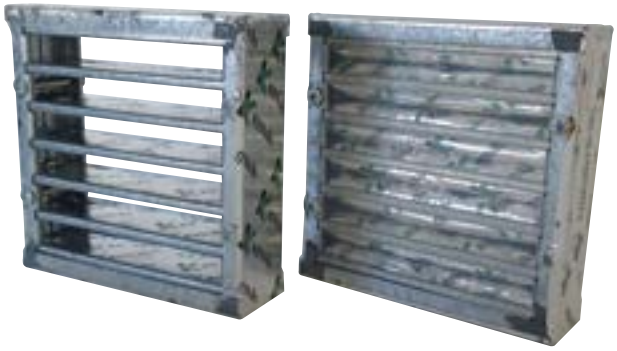
Intumescent Fire Dampers

Fire resistant walls and floors in a building play an important part in containing the spread of fire and smoke. However, a building also needs to be well ventilated for the health and comfort of its occupants.

Systems of natural and mechanical ventilation often require ducting to pass through fire resistant walls and floors, and this can compromise the fire containment in the building.

Generally, any fire rated door, wall, floor or ceiling penetrated by a supply air or return air duct or associated inlet or outlet, requires a fire damper - except for smoke spill fire rated ducting, ducting contained within a fire rated shaft, or supply air ducts used for pressurisation or purging systems.

The Kilargo solution is to fit intumescent fire dampers / air transfer grilles at the point where the fire resistant wall or floor is breached. Under normal circumstances these dampers / grilles allow air to pass freely through the building. However, in the event of fire, the slats and frame swell to many times their original thickness, fusing together to form a non-combustible mass which provides fire resistance to match the surrounding construction.



Before and after activation.

Ventilation through Ducting

Designers recognise the need for buildings to be well ventilated for the health and comfort of occupants. Frequent changes of air flush out airborne infections, plus warm and cool air need to be circulated to maintain comfortable temperatures.

Experience has shown that ducting can provide a conduit for fire & hot smoke in the event of fire. Intumescent fire dampers / air transfer grilles, fitted into the duct, at the point where they penetrate fire resistant constructions, prevent the passage of fire and hot smoke. They have been shown by specific testing to be equivalent to a conventional damper, not only in fire and smoke barrier properties but also as they exhibit high insulation values.

What are Intumescent Fire Dampers?

The Kilargo intumescent fire damper incorporates a designated number of parallel intumescent slats, reinforced with impact resistant steel edging, housed in a rigid steel frame. In a fire situation, increasing temperature causes the slats to swell (intumesce) to many times their original thickness, fusing together to provide a barrier to the passage of fire & hot smoke.

Their lightweight and slim-line design provides for quick, easy, trouble-free installation.

Unlike mechanical type fire dampers, the Kilargo intumescent fire damper does not incorporate any moving components, hence do not require any commissioning release tests or ongoing physical mechanism operation checks.

Standards and Regulations

The Kilargo intumescent fire damper range have been fully fire tested in accordance with AS1530.4 and comply with the requirements of AS/NZS1668.1 (1998). Air leakage testing has also been conducted to AS1682.1 (1990) to comply with the Building Code of Australia. They provide an alternative to antiquated, relatively unreliable mechanical blade type or curtain type fire dampers.

Kilargo intumescent fire dampers are tested to ensure compliance with the 'deemed-to-satisfy' requirements of the **Building Code of Australia Section C3.15** Openings for service installations 'ventilation & air-conditioning', plus **C3.12** Openings in floors and ceilings for services.

The installation of these services must be in accordance with **AS/NZS1668:** The use of mechanical ventilation & air-conditioning in buildings, **Part 1:** Fire & Smoke Control in multi-compartment buildings.

This requires fire damper applications to be tested to **AS1530.4:** Fire resistance tests of elements of building construction, and smoke leakage tested to **AS1682.1:** Fire Dampers (Part 1 - Specification).

AS/NZS1668.1

The use of ventilation & air-conditioning in buildings. Part 1: Fire & smoke control in multi-compartment buildings.

This standard sets out the minimum requirements for the design, construction, installation and commissioning of mechanical ventilation and air-conditioning systems for fire & smoke control in multi-compartment buildings.

Section 2.4 (Air Dampers)

Clearly differentiates between mechanical fire dampers ***(sub section 2.4.1)*** & intumescent fire dampers ***(sub section 2.4.2)***

2.4.1 Mechanical Fire Dampers

Fire dampers of the thermally released or motorized type shall be manufactured & installed in accordance with AS1682.1 & AS1682.2. Motorized dampers shall fail to the closed position by a thermally operated device located in the air stream. Damper closure retaining devices shall be incorporated.

2.4.2 Intumescent Fire Dampers

Fire dampers of the intumescent type shall be manufactured to close under fire conditions as a result of swelling of the intumescent material. Intumescent fire dampers shall be tested in accordance with AS1530.4 with an extended fully closed-off period of 120s. Dampers shall also comply with the air leakage of AS1682.1 & installed in accordance with the ***relevant*** requirements of AS1682.2

Fire Testing

Both mechanical & intumescent fire dampers **must** be fire tested to:

AS1530.4
Methods of fire tests on building materials, components & structures.
Part 4: Fire resistant tests of elements of building construction.

This Standard sets out the fire test methodology for fire resistant testing of fire dampers.

Kilargo Intumescent Fire Dampers have been fire tested for up to 4 hours.

Current approvals cover the following applications:

- Walls (masonry, plasterboard, Hebel, Speed Panel)
- Shaftwalls (masonry, plasterboard)
- Concrete Floors
- Plasterboard Ceilings
- Fire Doors
- Vermiculux fire rated board

(See System Tables for each application in their relevant section for full details).

AS1530.4 Fire testing

Smoke Air Leakage Testing

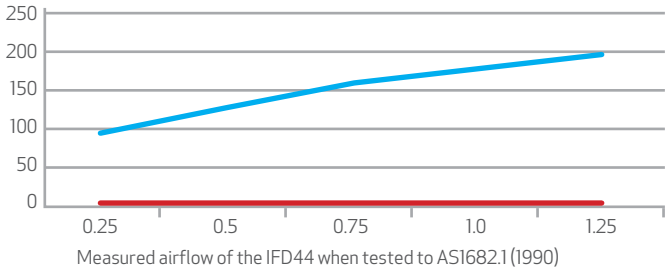
AS1682.1 requires a new fire damper specimen to be tested for air leakage at ambient temperature only (independently of fire tests) and at pressures up to 1250Pa. (This is to simulate the effects of a fan not tripping in fire mode).

Kilargo have subjected the IFD series intumescent fire dampers to a 90 second fire test (to activate the intumescent) and then the standard air leakage test. The results of these tests have shown that the leakage through Kilargo intumescent fire dampers is under 50% of that allowed by the failure criteria in AS1682.1 at all pressure differentials.

In fact the observed air leakage at all AS1682.1 designated points was below the 0.325 l/s lower calibrated limit of the device. These excellent results indicate that the Kilargo intumescent fire damper provides an effective hot smoke seal in fully developed fires.

IFD air leakage testing at CSIRO.

Comparison of Air Flow Performance



Measured airflow of the IFD44 when tested to AS1682.1 (1990)

AS1682.1 Maximum allowable airflow for mechanical dampers (l/s)
AS1682.1 Tested airflow leakage – IFD44 intumescent damper (l/s)

Maintenance Requirements

Maintenance provisions for intumescent fire dampers are clearly identified in AS1851.

AS1851-2012:

Maintenance of fire protection systems and equipment

This standard sets out requirements for the inspection, test, preventive maintenance and survey of fire protection systems and equipment.

Routine inspections (functional checks by visual means) are mandatory and required to be performed on 20% of fire dampers (within a building) yearly - so that all fire dampers will have been inspected by the end of the fifth year.

Inspections include:

- Check and ensure that the fire damper is in place, free from obstruction and is capable of operation
- Check fire dampers, including casings and mounting flanges for corrosion
- Check for signs of tampering or modification

Maintenance should be completed at the specified intervals and scheduled in the project's operation and maintenance manuals.

Remote visual inspection camera for maintenance inspections of intumescent fire dampers.

Other Performance Testing

Many tests have been conducted to provide Fire Safety Engineers with adequate data for determining the suitability of the Kilargo intumescent fire damper range, in many rigorous applications.

Dust & Lint Testing

Independent testing at the University of NSW has shown that dust and lint, even in high humidity environments, is unlikely to build up on the Kilargo IFD significantly enough to cause a measurable pressure drop. Dust buildup can potentially impede the operation of a fire damper that incorporates moving parts. The Kilargo IFD has no moving parts and is proven to be unaffected by dust and lint accumulation.

Dust & lint testing

Kitchen Exhaust Testing

For residential apartments it is proving more difficult to avoid the use of fire dampers in kitchen exhausts. Grease build up can potentially impede the closure of mechanical type fire dampers and even if this can be overcome, the lack of insulating qualities means that radiant heat may ignite grease on the unexposed side of the fire damper, even after it has closed.

Testing against grease attack, combined with the inherent insulating qualities and reduced maintenance requirements of the Kilargo IFD's, means that designers can be confident of a system that provides high reliability in residential kitchen exhaust systems.

Physical Obstruction Testing

Concrete splatter and electrical cables sometimes find their way into the most amazing places. One of those may be in the closure path of a fire damper! We have conducted tests to show that the Kilargo IFD will close around these types of obstructions.

Salt Spray Testing

BHP Laboratories have conducted a 585 hour salt spray test on the Kilargo square and rectangular intumescent fire dampers. The galvanised coating required by AS1682.1 is deemed to have failed when 5% red rust is reached. The report concluded that there were no specific areas of weakness identified (eg, joints and fastenings). This same sample was then subjected to the standard fire test and shown to be operational

Salt spray testing

Other Performance Testing

Pressure Drop & Noise Testing

At Kilargo we have acknowledged the requirement for specifiers and contractors to have reliable design data to design and commission mechanical service systems. A designer must have confidence that their installation will perform within the boundaries of their calculated design.

To ensure confidence when specifying Kilargo fire dampers we have conducted extensive pressure & acoustic testing programs on the entire range of IFD series intumescent fire dampers.

Additional Performance Based Testing

The Kilargo intumescent fire damper has been submitted to the most onerous of tests to meet customer demand. Some of these tests include:

- Vibration tests
- High velocity tests
- Toxicity tests
- Humidity tests
- Chemical resistance tests
- False activation tests

We realize that not every project will have standard Building Code of Australia requirements. Occasionally some performance based data is needed to satisfy special project designs.

Proudly Australian Made

Locally Manufactured Products

Kilargo is proud to locally manufacture it's range of intumescent fire dampers here in Australia. This provides us with the flexibility to offer quality compliant products with a trusted reputation and an unparalleled level of service and support.

New & Custom Made Products

Adopting an innovative approach, Kilargo is continually developing new technology and expanding it's comprehensive range of products. If you do not find your exact requirement within this catalogue, please contact our office. We may be able to supply an existing non-standard item or develop a customized solution for you.

Technical Services & Support

Kilargo is always happy to provide specialist advice on Fire Dampers and their application, for both refurbishment and new projects.

We offer:

- Technical helpline
- Advice on installations
- Copies of relevant test approvals
- Product Samples
- Technical & performance specifications
- Advice on meeting Building Regulations & Standards

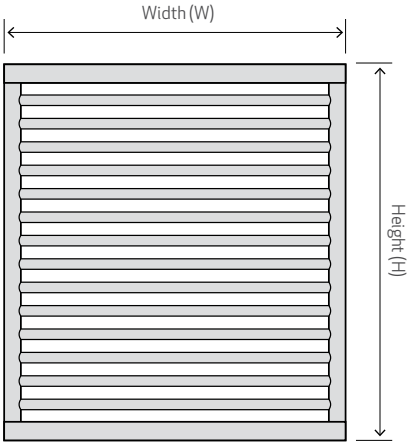
Ordering, Supply & Delivery

Readily available and stocked throughout Australasia by our exciting network of Distributors, offering a wide range of standard stocked sizes, with non-standard and modular products made-to-order. Please contact Kilargo for details on your nearest local distributor.

To find out more about the advantages of intumescent dampers, and to ensure you are up to date with the latest standards and requirements, go on line to download our complete Kilargo IFD Catalogue or contact Kilargo on 1300 858 010.

Product Technical Data

Dimensions



IFD44 Intumescent Fire Damper

Performance Characteristics

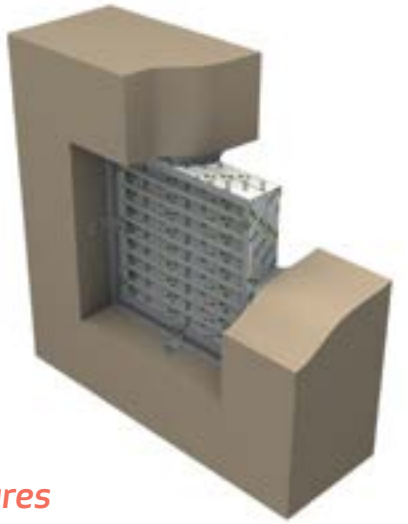
For airflow, pressure and acoustic data please refer to the following nomogram details on page 16.

Suggested Specifications

All fire dampers shall be Kilargo intumescent IFD44 series, with no moving parts and allow for bi-directional airflow.

Intumescent fire dampers shall be tested for Fire Resistance Level (FRL) requirements in accordance with AS 1530.4 with an extended fully closed-off period of 120 seconds. Dampers shall also comply with the air leakage test of AS 1682.1.

Fire Damper installation shall be strictly in accordance with the relevant requirements of AS 1682.2, and Kilargo System Installation details including the use of Kilargo Intumescent Mastic.



Features

- Innovative, slimline design
- Simple installation
- Suitable for retrofit of seized mechanical dampers
- Approvals for Wall, Floor & Ceiling mounting
- No thermal expansion clearances during install
- Reduced maintenance & resultant cost savings

Technical Data

- Integrity Fire Rating - up to 4 hours
- Damper Depth 44 mm
- Sizes available from 45 mm to over 10,000 mm

How to Order

IFD44 _____ X _____

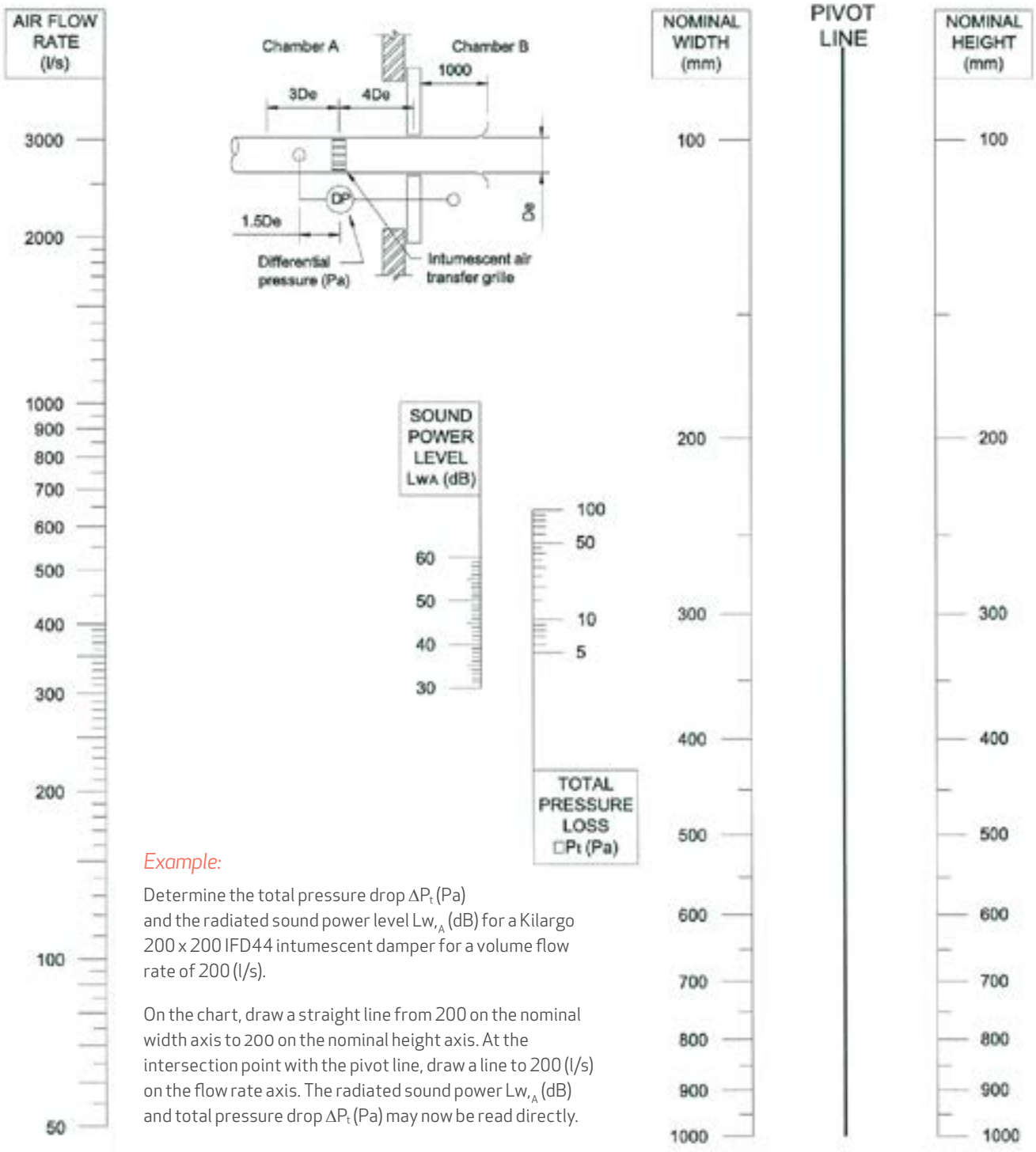
i.e. IFD44 145 x 145

Select IFD size to suit aperture ensuring adequate clearance. Must be ordered at its exact size in mm.

Up to 600 mm x 600 mm allow 2.5 mm clearance either side.

Over 600 mm x 600 mm allow 10 mm clearance per side. Over 1800 mm contact Kilargo.

Pressure and Acoustic Characteristics

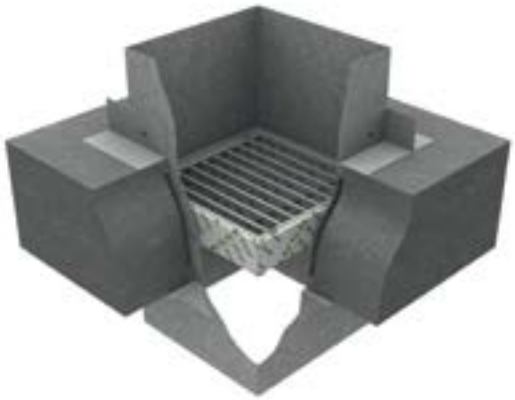


Example:

Determine the total pressure drop ΔP_t (Pa) and the radiated sound power level $Lw_{,A}$ (dB) for a Kilargo 200 x 200 IFD44 intumescent damper for a volume flow rate of 200 (l/s).

On the chart, draw a straight line from 200 on the nominal width axis to 200 on the nominal height axis. At the intersection point with the pivot line, draw a line to 200 (l/s) on the flow rate axis. The radiated sound power $Lw_{,A}$ (dB) and total pressure drop ΔP_t (Pa) may now be read directly.

Type:	Kilargo IFD44 200 x 200
Flow rate (l/s):	200
Total pressure drop ΔP_t (Pa):	20
Radiated sound power $Lw_{,A}$ (dB):	48



Performance Characteristics

For airflow, pressure and acoustic data please refer to the following nomogram details on page 18.

Suggested Specifications

Intumescent fire dampers installed in walls/floors shall be Kilargo IFD44C CASED series and shall comply with the requirements of AS/NZS 1668.1 and the air leakage test in accordance to AS 1682.1.

Intumescent fire dampers shall be tested for Fire Resistance Level (FRL) requirements in accordance with AS 1530.4 with an extended fully closed-off period of 120 seconds. Dampers shall also comply with the air leakage test of AS 1682.1.

Fire Damper installation shall be strictly in accordance with the relevant requirements of AS 1682.2, and Kilargo System Installation details including the use of Kilargo Intumescent Mastic.

Features

- Wall & Floor mount (with insulation rating)
- Includes sleeve & flanges
- Can be cast in situ or retro fitted
- No hazardous fibrous packing required
- No thermal expansion clearances during install
- Reduced maintenance & resultant cost savings

Technical Data

- Integrity Fire Rating - up to 4 hours
- Insulation Fire Rating - up to 3 hours (floor mount)
- Sizes available up to 600 x 600 mm.
  Larger sizes available on request
- Duct to duct (DD) & Duct to grille (DG)
  options available
- Galvanised casing 360mm long

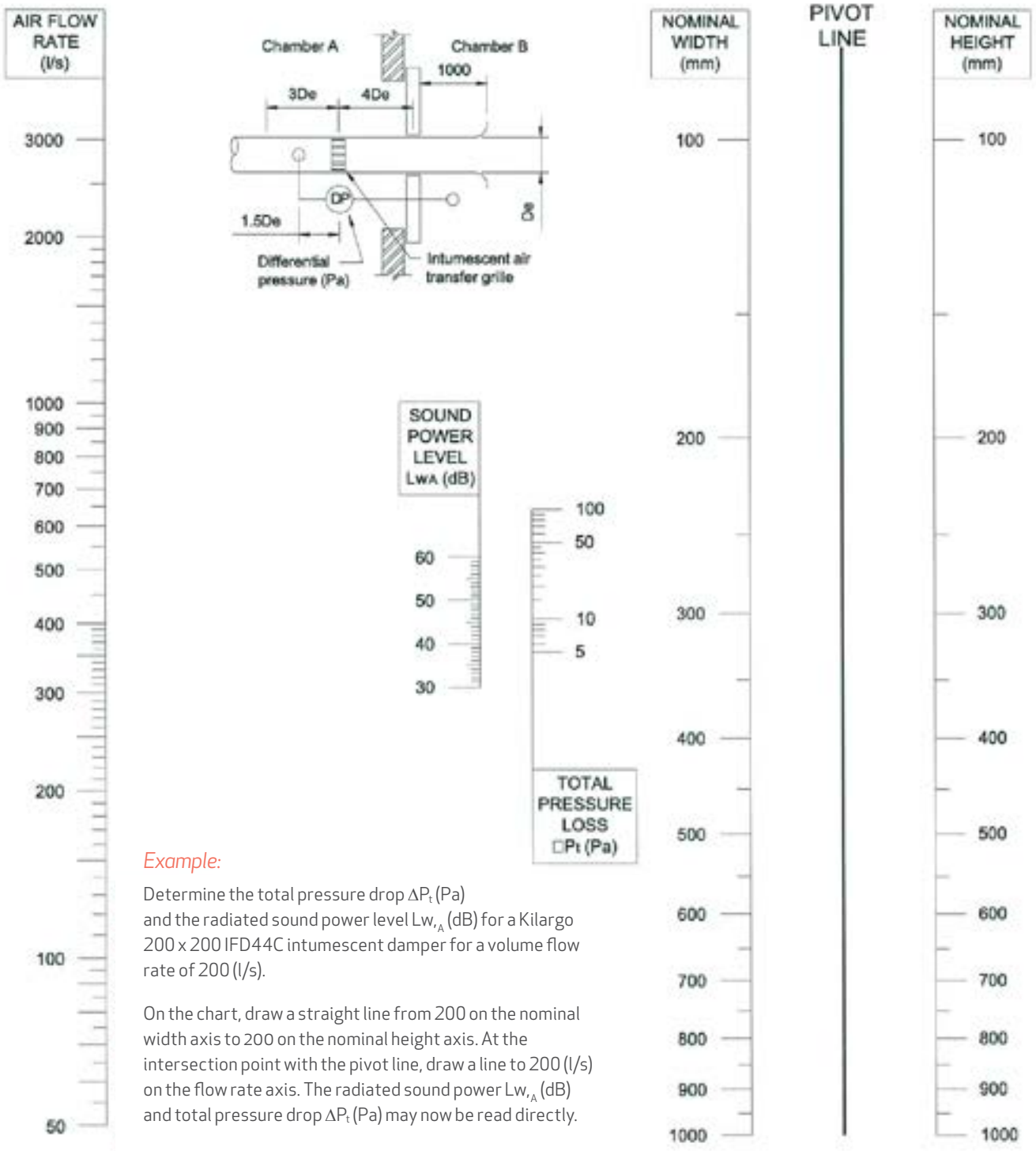
How to Order

IFD44C _____ X _____

i.e. IFD44C 150 x 150

Select IFD CASED size to suit aperture / performance requirements ensuring adequate clearance.

Pressure and Acoustic Characteristics



Example:

Determine the total pressure drop ΔP_t (Pa) and the radiated sound power level $Lw_{,A}$ (dB) for a Kilargo 200 x 200 IFD44C intumescent damper for a volume flow rate of 200 (l/s).

On the chart, draw a straight line from 200 on the nominal width axis to 200 on the nominal height axis. At the intersection point with the pivot line, draw a line to 200 (l/s) on the flow rate axis. The radiated sound power $Lw_{,A}$ (dB) and total pressure drop ΔP_t (Pa) may now be read directly.

Type:	Kilargo IFD44C 200 x 200
Flow rate (l/s):	200
Total pressure drop ΔP_t (Pa):	20
Radiated sound power $Lw_{,A}$ (dB):	48

Performance Characteristics

For airflow, pressure and acoustic data please refer to the following nomogram details on page 20.

Suggested Specifications

All fire dampers shall be Kilargo intumescent IFD-O series, with no moving parts and allow for bi-directional airflow.

Intumescent fire dampers shall be tested for Fire Resistance Level (FRL) requirements in accordance with AS 1530.4 with an extended fully closed-off period of 120 seconds. Dampers shall also comply with the air leakage test of AS 1682.1.

Fire Damper installation shall be strictly in accordance with the relevant requirements of AS 1682.2, and Kilargo System Installation details including the use of Kilargo Intumescent Mastic.

Features

- Cost effective solution
- Innovative & easy to install light weight design
- Suitable for extract and supply systems in commercial, industrial and residential projects
- No hazardous fibrous packing required
- No thermal clearances required in installation
- Reduced maintenance & resultant cost savings
- Also available as IFD-OSS (stainless steel construction) for aggressive environments

Technical Data

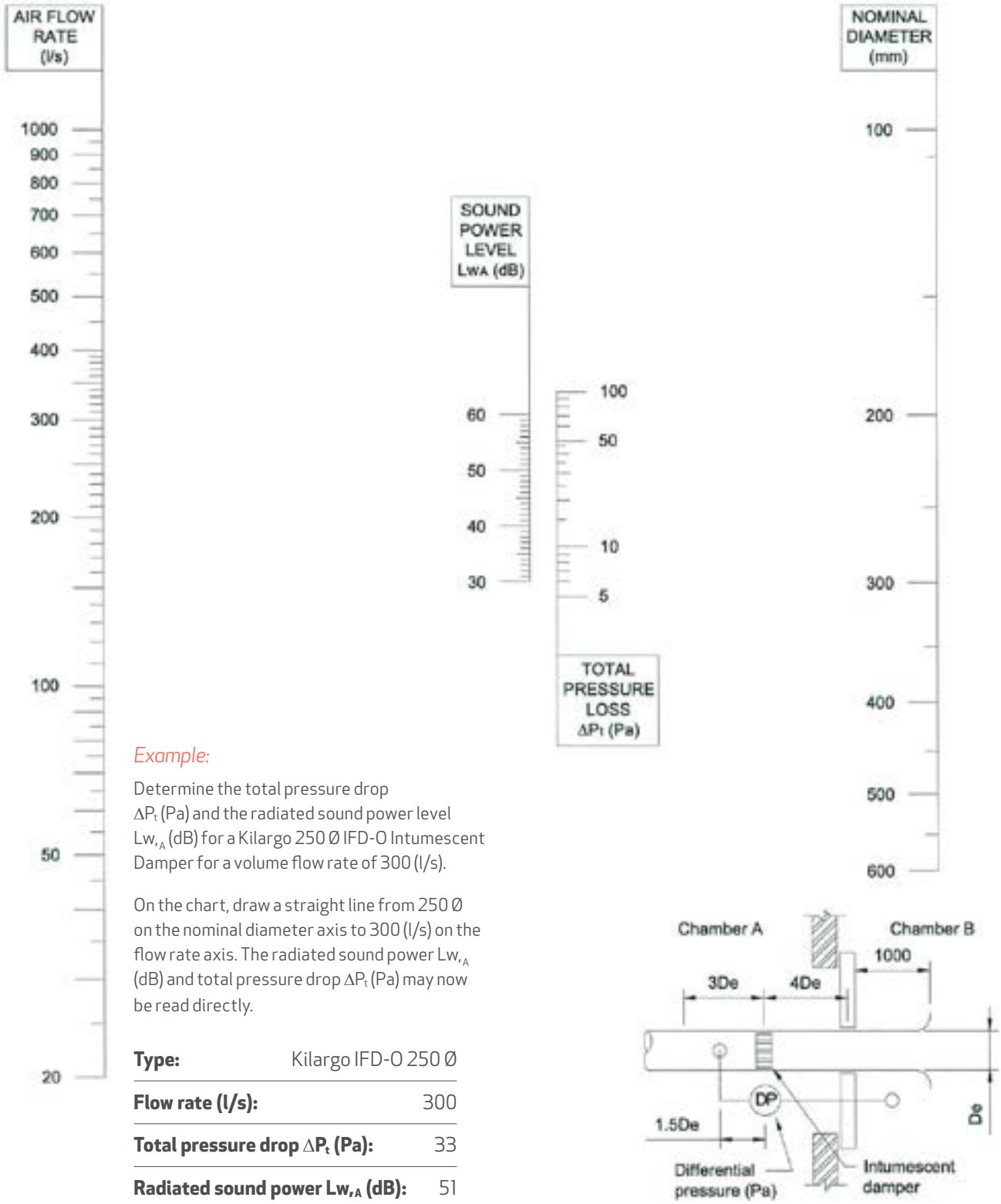
- Integrity Fire Rating - up to 4 hours
- Sizes available: 100 mm, 125 mm, 150 mm, 200 mm, 250 mm, 300 mm, 350 mm nominal dia.
- Galvanised sleeve (spigot) 360 mm long

How to Order

With Sleeve:
IFDO- _____ R
i.e. IFDO-150R

Cell only, NO sleeve:
IFDO- _____ NS
i.e. IFDO-150NS

Pressure and Acoustic Characteristics



Example:

Determine the total pressure drop ΔP_t (Pa) and the radiated sound power level $Lw_{,A}$ (dB) for a Kilargo 250 Ø IFD-O Intumescent Damper for a volume flow rate of 300 (l/s).

On the chart, draw a straight line from 250 Ø on the nominal diameter axis to 300 (l/s) on the flow rate axis. The radiated sound power $Lw_{,A}$ (dB) and total pressure drop ΔP_t (Pa) may now be read directly.

Type:	Kilargo IFD-O 250 Ø
Flow rate (l/s):	300
Total pressure drop ΔP_t (Pa):	33
Radiated sound power $Lw_{,A}$ (dB):	51

Performance Characteristics

For airflow, pressure and acoustic data please refer to the following nomogram details on page 22.

Suggested Specifications

All fire dampers shall be Kilargo intumescent IFD-O Hi Flo series. Damper slats to be complete with impact resistant steel edging, have no moving parts and allow for bi-directional airflow.

Intumescent fire dampers shall be tested for Fire Resistance Level (FRL) requirements in accordance with AS 1530.4 with an extended fully closed-off period of 120 seconds. Dampers shall also comply with the air leakage test of AS 1682.1.

Fire Damper installation shall be strictly in accordance with the relevant requirements of AS 1682.2, and Kilargo System Installation details including the use of Kilargo Intumescent Mastic.

Features

- Clever Hi Flo design with significantly reduced pressure drop
- Suitable for exhaust systems where every Pa saved can mean reduced fan sizing & resultant power savings
- System Acoustic benefits
- No thermal clearances required in installation
- Reduced maintenance & resultant cost savings

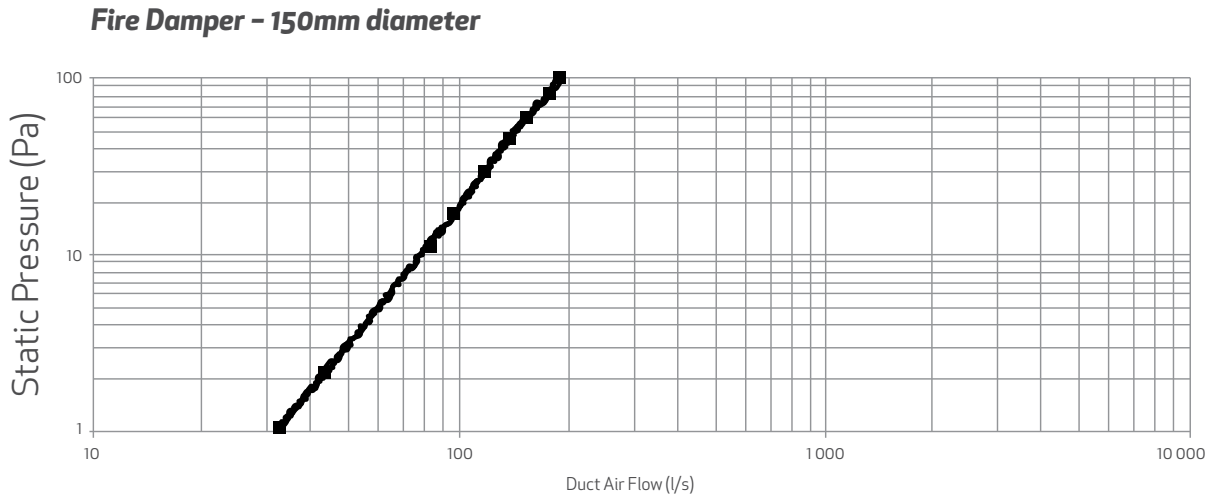
Technical Data

- Integrity Fire Rating - up to 2 hours
- Sizes available: 150 mm & 200 mm dia.
- Galvanised sleeve (spigot) 360 mm long

How to Order

With Sleeve:
IFDO- _____ HF
i.e. IFDO-150HF

Pressure Characteristics



Note:

Data reproduced from Vipac Report 30B-06-0173-TRP-216267-1, dated June 2007 in accordance with AS1682.1-1990 (Fire Dampers).

Performance Characteristics

For airflow, pressure and acoustic data please refer to the IFD-O nomogram details on page 20.

Suggested Specifications

All fire dampers shall be Kilargo intumescent IFD-OSS series, with stainless steel construction, no moving parts and allow for bi-directional airflow.

Intumescent fire dampers shall be tested for Fire Resistance Level (FRL) requirements in accordance with AS 1530.4 with an extended fully closed-off period of 120 seconds. Dampers shall also comply with the air leakage test of AS 1682.1.

Fire Damper installation shall be strictly in accordance with the relevant requirements of AS 1682.2, and Kilargo System Installation details including the use of Kilargo Intumescent Mastic.

Features

- Cost effective solution
- Stainless steel sleeve
- No hazardous fibrous packing required
- No thermal clearances required in installation
- Reduced maintenance & resultant cost savings
- Available with Halar coating for hazardous environments

Technical Data

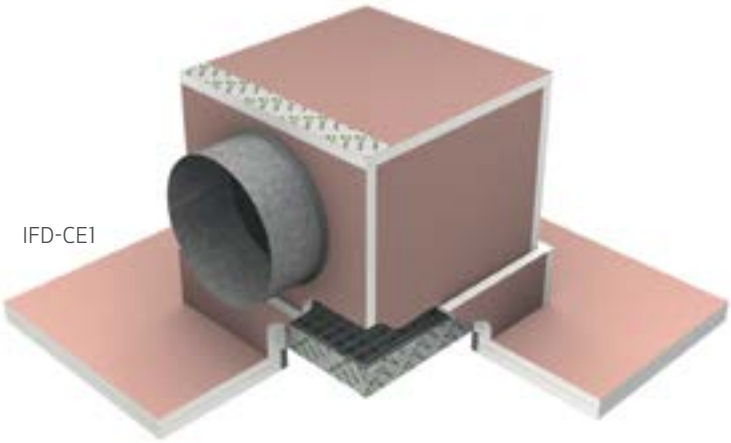
- Integrity Fire Rating - up to 2 hours
- Sizes available: 100 mm, 125 mm, 150 mm, 200 mm, 250 mm, 300 mm, 350 mm nominal dia.
- Stainless steel sleeve (spigot) 360 mm long
- Halar Coating option
- For pressure & acoustics characteristics please refer IFD-O series

How to Order

Standard SS:
IFDO- _____ SS
i.e. IFDO-150SS

Halar Coating:
IFDO- _____ SS HC
i.e. IFDO-150SS HC

IFD-CE1



Performance Characteristics

For airflow, pressure and acoustic data please refer to the IFD44 nomogram details on page 18.

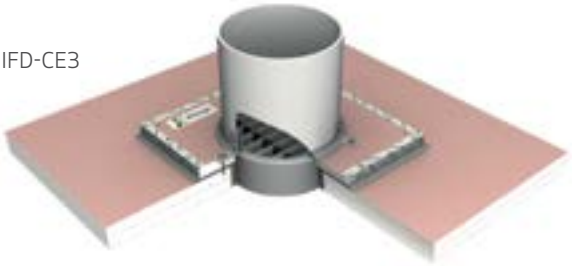
Suggested Specifications

Fire dampers shall be Kilargo IFD-CE series intumescent fire dampers. The installation shall be in accordance with approved Kilargo systems installation details and must comply with the requirements AS/NZS 1668.1 and the air leakage test of AS 1682.1.

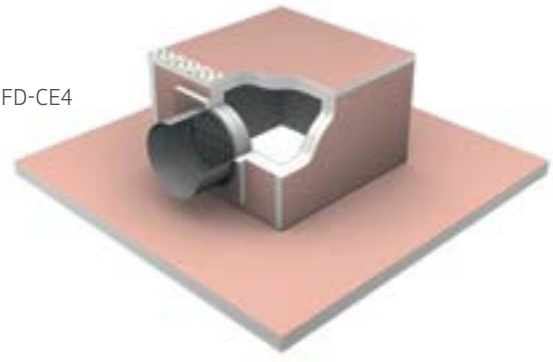
Fire dampers must allow bi-directional airflow and have no moving parts.

Alternate Ceiling Systems

IFD-CE3



IFD-CE4



Features

- Moisture resistant
- Innovative light weight design
- Space savings compared to old mechanical Rat Trap designs
- Suitable for use with supply grilles & return air diffusers
- Reduced maintenance & resultant cost savings
- Ideal for a retrofit in Fire Safety upgrades

* IFD-CE1 also available in a Lo-Profile option with oval spigot, for reduced ceiling heights.

Technical Data

- Integrity Fire Rating - up to 1 ½ hours
- Insulation Fire Rating - up to 1 ½ hours
- Max. size available as per Ceiling Mounted System Sheets

NB: Grille/Diffusers supply by others

How to Order

Select IFD-C to suit system type and ceiling diffuser or grille size.

IFD-CE1 _____ _____

i.e. IFD-CE1-200200

IFD-CE3- _____ _____

i.e. IFD-CE3-150

IFD-CE4 _____ _____

i.e. IFD-CE4-400

Application Summary

For performance and application summary refer to System Installation FD1, FD2 & FD3.

Performance Characteristics

For airflow, pressure and acoustic data please refer to the following nomogram details on page 26.

Suggested Specifications

Ventilation dampers for fire doors shall be Kilargo IFD-D series. The installation shall be fully tested to AS 1530.4 to comply with the requirements AS/NZS 1905.1. Fire dampers must allow bi-directional airflow and have no moving parts.

Features

- Innovative, slimline design
- Suitable for both Mini & Maxi fire doors
- All in one Kit includes 1 x IFD, 2 x Cover Grilles, Kilargo Mastic & fixings
- No moving parts result in a robust trouble free installation which will not rattle or vibrate
- Easy installation in New or Existing doors

Technical Data

- Integrity Fire Rating - 2 hours
- Insulation Fire Rating - 1/2 hour
- Sizes available: 600 x 300 mm, 450 x 450 mm & 600 x 600 mm
- Suits nominal 37mm & 47mm thick Fire Doors
- Grille features decorative finish suitable for INTERNAL USE ONLY.
- Aluminium cover grilles are also available for more aggressive environments to special order.

How to Order

IFD-D 450450

i.e. IFD-D 450mm x 450mm DOOR KIT

IFD-D 600300

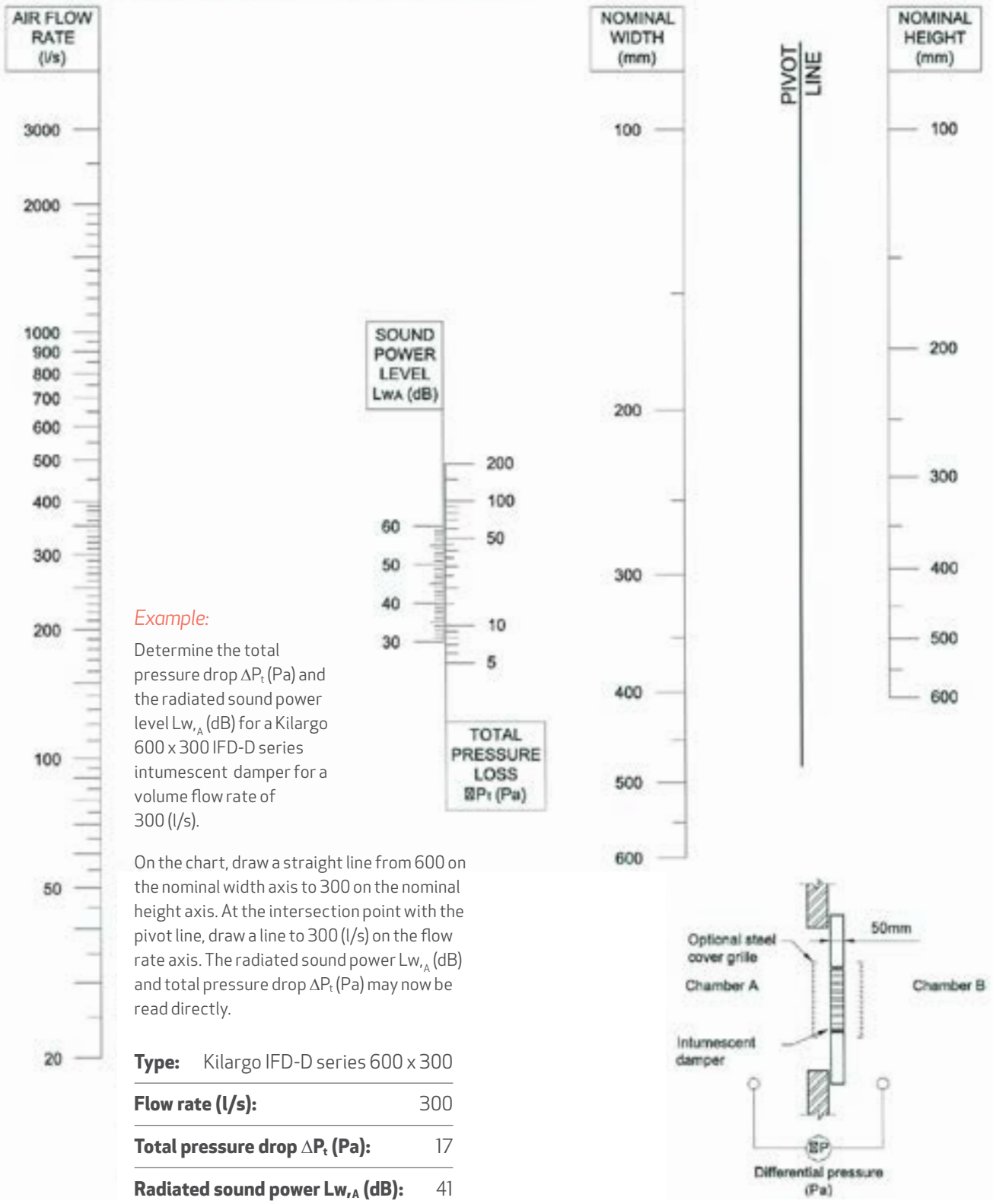
i.e. IFD-D 600mm x 300mm DOOR KIT

IFD-D 600600

i.e. IFD-D 600mm x 600mm DOOR KIT

NOTE: Check with the specific fire door manufacturer's approvals for your application.

Pressure and Acoustic Characteristics



Example:

Determine the total pressure drop ΔP_t (Pa) and the radiated sound power level $Lw_{,A}$ (dB) for a Kilargo 600 x 300 IFD-D series intumescent damper for a volume flow rate of 300 (l/s).

On the chart, draw a straight line from 600 on the nominal width axis to 300 on the nominal height axis. At the intersection point with the pivot line, draw a line to 300 (l/s) on the flow rate axis. The radiated sound power $Lw_{,A}$ (dB) and total pressure drop ΔP_t (Pa) may now be read directly.

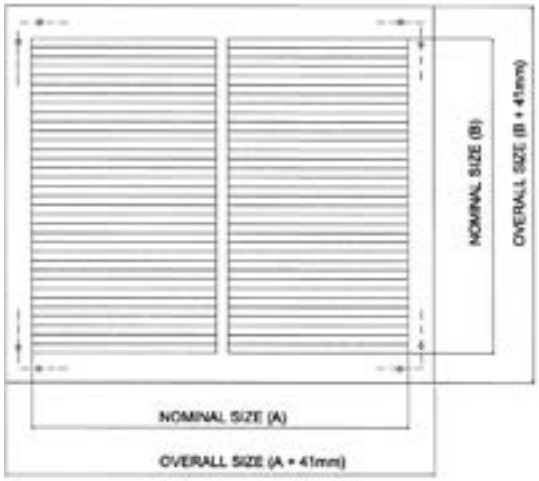
Type:	Kilargo IFD-D series 600 x 300
Flow rate (l/s):	300
Total pressure drop ΔP_t (Pa):	17
Radiated sound power $Lw_{,A}$ (dB):	41

Performance Criteria:

The acoustic and aerodynamic performance of a IFD-D Series Intumescent fire damper with steel cover plates installed either side of door leaf.

Dimensions

Front Elevation



Sectional Elevation

Sizing Chart

Select cover grille size to suit aperture ensuring adequate coverage for fixings.

Model	Size A x B	Free Area
LCG 152152	152 x 152	66%
LCG 203203	203 x 203	64%
LCG 305305	305 x 305	67%
LCG 457457	457 x 457	68%
LCG 610305	610 x 305	67%
LCG 610610	610 x 610	67%

Suggested Specifications

The fire damper cover grilles shall be Kilargo LCG type.

They shall be of mild steel with a satin silver finish.*

Kilargo LCG cover grilles

These cover grilles are made from mild steel and come with a decorative and protective satin silver finish. They are face fixed to walls or floors to provide an aesthetic appearance to rectangular and circular intumescent fire dampers.

Note: Mild steel grilles feature a decorative finish suitable for INTERNAL USE ONLY.

*Aluminium cover grilles are also available for more aggressive environments to special order.

How to Order

LCG _____ _____

i.e. LCG 457457

Kilargo Intumescent Mastic is designed for fire damper perimeter sealing, plus uses where other Intumescent material may be impractical. It is specially formulated for adhesion to metal, plastic, concrete, masonry and plasterboard materials.

Kilargo Intumescent Mastic is water based for easy clean up, and offering smooth gunnability, Kilargo Mastic is flexible, paintable and has acoustic properties. Kilargo approvals specify the use of Kilargo Intumescent Mastic.

Availability

Supplied in 310ml cartridges. Grey colour standard.

Method of Use

1. Surfaces should be free from oil and dust.
2. Apply mastic to both sides of perimeter gaps to a depth of at least that of the gap width.
3. The surface will be tack free in approximately 20 minutes in dry conditions or about 2 hours in a humid environment.
4. Large joints (not exceeding 25 mm) can be built up with additional applications after initial drying, in order to avoid excessive slump. It may also be necessary to use a non-combustible material or backing rod in such applications.
5. Any tools can be cleaned with water.

Suggested Specifications

The Intumescent Mastic shall be Kilargo water based type, supplied in 310 ml cartridges.

Mastic shall be Kilargo Intumescent type to conform with the Kilargo approved methods of installation.

How to Order

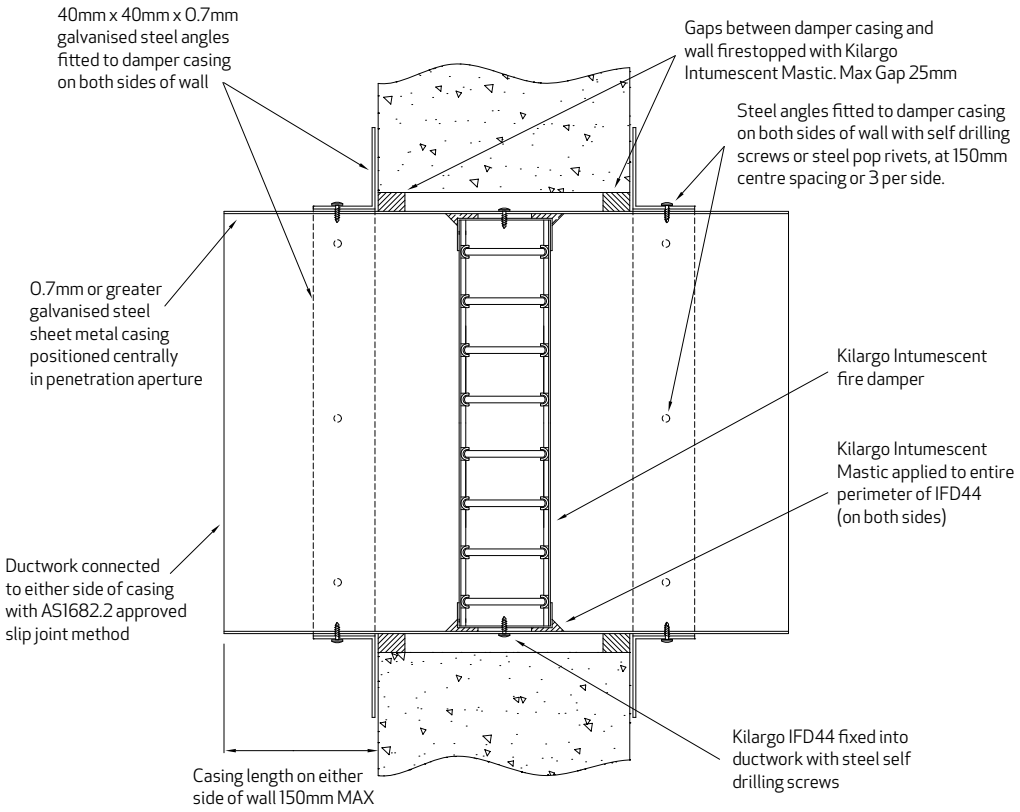
310 ml CARTRIDGE

KIM-310 GREY

KIM-310 WHITE

Supplied in 310 ml tubes individually or in carton quantity.

Wall Mounted Systems



Installation Instructions

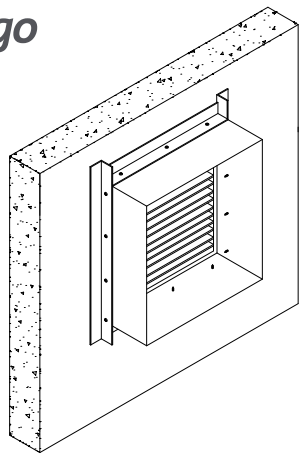
Single cell units in steel casing penetrating masonry wall

1. Position damper centrally in penetration aperture as per System Drawing.
2. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
3. Fasten mounting angles to both sides of damper casing with steel self drilling screws or steel pop rivets.
4. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
6. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles & fixing screws are to be supplied by others.

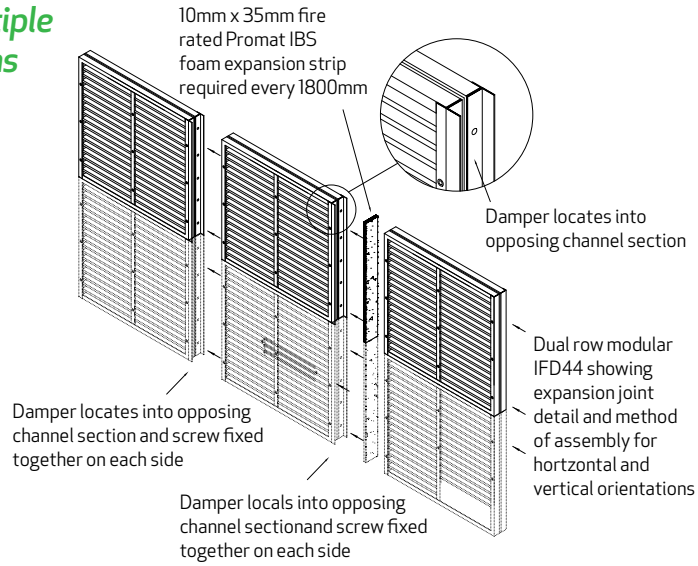
Kilargo



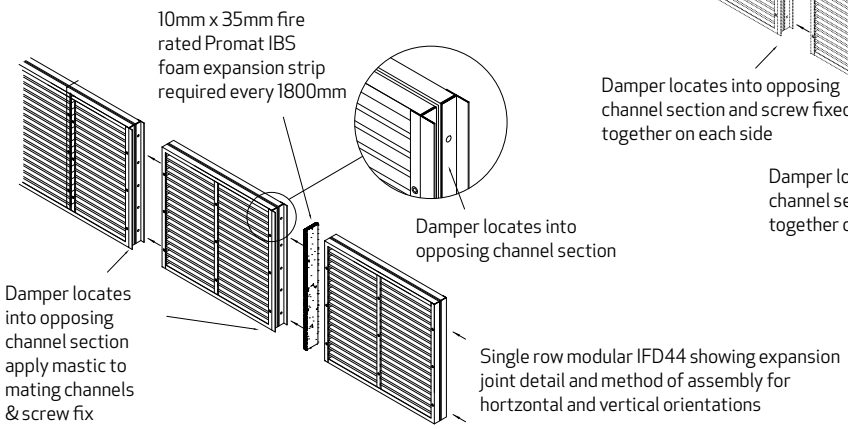
Building Element	Masonry
Application	Mounted in steel casing in penetration
Maximum Size	Single Cell 600mm x 600mm
FRL	-/120/-
Test Reference No.	CSIRO FC02643, FC01741
System No.	**WM1 (a)**

See also modular configuration on system WM1 (b)

Assembly method for multiple row modular configurations



Assembly method for single row modular configurations



Installation Instructions

Multiple cell units in steel casing penetrating masonry wall

1. Assemble damper modules by applying Kilargo Intumescent Mastic to mating channel. Align and bring units together so that they interlock and mechanically fix together with steel self drilling screws or steel pop rivets at 150mm centres.
2. Once assembled install the modular unit into sheet metal casing as shown in installation diagram.
3. Position completed damper assembly centrally in penetration aperture as shown in system data sheet.
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
5. Fasten mounting angles to either side of damper casing with steel self drilling screws or steel pop rivets.
6. If connecting ductwork to installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
8. Ensure convenient access is provided for visual inspection and cleaning as necessary.

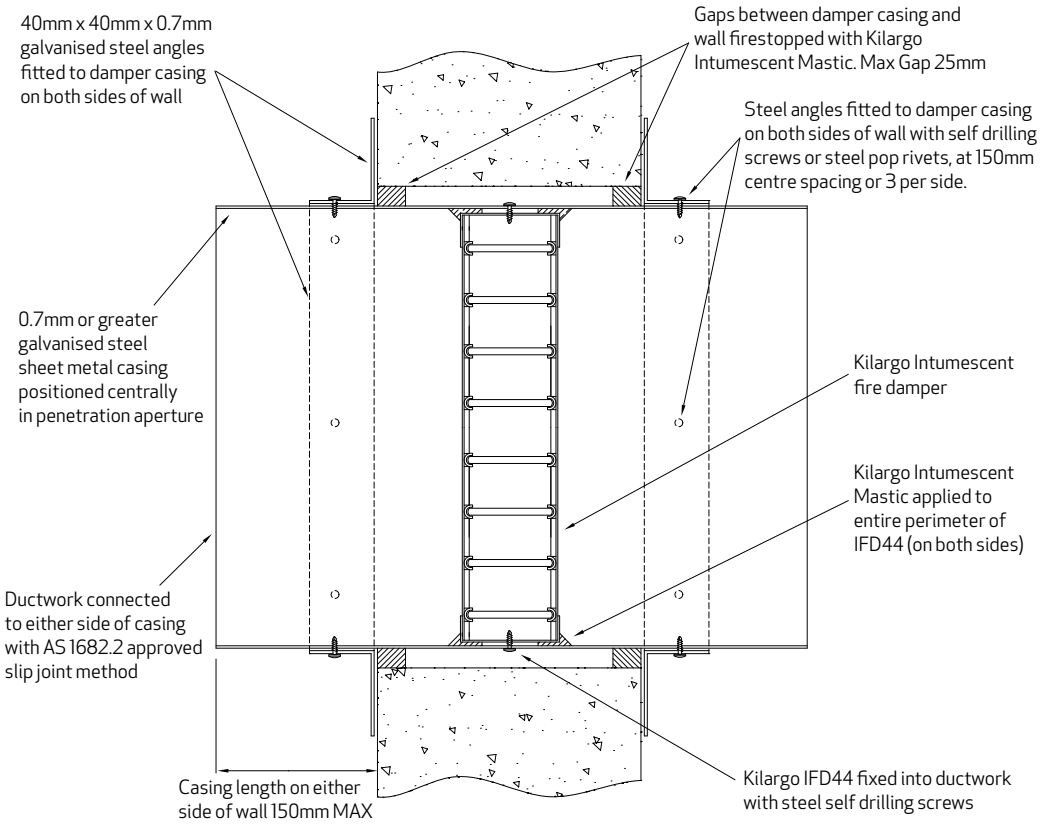
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles and fixing screws supplied by others.

Kilargo

Building Element	Masonry
Application	Mounted in steel casing in penetration
Maximum Size	1200mm x >10m, >10m x 1200mm
FRL	-/120/-
Test Reference No.	CSIRO FC02643, FC01741
System No.	**WM1 (b)**

To be read in conjunction with system WM1 (a)



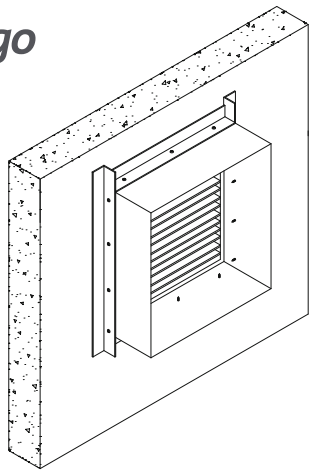
Installation Instructions

Single cell units in steel casing penetrating masonry wall

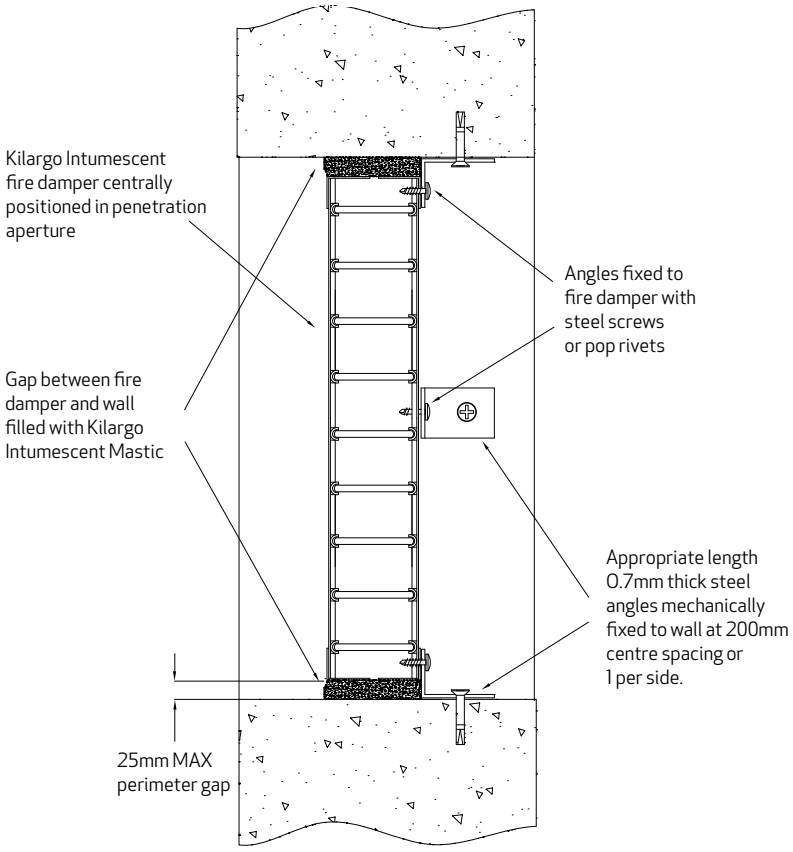
1. Position damper centrally in penetration aperture as per System Drawing.
2. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
3. Fasten mounting angles to both sides of damper casing with steel self drilling screws or steel pop rivets.
4. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
6. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Retaining angles & fixing screws are to be supplied by others.



Building Element	Masonry
Application	Mounted in steel casing in penetration
Maximum Size	250mm x 250mm
FRL	-/240/-
Test Reference No.	WFRA C91525
System No.	**WM2**



Installation Instructions

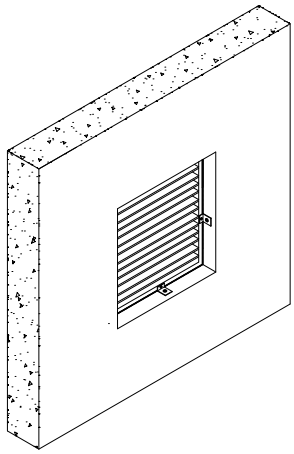
Single cell units in masonry wall with no casing

1. Position damper centrally in penetration aperture as per System Drawing.
2. Fasten mounting angles to one side of damper with steel self drilling screws or steel pop rivets.
3. Fix mounting angles to wall aperture using masonry anchors (supplied by others).
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to wall ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

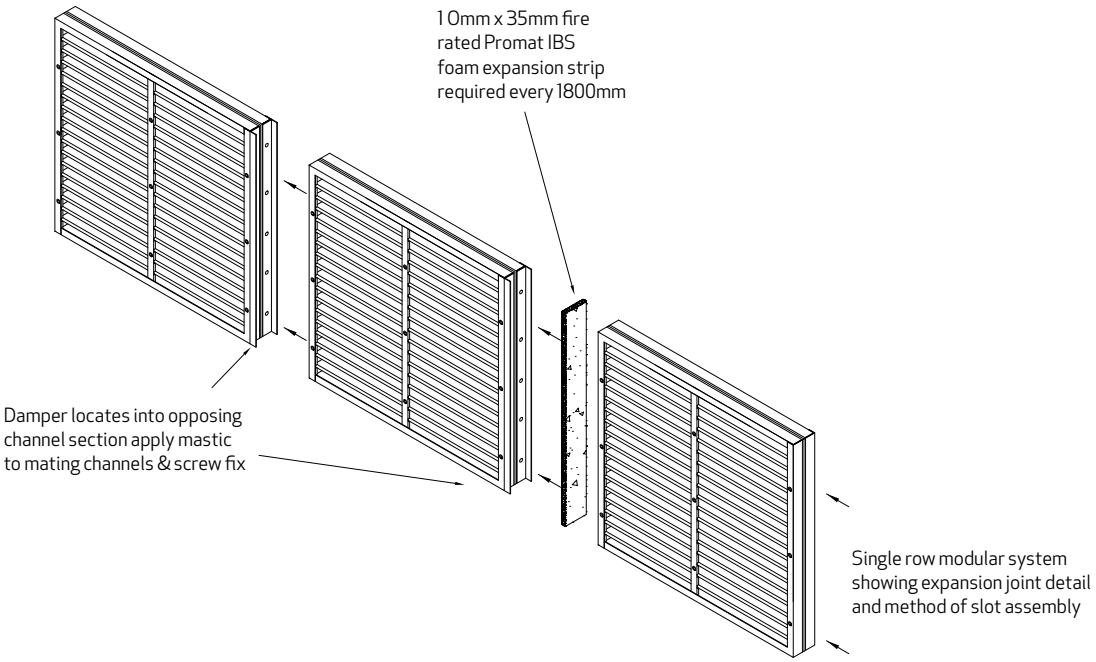
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws brackets and anchors are to be supplied by others.

Kilargo



Building Element	Masonry
Application	No casing in penetration
Maximum Size	Single Cell 600mm x 600mm
FRL	-/120/-
Test Reference No.	CSIRO FC02643
System No.	**WM3 (a)**

See also Modular Configuration drawing on system WM3 (b)



Installation Instructions

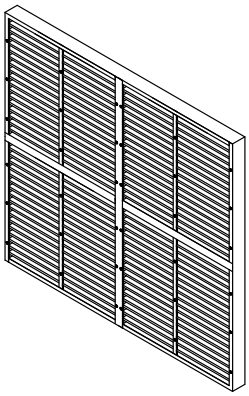
Multiple cell modules in masonry wall with no casing

1. Assemble damper modules by applying Kilargo Intumescent Mastic to mating channel. Align and bring units together so that they interlock and mechanically fix together with steel self drilling screws or steel pop rivets at 150mm centres.
2. Position assembled damper module centrally in penetration aperture as shown in System Drawing.
3. Fasten mounting angles to either side of damper casing with steel self drilling screws or steel pop rivets.
4. Fix damper mounting angles to wall using masonry anchors (supplied by others).
5. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
6. If connecting ductwork to installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
8. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

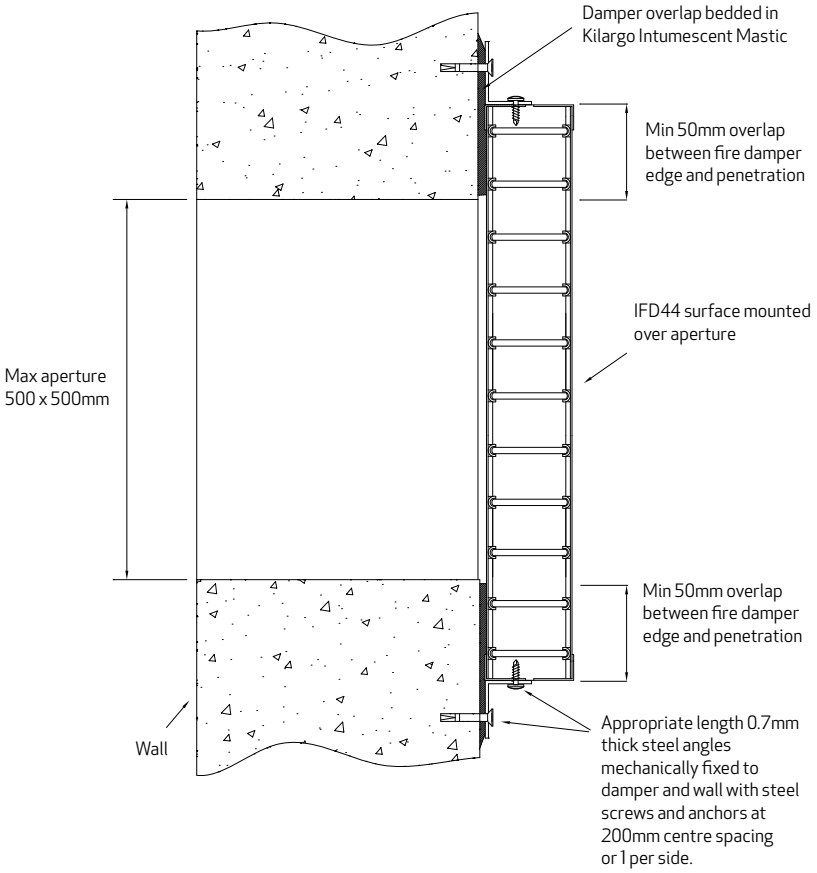
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Mounting angles, screws and masonry anchors supplied by others.

Kilargo



Building Element	Masonry
Application	NO casing in penetration
Maximum Size	600mm x >10m, >10m x 600mm
FRL	-/120/-
Test Reference No.	CSIRO FCO2643
System No.	**WM3 (b)**

To be read in conjunction with system WM3 (a)



Installation Instructions

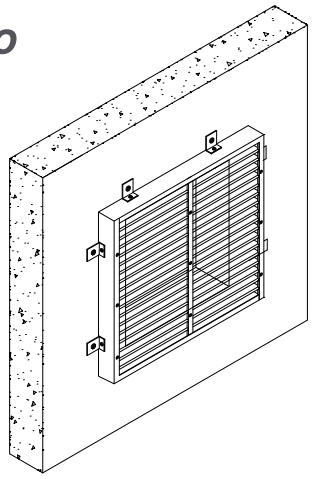
Single cell units surface mounted over masonry wall

1. Fasten mounting angles to sides of damper with steel self drilling screws or steel pop rivets.
2. Position damper centrally over penetration aperture as per system drawing ensuring a minimum of 50mm overlap all around.
3. Liberally apply Kilargo Intumescent Mastic over the surface of the 50mm overlap.
4. Position and bed damper into mastic and fix mounting angles and fix in place using masonry anchors (supplied by others).
5. If necessary re-apply Kilargo Intumescent Mastic (supplied separately) to any gaps between the damper & building element as detailed in the System Drawing.
6. If connecting ductwork to the wall ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
8. Ensure convenient access is provided for visual inspection and cleaning as necessary.

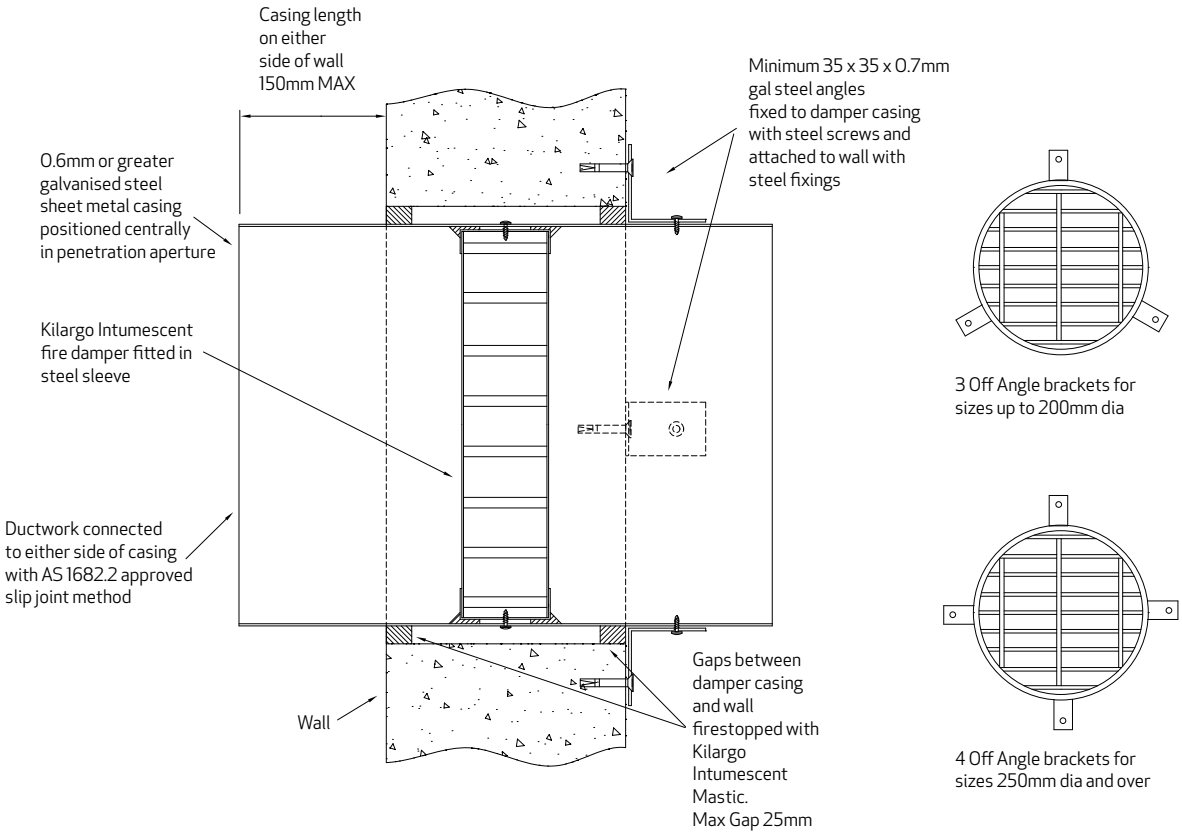
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, brackets and anchors are to be supplied by others.

Kilargo



Building Element	Masonry
Application	NO casing - surface mounted over penetration
Maximum Size	600mm x 600mm
FRL	-/120/-
Test Reference No.	CSIRO FC01740
System No.	**WM4**



Installation Instructions

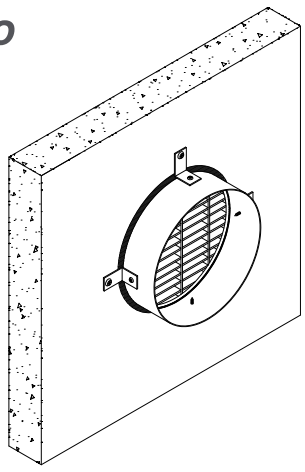
Circular damper in steel sleeve penetrating masonry wall

1. Position and centre the spigot containing fire damper in the penetration aperture as per System Drawing.
2. Fasten supplied mounting tabs to exterior of spigot with steel self drilling screws or steel pop rivets.
3. Fix mounting tabs to wall using masonry anchors (supplied by others).
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure mastic fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to installed damper ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

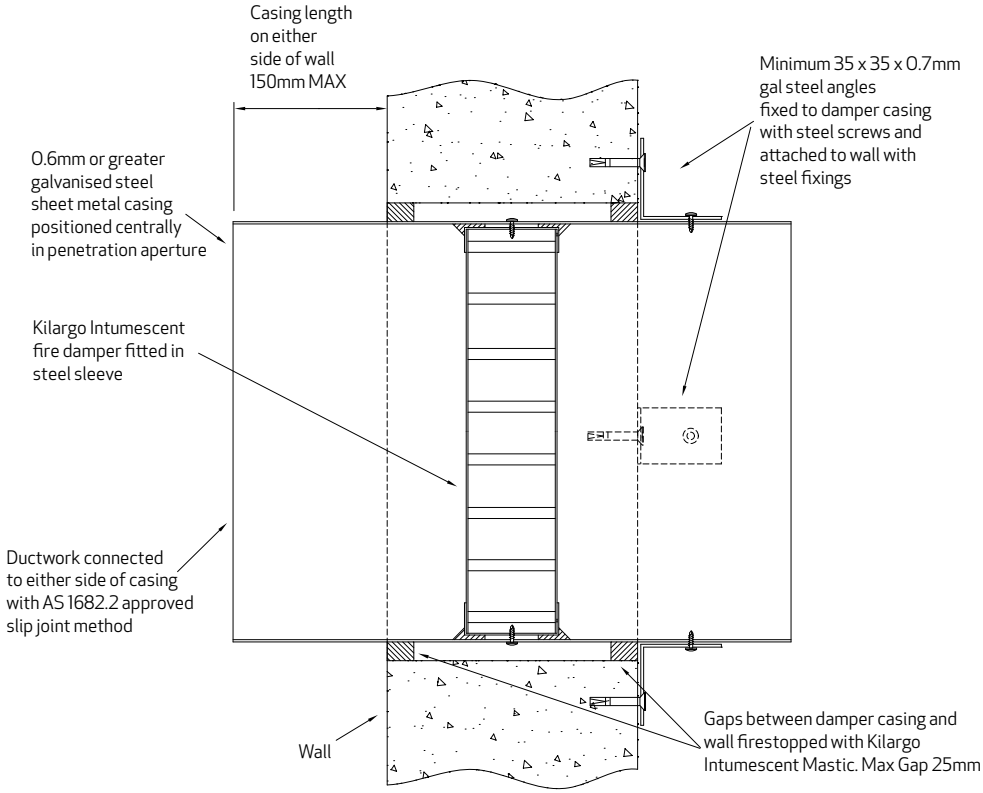
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws and anchors are to be supplied by others.

Kilargo



Building Element	Masonry
Application	Steel sleeve in penetration
Maximum Size	350mm diameter
FRL	-/120/-
Test Reference No.	EWFA 22774/05
System No.	**WM5**



Installation Instructions

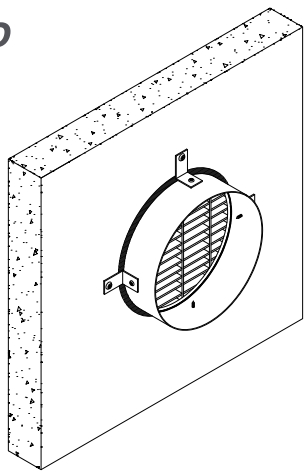
Circular damper in steel sleeve penetrating masonry wall

1. Position and centre the spigot containing fire damper in the penetration aperture as per System Drawing.
2. Fasten supplied mounting tabs to exterior of spigot with steel self drilling screws or steel pop rivets.
3. Fix mounting tabs to wall using masonry anchors (supplied by others).
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure mastic fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to installed damper ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

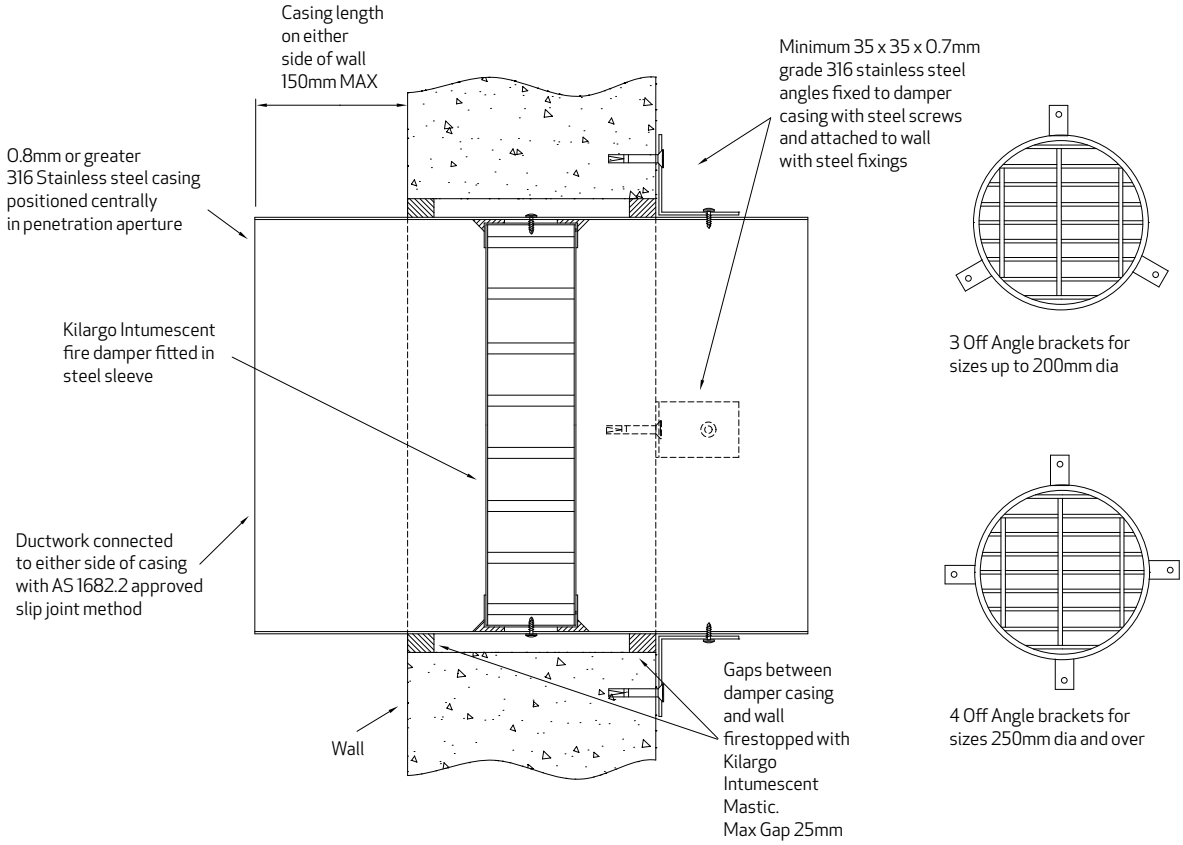
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws and anchors are to be supplied by others.

Kilargo



Building Element	Masonry
Application	Steel sleeve in penetration
Maximum Size	150mm diameter
FRL	-/240/-
Test Reference No.	EWFA 22774/05
System No.	**WM6**



Installation Instructions

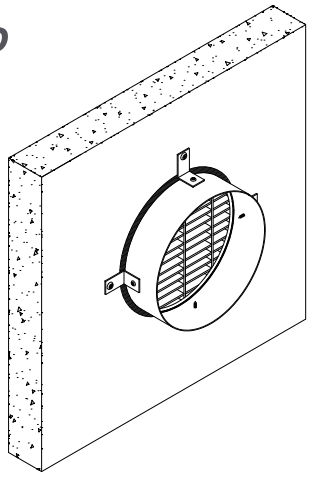
Circular damper in Stainless Steel sleeve penetrating masonry wall

1. Position and centre the spigot containing fire damper in the penetration aperture as per System Drawing.
2. Fasten supplied mounting tabs to exterior of spigot with steel self drilling screws or steel pop rivets.
3. Fix mounting tabs to wall using masonry anchors (supplied by others).
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure mastic fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to installed damper ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

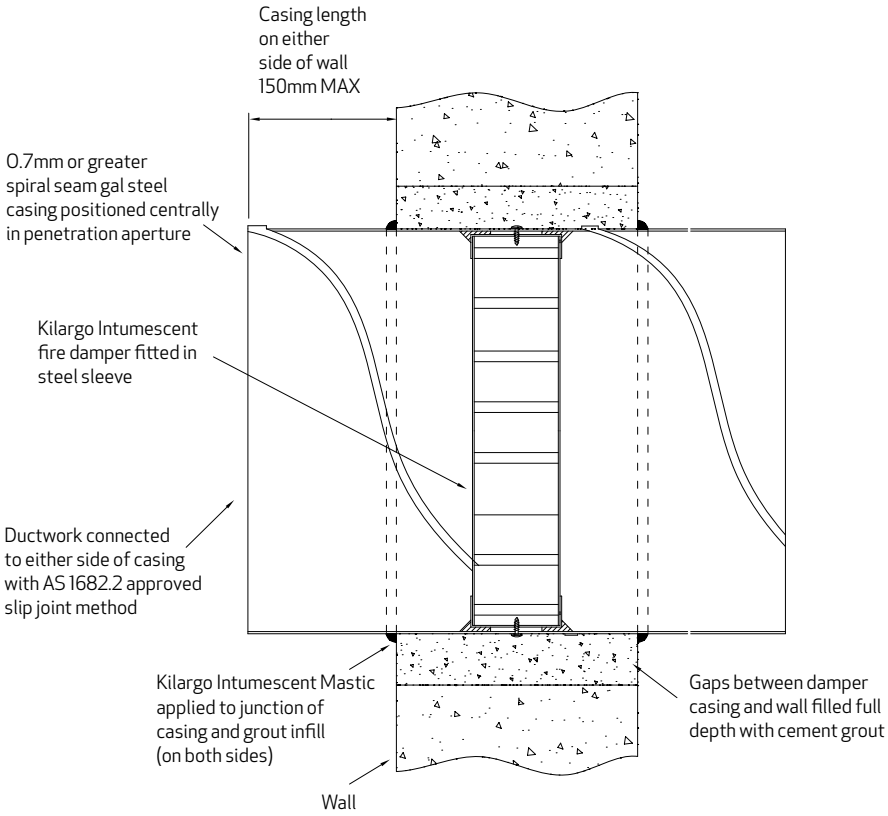
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws and anchors are to be supplied by others.

Kilargo



Building Element	Masonry
Application	Stainless steel sleeve in penetration
Maximum Size	350mm diameter
FRL	-/120/-
Test Reference No.	EWFA 22774/05
System No.	**WM7**



Installation Instructions

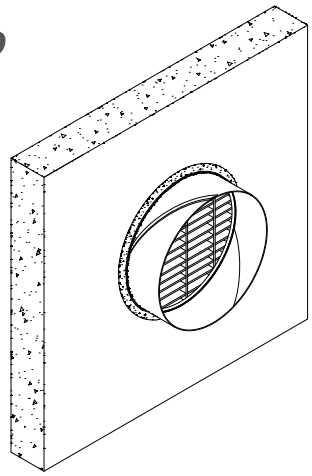
Circular damper in spiral spigot (angle free - grouted) penetrating masonry wall

1. Position and centre the spiral seam spigot containing the fire damper in the penetration aperture as per System Drawing.
2. Brace and retain spigot in place, - formwork may be required to retain grout in place until set.
3. Apply cement grout to fill external gap full depth - once grout has set remove formwork (if used).
4. Clean up any loose cement and apply a bead of Kilargo Intumescent Mastic (supplied separately) to the junction between damper spigot & cured grout infill.
5. If connecting ductwork to installed damper ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

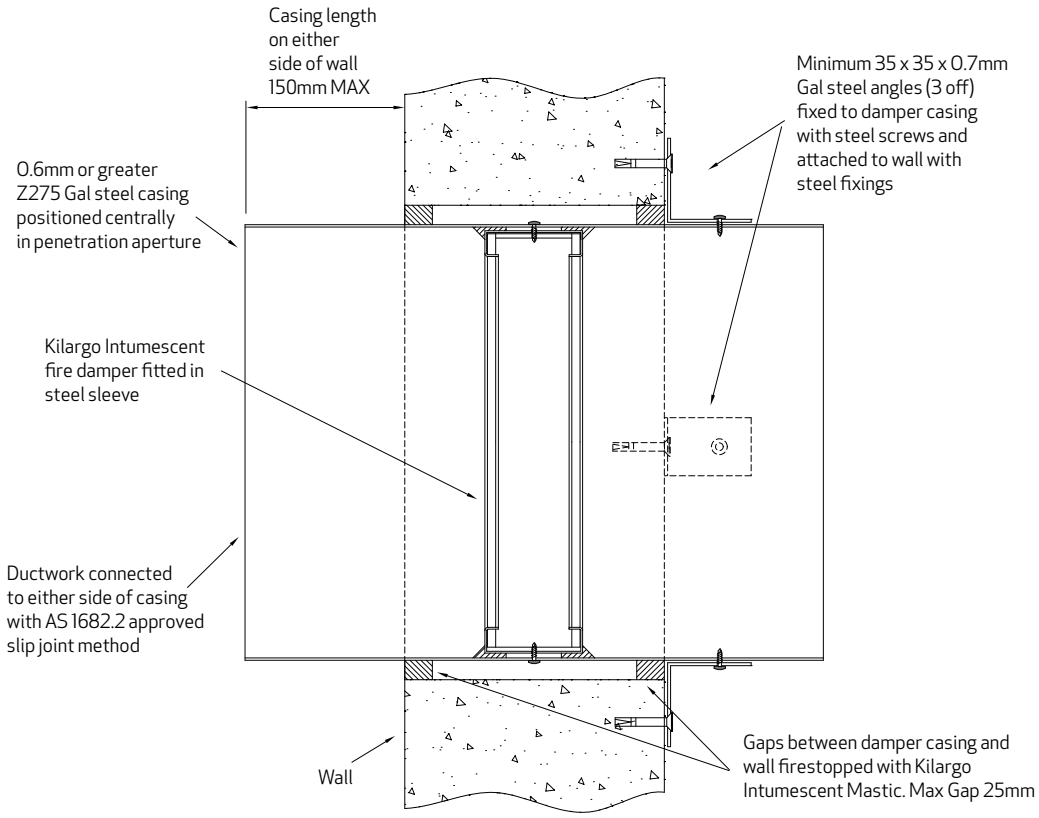
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.

Kilargo



Building Element	Masonry
Application	Spiral duct sleeve grouted into penetration (angle free)
Maximum Size	300mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FCO2008
System No.	**WM8**



Installation Instructions

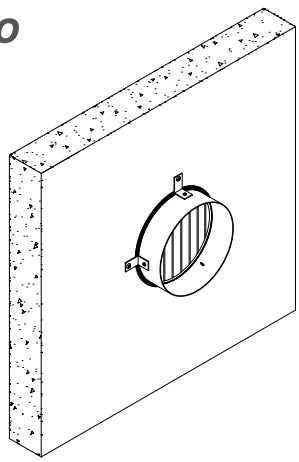
Hi-Flo Circular damper in steel sleeve penetrating masonry wall

1. Position and centre the spigot containing fire damper in the penetration aperture as per System Drawing.
2. Fasten supplied mounting tabs to exterior of spigot with steel self drilling screws or steel pop rivets.
3. Fix mounting tabs to wall using masonry anchors (supplied by others).
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure mastic fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to installed damper ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

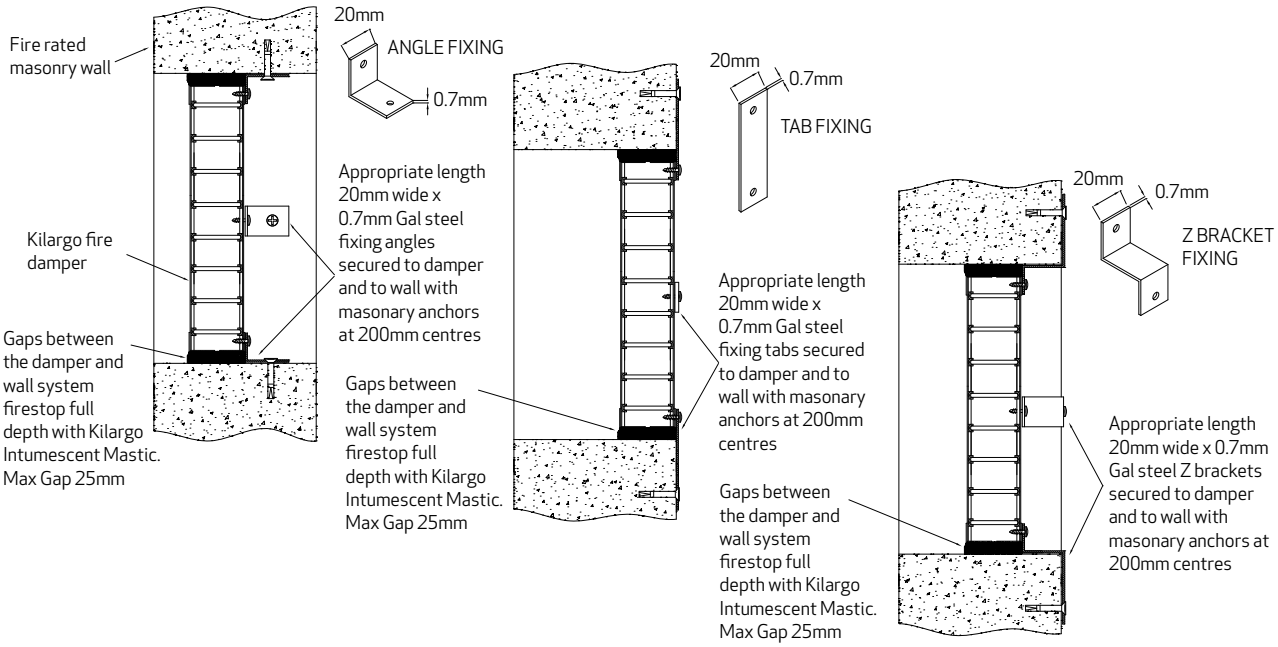
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws and anchors are to be supplied by others.

Kilargo



Building Element	Masonry
Application	Steel sleeve in penetration
Maximum Size	200mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FC02564
System No.	**WM10**



Installation Instructions

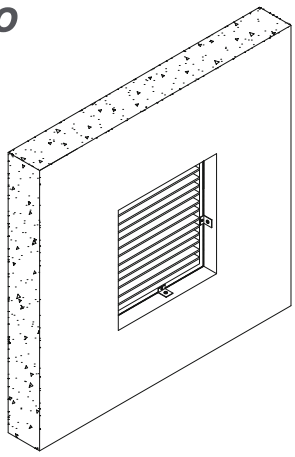
Single & Modular units in masonry wall with no casing

1. Depending upon fixing bracket chosen, fasten mounting Angle Tab or Z brackets to one side of damper with steel self drilling screws or steel pop rivets.
2. Position damper centrally in penetration aperture as per System Drawing.
3. Fix mounting Angle Tab or Z bracket to wall aperture using masonry anchors (supplied by others).
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to wall ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

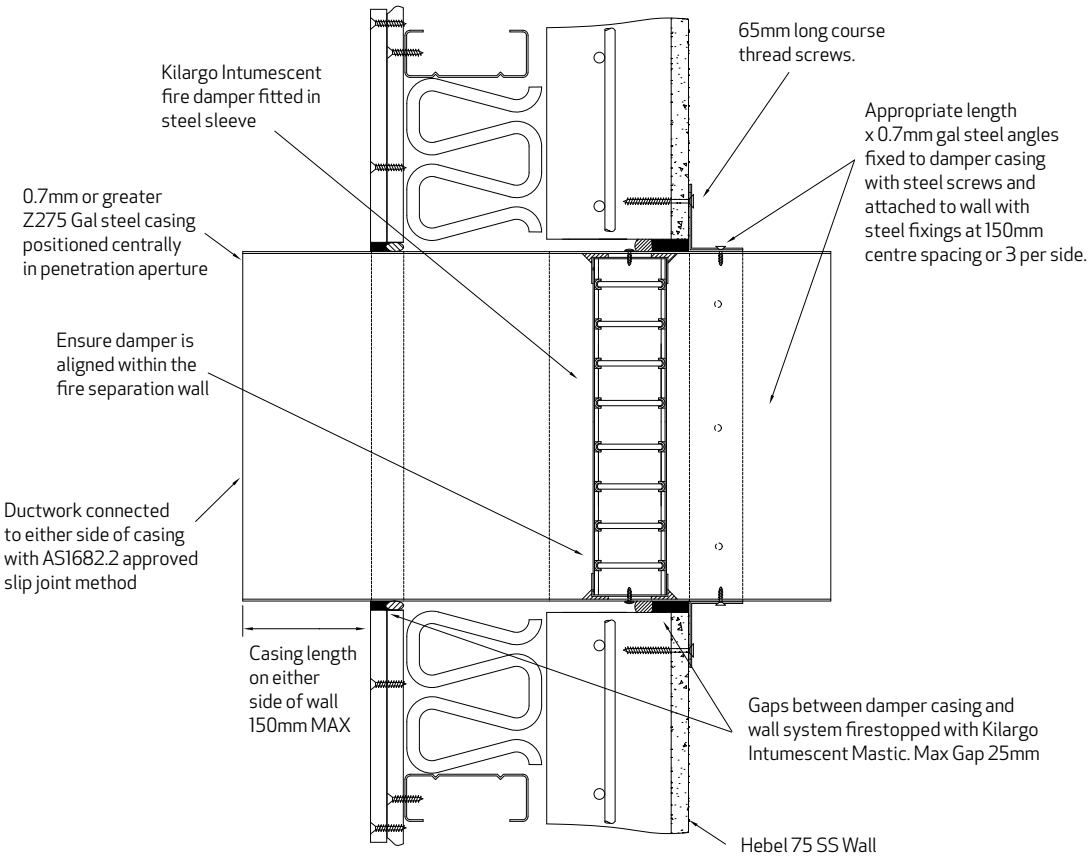
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, brackets and anchors are to be supplied by others.

Kilargo



Building Element	Masonry
Application	No casing with various fixing brackets
Maximum Size	600mm x >10m
FRL	-/120/-
Test Reference No.	CSIRO FC01854, FC02512
System No.	**WM11**



Installation Instructions

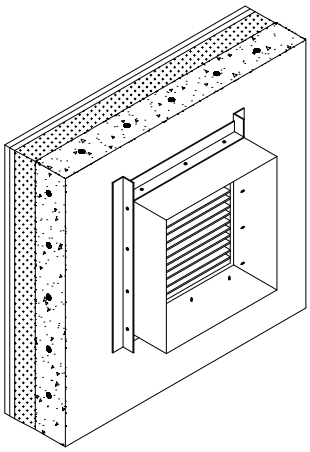
Single cell units in steel casing penetrating 75SS Hebel wall

1. Position damper centrally in penetration aperture as per System Drawing.
2. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
3. Fasten mounting angles to (Hebel panel side) of damper casing with steel self drilling screws or steel pop rivets.
4. Fix mounting angles to Hebel panel side of wall using 65mm course thread screws (supplied by others).
5. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

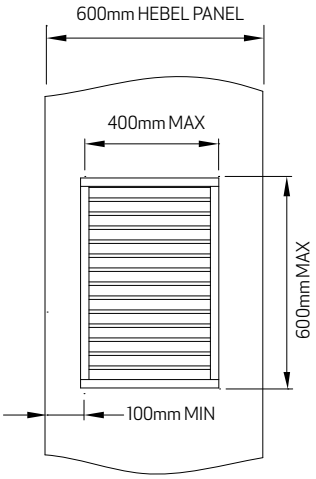
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles & fixing screws are to be supplied by others.

Kilargo

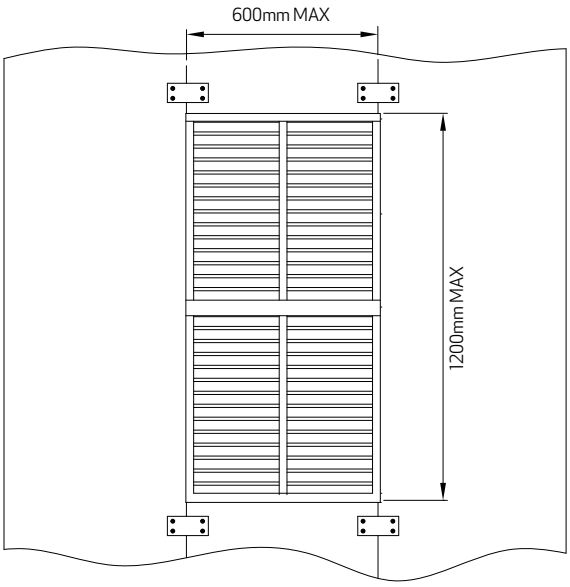


Building Element	Hebel 75SS
Application	Mounted in steel casing in penetration
Maximum Size	Single Cell: 400 x 600mm Multiple Cell: 600 x 1200mm
FRL	-/120/-
Test Reference No.	CSIRO FCO2325
System No.	**WH1 (a)**

See also Modular Configuration on system WH1(b)



Kilargo fire damper fitted in single CSR Hebel 75SS Powerpanel



Kilargo fire damper fitted in two CSR Hebel 75SS panels. Panels fixed together with 2 brackets to each side (4 total) attached with 4 x 65mm long coarse thread screws per bracket

Installation Instructions

Multiple cell units in steel casing penetrating 75SS Hebel wall

1. Assemble damper modules by applying Kilargo Intumescent Mastic to mating channel. Align and bring units together so that they interlock and mechanically fix together with steel self drilling screws or steel pop rivets at 150mm centres.
2. Once assembled install the modular unit into sheet metal casing as shown in installation diagram.
3. Position completed damper assembly centrally in penetration aperture as shown in system data sheet. Note if damper interrupts Hebel wall joint - steel reinforcing plates need to be applied to either side of joint - see System Drawings.
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
5. Fasten mounting angles to Hebel wall side of damper casing with steel self drilling screws or steel pop rivets.
6. Fix mounting angles to Hebel wall with 65mm course thread screws.
7. If connecting ductwork to installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
8. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
9. Ensure convenient access is provided for visual inspection and cleaning as necessary.

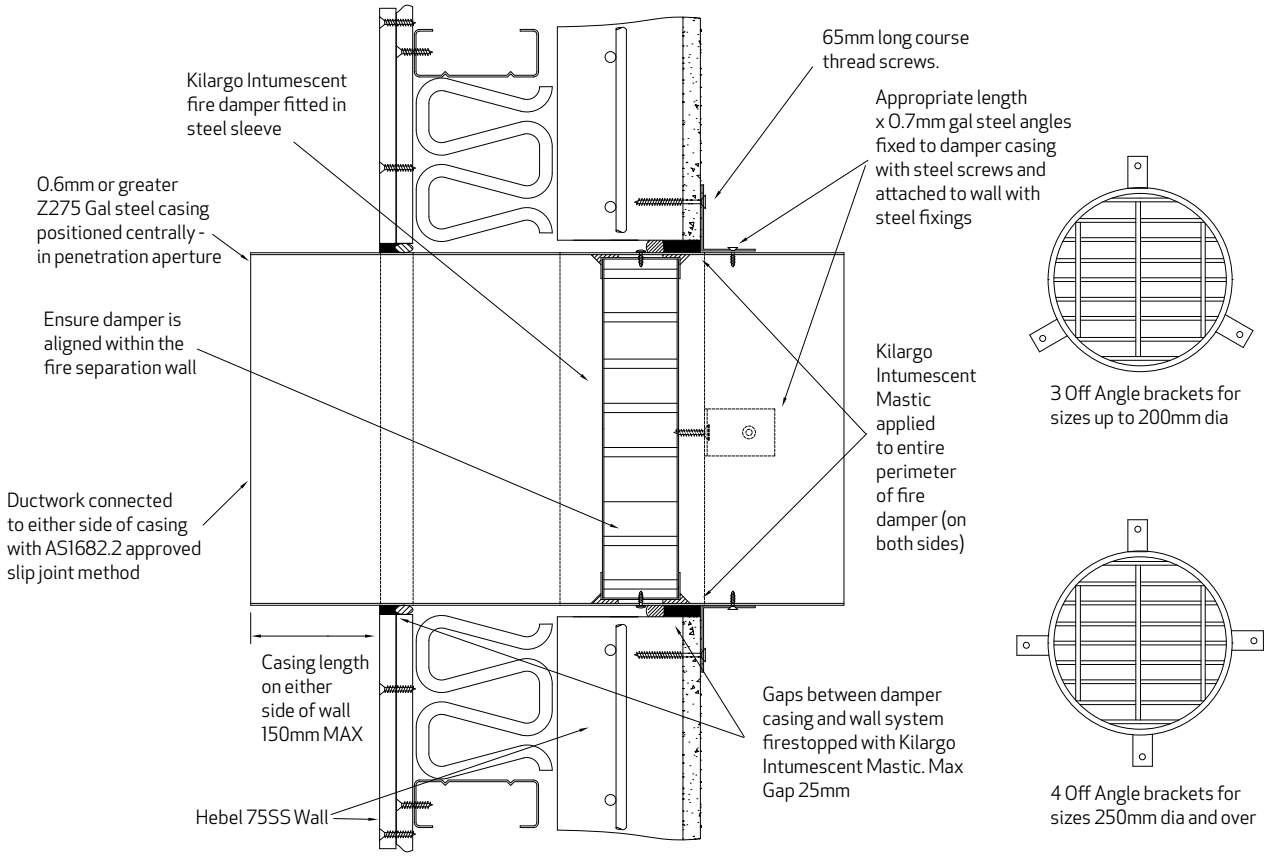
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing angles, brackets and fixing screws by others.

Kilargo

Building Element	Hebel 75SS
Application	Mounted in steel casing in penetration
Maximum Size	Single Cell: 400 x 600mm Multiple Cell: 600 x 1200mm
FRL	-/120/-
Test Reference No.	CSIRO FCO2325
System No.	**WH1 (b)**

To be read in conjunction with system WH1 (a)



Installation Instructions

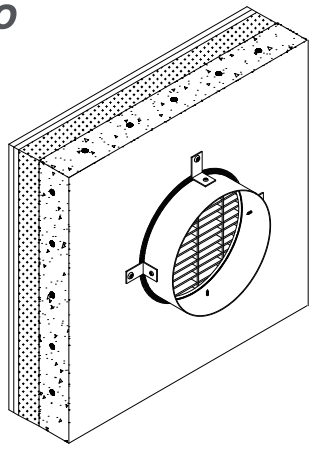
Circular dampers in steel sleeve penetrating 75SS Hebel wall

1. Position and centre the spigot containing fire damper in the penetration aperture as per System Drawing.
2. Fasten supplied mounting tabs to exterior of spigot with steel self drilling screws or steel pop rivets. Note dampers larger than 250mm diameter require 4 off fixings.
3. Fix mounting tabs to wall using 65mm course thread screws (supplied by others). Note: where damper is positioned on Hebel wall joint - steel reinforcing plates are required either side of joint - see system drawing details.
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure mastic fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to installed damper ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

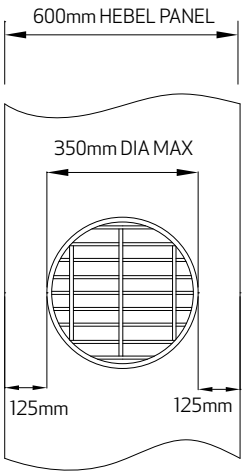
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Brackets and fixing screws supplied by others.

Kilargo

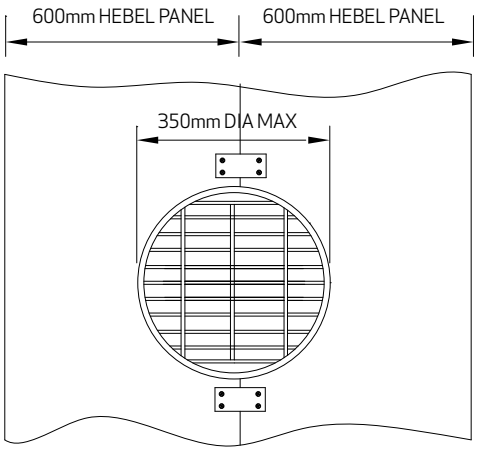


Building Element	Hebel 75SS
Application	Steel sleeve in penetration
Maximum Size	350mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FCO2325
System No.	**WH2 (a)**

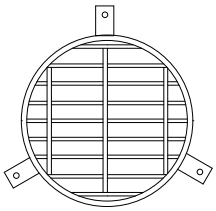
See also Modular Configuration drawing on system WH2 (b)



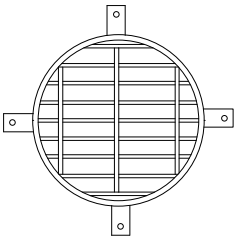
Kilargo fire damper fitted in single CSR Hebel 75SS Powerpanel



Kilargo fire damper fitted in two CSR Hebel 75 SS panels. Panels fixed together with 2 brackets to each side (4 total) attached with 4 x 65mm long coarse thread screws per bracket



3 Off Angle brackets for sizes up to 200mm dia



4 Off Angle brackets for sizes 250mm dia and over

Installation Instructions

Circular dampers in steel sleeve penetrating multiple panel 75SS Hebel wall

1. Position and centre the spigot containing fire damper in the penetration aperture as per System Drawing.
2. Fasten supplied mounting tabs to exterior of spigot with steel self drilling screws or steel pop rivets. Note dampers larger than 250mm diameter require 4 off fixings.
3. Fix mounting tabs to wall using 65mm course thread screws (supplied by others). Note: where damper is positioned on Hebel wall joint - steel reinforcing plates are required either side of joint - see System Drawing details.
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure mastic fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to installed damper ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

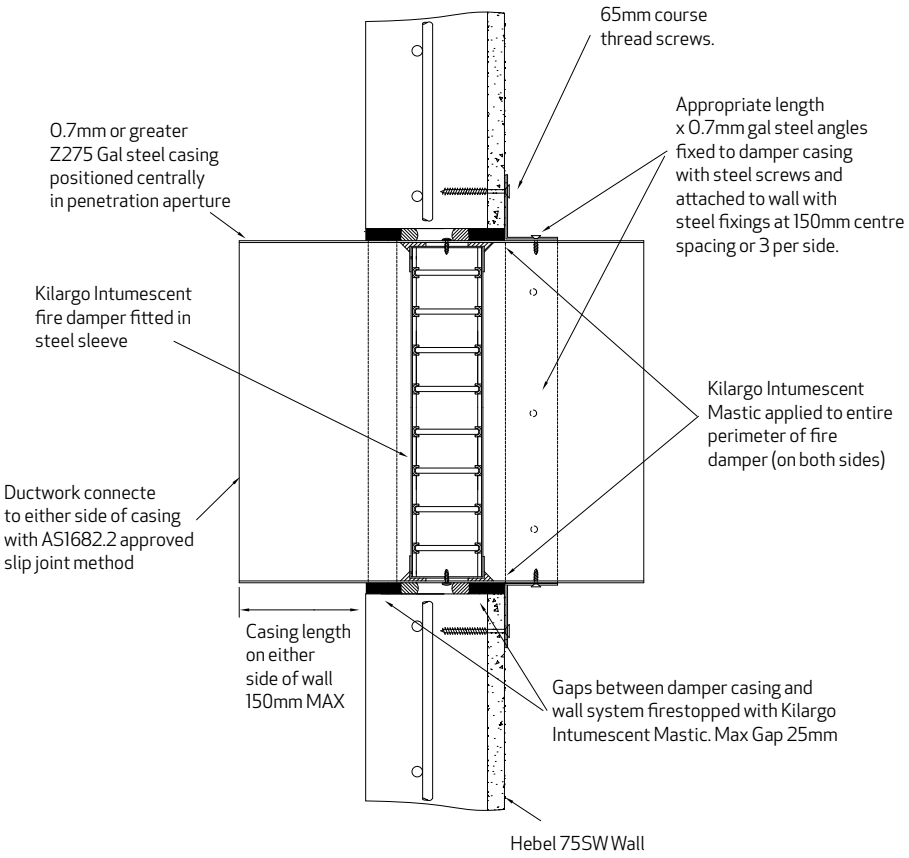
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Brackets and fixing screws supplied by others.

Kilargo

Building Element	Hebel 75SS
Application	Steel sleeve in penetration
Maximum Size	350mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FC02325
System No.	**WH2 (b)**

To be read in conjunction with WH2 (a)



Installation Instructions

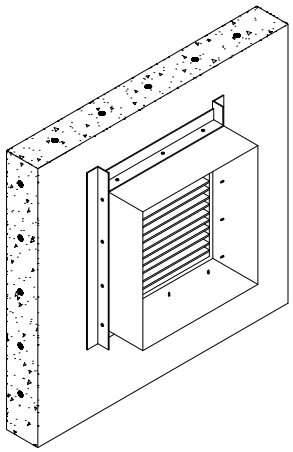
Single cell units in steel casing penetrating 75SW Hebel wall

1. Position damper centrally in penetration aperture as per system drawing.
2. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
3. Fasten mounting angles to (Hebel panel side) of damper casing with steel self drilling screws or steel pop rivets.
4. Fix mounting angles to Hebel panel side of wall using 65mm course thread screws (supplied by others).
5. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

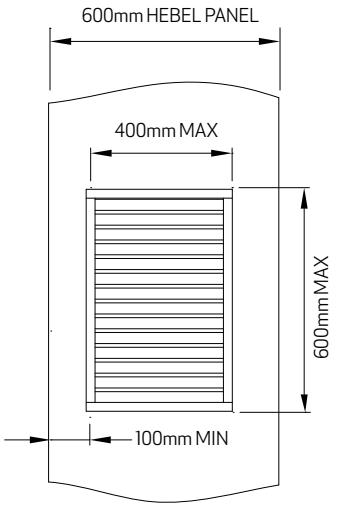
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles and fixing screws supplied by others.

Kilargo

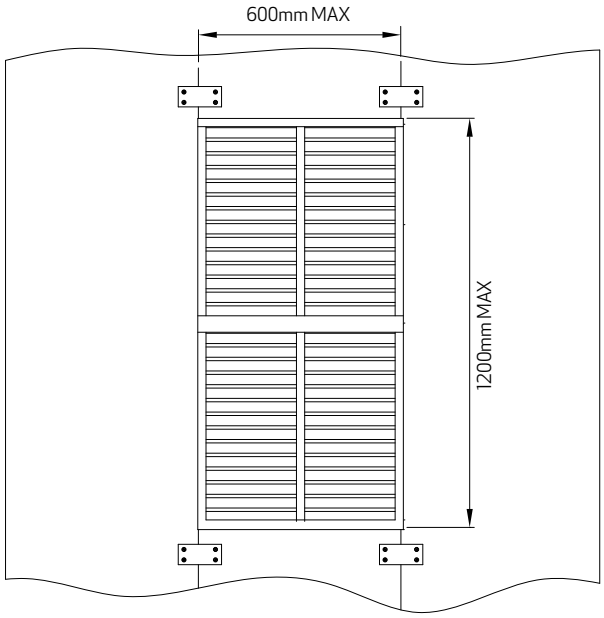


Building Element	Hebel 75SW
Application	Mounted in steel casing in penetration
Maximum Size	Single Cell: 400 x 600mm Multiple Cell: 600 x 1200mm
FRL	-/120/-
Test Reference No.	CSIRO FCO2325
System No.	**WH3 (a)**

See also Modular Configuration drawing on system WH3 (b)



Kilargo fire damper fitted in single CSR Hebel 75SW Powerpanel.



Kilargo fire damper fitted in two CSR Hebel 75SW panels. Panels fixed together with 2 brackets to each side (4 total) attached with 4 x 65mm long coarse thread screws per bracket.

Installation Instructions

Modular units in steel casing penetrating multiple panel 75SW Hebel wall

1. Assemble damper modules by applying Kilargo Intumescent Mastic to mating channel. Align and bring units together so that they interlock and mechanically fix together with steel self drilling screws or steel pop rivets at 150mm centres.
2. Once assembled install the modular unit into sheet metal casing as shown in installation diagram.
3. Position completed damper assembly centrally in penetration aperture as shown in system data sheet. Note if damper interrupts Hebel wall joint - steel reinforcing plates need to be applied to either side of joint - see System Drawings.
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
5. Fasten mounting angles to Hebel wall side of damper casing with steel self drilling screws or steel pop rivets.
6. Fix mounting angles to Hebel wall with 65mm course thread screws (supplied by others).
7. If connecting ductwork to installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
8. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
9. Ensure convenient access is provided for visual inspection and cleaning as necessary.

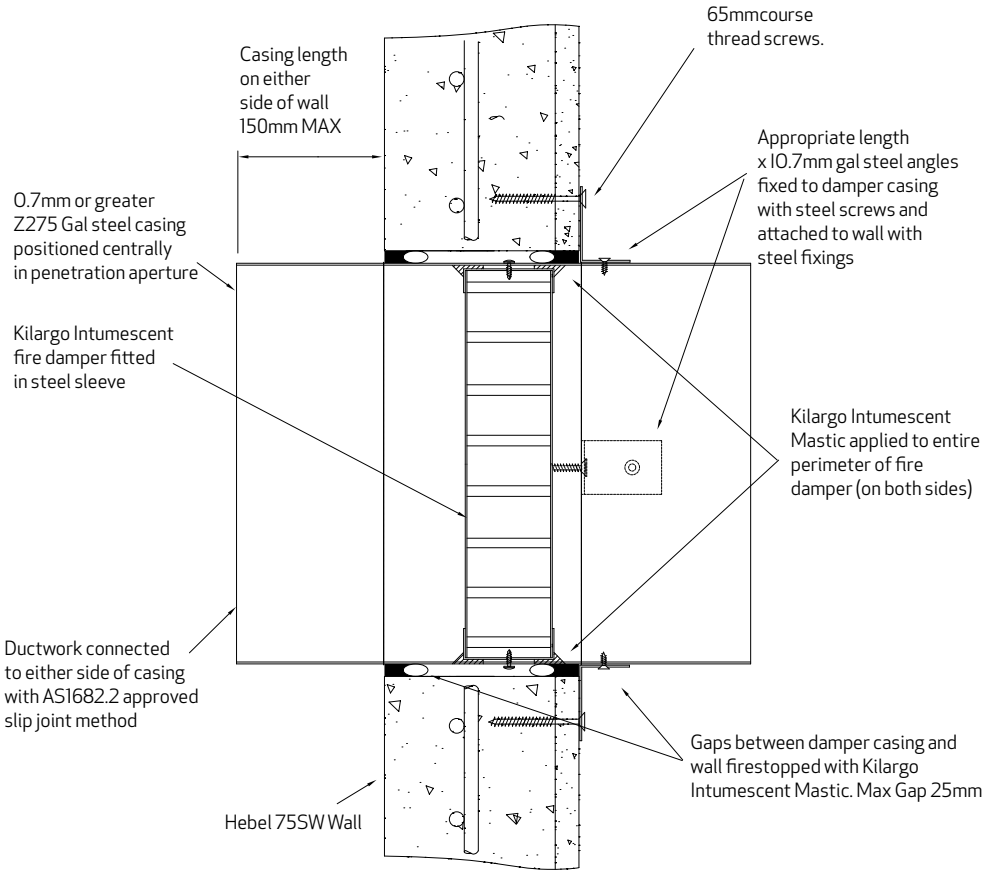
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles, brackets and fixing screws by others.

Kilargo

Building Element	Hebel 75SW
Application	Mounted in steel casing in penetration
Maximum Size	Single Cell: 400 x 600mm Multiple Cell: 600 x 1200mm
FRL	-/120/-
Test Reference No.	CSIRO FC02325
System No.	**WH3 (b)**

To be read in conjunction with system WH3 (a)



Installation Instructions

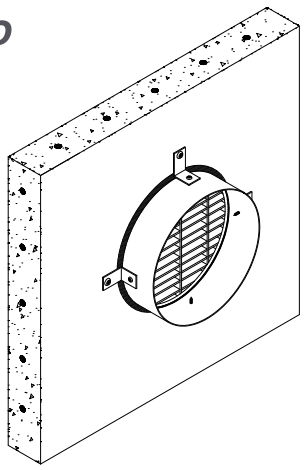
Circular dampers in steel sleeve penetrating 75SW Hebel wall

1. Position the damper as detailed in the relevant System Drawing.
2. If applicable, position & fasten mounting angles, using screws & anchors (all supplied by others) as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

Notes

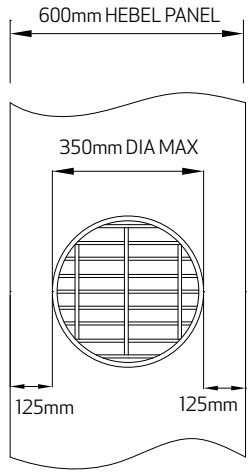
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws and anchors are to be supplied by others.

Kilargo

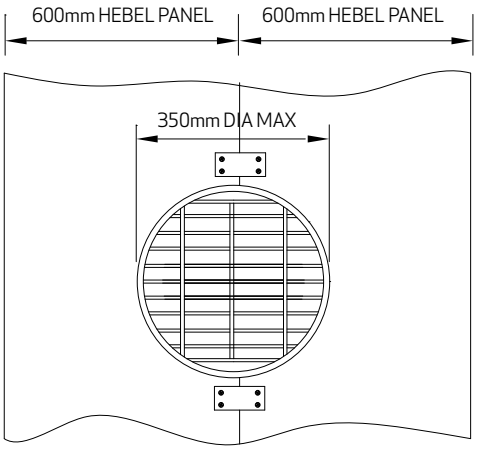


Building Element	Hebel 75SW
Application	Steel sleeve in penetration
Maximum Size	350mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FCO2325
System No.	**WH4 (a)**

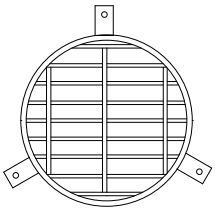
See also dual panel Configuration drawing on system WH4 (b)



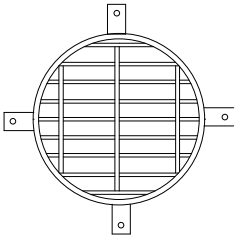
Kilargo fire damper fitted in single CSR Hebel 75SS Powerpanel



Kilargo fire damper fitted in two CSR Hebel 75SS panels. Panels fixed together with 2 brackets to each side (4 total) attached with 4 x 65mm long coarse thread screws per bracket



3 Off Angle brackets for sizes up to 200mm dia



4 Off Angle brackets for sizes 250mm dia and over

Installation Instructions

Circular dampers in steel sleeve penetrating multiple panel 75SW Hebel wall

1. Position the damper as detailed in the relevant System Drawing.
2. If applicable, position & fasten mounting angles, using screws & anchors (all supplied by others) as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the system drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure that product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

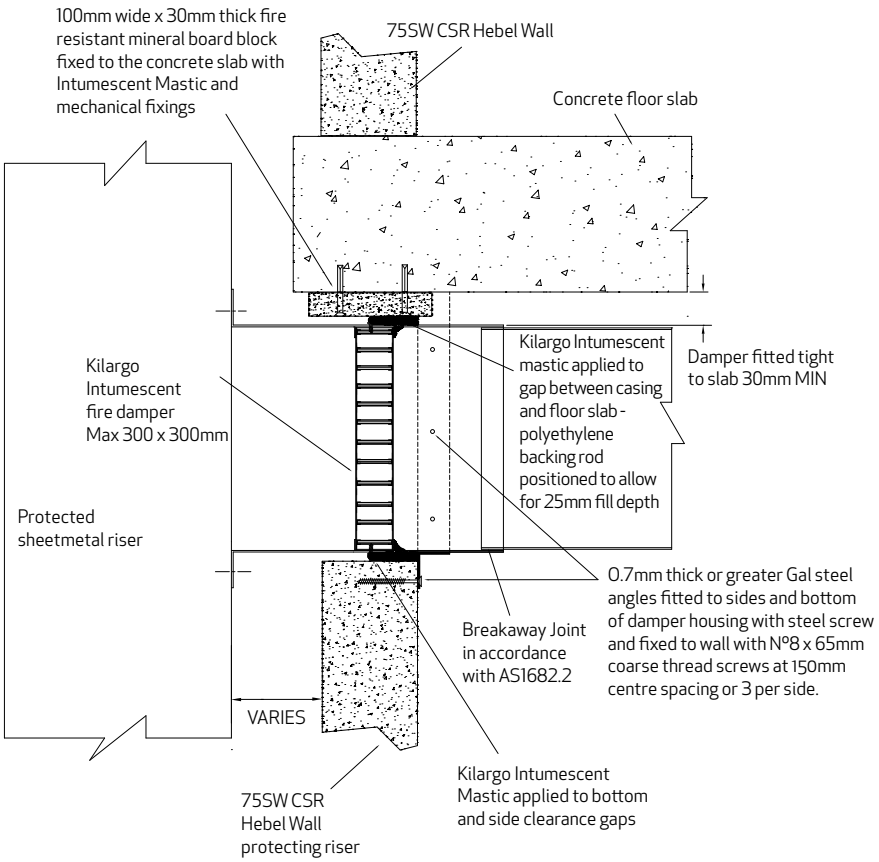
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Retaining angles, fixing screws and anchors are to be supplied by others.

Kilargo

Building Element	Hebel 75SW
Application	Steel sleeve in penetration
Maximum Size	350mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FCO2325
System No.	**WH4 (b)**

To be read in conjunction with system WH4 (a)



Installation Instructions

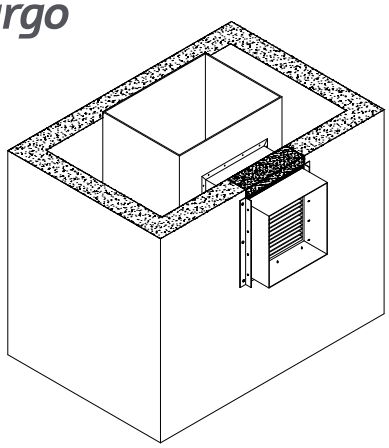
Single cell units in steel casing penetrating 75SW Hebel wall

1. Where ductwork is tight to slab use appropriate length 100mm wide x 30mm thick non combustible mineral board packing block (by others).
2. Fix mineral packing block to underside of slab with steel anchors and Kilargo Intumescent Mastic.
3. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser.
4. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
5. Liberally apply Kilargo Intumescent Mastic to non combustible block. Mechanically connect duct to riser with steel screws or steel pop rivets ensuring the gap between the damper casing and non combustible block is as tight as possible and filled with mastic.
6. Once protective shaftwall has been constructed, fire stop all gaps between the duct and shaftwall (and non combustible block) with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
7. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
8. Ensure convenient access is provided for visual inspection and cleaning as necessary.
9. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

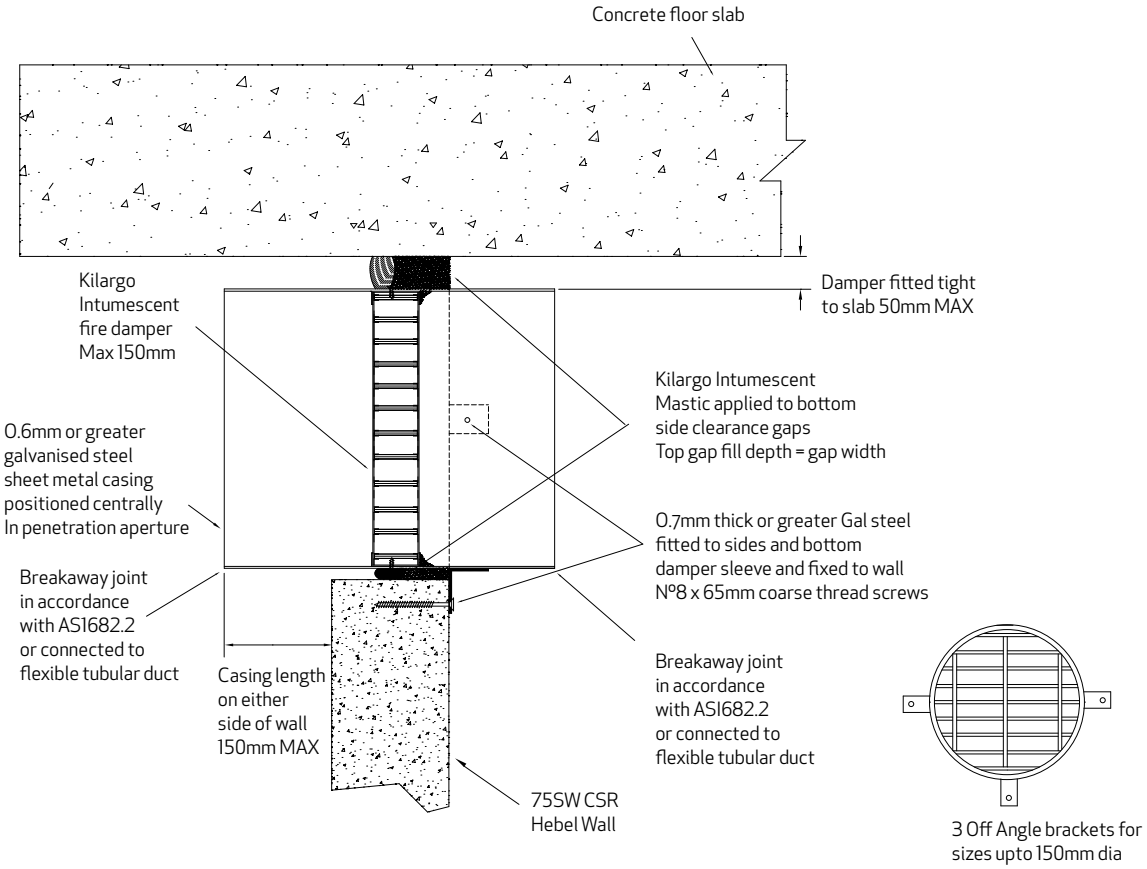
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles & fixing screws are to be supplied by others.

Kilargo



Building Element	Hebel 75SW
Application	Mounted in steel casing tight to underside of slab
Maximum Size	300mm x 300mm
FRL	-/120/-
Test Reference No.	CSIRO FCO2495
System No.	**WH5**



Installation Instructions

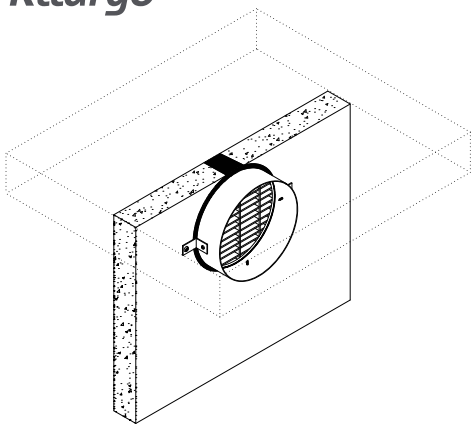
Circular damper in steel sleeve penetrating 75SW Hebel wall

1. Position the damper as detailed in the System Drawing.
2. Position & fasten mounting angles, using screws & anchors (all supplied by others) as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies, top gap up to 50mm maximum.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

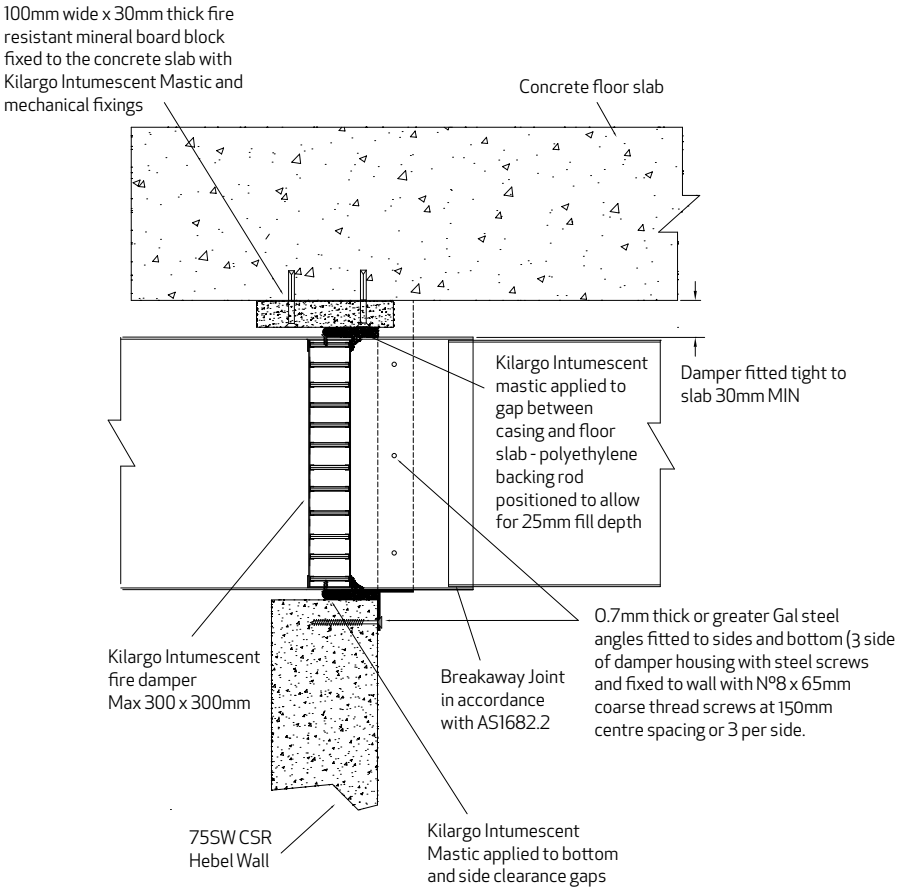
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws and anchors are to be supplied by others.

Kilargo



Building Element	Hebel 75SW
Application	Steel casing tight to underside of slab
Maximum Size	150mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FC02495
System No.	**WH6**



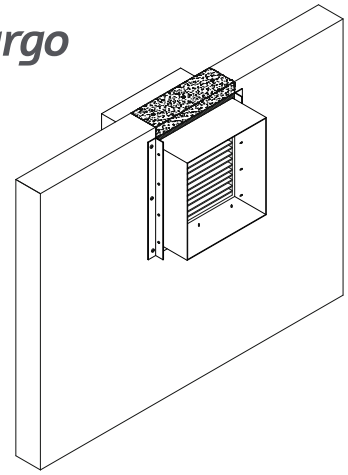
Installation Instructions

Single cell units in steel casing penetrating 75SW Hebel wall

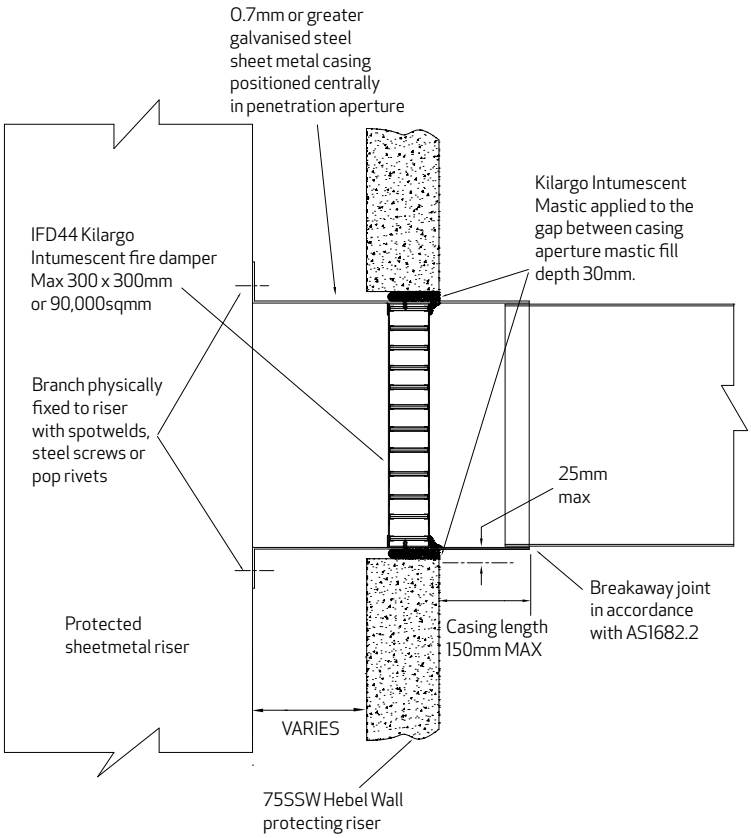
1. Position the damper as detailed in the System Drawing.
2. Position & fasten mounting angles, using screws & anchors as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
   Note:
   A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles, fixing screws and anchors are to be supplied by others.



Building Element	Hebel 75SW
Application	Steel casing tight to underside of slab with 3 angles
Maximum Size	300mm x 300mm
FRL	-/120/-
Test Reference No.	CSIRO FCO2495
System No.	**WH7**



Installation Instructions

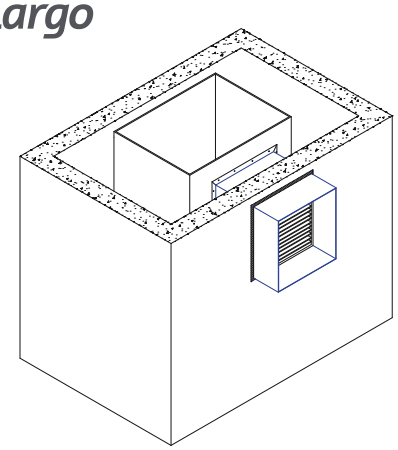
IFD44 in steel casing with angle-free system in 75SSW Hebel wall

1. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser.
2. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
3. Mechanically connect duct to riser with steel screws or steel pop rivets.
4. Once protective shaftwall has been constructed, fire stop all gaps between the duct and shaftwall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
5. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure convenient access is provided for visual inspection and cleaning as necessary.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

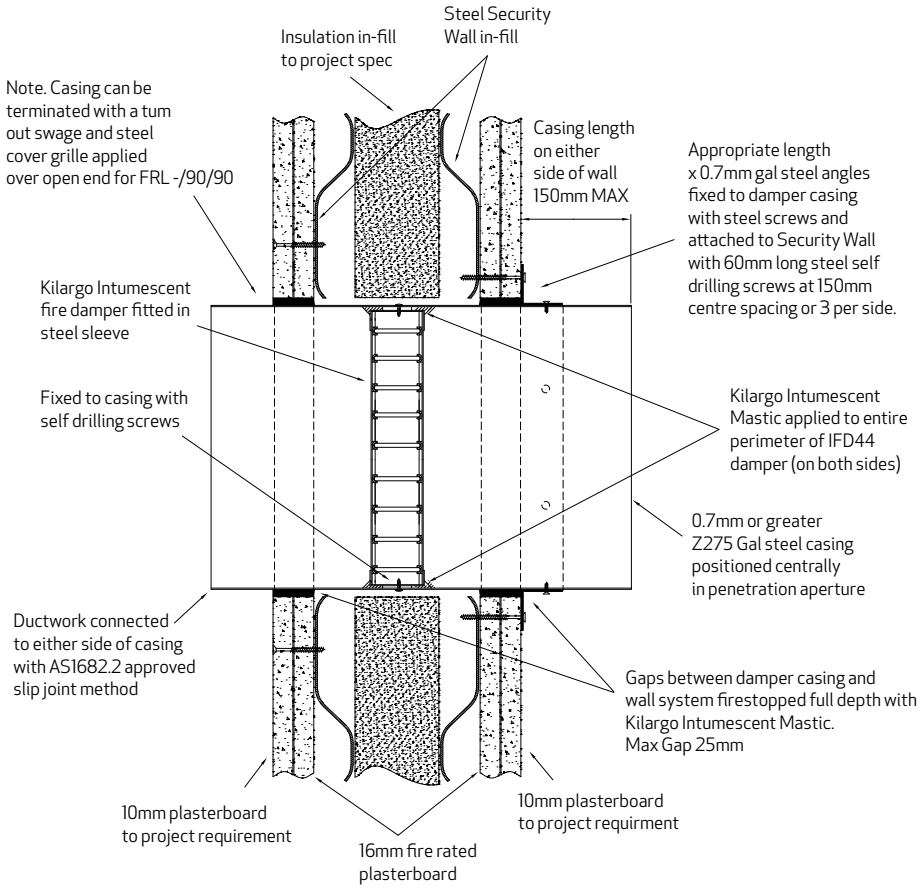
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles, fixing screws and backing rod are to be supplied by others.

Kilargo



Building Element	Hebel 75SSW
Application	Mounted in riser branch angle free system
Maximum Size	300mm x 300mm
FRL	-/120/-
Test Reference No.	CSIRO FC01869
System No.	**WH8**



Installation Instructions

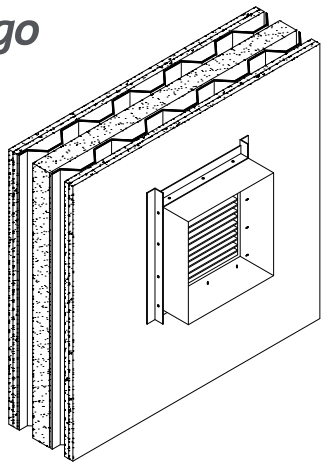
Single cell units in steel casing penetrating CSR Security wall

1. Position damper centrally in penetration aperture as detailed in the System Drawing.
2. Fire-stop any gaps between the damper & Security Wall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
3. Fasten mounting angles to one sides of damper casing with steel self drilling screws or steel pop rivets.
4. Fix mounting angles to Security wall using 60mm long steel self drilling screws (note fixings should engage with steel liner).
5. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance Inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

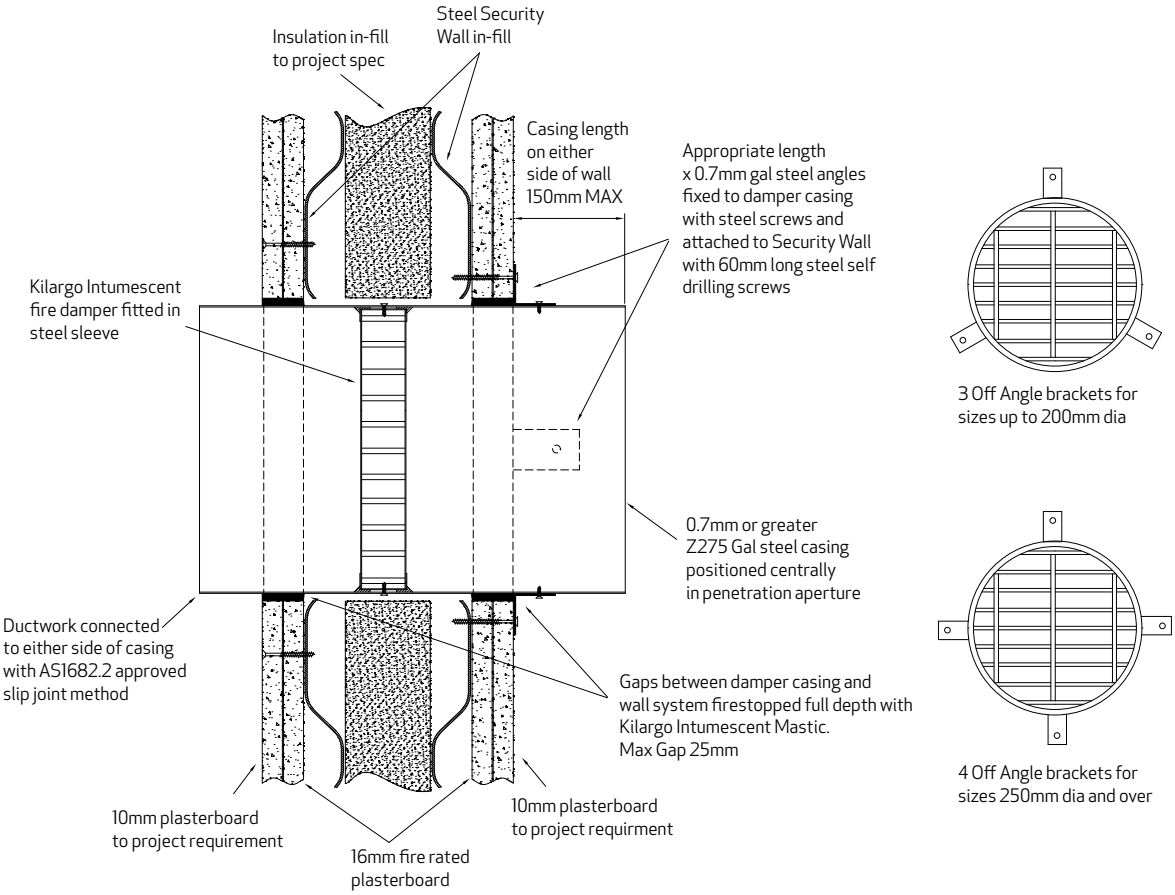
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles & fixing screws are to be supplied by others.

Kilargo



Building Element	CSR Security wall
Application	Mounted in steel casing in penetration
Maximum Size	600mm x 600mm
FRL	-/90/- without cover grille -/90/90 with cover grille
Test Reference No.	EWFA 45955
System No.	**WS1**



Installation Instructions

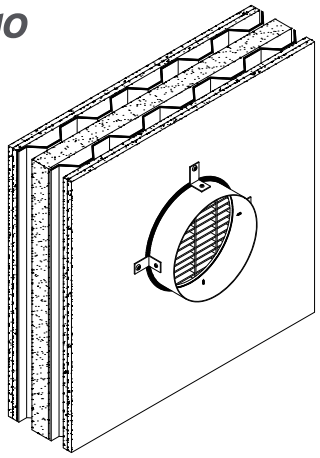
Circular dampers in steel sleeve penetrating CSR Security wall

1. Position and centre the sleeve containing fire damper in the penetration aperture as per system drawing.
2. Fasten supplied mounting tabs to exterior of spigot with steel self drilling screws or steel pop rivets.
3. Fix mounting tabs to Security wall using min 60mm long self drilling steel screws (supplied by others) ensuring that they engage with steel liner.
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure mastic fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to installed damper ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

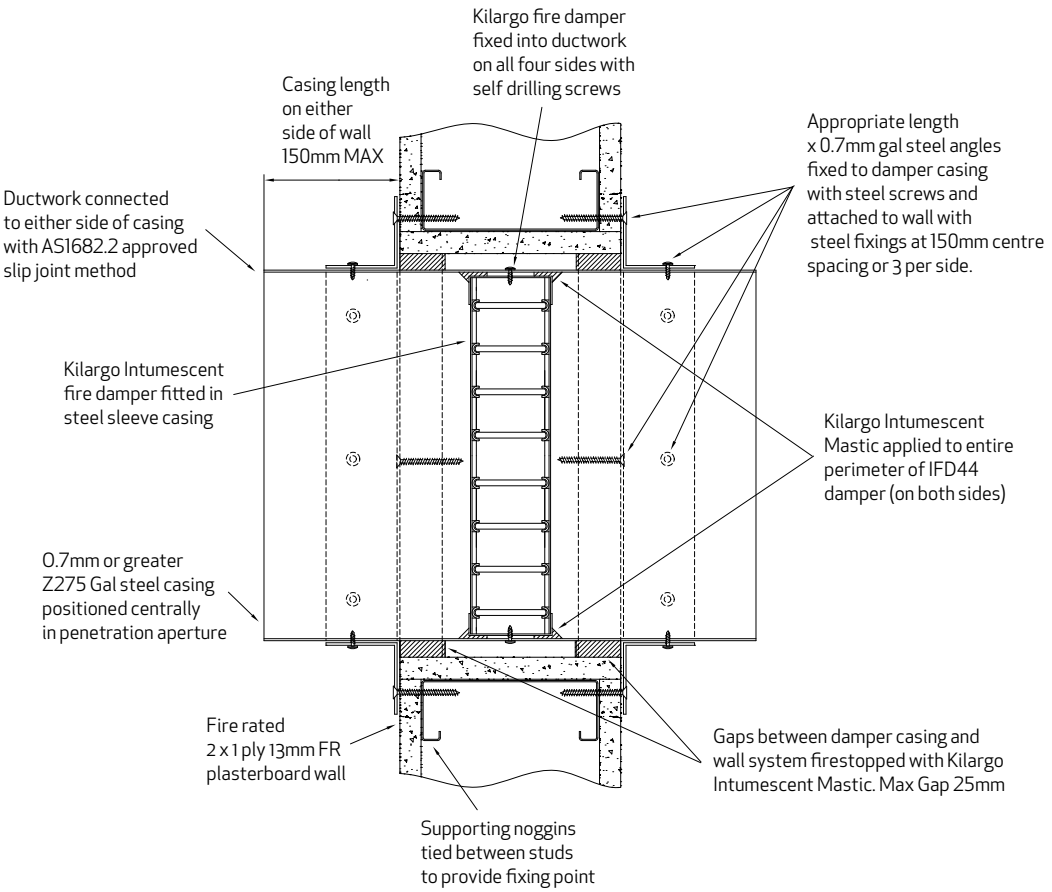
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws are to be supplied by others.

Kilargo



Building Element	CSR Security wall
Application	Steel sleeve in penetration
Maximum Size	300mm diameter
FRL	-/90 /-
Test Reference No.	EWFA 45955
System No.	**WS2**



Installation Instructions

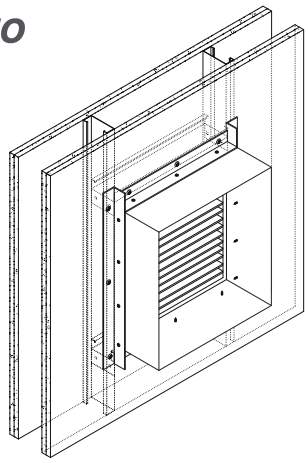
IFD44 in steel casing penetrating 16mm FR Plasterboard wall

1. Position the damper as detailed in the System Drawing.
2. If applicable, position & fasten mounting angles, using screws & anchors (all supplied by others) as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate ASI682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

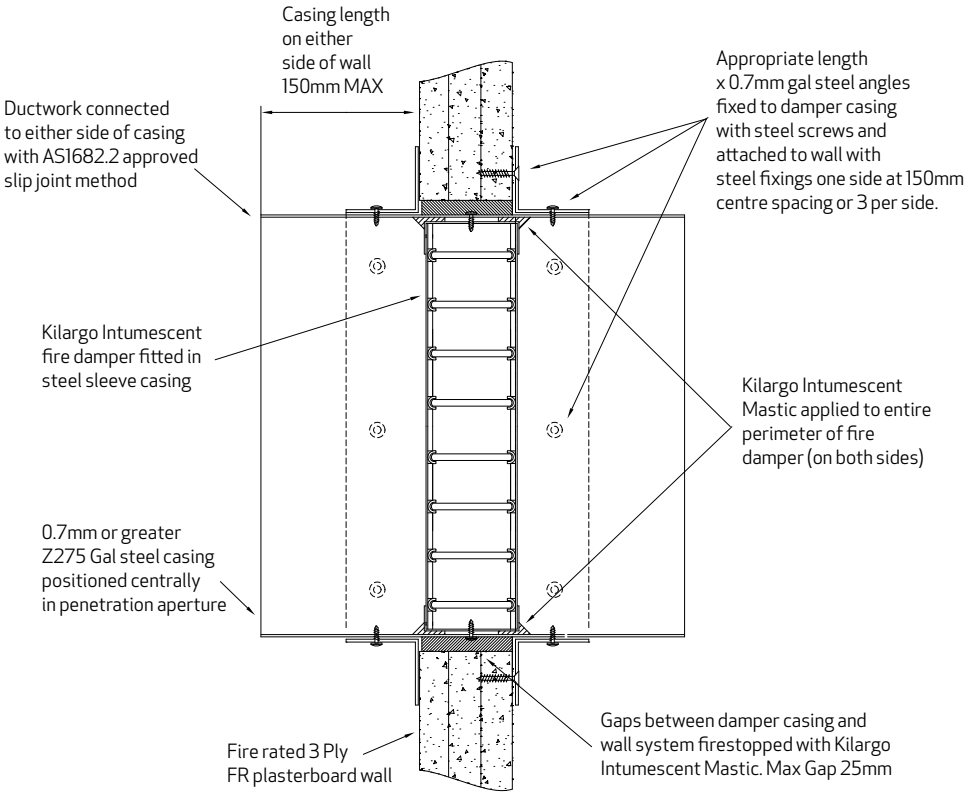
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles, fixing screws and anchors are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard x 1 layer
Application	Mounted in steel casing in penetration
Maximum Size	1000mm x 1000mm
FRL	-/90/-
Test Reference No.	CSIRO FC01870
System No.	**WP1**



Installation Instructions

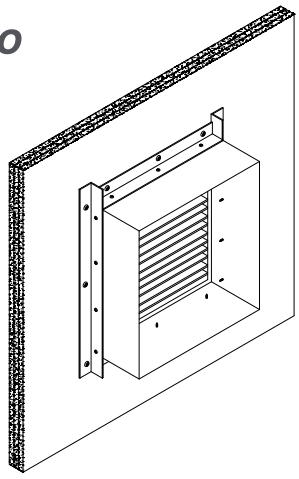
Single cell IFD44 in steel casing penetrating 16mm FR Plasterboard wall

1. Position the damper as detailed in the System Drawing.
2. Position & fasten mounting angles, using screws & anchors as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

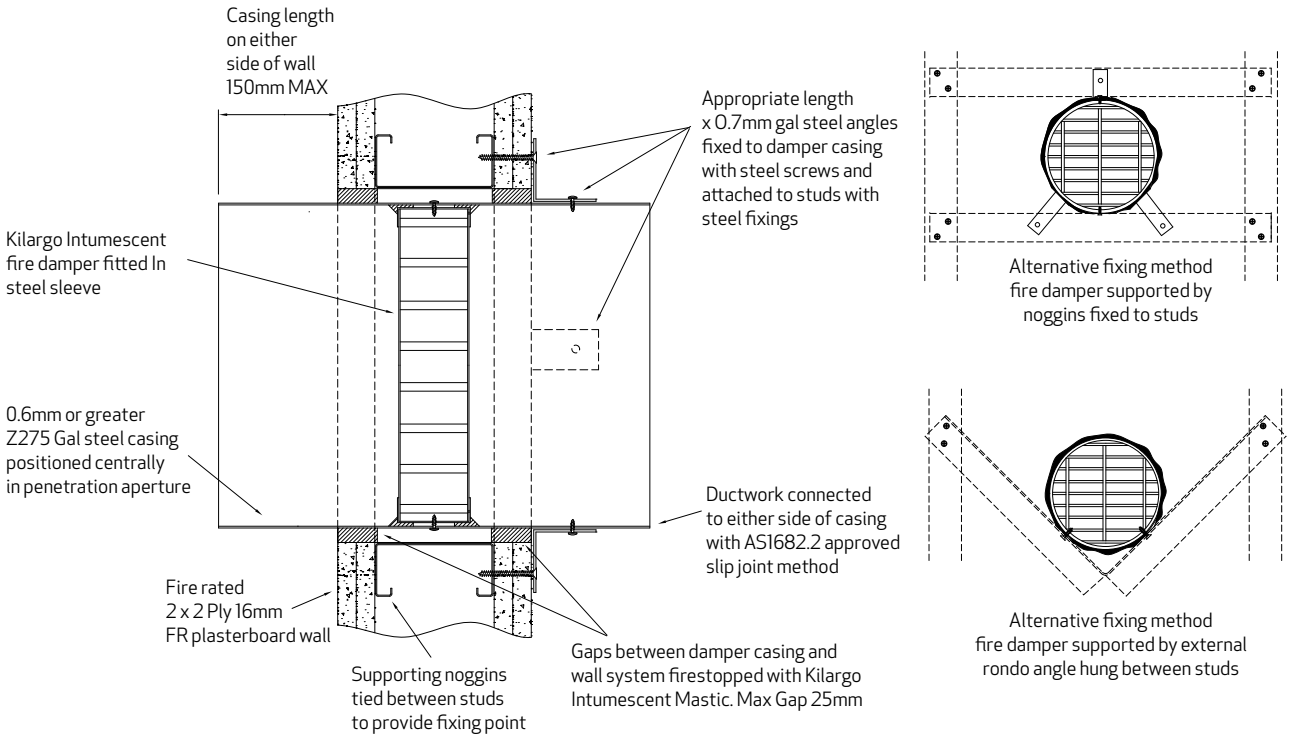
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles, fixing screws and anchors are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard x 3 layers
Application	Mounted in steel casing in penetration
Maximum Size	600mm x 600mm
FRL	-/120/-
Test Reference No.	CSIRO FC01870
System No.	**WP2**



Installation Instructions

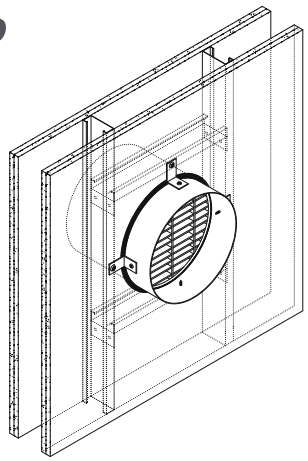
IFD-O in steel sleeve penetrating 16mm FR Plasterboard wall

1. Position the damper as detailed in the System Drawing.
2. If applicable, position & fasten mounting angles, using screws & anchors as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

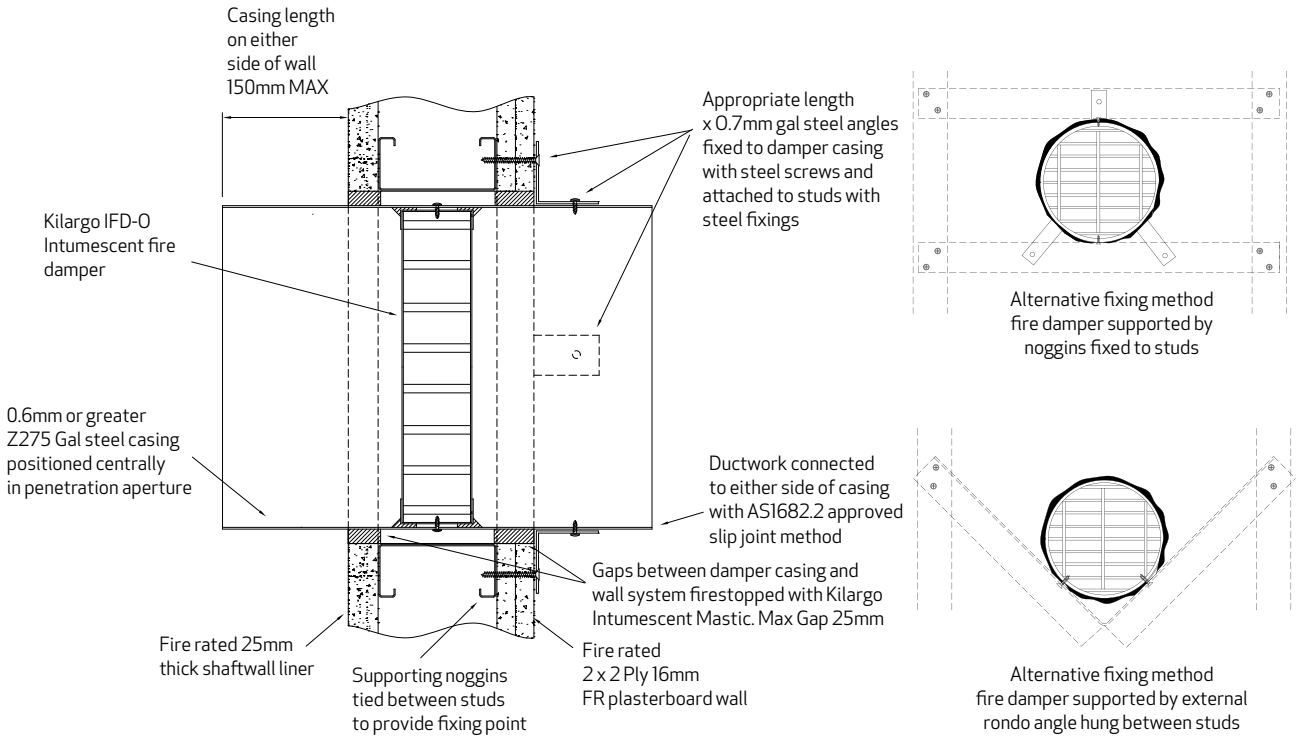
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Retaining angles, fixing screws and anchors are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard x 2 layers
Application	Steel sleeve in penetration
Maximum Size	350mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FC02203
System No.	**WP3**



Installation Instructions

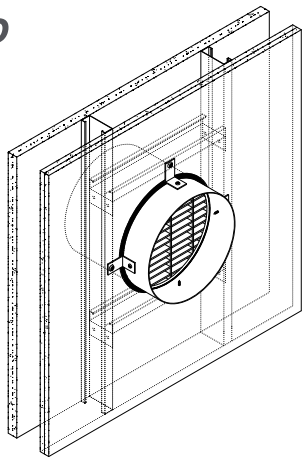
IFD-O in steel sleeve penetrating 16mm FR Plasterboard wall (with FR shaftwall liner)

1. Position the damper as detailed in the System Drawing.
2. If applicable, position & fasten mounting angles, using screws & anchors as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

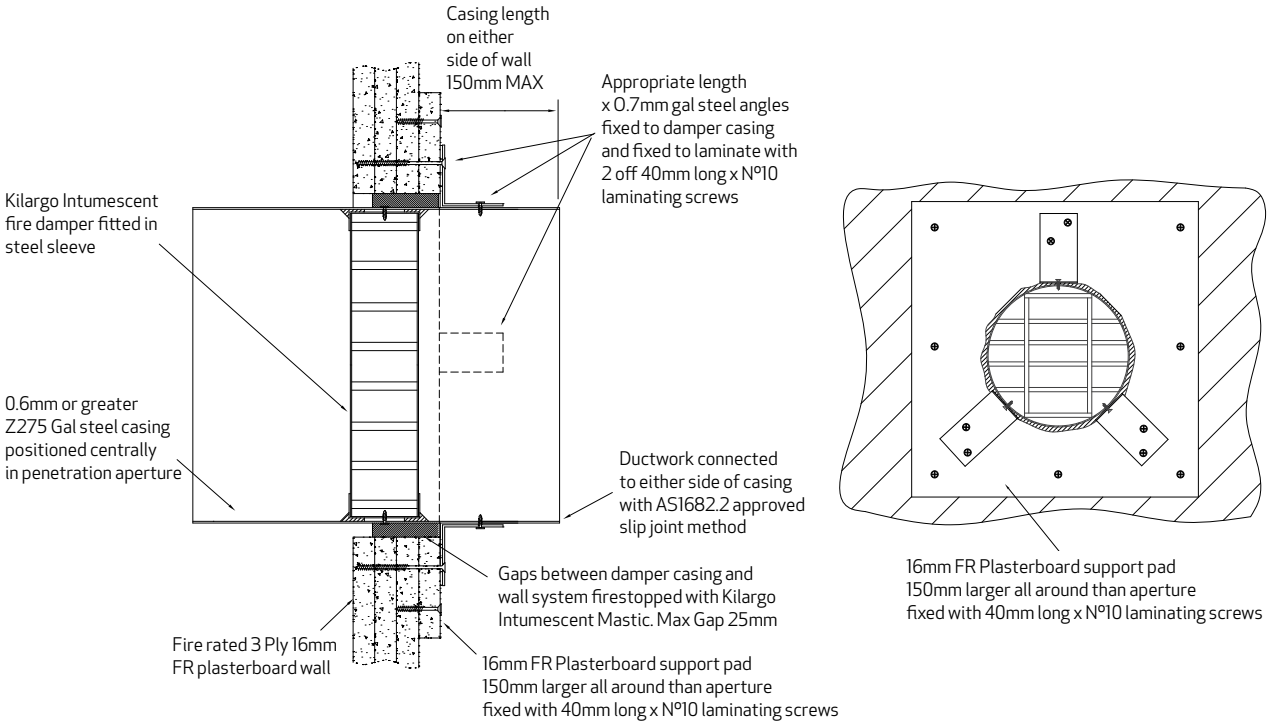
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Retaining angles, fixing screws and anchors are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard 25mm liner + 2 layers
Application	Steel sleeve in penetration
Maximum Size	350mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FCO2203
System No.	**WP4**



Installation Instructions

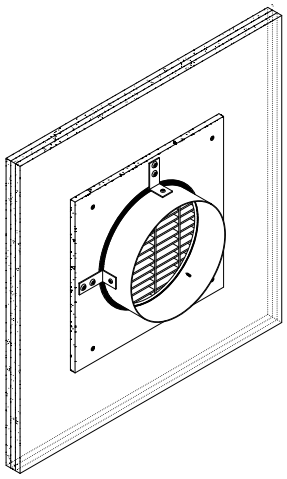
IFD-O in steel sleeve penetrating 16mm FR Plasterboard wall (with supporting pad)

1. Position the damper as detailed in the System Drawing.
2. If applicable, position & fasten mounting angles, using screws & anchors as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

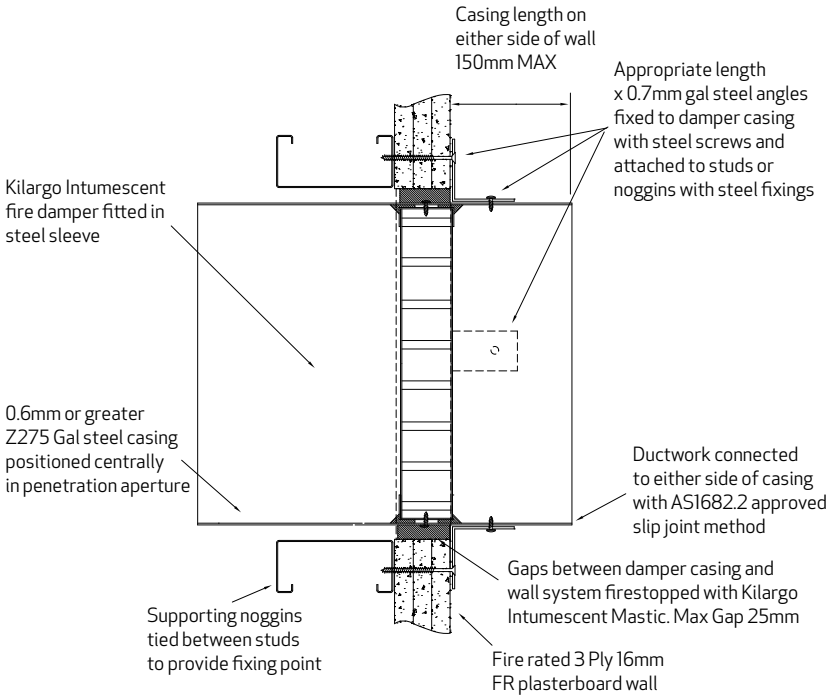
Notes

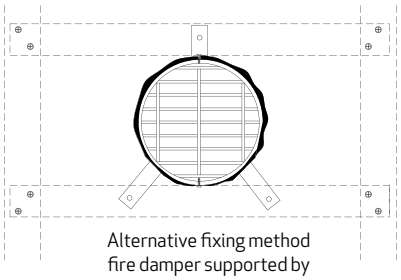
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Retaining angles, fixing screws and anchors are to be supplied by others.

Kilargo

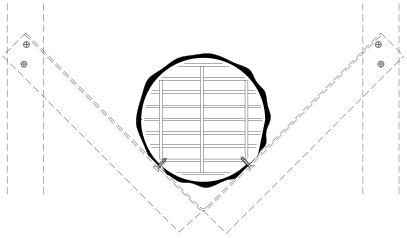


Building Element	16mm FR Plasterboard x 3 layers + 1 layer pad
Application	Steel sleeve in penetration
Maximum Size	350mm diameter
FRL	-/120 /-
Test Reference No.	CSIRO FC02203
System No.	**WP5**





Alternative fixing method
fire damper supported by
noggins fixed to studs



Alternative fixing method
fire damper supported by external
rondo angle hung between studs

3 Angle brackets for sizes up to 200mm dia.
4 Angle brackets for sizes 250mm dia and over

Installation Instructions

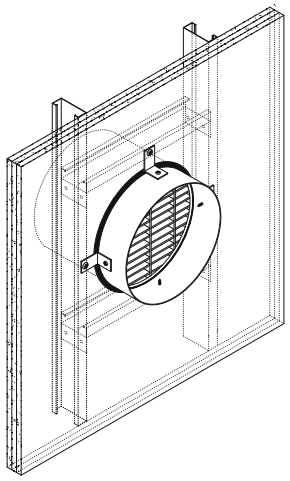
IFD-O in steel sleeve penetrating 16mm FR Plasterboard wall

1. Position the damper as detailed in the System Drawing.
2. If applicable, position & fasten mounting angles, using screws & anchors as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

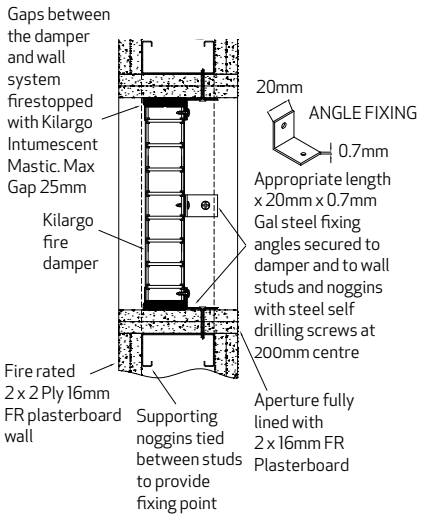
Notes

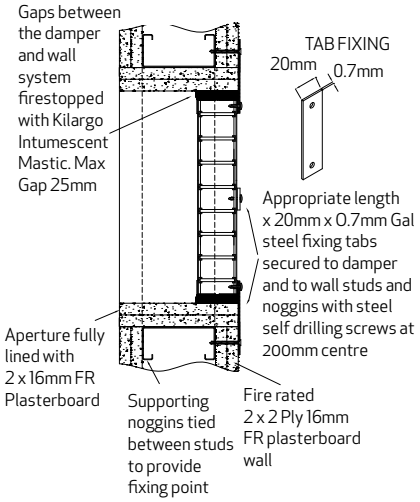
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Retaining angles, fixing screws and anchors are to be supplied by others.

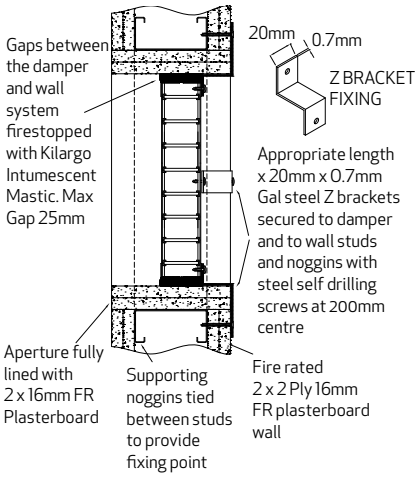
Kilargo



Building Element	16mm FR Plasterboard x 3 layers
Application	Steel sleeve in penetration
Maximum Size	350mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FCO2203
System No.	**WP6**







Installation Instructions

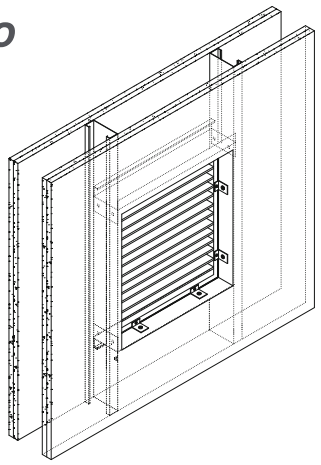
Single cell IFD44 penetrating 16mm FR Plasterboard wall (no casing)

1. Depending upon fixing bracket chosen, fasten mounting Angle Tab or Z brackets to one side of damper with steel self drilling screws or steel pop rivets.
2. Position damper centrally in penetration aperture as per system drawing.
3. Fix mounting Angle Tab or Z bracket to wall aperture using screws (supplied by others).
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to wall ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

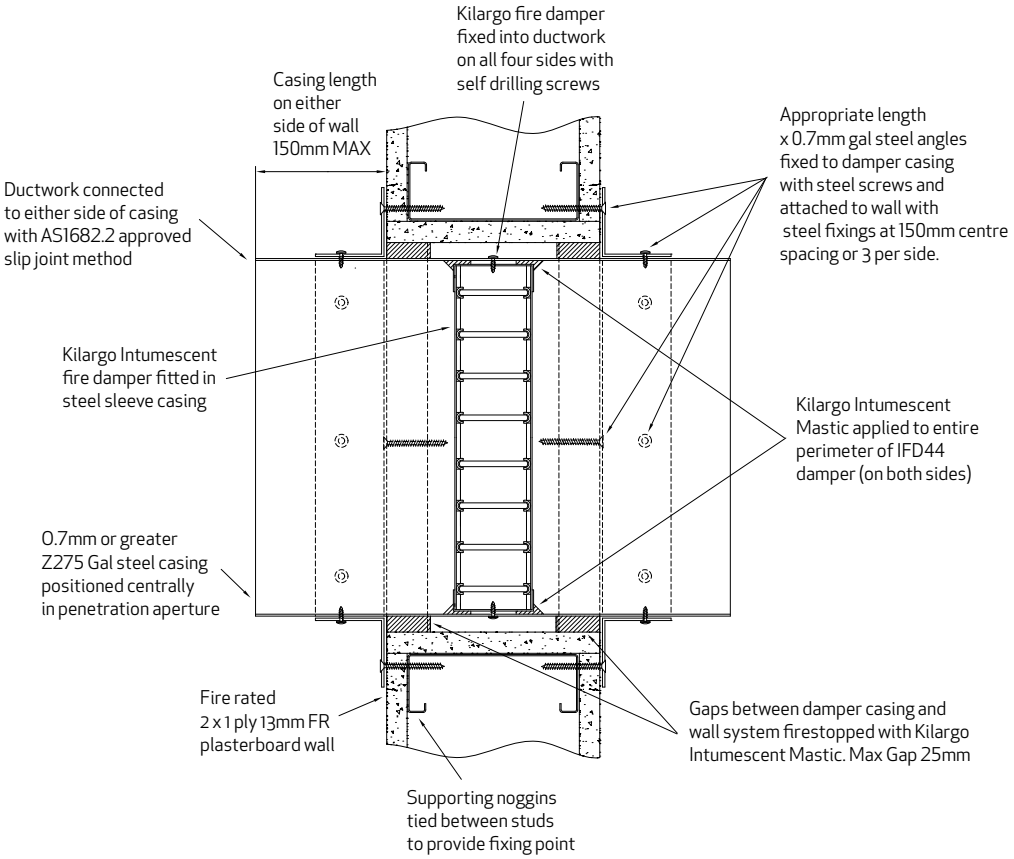
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, brackets and anchors are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard x 2 layers
Application	NO casing in penetration
Maximum Size	600mm x 600mm
FRL	-/120 /-
Test Reference No.	CSIRO FC01854, FC02512
System No.	**WP7**



Installation Instructions

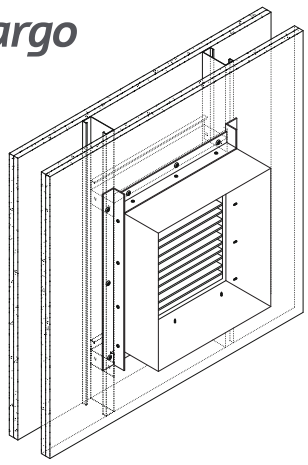
IFD44 in steel casing penetrating 13mm FR Plasterboard wall

1. Position the damper as detailed in the System Drawing.
2. If applicable, position & fasten mounting angles, using screws & anchors (all supplied by others) as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

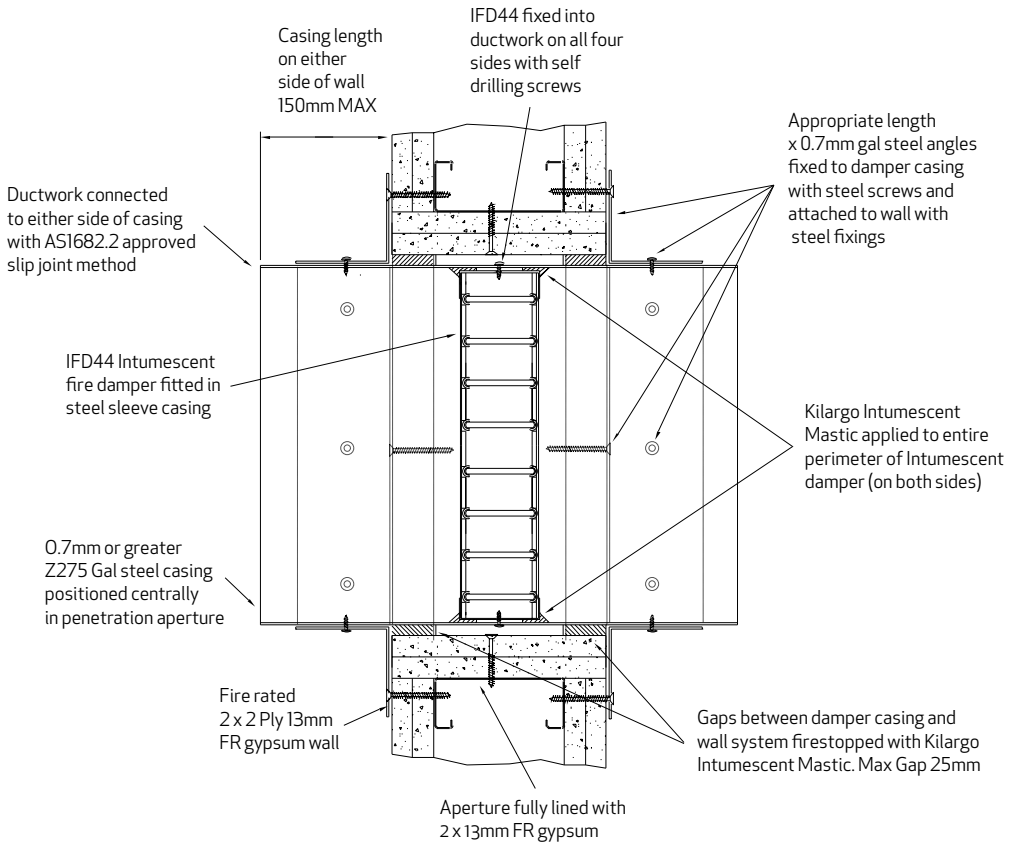
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles, fixing screws and anchors are to be supplied by others.

Kilargo



Building Element	13mm FR Plasterboard x 1 layer
Application	Mounted in steel casing in penetration
Maximum Size	1000mm x 1000mm
FRL	-/60/-
Test Reference No.	CSIRO FC02981
System No.	**WP8**



Installation Instructions

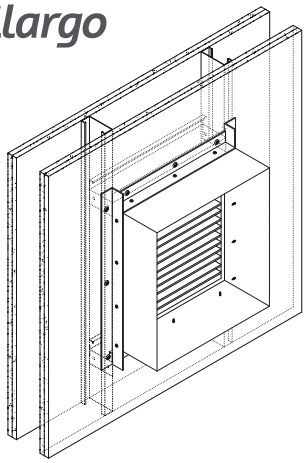
IFD44 in steel casing penetrating 13mm FR Plasterboard wall

1. Position the damper as detailed in the System Drawing.
2. If applicable, position & fasten mounting angles, using screws & anchors (all supplied by others) as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

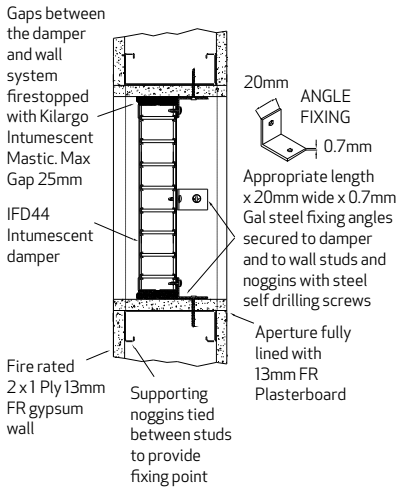
Notes

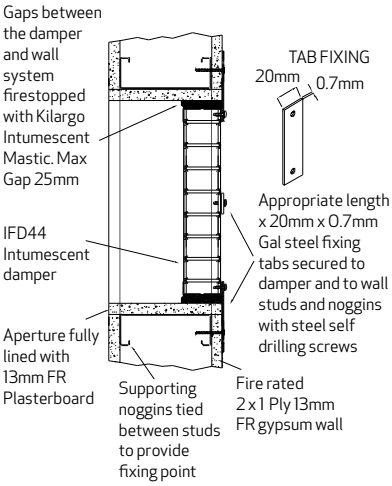
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angles, fixing screws and anchors are to be supplied by others.

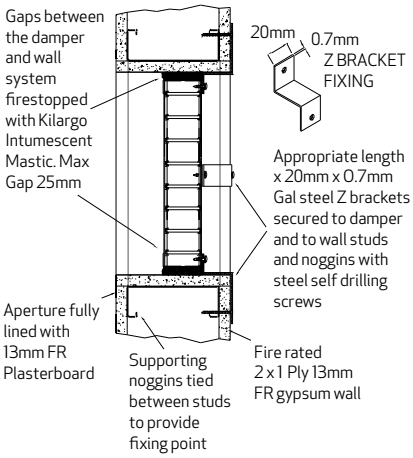
Kilargo



Building Element	13mm FR Plasterboard x 2 layers
Application	Mounted in steel casing in penetration
Maximum Size	1000mm x 1000mm
FRL	-/90/-
Test Reference No.	CSIRO FC02981
System No.	**WP9**







Installation Instructions

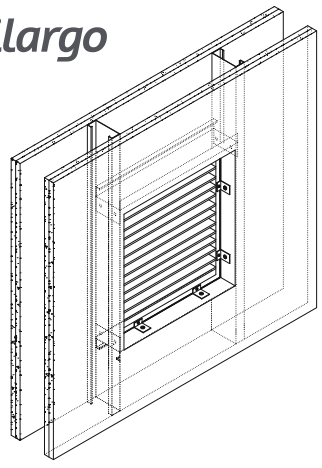
Single cell IFD44 penetrating 13mm FR Plasterboard wall (no casing)

1. Depending upon fixing bracket chosen, fasten mounting Angle Tab or Z brackets to one side of damper with steel self drilling screws or steel pop rivets.
2. Position damper centrally in penetration aperture as per system drawing.
3. Fix mounting Angle Tab or Z bracket to wall aperture using screws (supplied by others).
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to wall ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

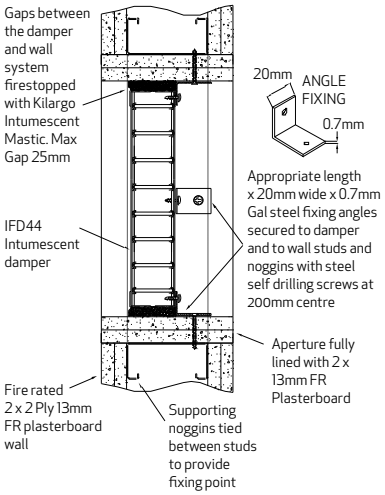
Notes

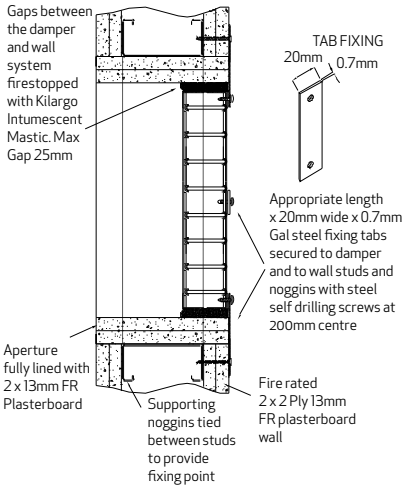
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, brackets and anchors are to be supplied by others.

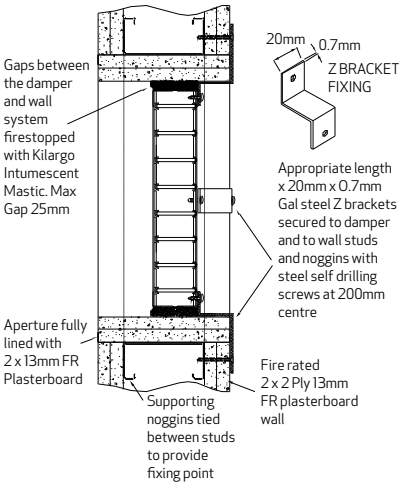
Kilargo



Building Element	13mm FR Plasterboard x 1 layer
Application	NO casing in penetration
Maximum Size	600mm x 600mm
FRL	-/60/-
Test Reference No.	CSIRO FC02981
System No.	**WP10**







Installation Instructions

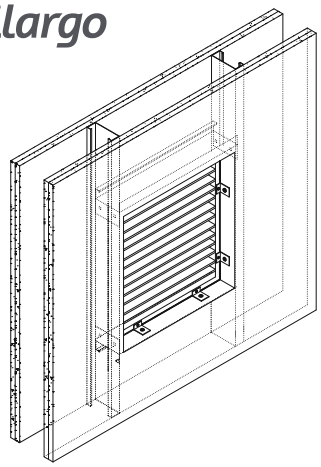
IFD44 (no casing) penetrating 13mm FR Plasterboard wall

1. Depending upon fixing bracket chosen, fasten mounting Angle Tab or Z brackets to one side of damper with steel self drilling screws or steel pop rivets.
2. Position damper centrally in penetration aperture as per system drawing.
3. Fix mounting Angle Tab or Z bracket to wall aperture using screws (supplied by others).
4. Fire-stop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to wall ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

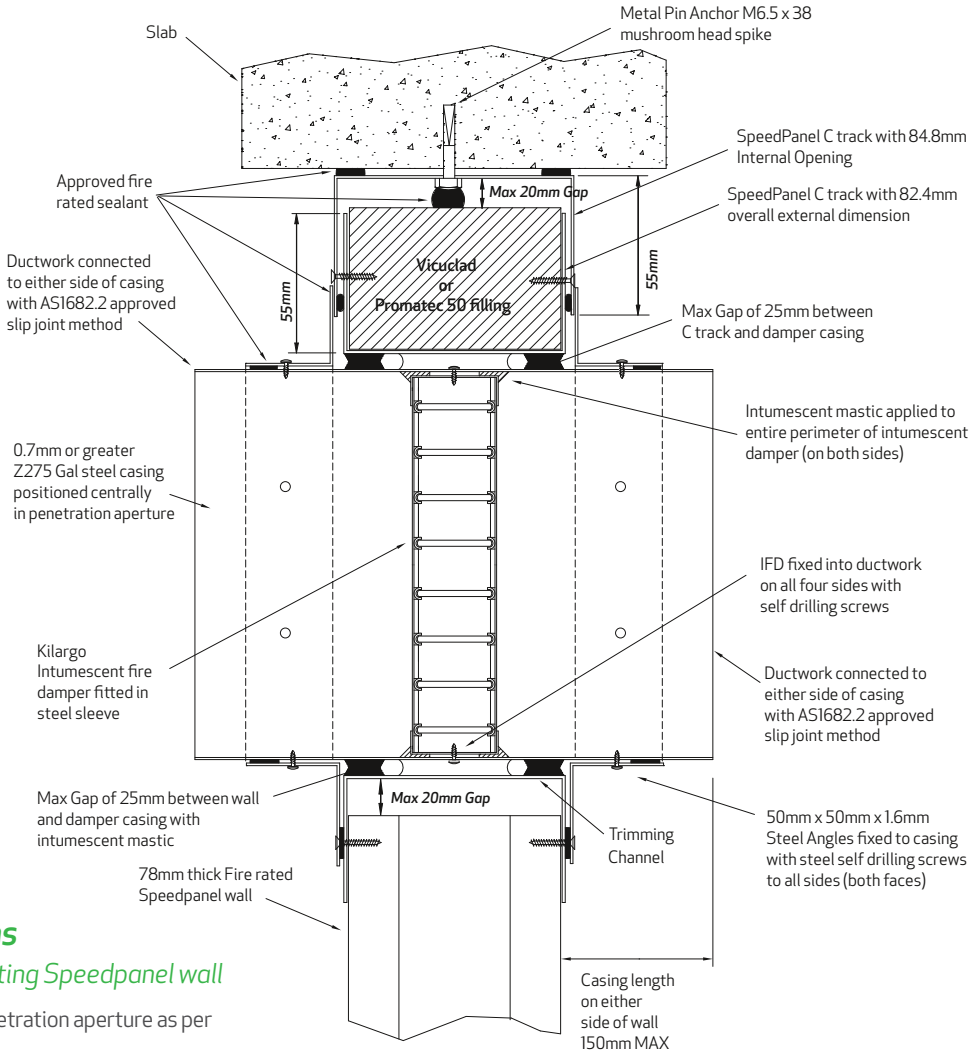
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, brackets and anchors are to be supplied by others.

Kilargo



Building Element	13mm FR Plasterboard x 2 layers
Application	NO casing in penetration
Maximum Size	600mm x 600mm
FRL	-/90/-
Test Reference No.	CSIRO FC02981
System No.	**WP11**



Installation Instructions

IFD44 in steel casing penetrating Speedpanel wall

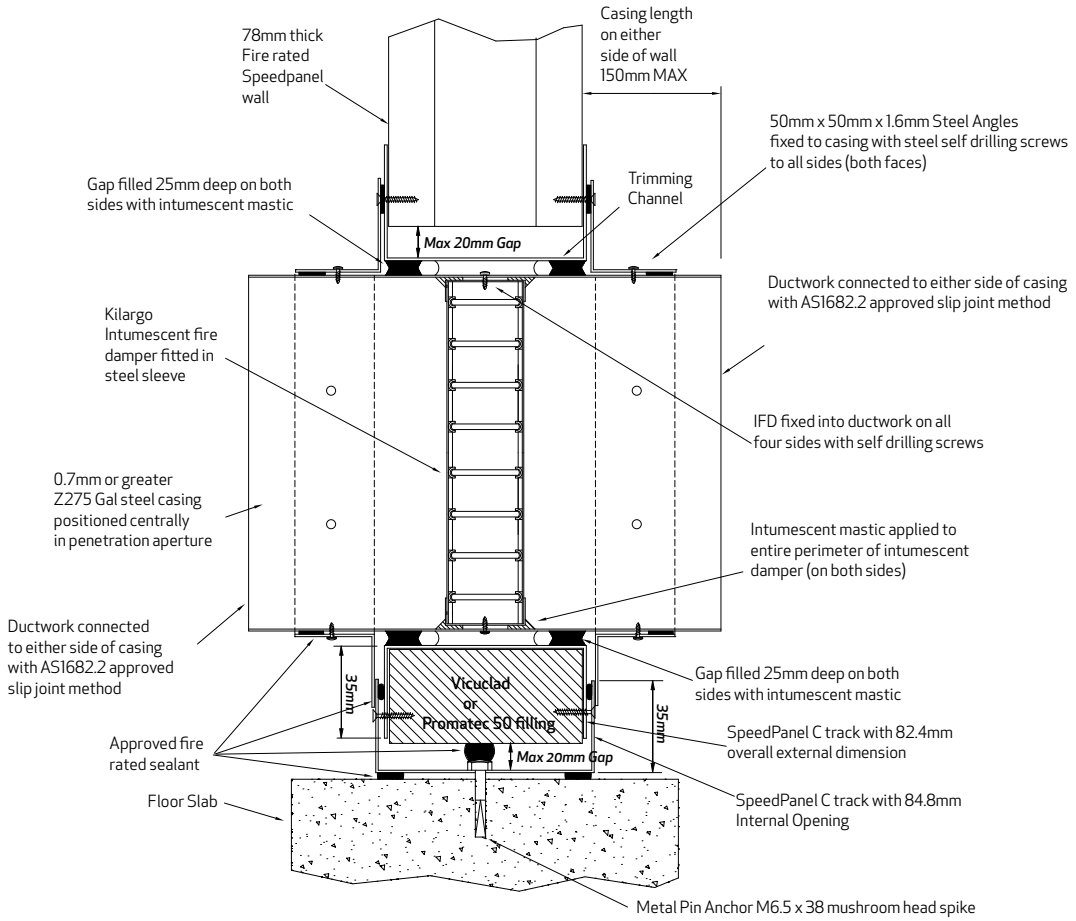
1. Position damper centrally in penetration aperture as per System Drawing.
2. Fire-stop any gaps between the damper and the notched and formed Trimming Channel with Kilargo Intumescent Mastic (supplied separately). Ensure mastic application including fill depth, corresponds with those detailed in the System Drawing. If required, use fire rated backing rod positioned to control fill depth.
3. Fasten mounting angle brackets to damper casing with steel self-drilling screws or steel pop rivets.
4. Fix mounting angles to Speedpanel wall with 10g self-drilling screws as per Speedpanel data sheets. Note: Intumescent mastic to be applied to angle brackets as shown in the System Drawing.
5. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angle brackets, fixing screws and backing rod are to be supplied by others.

Kilargo

Building Element	Speedpanel System
Application	IFD installed in sheet metal casing penetrating Speed Panel wall fixed to slab
Maximum Size	1000mm x 1000mm
FRL	-/120/-
Test Reference No.	EWFA 21622-20
System No.	**WSP1**



Installation Instructions

IFD44 in steel casing penetrating Speedpanel wall

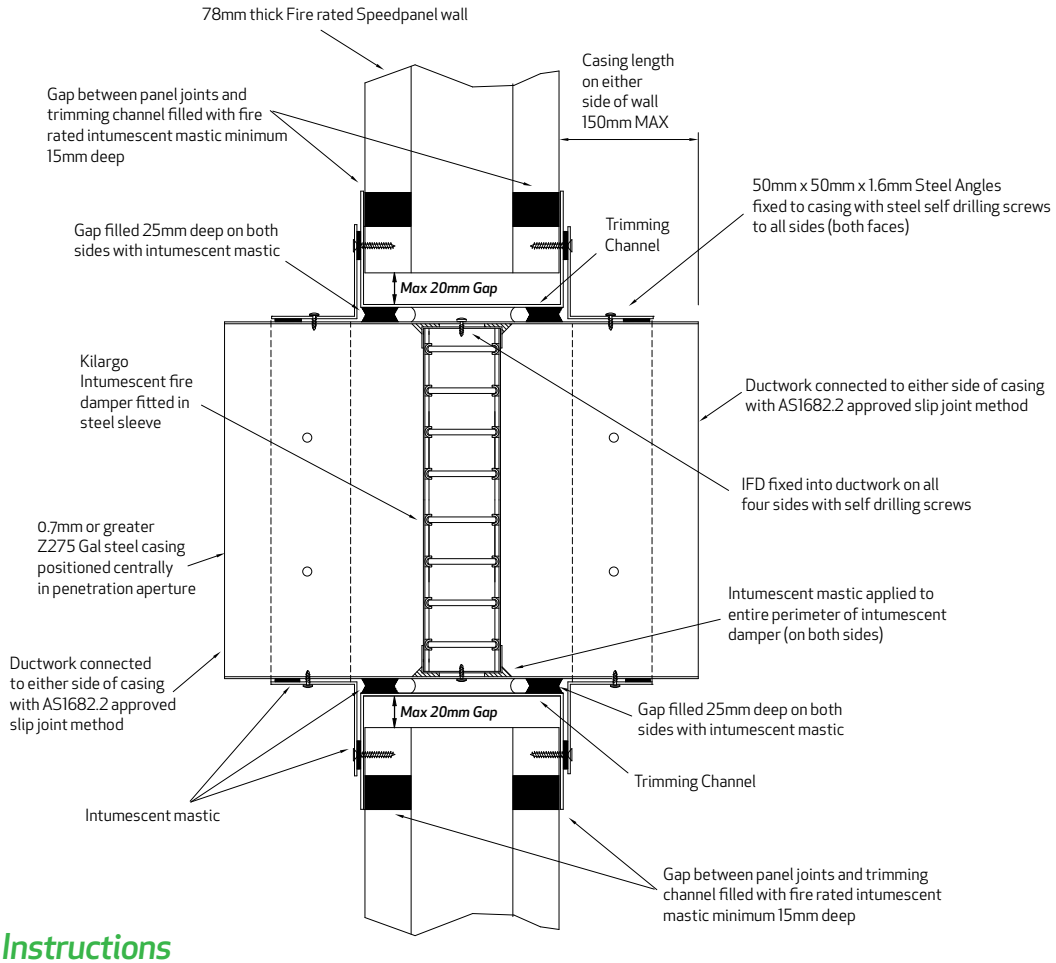
1. Position damper centrally in penetration aperture as per System Drawing.
2. Fire-stop any gaps between the damper and the notched and formed Trimming Channel with Kilargo Intumescent Mastic (supplied separately). Ensure mastic application including fill depth, corresponds with those detailed in the System Drawing. If required, use fire rated backing rod positioned to control fill depth.
3. Fasten mounting angle brackets to damper casing with steel self-drilling screws or steel pop rivets.
4. Fix mounting angles to Speedpanel wall with 10g self-drilling screws as per Speedpanel data sheets. Note: Intumescent mastic to be applied to angle brackets as shown in the System Drawing.
5. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angle brackets, fixing screws and backing rod are to be supplied by others.

Kilargo

Building Element	Speedpanel System
Application	IFD installed in sheet metal casing penetrating Speed Panel wall fixed to slab (above floor)
Maximum Size	1000mm x 1000mm
FRL	-/120/-
Test Reference No.	EWFA 21622-20
System No.	**WSP2**



Installation Instructions

IFD44 in steel casing penetrating Speedpanel wall

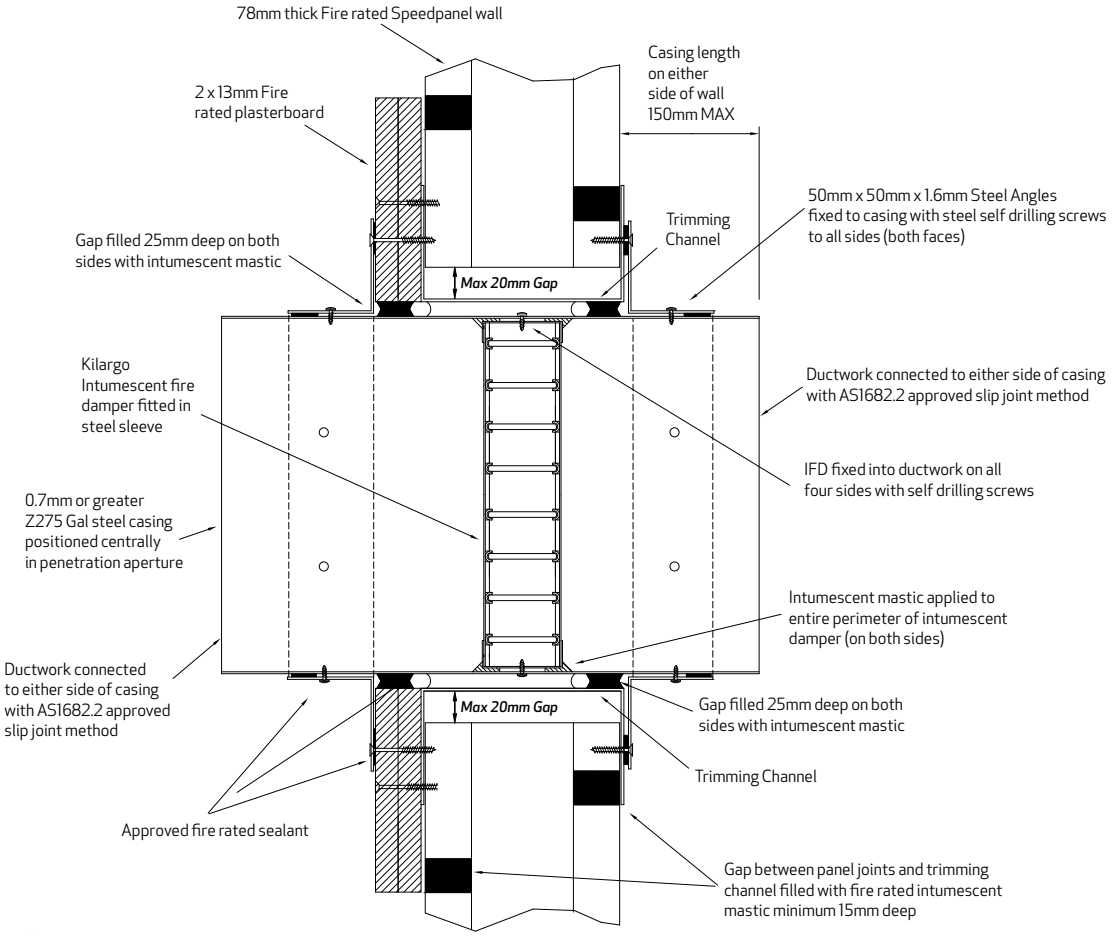
1. Position damper centrally in penetration aperture as per System Drawing.
2. Fire-stop any gaps between the damper and the notched and formed Trimming Channel with Kilargo Intumescent Mastic (supplied separately). Ensure mastic application including fill depth, corresponds with those detailed in the System Drawing. If required, use fire rated backing rod positioned to control fill depth.
3. Fasten mounting angle brackets to damper casing with steel self-drilling screws or steel pop rivets.
4. Fix mounting angles to Speedpanel wall with 10g self-drilling screws as per Speedpanel data sheets. Note: Intumescent mastic to be applied to angle brackets as shown in the System Drawing.
5. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angle brackets, fixing screws and backing rod are to be supplied by others.

Kilargo

Building Element	Speedpanel System
Application	IFD installed in sheet metal casing penetrating Speed Panel wall
Maximum Size	1000mm x 1000mm
FRL	-/120/-
Test Reference No.	EWFA 21622-20
System No.	**WSP3**



Installation Instructions

IFD44 in steel casing penetrating Speedpanel wall

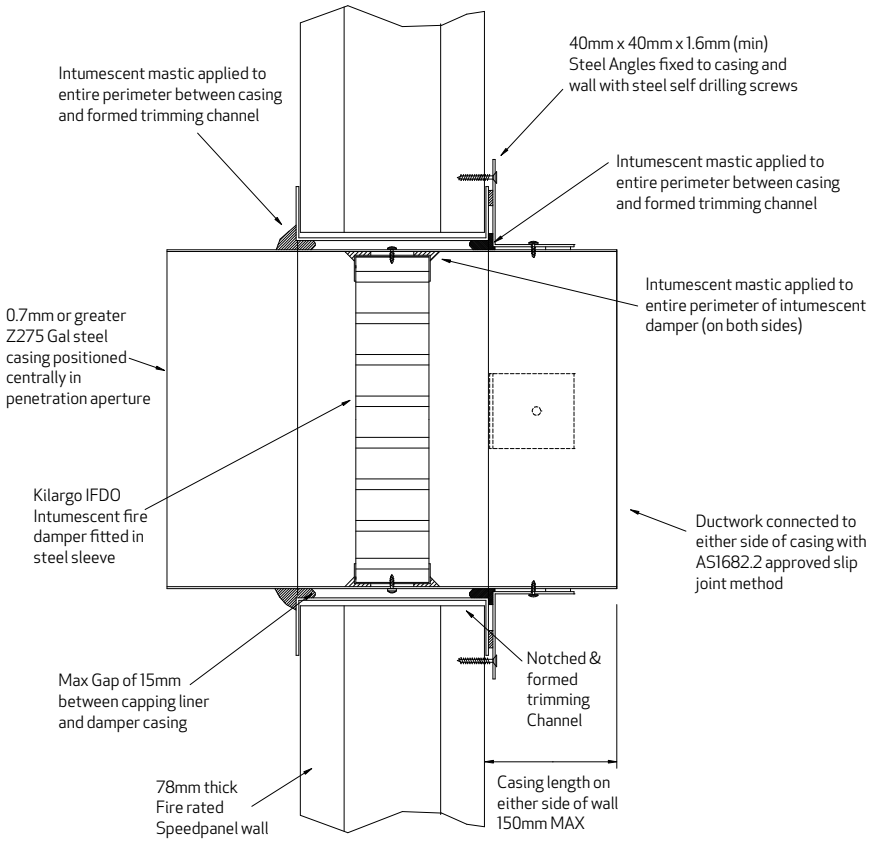
1. Position damper centrally in penetration aperture as per System Drawing.
2. Fire-stop any gaps between the damper and the notched and formed Trimming Channel with Kilargo Intumescent Mastic (supplied separately). Ensure mastic application including fill depth, corresponds with those detailed in the System Drawing. If required, use fire rated backing rod positioned to control fill depth.
3. Fasten mounting angles to damper casing with steel self-drilling screws or steel pop rivets.
4. Fix angle brackets to Speedpanel wall with appropriate length self-drilling screws as per Speedpanel data sheets. Note: Intumescent mastic to be applied to angle brackets as shown in the System Drawing.
5. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

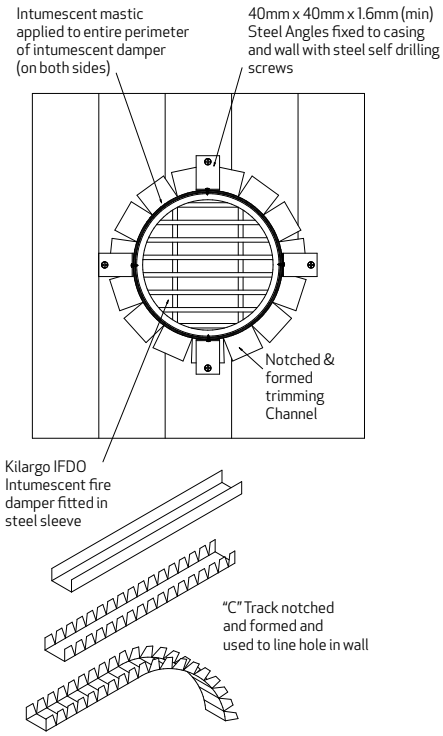
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angle brackets, fixing screws and backing rod are to be supplied by others.

Building Element	Speedpanel System
Application	IFD installed in sheet metal casing penetrating the bottom of a Speed Panel wall up to 4.5m high
Maximum Size	1000mm x 1000mm
FRL	-/120/-
Test Reference No.	EWFA 21622-20
System No.	**WSP4**

Speedpanel Detail for Circular Fire Dampers





Installation Instructions

Circular IFD fitted in steel sleeve penetrating Speedpanel wall

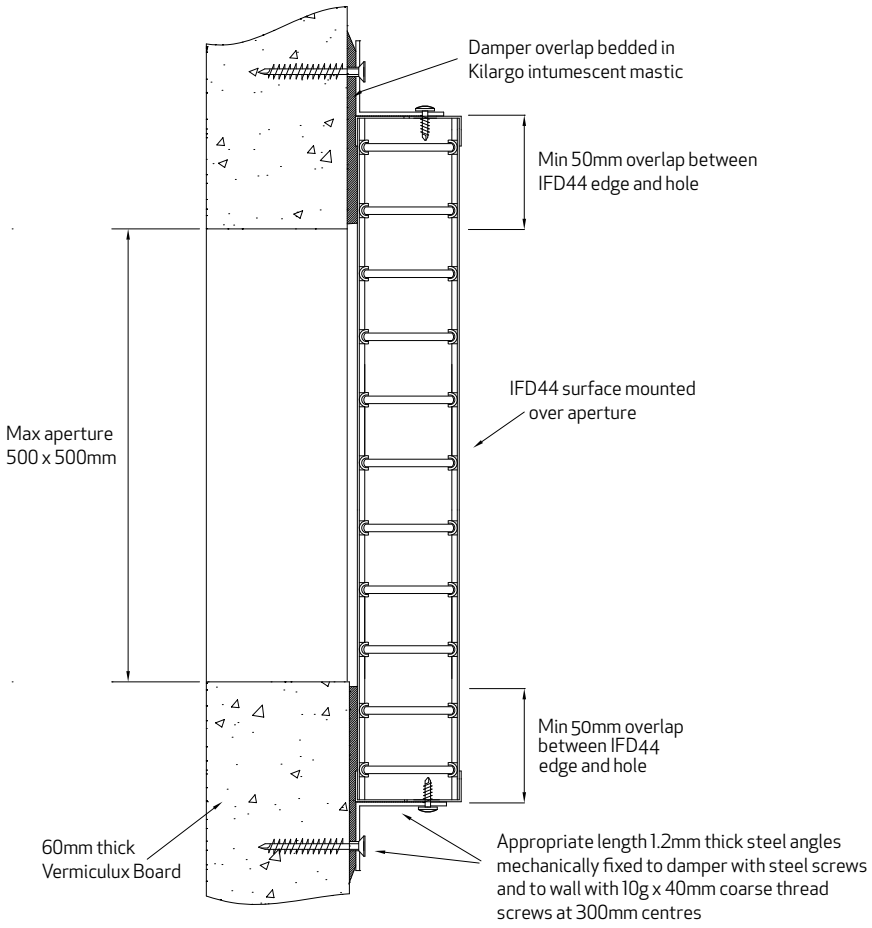
1. Position damper centrally in penetration aperture as per System Drawing.
2. Fire-stop any gaps between the damper and the notched and formed Trimming Channel with Kilargo Intumescent Mastic (supplied separately). Ensure mastic application including fill depth, corresponds with those detailed in the System Drawing. If required, use fire rated backing rod positioned to control fill depth.
3. Fasten steel angle brackets to damper casing with steel self drilling screws or steel pop rivets.
4. Fix angle brackets to Speedpanel wall with 10g self-drilling screws as per Speedpanel data sheets. Note: Intumescent mastic to be applied to angle brackets as shown in the System Drawing.
5. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, angle brackets, fixing screws and backing rod are to be supplied by others.

Kilargo

Building Element	Speedpanel System
Application	Circular IFD installed in sheet metal casing penetrating Speed Panel wall
Maximum Size	300mm diameter
FRL	-/120/-
Test Reference No.	EWFA 21622-20
System No.	**WSP5**



Installation Instructions

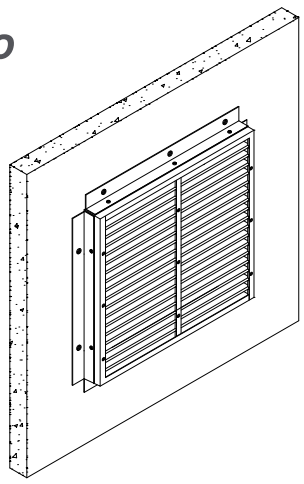
Single cell units surface mounted to Vermiculux panel

1. Fasten mounting angles to sides of damper with steel self drilling screws or steel pop rivets.
2. Position damper centrally over penetration aperture as per system drawing ensuring a minimum of 50mm overlap all around.
3. Liberally apply Kilargo Intumescent Mastic over the surface of the 50mm overlap.
4. Position and bed damper into mastic and fix mounting angles and fix in place using coarse thread screws as shown (supplied by others).
5. If necessary re-apply Kilargo Intumescent Mastic (supplied separately) to any gaps between the damper & building element as detailed in the System Drawing.
6. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
8. Ensure convenient access is provided for visual inspection and cleaning as necessary.

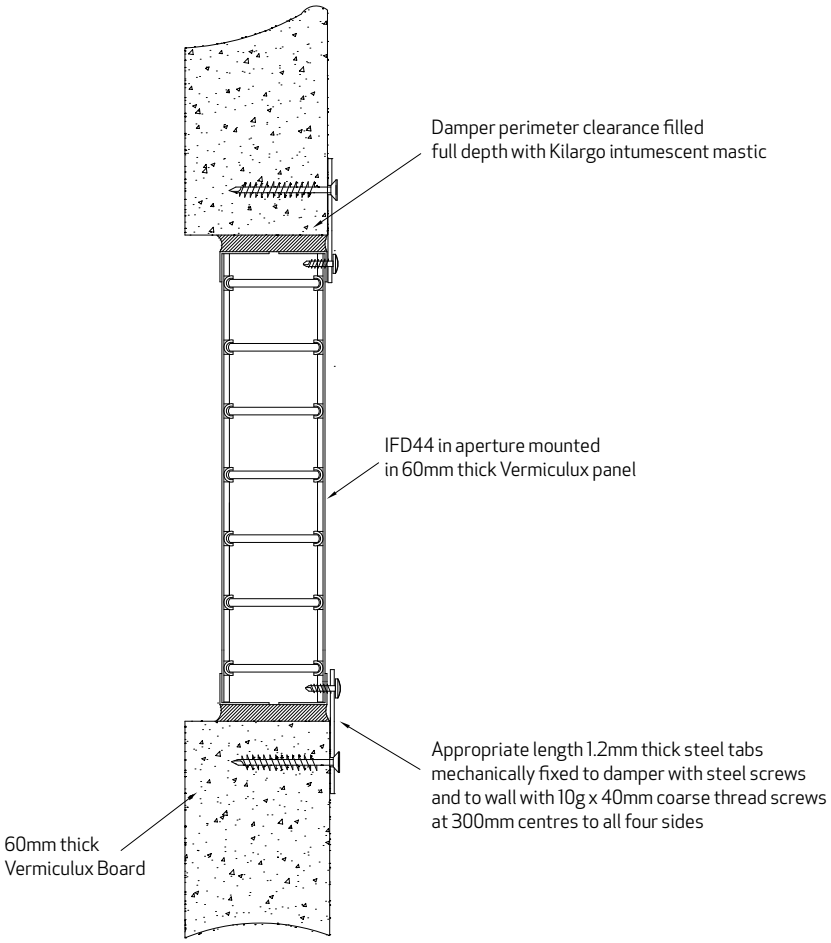
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, angles and anchors are to be supplied by others.

Kilargo



Building Element	Vermiculux
Application	Surface mounted over hole/aperture in 60mm thick Vermiculux board
Maximum Size	600mm x 600mm
FRL	-/120/-
Test Reference No.	BRANZ FAR3404
System No.	**WV1**



Installation Instructions

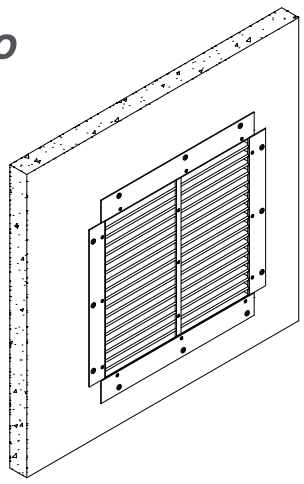
IFD44 mounted within Vermiculx panel

1. Position damper centrally in penetration aperture as per System Drawing.
2. Fasten mounting angles to one side of damper with steel self drilling screws or steel pop rivets.
3. Fix mounting angles to Vermiculux panel using coarse thread screws as shown (supplied by others).
4. Fire-stop any gaps between the damper & Vermiculux panel with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

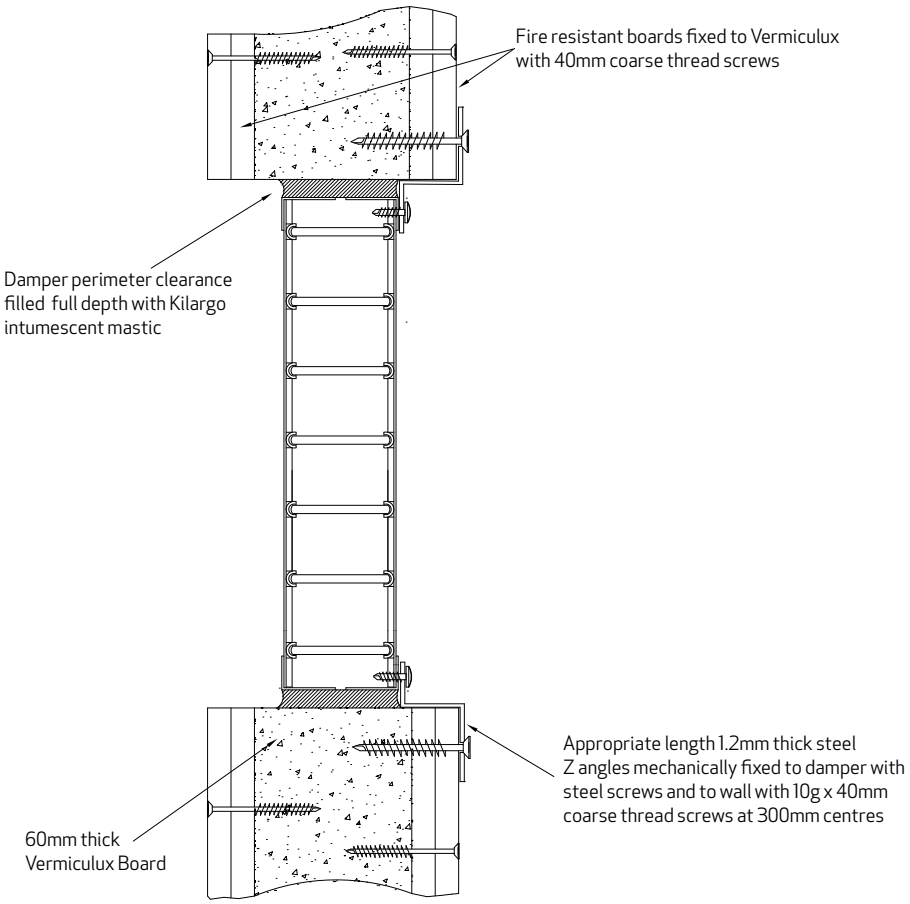
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, angles and anchors are to be supplied by others.

Kilargo



Building Element	Vermiculux
Application	Mounted in Vermiculux aperture
Maximum Size	800mm x 800mm
FRL	-/120/-
Test Reference No.	BRANZ FAR3404
System No.	**WV2**



Installation Instructions

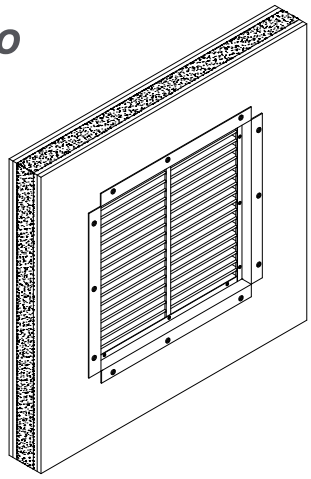
IFD44 mounted in Vermiculux panel with FR Board

1. Position damper centrally in penetration aperture as per System Drawing.
2. Fire-stop any gaps between the damper & Vermiculux panel with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
3. Fasten Z angles to damper with steel self-drilling screws.
4. Fix Z angles to wall using 10g x 40mm coarse thread screws (supplied by others).
5. If connecting ductwork to the installed damper casing, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

Notes

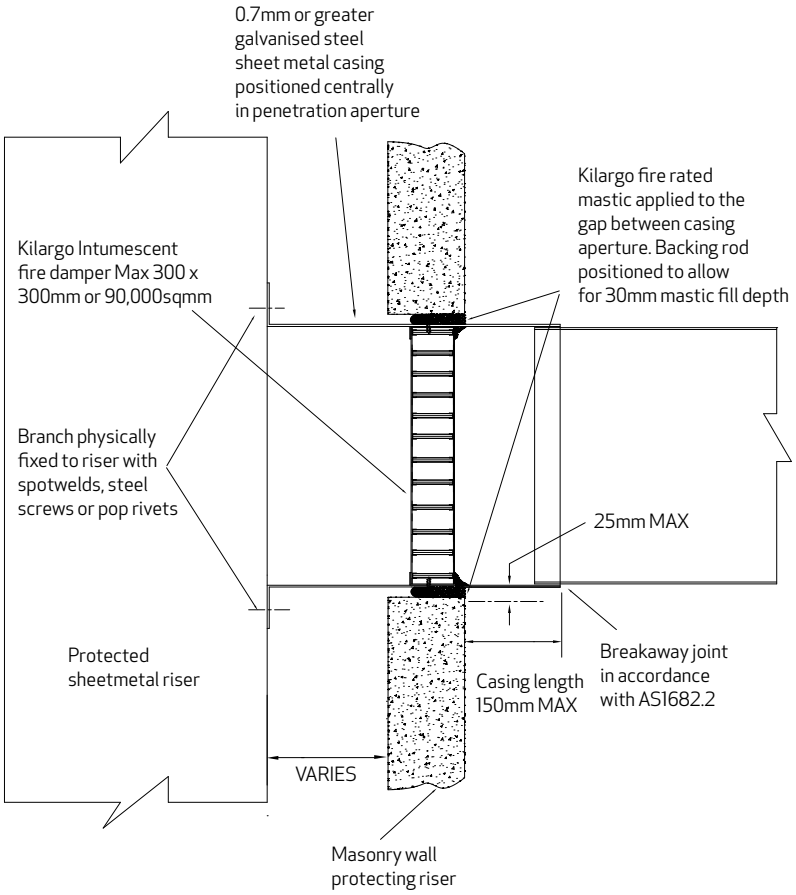
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, angles and anchors are to be supplied by others.

Kilargo



Building Element	Vermiculux
Application	Mounted in 60mm thick Vermiculux board with fire resistant cladding
Maximum Size	800mm x 800mm
FRL	-/120/-
Test Reference No.	BRANZ FAR3404
System No.	**WV3**

Shaftwall Systems



Installation Instructions

IFD44 mounted within riser branch penetrating masonry wall (angle free)

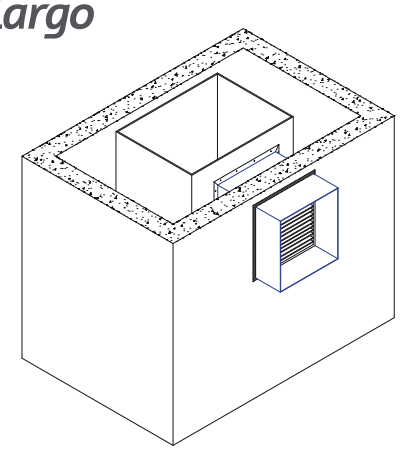
Note: Angle free system must comply with all features of this system drawing

1. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
2. Mechanically connect duct to riser with steel screws or steel pop rivets.
3. Once protective shaftwall has been constructed, firestop gaps between the duct and shaftwall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
4. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

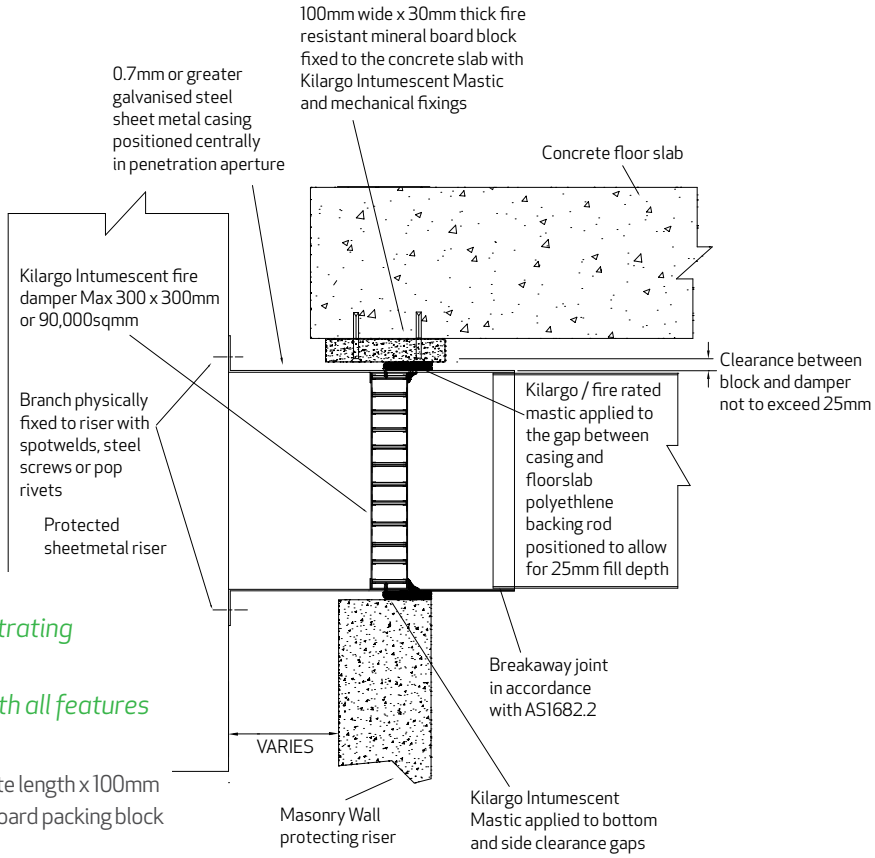
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing & fixing screws are to be supplied by others.

Kilargo



Building Element	Masonry
Application	Mounted in riser branch (angle free system)
Maximum Size	300mm x 300mm or 90,000mm^2
FRL	-/120/-
Test Reference No.	CSIRO FC01869
System No.	**WSW1**



Installation Instructions

IFD44 mounted within riser branch penetrating masonry wall (angle free)

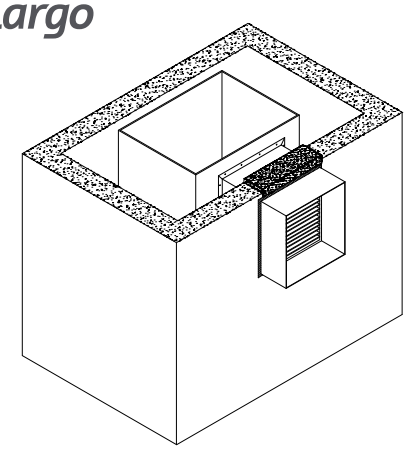
Note: Angle free system must comply with all features of this system drawing

1. Where ductwork is tight to slab use appropriate length x 100mm wide x 30mm thick non combustible mineral board packing block (by others).
2. Fix mineral packing block to underside of slab with steel anchors Kilargo Intumescent Mastic.
3. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser.
4. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
5. Liberally apply Kilargo Intumescent Mastic to non combustible block. Mechanically connect duct to riser with steel screws or steel pop rivets ensuring the gap between the damper casing and non combustible block is as tight as possible and filled with mastic.
6. Once protective shaftwall has been constructed, fire stop all gaps between the duct and shaftwall (and non combustible block) with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
7. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
8. Ensure convenient access is provided for visual inspection and cleaning as necessary.
9. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

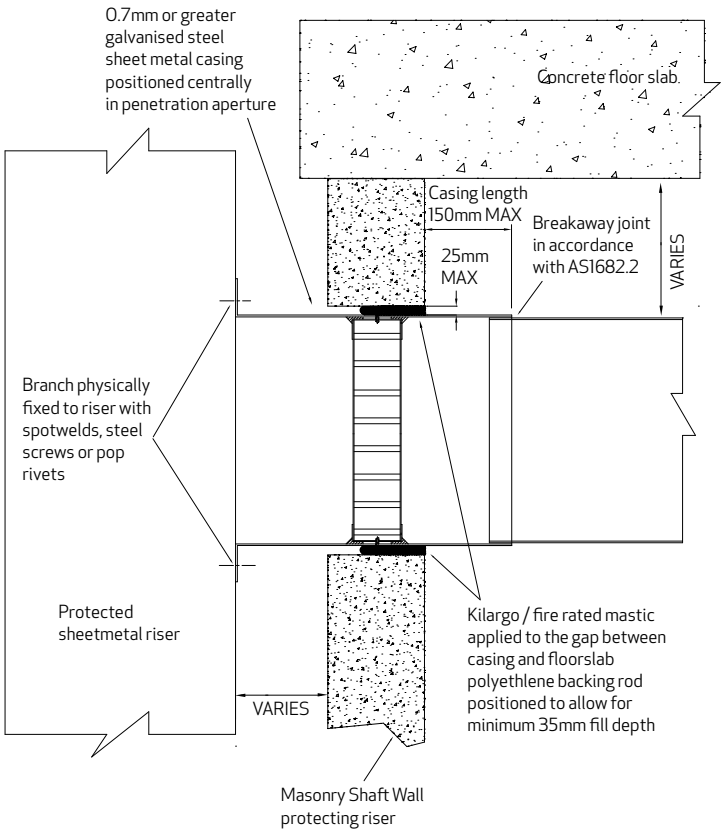
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing and fixing screws are to be supplied by others.

Kilargo



Building Element	Masonry
Application	Mounted in riser branch tight to slab with packer
Maximum Size	300mm x 300mm or 90,000mm^2
FRL	-/120/-
Test Reference No.	CSIRO FC01869
System No.	**WSW2**



Installation Instructions

Circular IFD mounted within riser branch penetrating masonry wall (angle free)

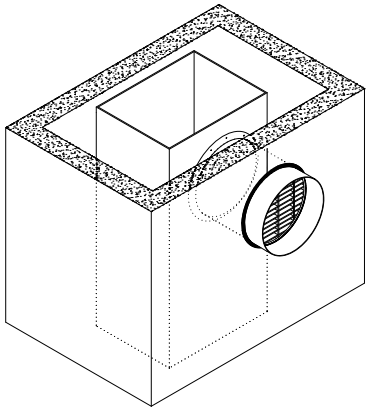
Note: Angle free system must comply with all features of this system drawing

1. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
2. Mechanically connect duct to riser with steel screws or steel pop rivets.
3. Once protective shaftwall has been constructed, firestop gaps between the duct and shaftwall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies, If required use fire rated backing rod, positioned to control fill depth,
4. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

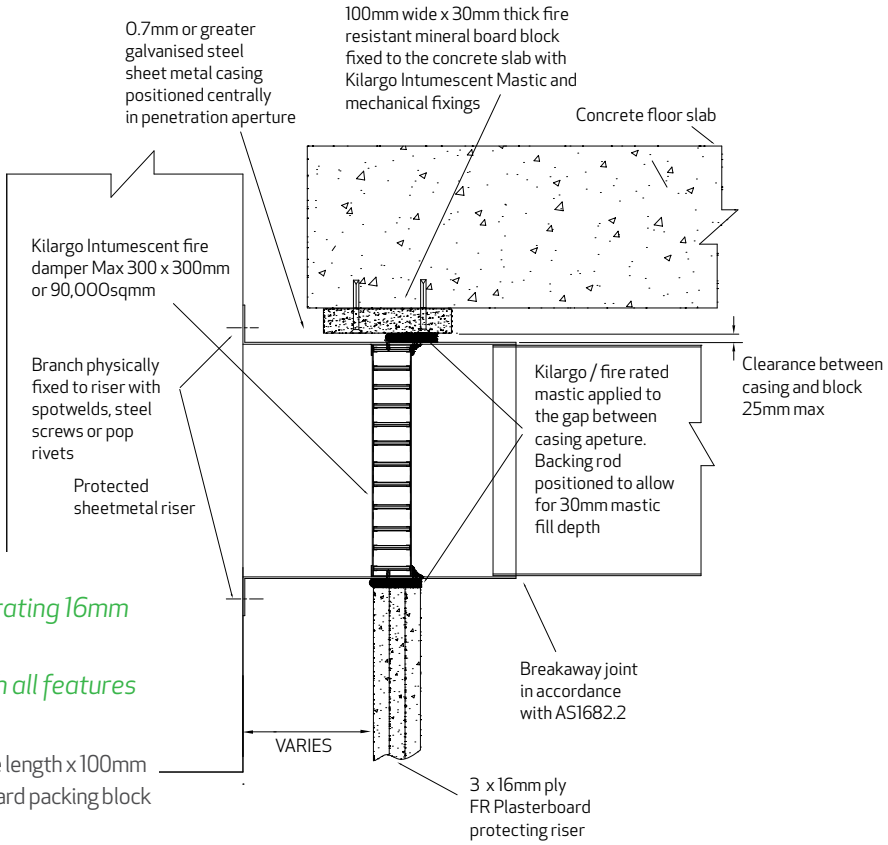
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws are to be supplied by others..

Kilargo



Building Element	Masonry
Application	Mounted in riser branch (angle free system)
Maximum Size	300mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FC02455
System No.	**WSW3**



Installation Instructions

IFD44 mounted within riser branch penetrating 16mm Plasterboard (angle free)

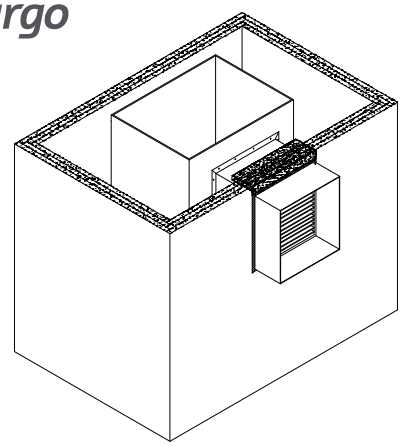
Note: Angle free system must comply with all features of this system drawing

1. Where ductwork is tight to slab use appropriate length x 100mm wide x 30mm thick non combustible mineral board packing block (by others).
2. Fix mineral packing block to underside of slab with steel anchors Kilargo Intumescent Mastic.
3. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser.
4. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
5. Liberally apply Kilargo Intumescent Mastic to non combustible block. Mechanically connect duct to riser with steel screws or steel pop rivets ensuring the gap between the damper casing and non combustible block is as tight as possible and filled with mastic.
6. Once protective shaftwall has been constructed, fire stop all gaps between the duct and shaftwall (and non combustible block) with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod positioned to control fill depth.
7. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
8. Ensure convenient access is provided for visual inspection and cleaning as necessary.
9. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

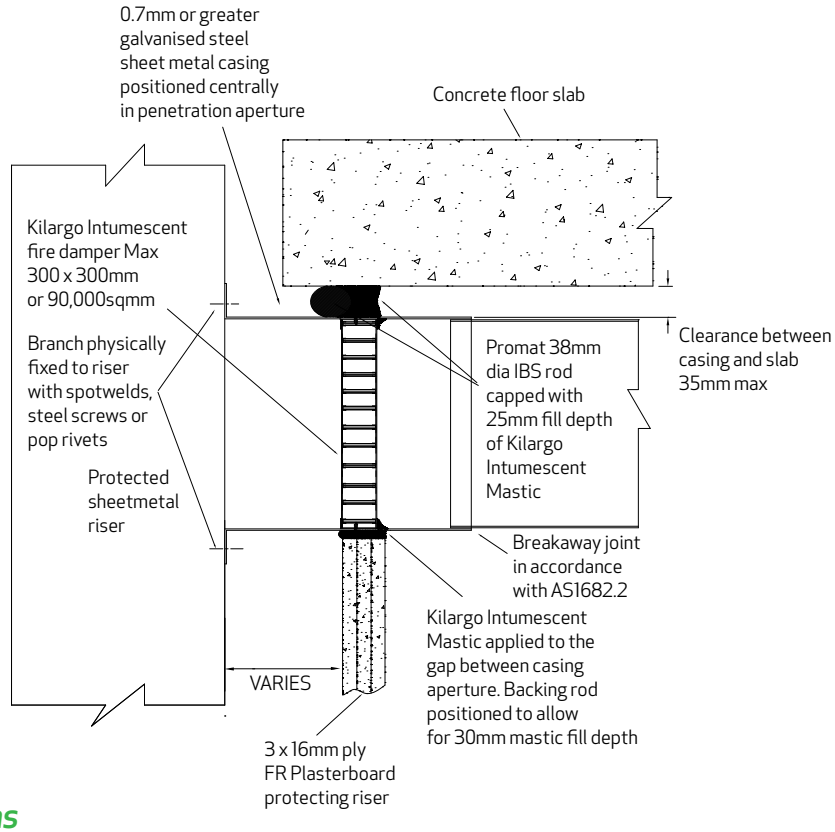
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing and fixing screws are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard x 3 layers
Application	Mounted in riser branch tight to slab with packer
Maximum Size	300mm x 300mm or 90,000mm^2
FRL	-/120/-
Test Reference No.	CSIRO FC02436
System No.	**WSW4**



Installation Instructions

IFD44 mounted within riser branch penetrating 16mm plasterboard (angle free)

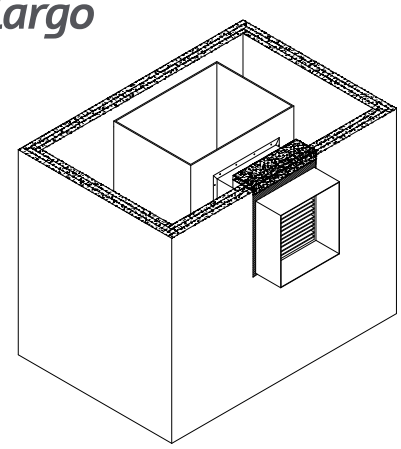
Note: Angle free system must comply with all features of this system drawing

1. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser.
2. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
3. Mechanically connect duct to riser with steel screws or steel pop rivets ensuring the top gap between the damper casing and slab is no greater than 35mm .
4. Once protective shaftwall has been constructed, push fit 38mm diameter Promat IBS fire rated foam rod into top joint and then fire stop all gaps between the duct and shaftwall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the system Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
5. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure convenient access is provided for visual inspection and cleaning as necessary.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

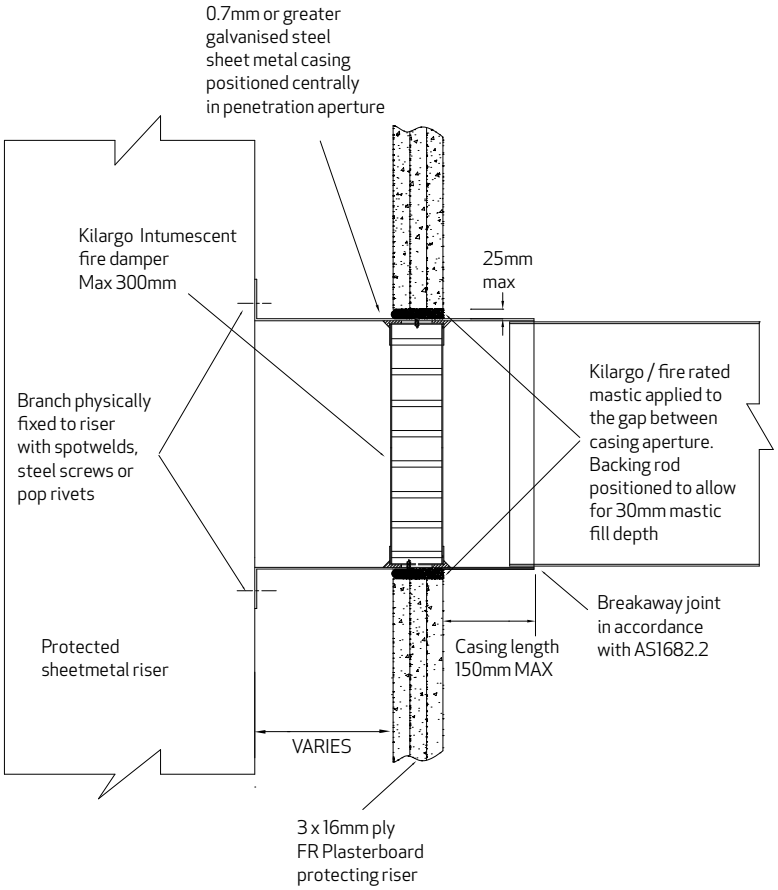
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing & fixing screws and Promat IBS fire rated foam are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard x 3 layers
Application	Mounted In riser branch tight to slab with IBS rod & mastic
Maximum Size	300mm x 300mm or 90,000mm^2
FRL	-/120/-
Test Reference No.	CSIRO FC02436
System No.	**WSW5**



Installation Instructions

Circular damper mounted within riser branch penetrating 16mm plasterboard (angle free)

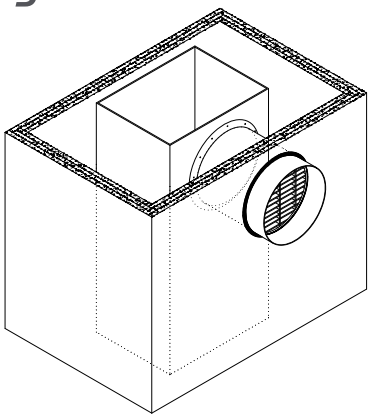
Note: Angle free system must comply with all features of this system drawing

1. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
2. Mechanically connect duct to riser with steel screws or steel pop rivets.
3. Once protective shaftwall has been constructed, firestop gaps between the duct and shaftwall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
4. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

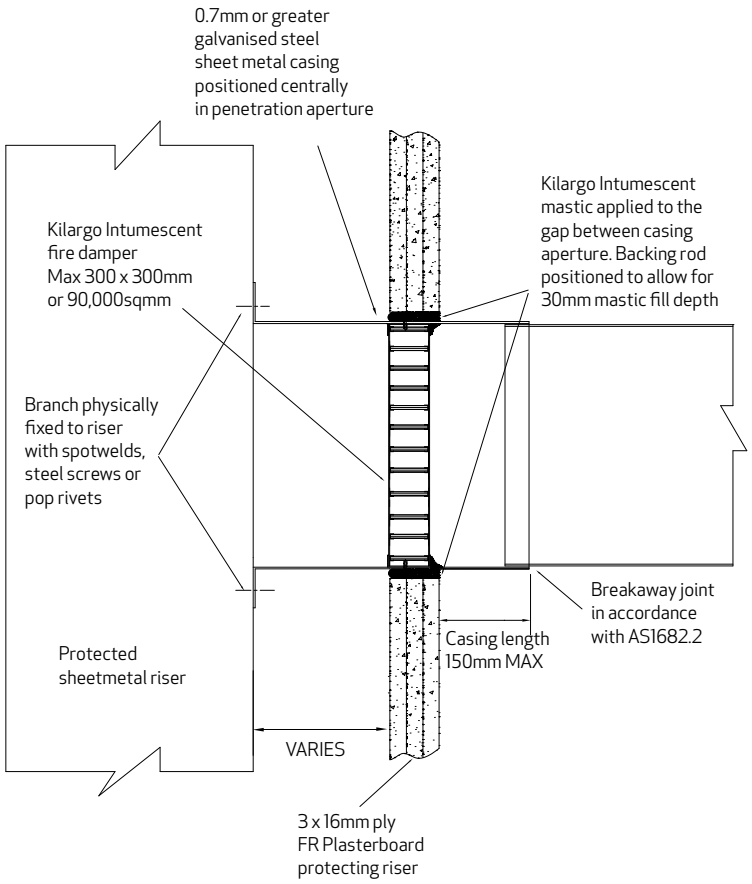
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard x 3 layers
Application	Mounted in riser branch (angle free system)
Maximum Size	300mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FC02455
System No.	**WSW6**



Installation Instructions

IFD44 mounted within riser branch penetrating 16mm plasterboard (angle free)

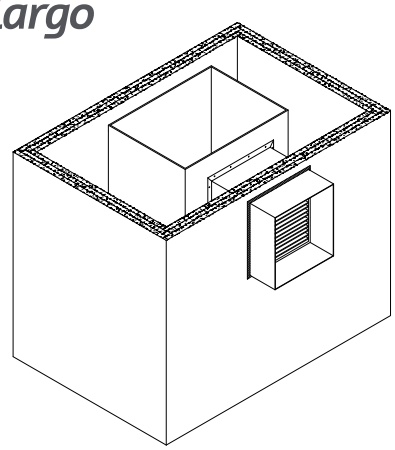
Note: Angle free system must comply with all features of this system drawing

1. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
2. Mechanically connect duct to riser with steel screws or steel pop rivets.
3. Once protective shaftwall has been constructed, firestop gaps between the duct and shaftwall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
4. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

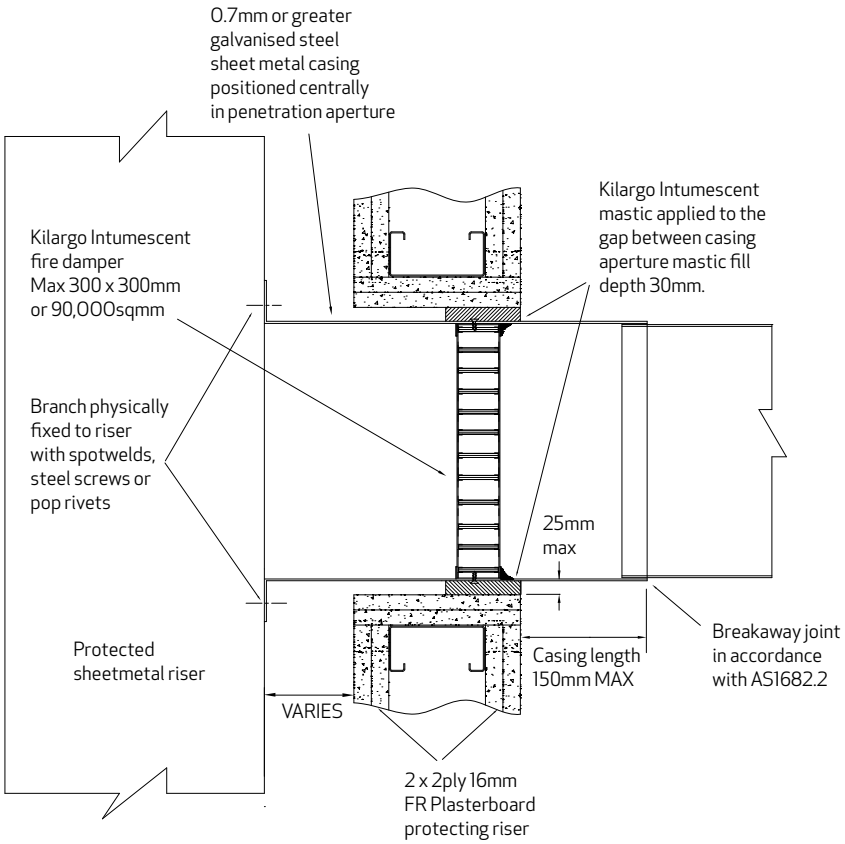
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing and fixing screws are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard x 3 layers
Application	Mounted in riser branch (angle free system)
Maximum Size	300mm x 300mm or 90,000mm^2
FRL	-/120/-
Test Reference No.	CSIRO FC01869
System No.	**WSW7**



Installation Instructions

IFD44 mounted in riser branch penetrating 16mm plasterboard (angle free)

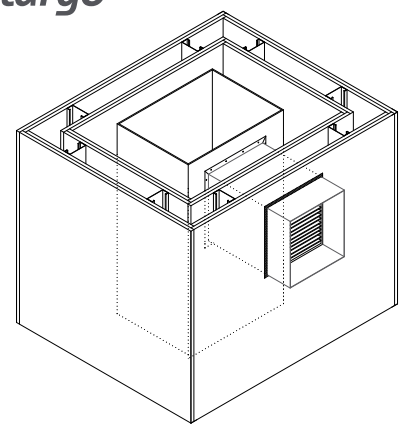
Note: Angle free system must comply with all features of this system drawing

1. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
2. Mechanically connect duct to riser with steel screws or steel pop rivets.
3. Once protective shaftwall has been constructed, firestop gaps between the duct and shaftwall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
4. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

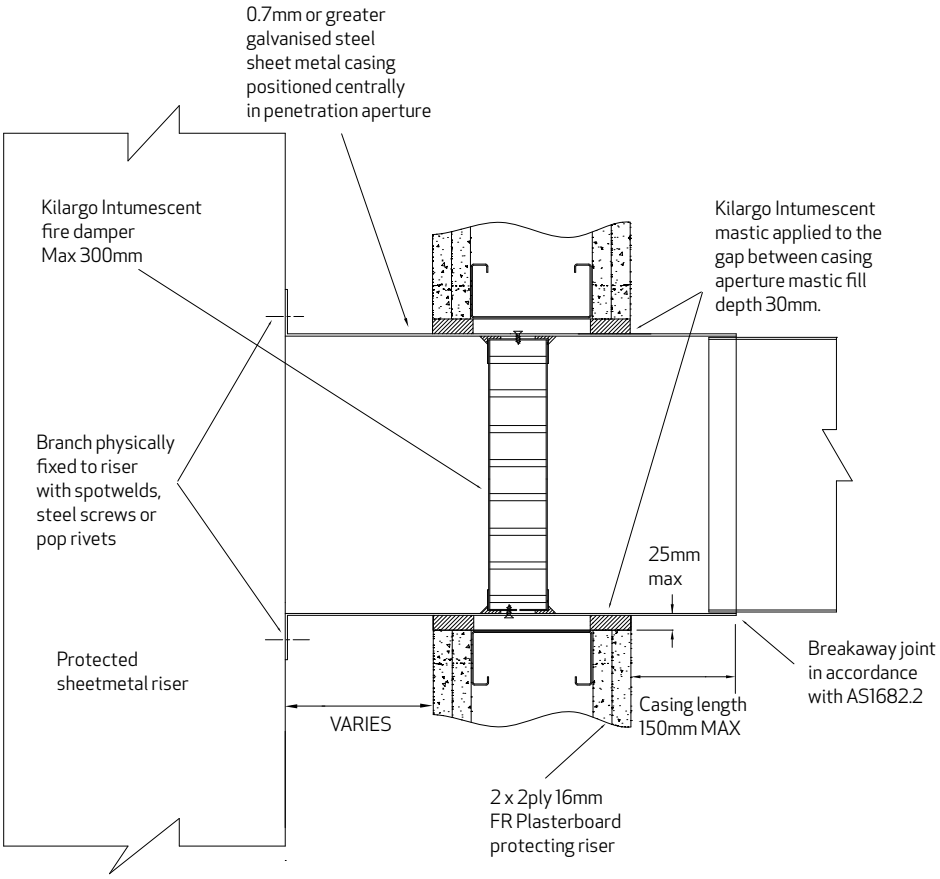
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing and fixing screws are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard x 2 layers
Application	Mounted in riser branch (angle free system)
Maximum Size	300mm x 300mm or 90,000mm^2
FRL	-/120/-
Test Reference No.	CSIRO FC01870
System No.	**WSW8**



Installation Instructions

Circular damper mounted in riser branch penetrating 16mm plasterboard (angle free)

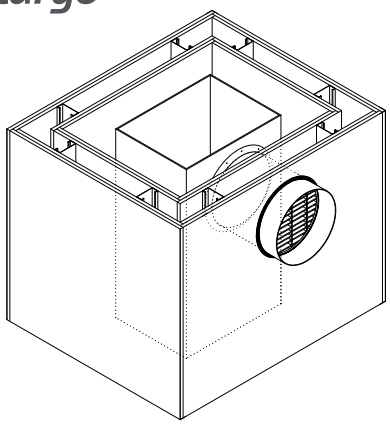
Note: Angle free system must comply with all features of this system drawing

1. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
2. Mechanically connect duct to riser with steel screws or steel pop rivets.
3. Once protective shaftwall has been constructed, firestop gaps between the duct and shaftwall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
4. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

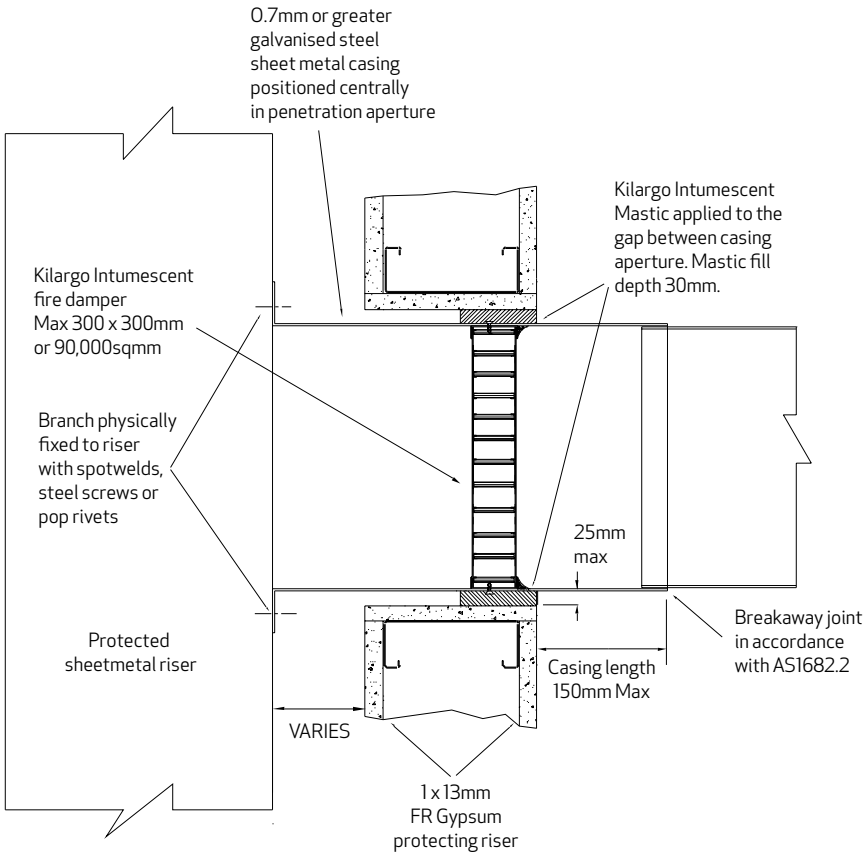
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard x 2 layers
Application	Mounted in riser branch (angle free system)
Maximum Size	300mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FC02455
System No.	**WSW9**



Installation Instructions

IFD44 mounted in riser branch penetrating 13mm plasterboard (angle free)

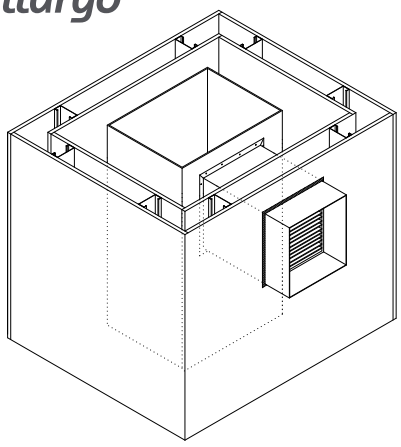
Note: Angle free system must comply with all features of this system drawing

1. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
2. Mechanically connect duct to riser with steel screws or steel pop rivets.
3. Once protective shaftwall has been constructed, firestop gaps between the duct and shaftwall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
4. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

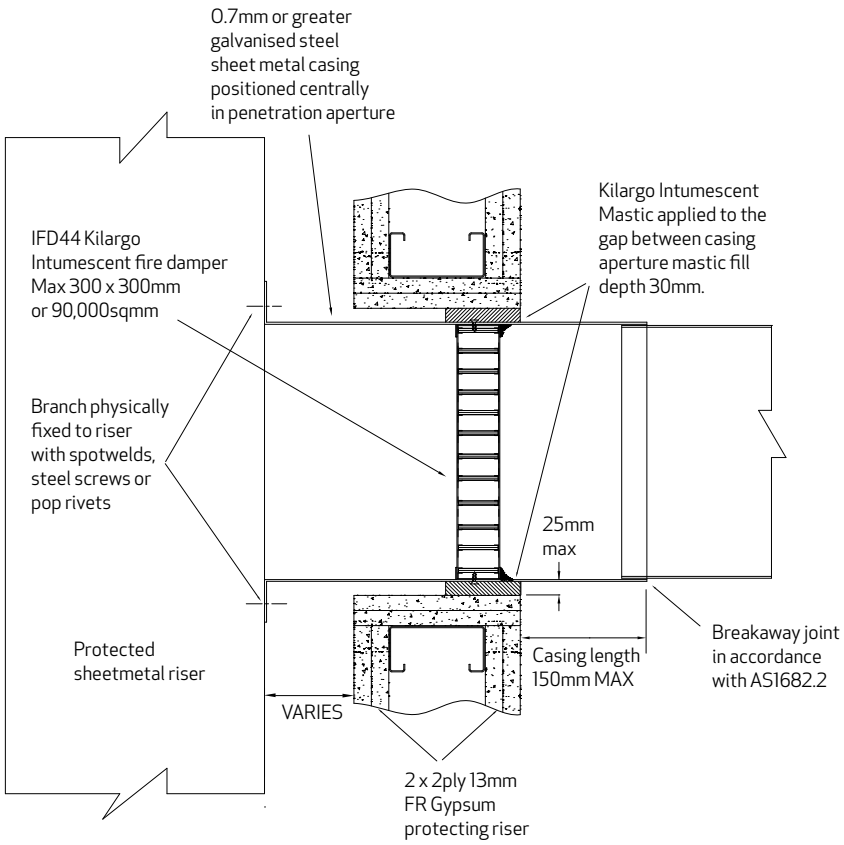
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing and fixing screws are to be supplied by others.

Kilargo



Building Element	13mm FR Plasterboard x 1 layer
Application	Mounted in riser branch (angle free system)
Maximum Size	300mm x 300mm or 90,000mm^2
FRL	-/60/-
Test Reference No.	CSIRO FC02981
System No.	**WSW10**



Installation Instructions

IFD44 mounted in riser branch penetrating 13mm plasterboard (angle free)

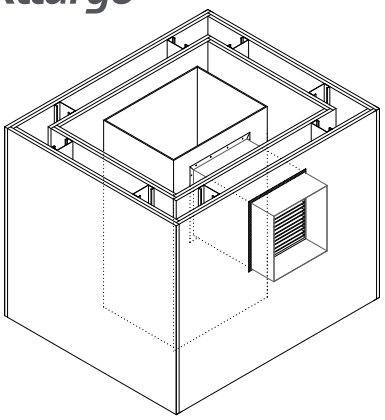
Note: Angle free system must comply with all features of this system drawing

1. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
2. Mechanically connect duct to riser with steel screws or steel pop rivets.
3. Once protective shaftwall has been constructed, firestop gaps between the duct and shaftwall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
4. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

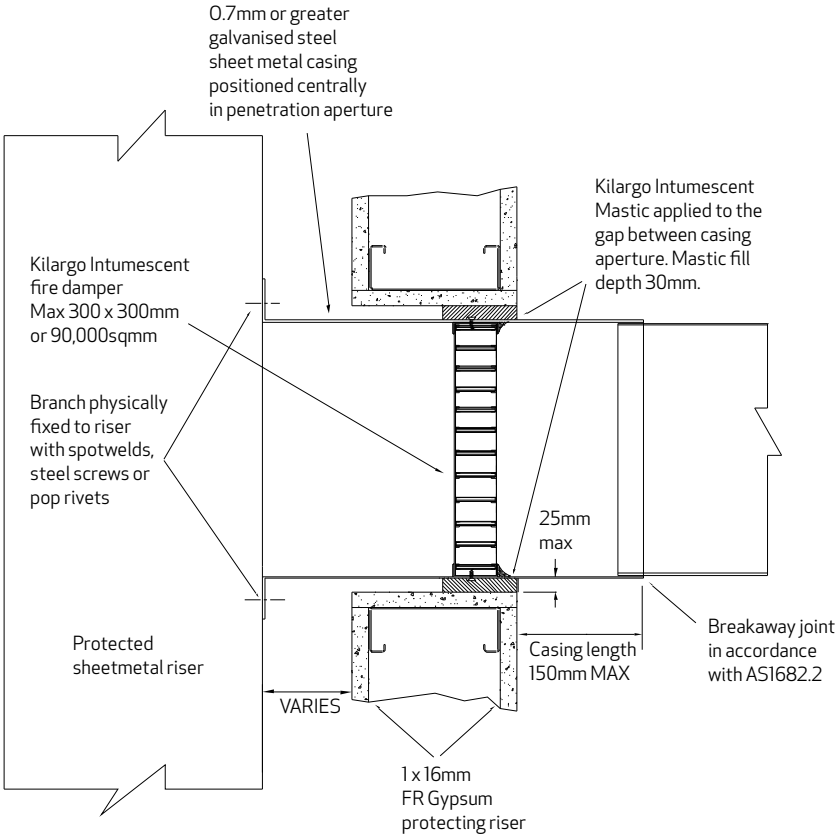
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing and fixing screws are to be supplied by others.

Kilargo



Building Element	13mm FR Plasterboard x 2 layers
Application	Mounted in riser branch (angle free system)
Maximum Size	300mm x 300mm or 90,000mm^2
FRL	-/90/-
Test Reference No.	CSIRO FC02981
System No.	**WSW11**



Installation Instructions

IFD44 mounted in riser branch penetrating 16mm plasterboard (angle free)

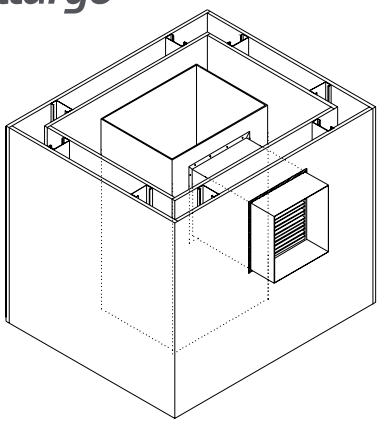
Note: Angle free system must comply with all features of this system drawing

1. Position and fix damper into ductwork with steel screws - ensuring that the damper will be aligned and within the fire separating shaft wall once the duct is attached to the riser. Seal internal gap between damper and duct with Kilargo Intumescent Mastic.
2. Mechanically connect duct to riser with steel screws or steel pop rivets.
3. Once protective shaftwall has been constructed, firestop gaps between the duct and shaftwall with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies. If required use fire rated backing rod, positioned to control fill depth.
4. When connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

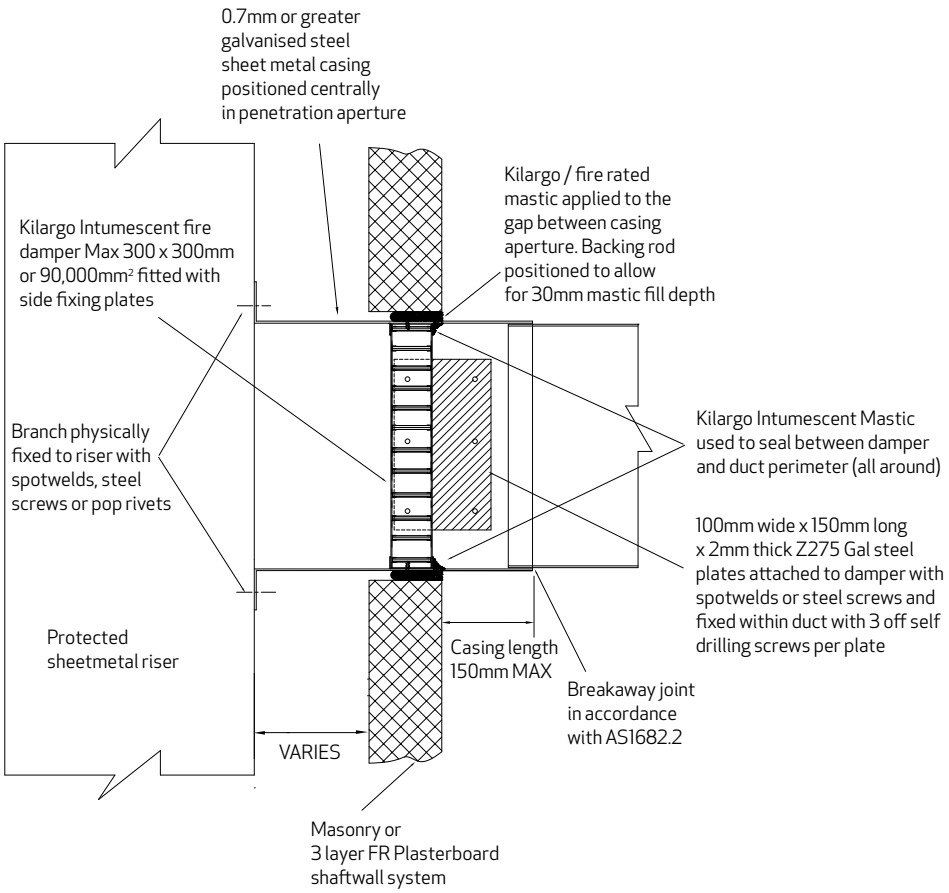
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing and fixing screws are to be supplied by others.

Kilargo



Building Element	16mm FR Plasterboard x 1 layer
Application	Mounted in riser branch (angle free system)
Maximum Size	300mm x 300mm or 90,000mm^2
FRL	-/60/-
Test Reference No.	CSIRO FCO2981
System No.	**WSW12**



Installation Instructions

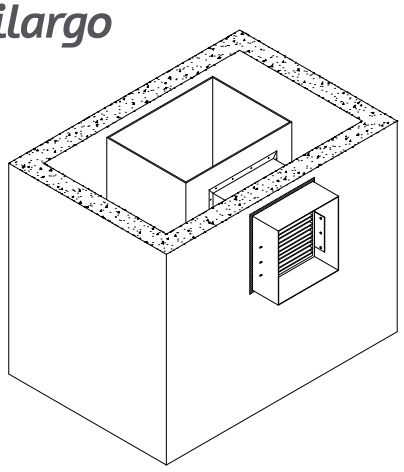
IFD44 Retrofit shaftwall system

1. Check the duct into which damper is to be retrofitted is unobstructed.
2. Fix steel mounting tabs (as detailed on System Drawing) to damper using self drilling screws (supplied by others).
3. Position the damper and fix in place using steel self drilling screws or steel pop rivets (supplied by others).
4. Fire stop any internal gaps between the damper and duct with Kilargo Intumescent Mastic (supplied separately).
5. Check outside perimeter of penetration ensuring that it complies with the system drawing. Note: if it does not meet the system drawing requirements then Kilargo Intumescent Mastic should be applied and 40 x 40mm x 0.7mm steel angles fitted to entire perimeter of duct and then anchored to the wall
6. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.
8. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

Notes

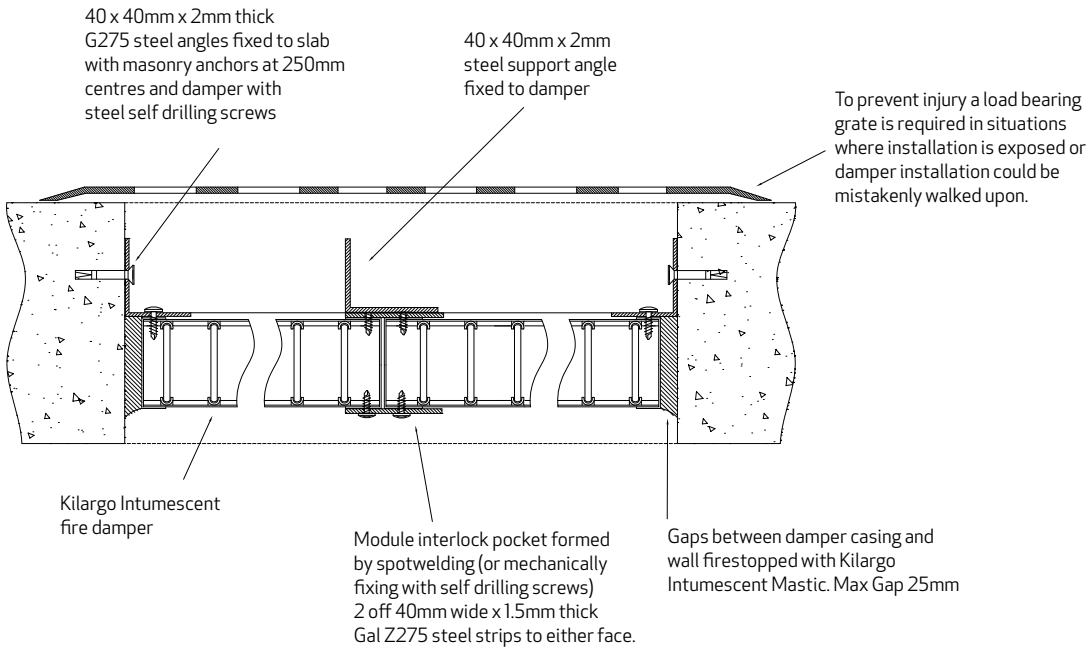
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, retaining angles and fixing screws are to be supplied by others.

Kilargo



Building Element	Retrofit shaftwall option masonry or 16mm FR plasterboard x 3 layers
Application	Retrofit fixing tabs in existing damper housing
Maximum Size	300mm x 300mm, 90,000mm²
FRL	-/120/-
Test Reference No.	CSIRO FCO2101
System No.	**WSRF1**

Floor Mounted Systems



Installation Instructions

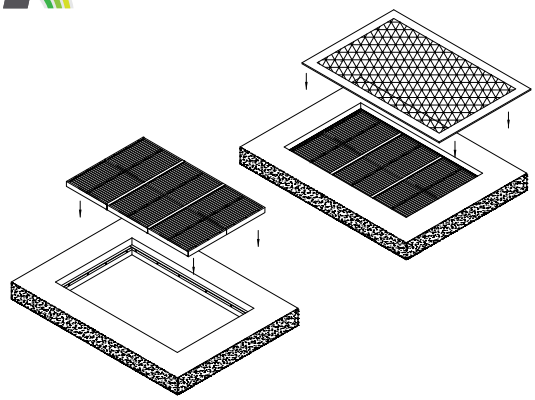
IFD44 with no casing penetrating a concrete floor slab

1. Assemble damper modules by applying Kilargo Intumescent Mastic to mating channel. Align and bring units together so that they interlock and mechanically fix together with steel self drilling screws or steel pop rivets at 150mm centres.
2. Position & fasten supporting angles to top face of module using steel screws as detailed in the System Drawing.
3. Position the damper module in the aperture and mechanically fix the angle brackets to the slab using masonry anchors Fire stop any gaps between the damper and slab with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork to slab ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. If ductwork is not connected; To prevent injury a load bearing grate is required (by others) in situations where installation is exposed or damper may be accessed by foot traffic.
6. Ensure convenient access is provided for visual inspection and cleaning as necessary.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

Notes

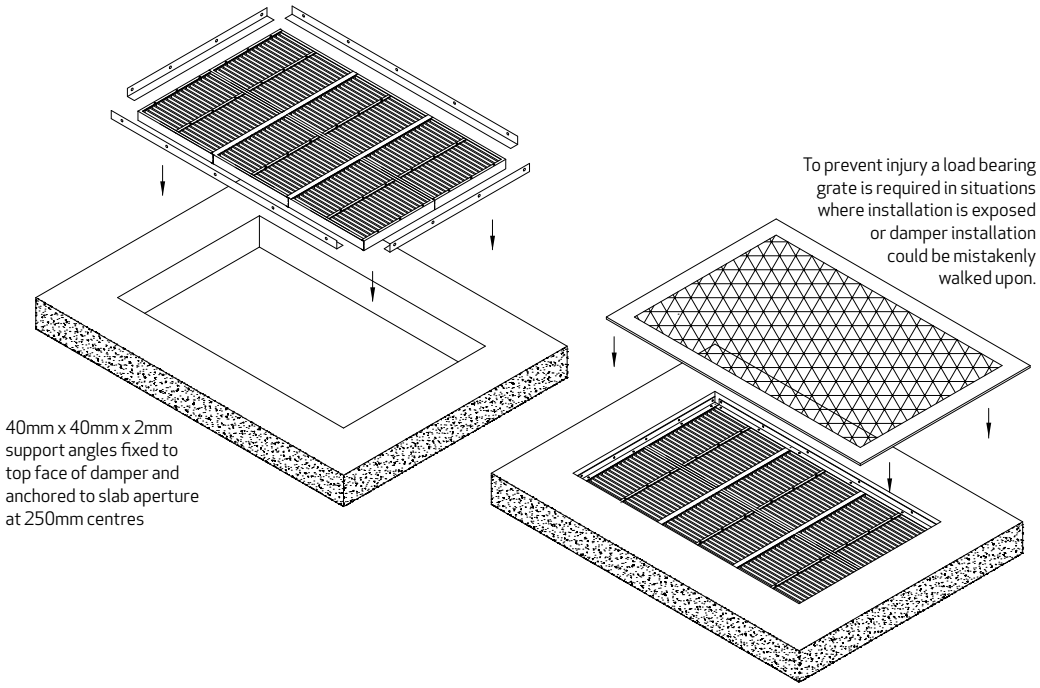
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Retaining angles, fixing screws masonry anchors and load bearing grate are to be supplied by others.

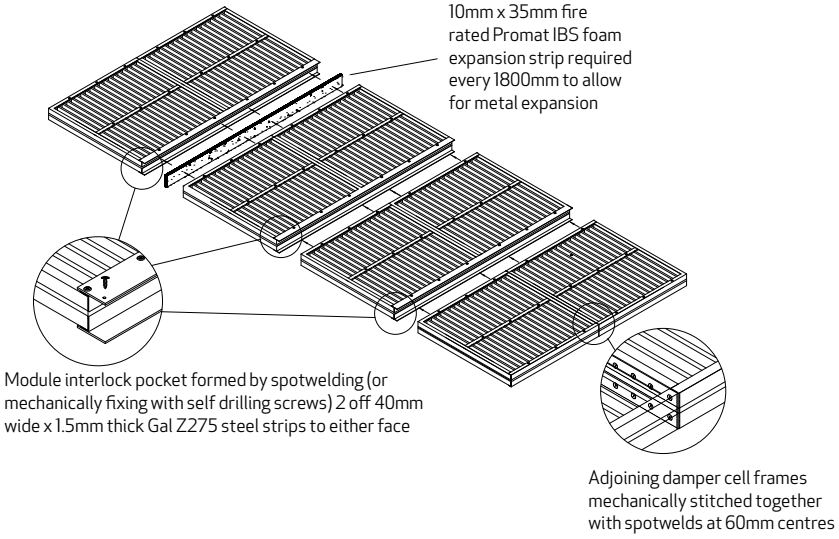
Kilargo



Building Element	Concrete Slab
Application	No casing in penetration
Maximum Size	Up to 1200mm x >10m or >10m x 1200mm
FRL	-/120/-
Test Reference No.	CSIRO FC02643, FC01963
System No.	**FL1 (a)**

See also Modular Configuration drawing on system FL1 (b)

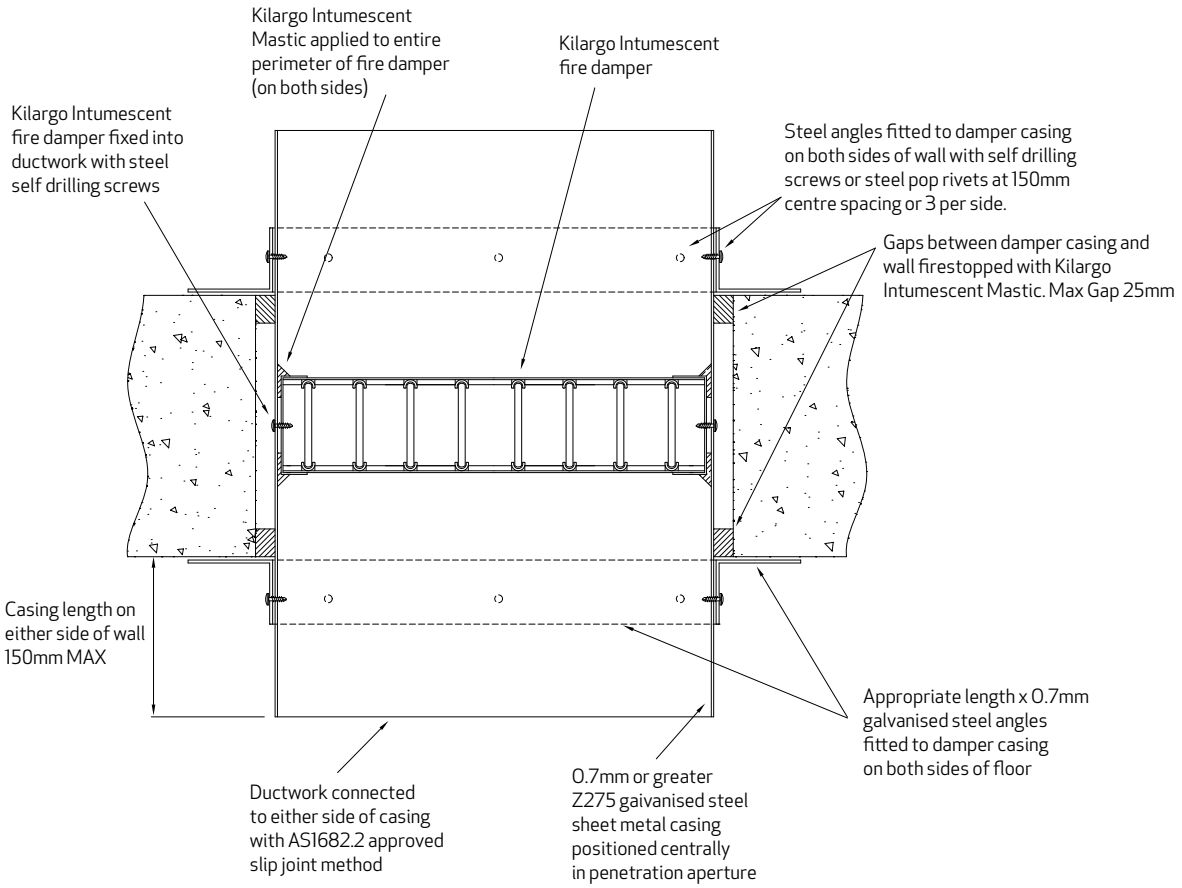




Kilargo

Building Element	Concrete Slab
Application	No casing in penetration
Maximum Size	Up to 1200mm x >10m or >10m x 1200mm
FRL	-/120/-
Test Reference No.	CSIRO FC02643, FC01963
System No.	**FL1 (b)**

To be read in conjunction with system FL1 (a)



*** Insulation value of the damper negates the need for additional insulation cladding, as per AS1668.1 Note C3.4**

Installation Instructions

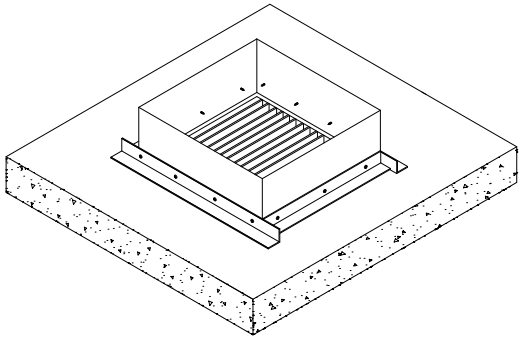
Single cell units in steel casing penetrating a concrete floor slab

1. Position damper centrally in floor penetration aperture as per System Drawing.
2. Retain in position as gaps between the damper and floor are filled with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
3. Fasten mounting angles to side of damper casing with steel self drilling screws or steel pop rivets).
4. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
6. Ensure convenient access is provided for visual inspection and cleaning as necessary.

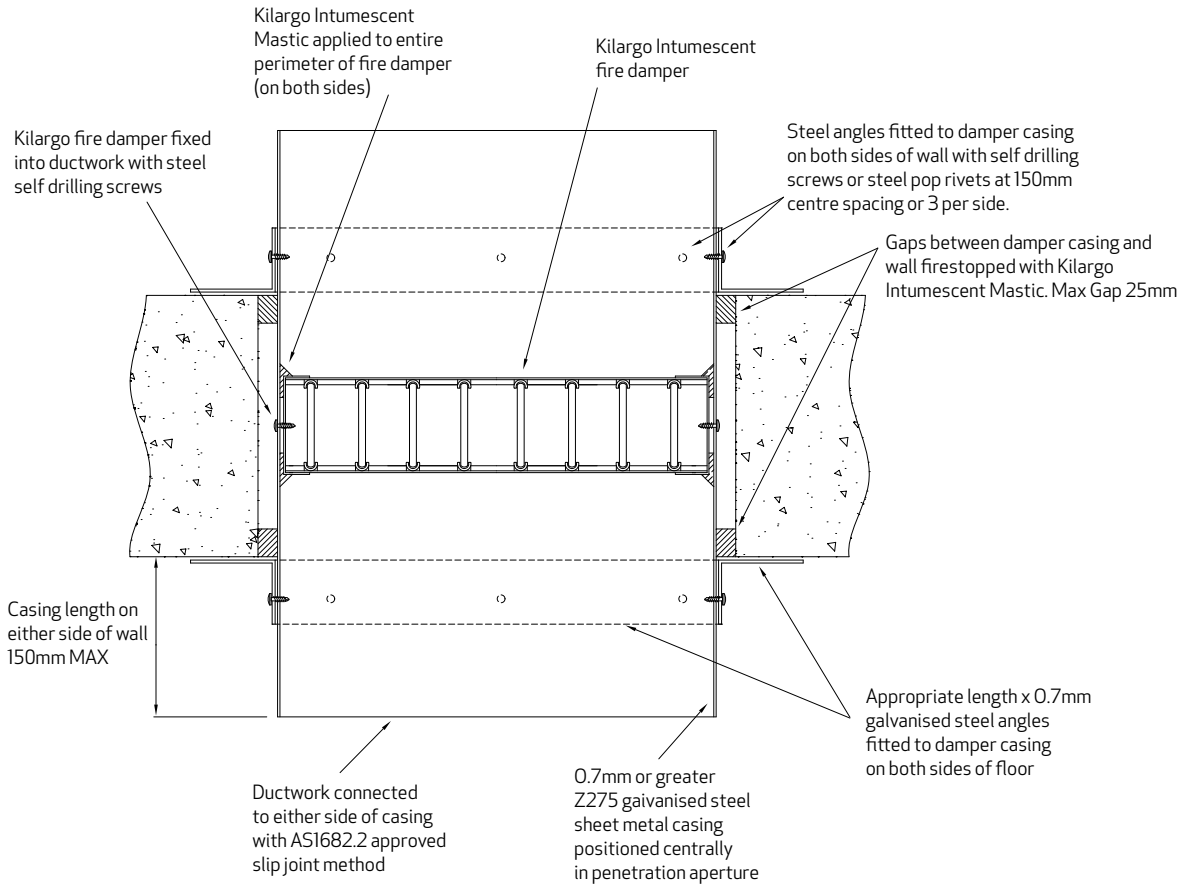
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Retaining angles & fixing screws are to be supplied by others.

Kilargo



Building Element	Concrete Slab
Application	Mounted in steel casing in penetration
Maximum Size	300mm x 300mm
FRL	-/240/180*
Test Reference No.	CSIRO FSP0687
System No.	**FL2**



Installation Instructions

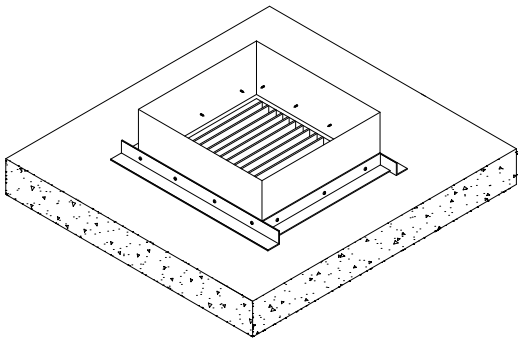
Single cell units in steel casing penetrating a concrete floor slab

1. Position damper centrally in floor penetration aperture as per System Drawing.
2. Retain in position as gaps between the damper and floor are filled with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
3. Fasten mounting angles to side of damper casing with steel self drilling screws or steel pop rivets.
4. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
6. Ensure convenient access is provided for visual inspection and cleaning as necessary.

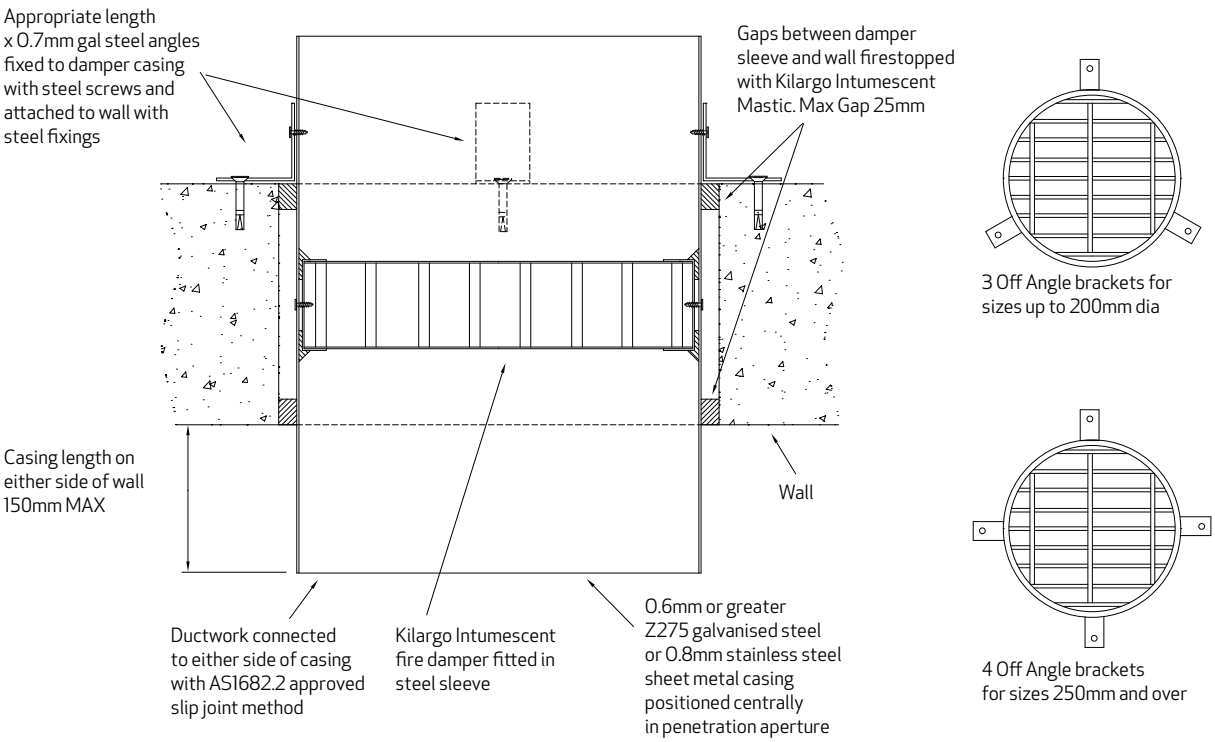
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, retaining angles & fixing screws are to be supplied by others.

Kilargo



Building Element	Concrete Slab
Application	Mounted in steel casing in penetration
Maximum Size	600mm x 600mm
FRL	-/120/120
Test Reference No.	CSIRO FSP1796
System No.	**FL3**



Installation Instructions

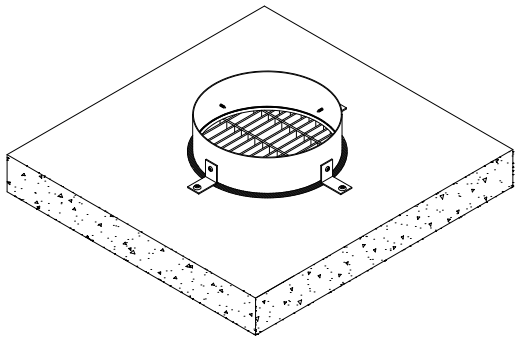
Circular IFD in steel sleeve penetrating a concrete floor slab

1. Fasten mounting angles to side of damper casing with steel self drilling screws or steel pop rivets.
2. Position damper centrally in floor penetration aperture as per System Drawing.
3. Fix damper mounting angles to slab with masonry anchors
4. Apply Kilargo Intumescent Mastic (supplied separately) to gaps between the damper and slab on both sides. Ensure fill depth corresponds with those detailed in the System Drawing.
5. If connecting ductwork to the installed damper casing ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.

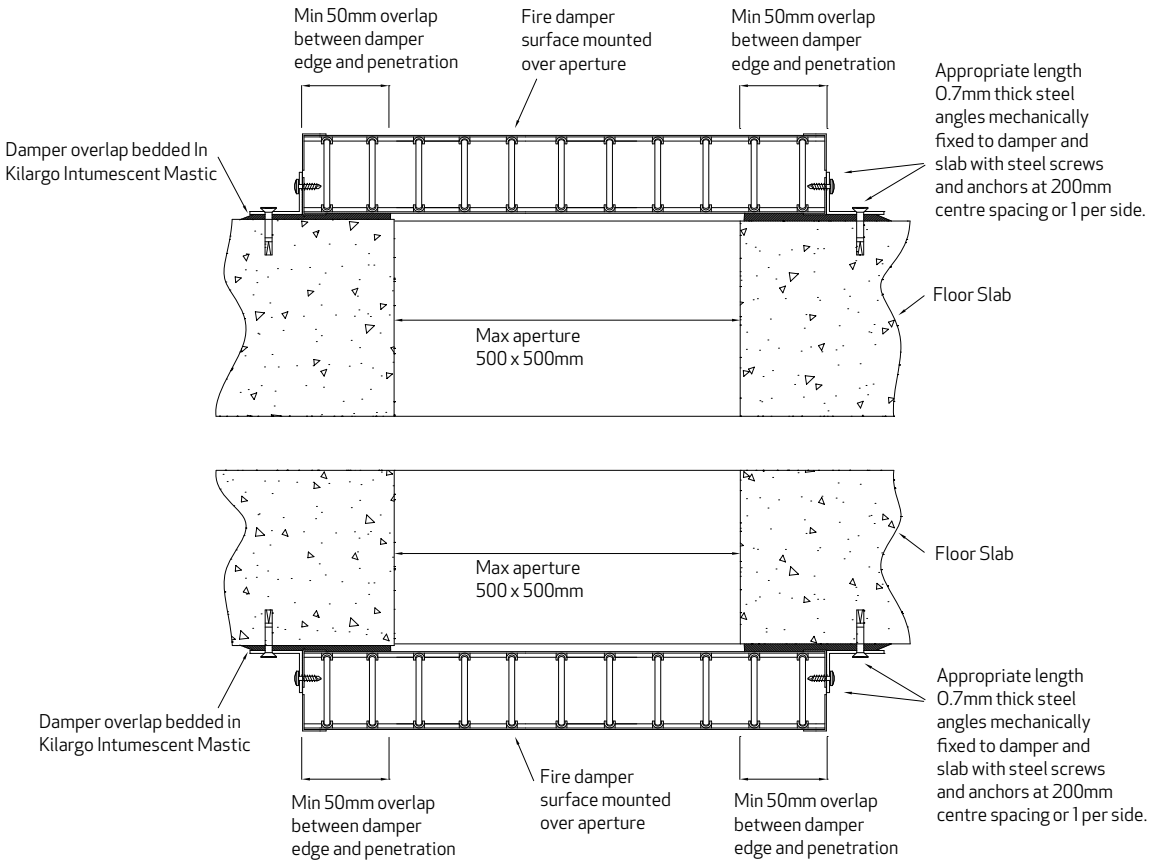
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws and masonry anchors are to be supplied by others.

Kilargo



Building Element	Concrete Slab
Application	Steel sleeve in penetration
Maximum Size	300mm diameter
FRL	-/120/-
Test Reference No.	CSIRO FC01866
System No.	**FL4**



Installation Instructions

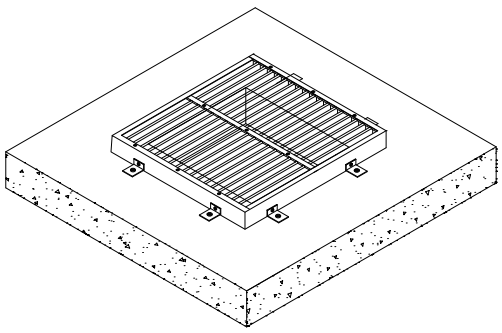
Single cell unit (no casing) surface mounted over or under a concrete floor slab

1. Position the damper as detailed in the relevant System Drawing.
2. If applicable, position & fasten mounting angles, using screws & anchors (all supplied by others) as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

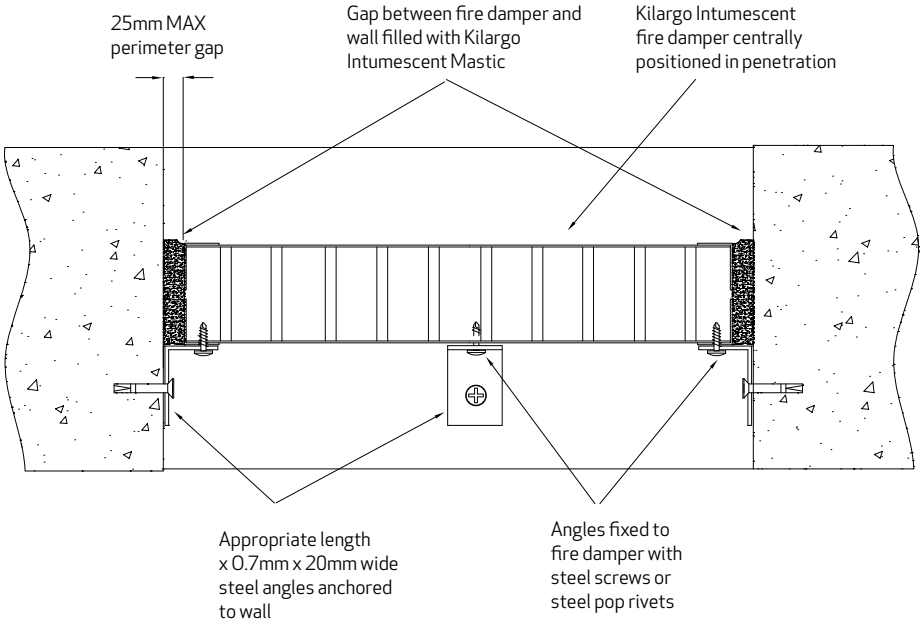
Notes

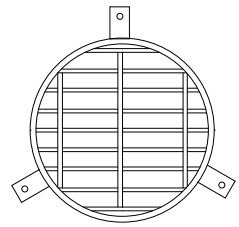
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Retaining angles, fixing screws and anchors are to be supplied by others.

Kilargo

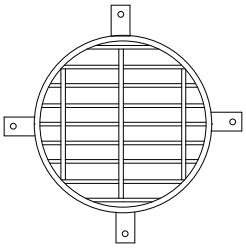


Building Element	Concrete Slab
Application	No casing - surface mounted over or under penetration
Maximum Size	600mm x 600mm
FRL	-/120/-
Test Reference No.	CSIRO FC01740
System No.	**FL5**





3 Off Angle brackets for sizes up to 200mm dia



4 Off Angle brackets for size 250mm

Installation Instructions

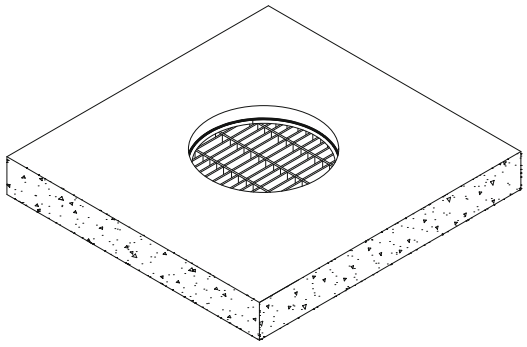
Circular IFD (no steel sleeve) in concrete floor slab

1. Position & fasten mounting angles to slab using steel anchors (supplied by others) as detailed in the System Drawing.
2. Fit and position damper in aperture and fire stop any gaps between the damper and slab with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
3. If connecting ductwork, to slab ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
4. To prevent injury a load bearing grate is required (by others) in situations where installation is exposed or damper may be accessed by foot traffic
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

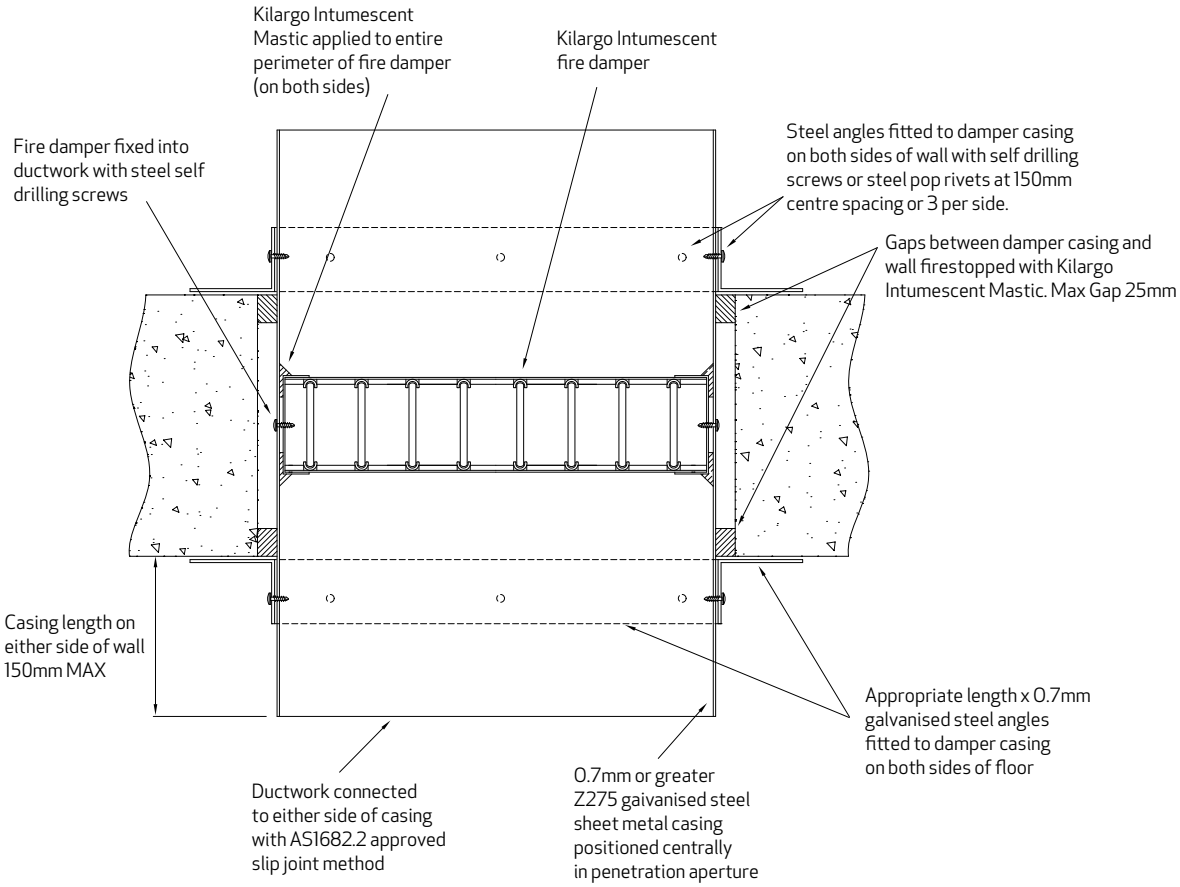
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, masonry anchors and load bearing grate are to be supplied by others.

Kilargo



Building Element	Concrete Slab
Application	No steel sleeve in penetration
Maximum Size	250mm diameter
FRL	-/120/-
Test Reference No.	WFRA F91687
System No.	**FL6**



Installation Instructions

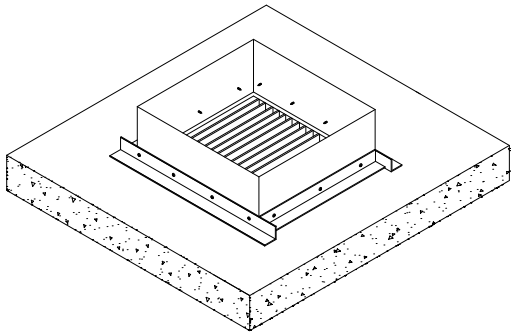
Modular IFD in steel casing penetrating a concrete floor slab

1. Position the damper as detailed in the System Drawing.
2. If applicable, position & fasten mounting angles, using screws & anchors (all supplied by others) as detailed in the System Drawing.
3. Firestop any gaps between the damper & building element with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

Notes

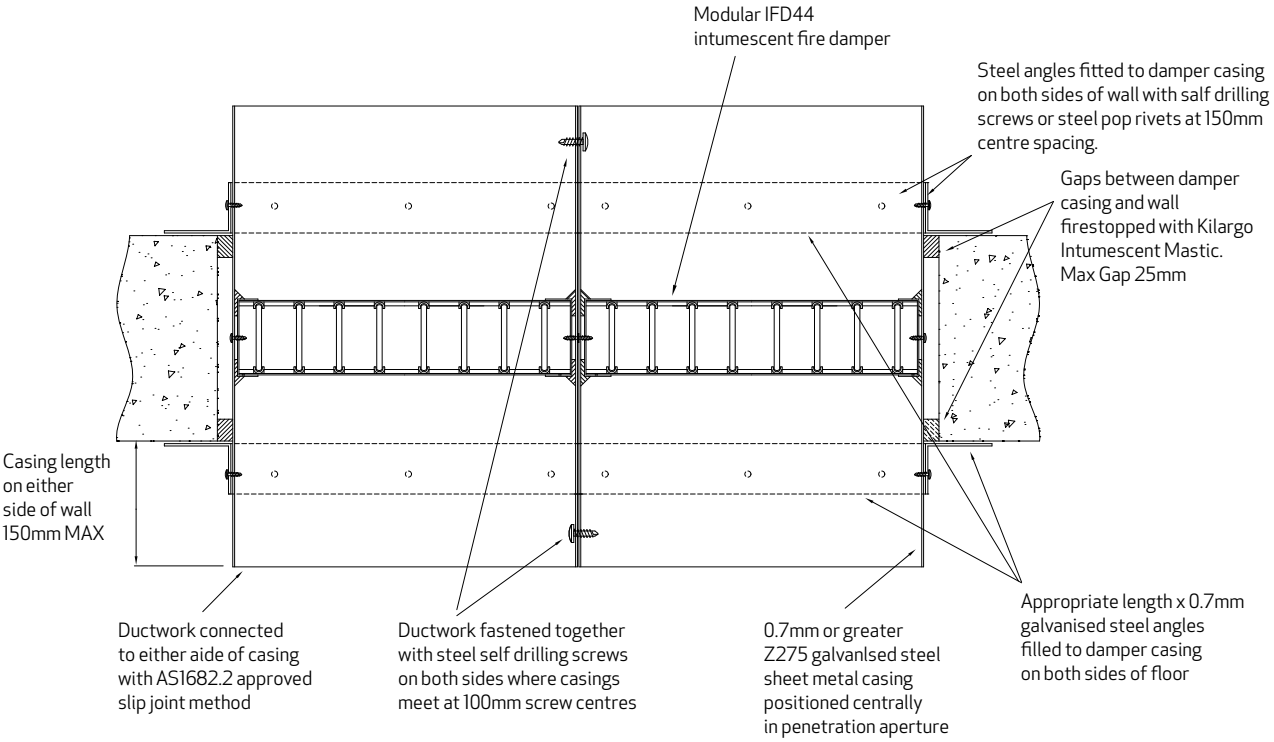
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, retaining angles, fixing screws and anchors are to be supplied by others.

Kilargo



Building Element	Concrete Slab
Application	Mounted in steel casing in penetration
Maximum Size	1200mm x 1200mm
FRL	-/120/-
Test Reference No.	CSIRO FC01963
System No.	**FL7 (a)**

To be read in conjunction with FL7(b)



Installation Instructions

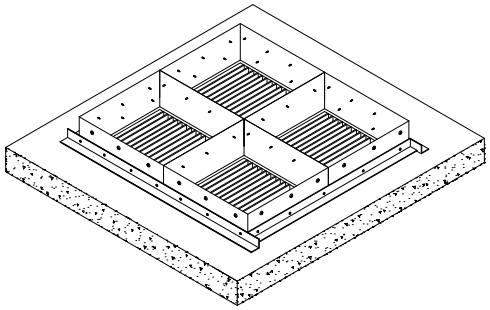
Modular IFD in steel casing penetrating a concrete floor slab

1. Assemble damper modules together by screwing casings together on each side with steel self drilling screws at 100mm centres
2. Position and support the damper module in the aperture. Fire stop any gaps between the damper and slab with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing. Note: A maximum perimeter clearance of 25mm applies.
3. Position and mechanically fix perimeter angles to both sides of modular casing with steel self drilling screws.
4. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
5. Ensure convenient access is provided for visual inspection and cleaning as necessary.
6. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Steel casing, retaining angles, fixing screws and anchors are to be supplied by others.

Kilargo

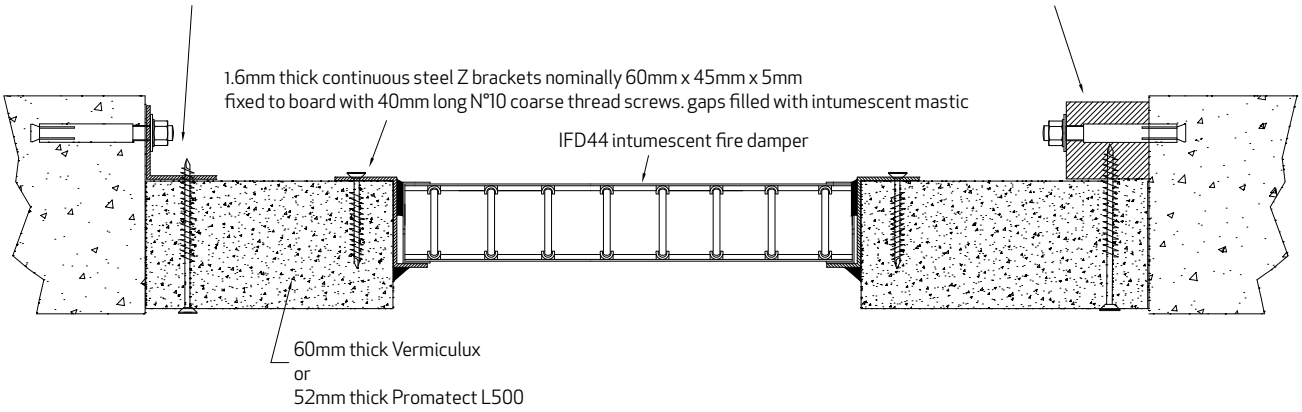


Building Element	Concrete Slab
Application	Steel casing, modular banked together
Maximum Size	1200mm x 1200mm
FRL	-/120/-
Test Reference No.	CSIRO FC01963
System No.	**FL7 (b)**

To be read in conjunction with system FL7 (a)

FITTING METHOD 1
Vermiculux / Promatect board screw fixed to 50 x 50 x 1mm continuous angle with 7 gauge x 65mm screws.
Angle fixed to concrete slab with M6.5 masonryanchors.

FITTING METHOD 2
Vermiculux / Promatect board screw fixed to 60 x 52mm Vermiculux or Promatect cleat with 7 gauge x 90mm screws.
Cleat fixed to concrete slab with M6.5 masonry anchors.



Note: This system is NON-LOADBEARING and if used in a trafficable area appropriate signage and were necesarry a load bearing grate should be utilised to minimise the risk of injury arising from persons walking upon it.

Installation Instructions

IFD44 mounted in Vermiculux board within concrete floor slab

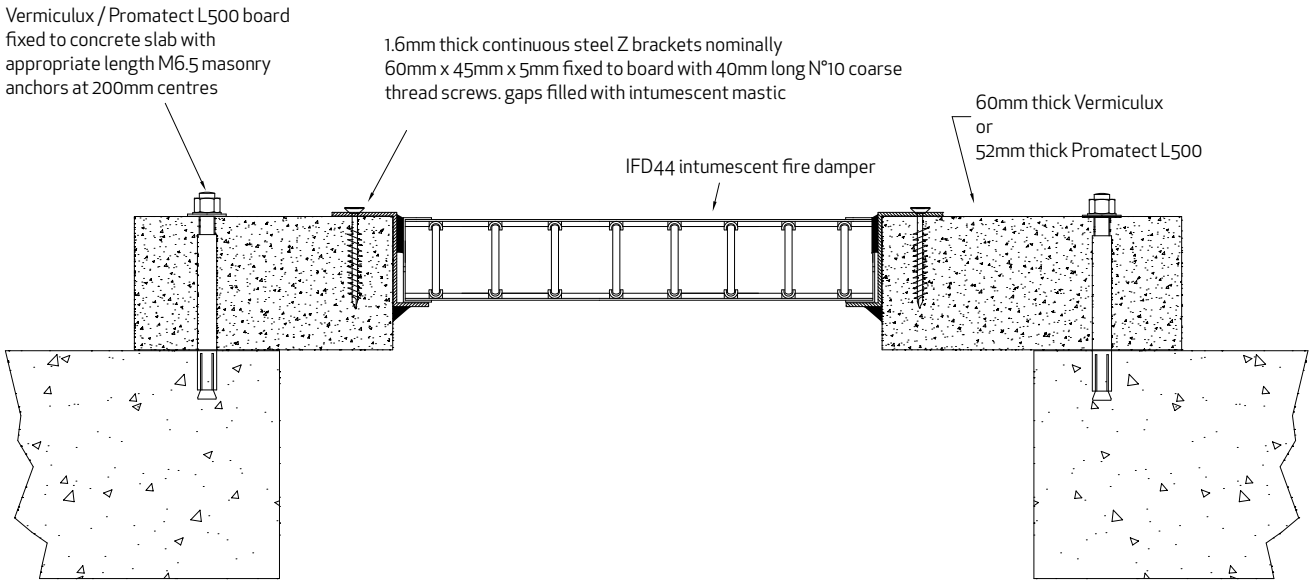
1. Position damper as detailed in the System Drawing.
2. If applicable, position & fasten Z Brackets using screws & anchors (all supplied by others) as detailed in the System Drawing.
3. First stop any gaps between the damper, brackets & board (as shown) with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
4. Cut Vermiculux / Promatect board to size and fix (using Fitting Method 1 or 2) to concrete slab with masonry anchors (all supplied by others) as detailed in the System Drawing.
5. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure convenient access is provided for visual inspection and cleaning as necessary.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, angles, Vermiculux / Promatect board and anchors are to be supplied by others.

Kilargo

Building Element	Vermiculux Board
Application	Retrofit/Upgrade – IFD mounted in 60mm thick Vermiculux board protecting aperture in floor slab
Maximum Size	800mm x 800mm
FRL	-/120/-
Test Reference No.	BRANZ FAR3963
System No.	**FLV1**



Note: This system is NON-LOADBEARING and if used in a trafficable area appropriate signage and were necesarry a load bearing grate should be utilised to minimise the risk of injury arising from persons walking upon it.

Installation Instructions

IFD44 mounted within Vermiculux board fitted above concrete floor slab

1. Position damper as detailed in the System Drawing.
2. If applicable, position & fasten Z Brackets using screws & anchors (all supplied by others) as detailed in the System Drawing.
3. First stop any gaps between the damper, brackets & board (as shown) with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
4. Cut Vermiculux / Promatect board to size and fix to concrete slab with masonry anchors (all supplied by others) as detailed in the System Drawing.
5. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure convenient access is provided for visual inspection and cleaning as necessary.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

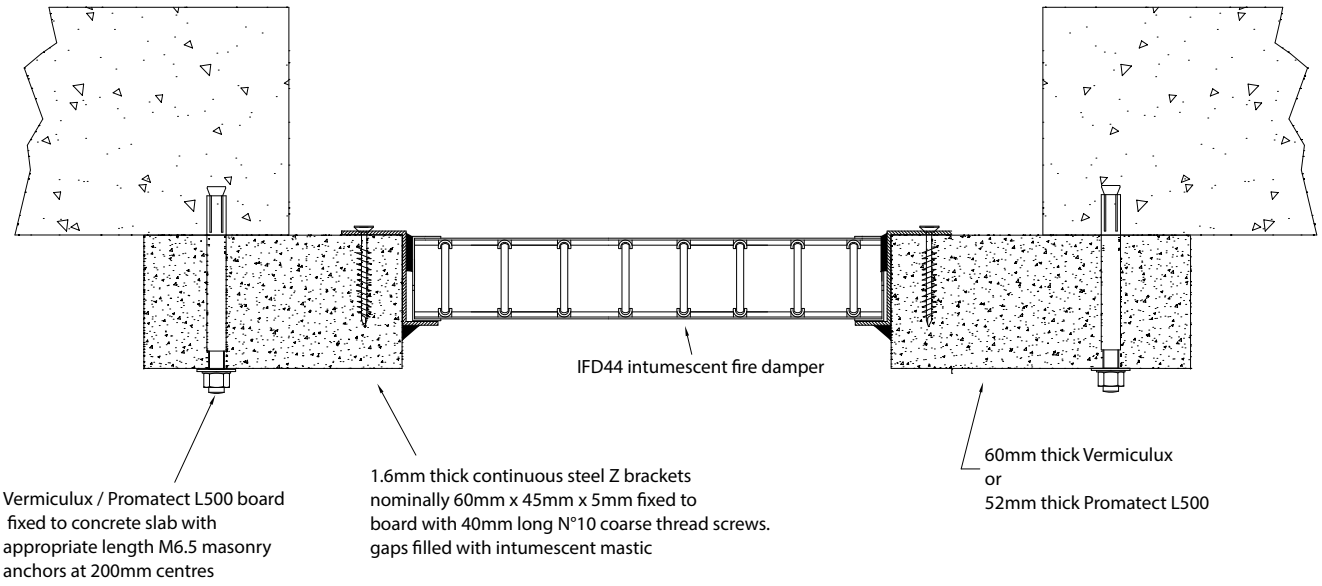
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, angles, Vermiculux / Promatect board and anchors are to be supplied by others.

Kilargo

Building Element	Vermiculux/Promatect Board
Application	Retrofit/Upgrade – IFD mounted in 60mm thick Vermiculux board or 52mm Promatect L500 over aperture in slab
Maximum Size	800mm x 800mm
FRL	-/120/-
Test Reference No.	BRANZ FAR4068
System No.	**FLV2**

Note: This system is NON-LOADBEARING and if used in a trafficable area appropriate signage and were necesarry a load bearing grate should be utilised to minimise the risk of injury arising from persons walking upon it.



Installation Instructions

IFD44 mounted within Vermiculux board fitted below concrete floor slab

1. Position damper as detailed in the System Drawing.
2. If applicable, position & fasten Z Brackets using screws & anchors (all supplied by others) as detailed in the System Drawing.
3. First stop any gaps between the damper, brackets & board (as shown) with Kilargo Intumescent Mastic (supplied separately). Ensure fill depth corresponds with those detailed in the System Drawing.
4. Cut Vermiculux / Promatect board to size and fix to concrete slab with masonry anchors (all supplied by others) as detailed in the System Drawing.
5. If connecting ductwork, ensure that an appropriate AS1682.2 compliant breakaway joint method is used.
6. Ensure convenient access is provided for visual inspection and cleaning as necessary.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance inspections.

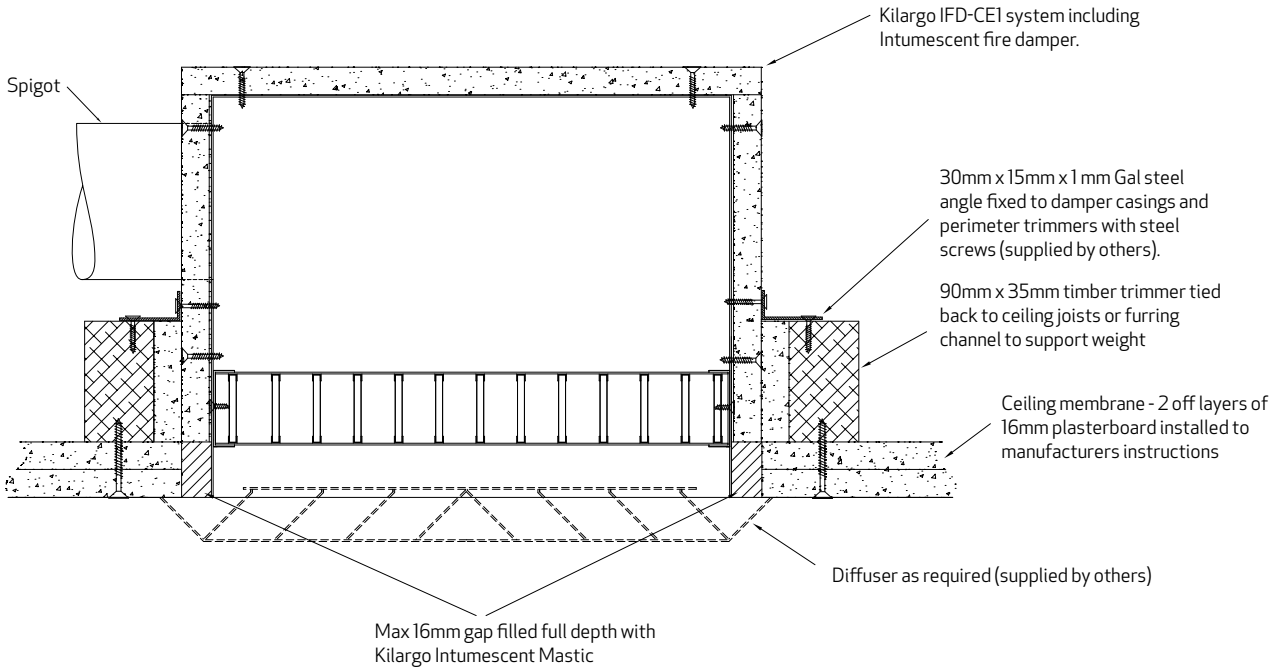
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws, angles, Vermiculux / Promatect board and anchors are to be supplied by others.

Kilargo

Building Element	Vermiculux/Promatect Board
Application	Retrofit/Upgrade – IFD mounted in 60mm thick Vermiculux board or 52mm Promatect L500 on underside of slab
Maximum Size	800mm x 800mm
FRL	-/120/-
Test Reference No.	BRANZ FAR4068
System No.	**FLV3**

Ceiling Mounted Systems



Supplied as a complete fire-rated enclosure to ensure compliance.

Installation Instructions

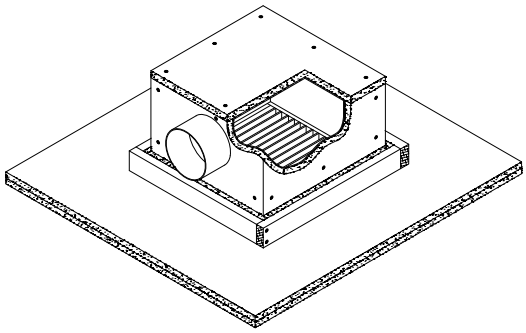
IFD-CE1 ~ FR Plasterboard ceiling system

1. Mark out the size and location of the damper cut-out. Note: that the cut-out should be 20mm larger than the IFD-CE1 size supplied -for example a 450 x 450mm damper requires a cut out of 470 x 470mm.
2. Prepare hole in ceiling and position damper unit ensuring that perimeter gaps between metal casing and ceiling are even.
3. Attach timber trimmers and tie these back to ceiling joists to fully support weight of system, refer to System Drawing.
4. Attach duct to spigot.
5. From the underside apply Kilargo Intumescent Mastic (supplied separately) and fill (full depth) the gap between casing and ceiling.
6. Fit register / diffuser as required.
7. Ensure convenient access is provided for visual inspection and cleaning as necessary.
8. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance routines.

Notes

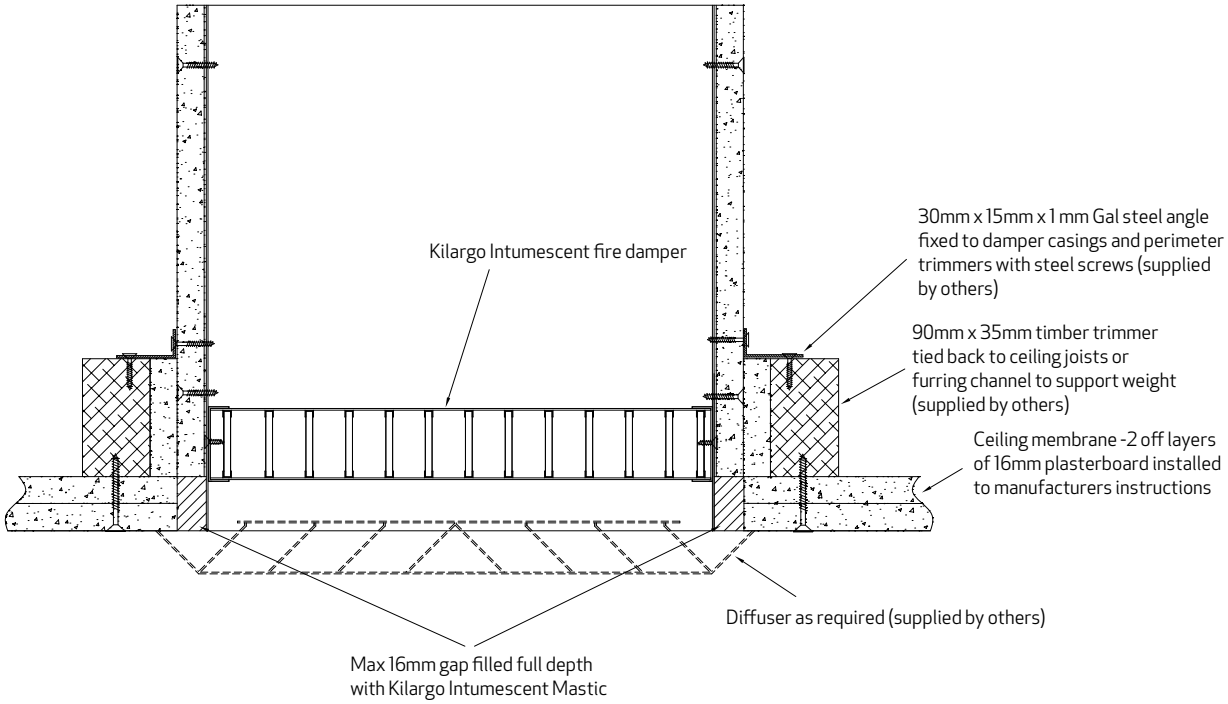
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Diffuser, trimmers, angles and fixing screws are to be supplied by others.

Kilargo



** Structural support trimmers not shown for clarity.*

Building Element	FR Plasterboard 2 ply Ceiling
Application	PI/Board clad enclosure (60min RISF Incipient rated)
Maximum Size	600mm x 600mm
FRL	-/60/60
Test Reference No.	EWFA 40904
System No.	**CE1**



Supplied as a complete fire-rated enclosure to ensure compliance.

Installation Instructions

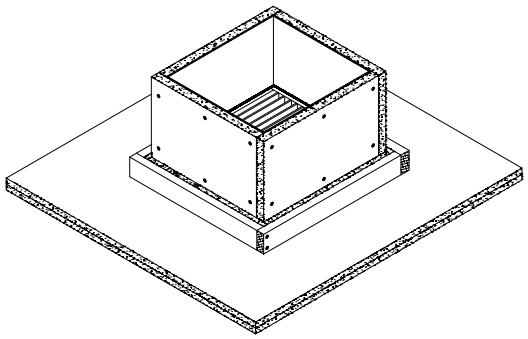
IFD-CE2 ~ FR Plasterboard ceiling system

1. Mark out the size and location of the damper cut-out. Note: that the cut-out should be 20mm larger than the Kilargo IFD-CE2 size supplied - for example a 300 x 300mm damper assembly requires a cut out of 320 x 320mm.
2. Prepare hole in ceiling and position damper unit ensuring that perimeter gaps between metal casing and ceiling are even.
3. Attach timber trimmers and tie these back to ceiling joists to fully support weight of system, refer to system drawing.
4. From the underside apply Kilargo Intumescent Mastic (supplied separately) and fill (full depth) the gap between casing and ceiling
5. Fit register / diffuser as required.
6. Ensure convenient access is provided for visual inspection and cleaning as necessary.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance routines.

Notes

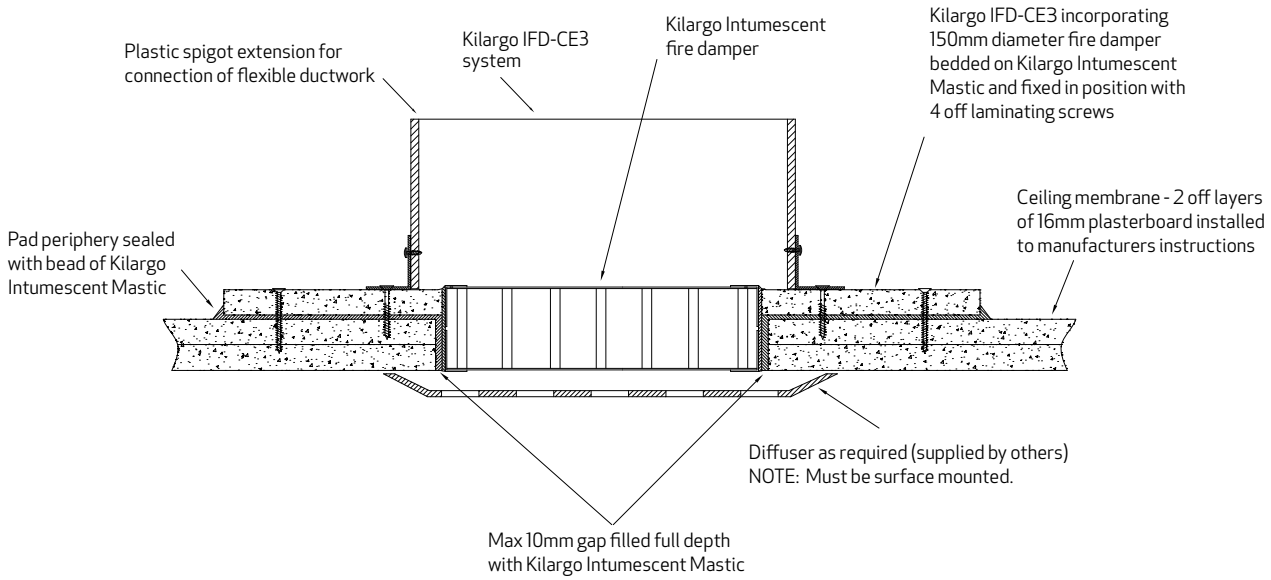
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Diffuser, trimmers, angles and fixing screws are to be supplied by others.

Kilargo



** Structural support trimmers not shown for clarity.*

Building Element	FR Plasterboard 2 ply Ceiling
Application	PI/Board clad enclosure with open end (60min RISF Incipient rated)
Maximum Size	300mm x 300mm
FRL	-/60/60
Test Reference No.	WFRA C91474
System No.	**CE2**



Supplied as a complete fire-rated system to ensure compliance.

Installation Instructions

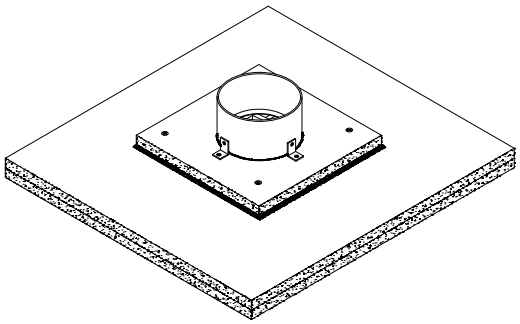
IFD-CE3 ~ FR Plasterboard ceiling system

1. Mark out the size and location of the damper cut-out. Note: that the cut-out should be 15mm larger than the Kilargo IFD-CE3 size supplied - for example a Kilargo IFD-CE3 150 requires a cut out of 165mm diameter.
2. Prepare hole in ceiling and position damper unit ensuring that perimeter gaps between metal casing and ceiling are even.
3. Using the Kilargo IFD-CE3 as a template, mark around the panel on the face of the ceiling (from above) and apply Kilargo Intumescent Mastic between markings and the cut hole.
4. From above, carefully locate the Kilargo IFD-CE3 in position and fix laminating screws in four places as shown.
5. From above, seal the periphery of the panel with a bead of Kilargo Intumescent Mastic.
6. From the underside apply Kilargo Intumescent Mastic and fill (full depth) the gap between the damper and the ceiling.
7. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance routines.

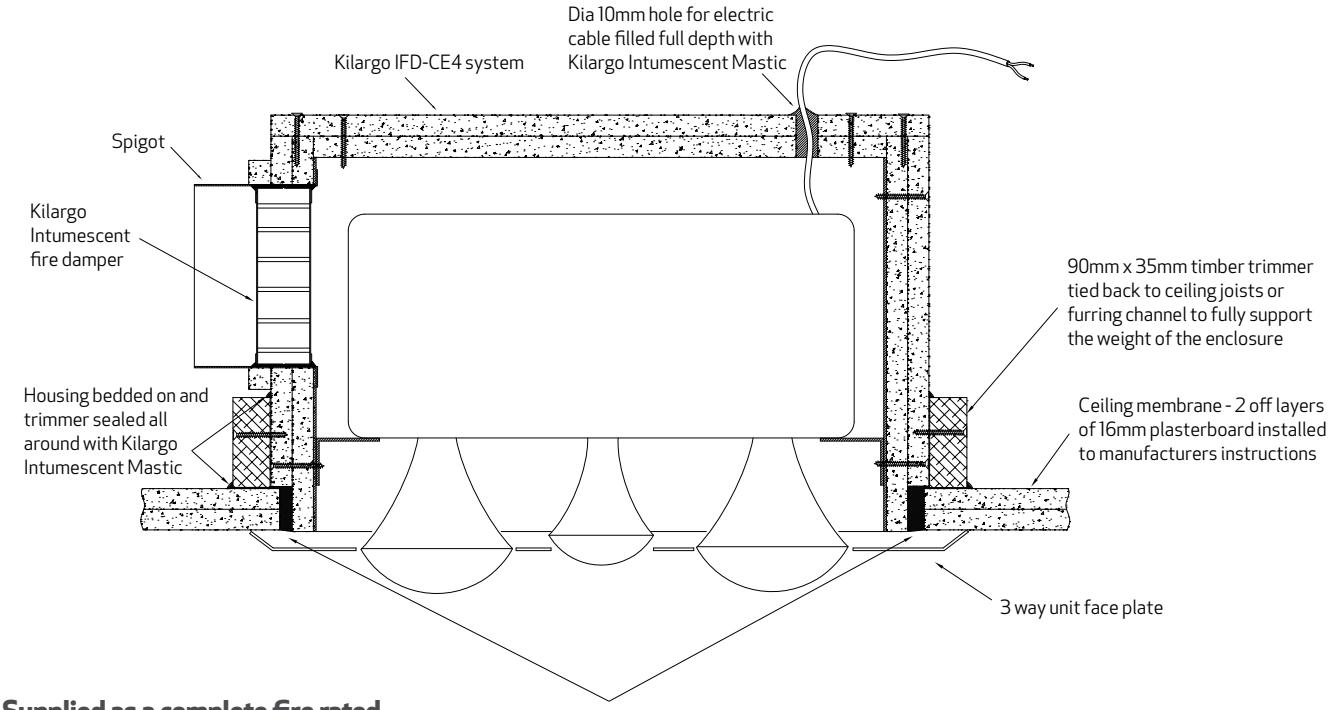
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Fixing screws are to be supplied by others. Kilargo Intumescent Mastic supplied separately.

Kilargo



Building Element	FR Plasterboard 2 ply Ceiling
Application	PI/Board panel & IFD (90min RISF Incipient rated)
Maximum Size	150mm diameter
FRL	-/90 /90
Test Reference No.	BRANZ FP3572
System No.	**CE3**



Supplied as a complete fire rated system to ensure compliance.

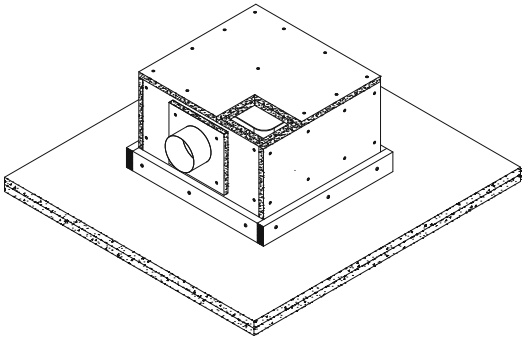
Installation Instructions

IFD-CE4 ~ FR Plasterboard ceiling system (for light/fan combos)

1. Mark out the size and location of the damper cut-out. Note: that the cut-out should be 20mm larger than the Kilargo IFD-CE4 size supplied - for example a 440 x 440mm assembly requires a cut out of 460 x 460mm.
2. Prepare hole in ceiling.
3. Apply Kilargo Intumescent Mastic around the cut out. Position and bed the damper unit in the mastic ensuring that perimeter gaps between metal casing and ceiling are even.
4. Attach timber trimmers and tie these back to ceiling joists to fully support weight of system, refer to system drawing.
5. Attach ductwork to spigot.
6. From the underside apply Kilargo Intumescent Mastic (supplied separately) and fill (full depth) the gap between casing and ceiling.
7. Fit cover / face plate as required.
8. Ensure convenient access is provided for visual inspection and cleaning as necessary.
9. Ensure product and certification labels are in a prominent position for easy identification during subsequent maintenance routines.

Notes

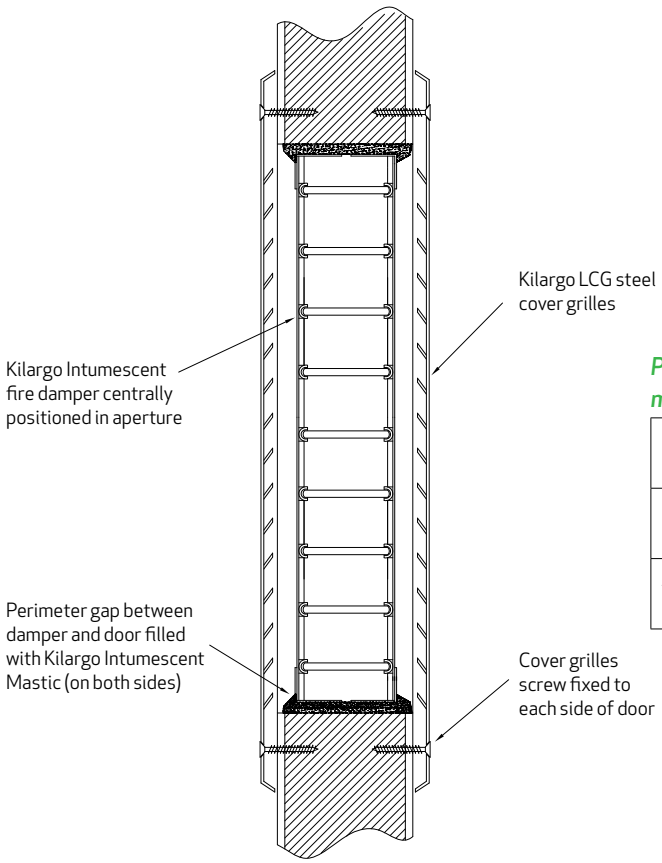
1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.
2. Trimmers, angles, heat / light / fan unit and fixing screws are to be supplied by others.



** Structural support trimmers not shown for clarity.*

Building Element	FR Plasterboard 2 ply Ceiling
Application	PI/Board clad 3 way encl. (90min RISF Incipient rated)
Maximum Size	440mm x 440mm
FRL	-/90/90
Test Reference No.	BRANZ FP3609
System No.	**CE4**

Fire Door Systems



Performance summary of Kilargo IFD-D mounted in FireCore fire doors

Application	Nom. 37mm MINI door	Nom. 47mm MAXI door
Fire Resistance Level (FRL)	-/120/30	-/120/30
Approved size mm	600 x 300mm 450 x 450mm	600 x 300mm 450 x 450mm

Installation Instructions

IFD-D mounted in Proprietary Fire Door

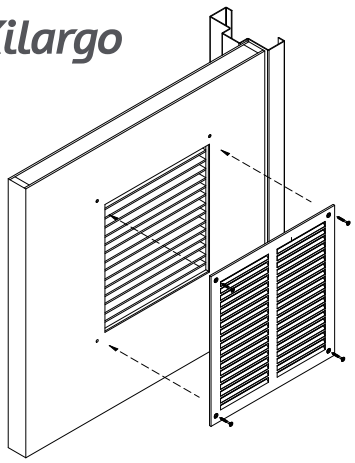
1. Check with fire door manufacturer that Kilargo IFD-D series Intumescent fire damper is approved for the door type into which it is to be installed.
2. Mark out the proposed location Note: Dampers must not be positioned within 200mm of door top / bottom, and 110mm from door edges.
3. Mark out the size and location of the damper cut-out. Note that the cut-out should be 10mm larger than the Kilargo IFD-D size supplied - for example a 450 x 450mm damper requires a cut out of 460 x 460mm.
4. Cut out the opening for the fire damper in the door leaf.
5. Slide the fire damper into the opening and centre it in the aperture by using small non combustible packers.
6. Apply Kilargo Intumescent Mastic to both sides of the grille - ensuring that the gap is filled full depth. Once cured this mastic retains the damper in position.
7. Face fix steel cover grilles over the fire damper to either side of the door leaf using the fixings provided.

   NOTE: Cover grilles are supplied with decorative paint finish and are suitable for interior use only. If intended for exterior use they must be treated with appropriate weather resistant finish. (by others).

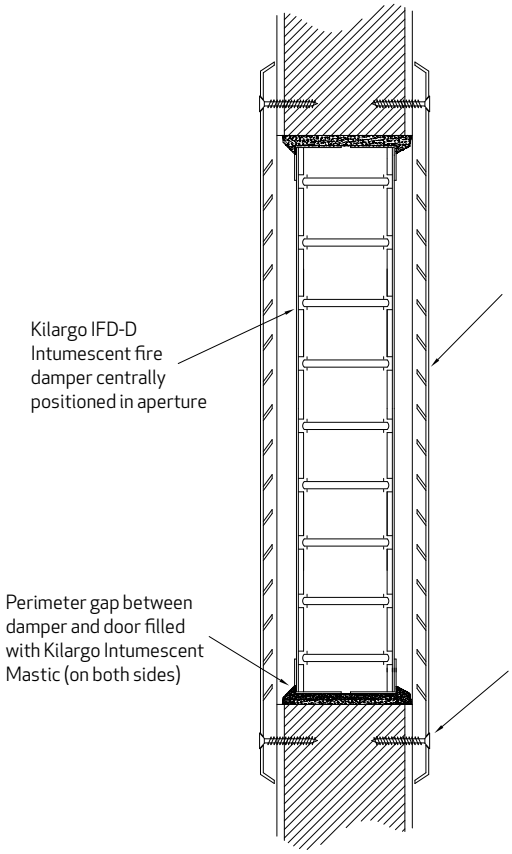
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.

Kilargo



Building Element	FireCore Fire doors
Application	Fitted to Maxi & Mini Fire Doors
Maximum Size	600mm x 300mm or 450mm x 450mm
FRL	-/120/30
Test Reference No.	CSIRO COT388
System No.	**FD1**



Performance summary of Kilargo IFD-D mounted in Pyropanel fire doors

Application	Pandor 60	Pyropanel FR	Pyropanel Pyrolite
Fire Resistance Level (FRL)	-/60/30	-/120/30	-/120/30
Approved size mm	600 x 300mm 450 x 450mm 600 x 600mm	600 x 300mm 450 x 450mm 600 x 600mm	600 x 300mm 450 x 450mm 600 x 600mm

Installation Instructions

IFD-D mounted in Proprietary Fire Door

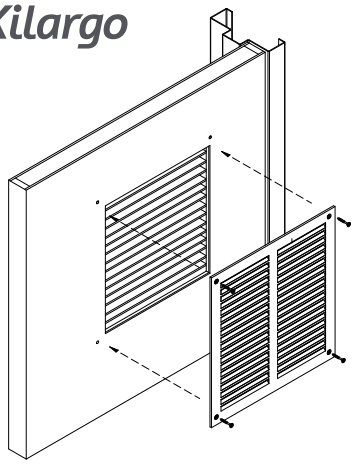
1. Check with fire door manufacturer that Kilargo IFD-D series Intumescent fire damper is approved for the door type into which it is to be installed.
2. Mark out the proposed location Note: Dampers must not be positioned within 200mm of door top / bottom, and 110mm from door edges.
3. Mark out the size and location of the damper cut-out. Note that the cut-out should be 10mm larger than the Kilargo IFD-D size supplied - for example a 450 x 450mm damper requires a cut out of 460 x 460mm.
4. Cut out the opening for the fire damper in the door leaf.
5. Slide the fire damper into the opening and centre it in the aperture by using small non combustible packers.
6. Apply Kilargo Intumescent Mastic to both sides of the grille - ensuring that the gap is filled full depth. Once cured this mastic retains the damper in position.
7. Face fix steel cover grilles over the fire damper to either side of the door leaf using the fixings provided.

   NOTE: Cover grilles are supplied with decorative paint finish and are suitable for interior use only. If intended for exterior use they must be treated with appropriate weather resistant finish. (by others)

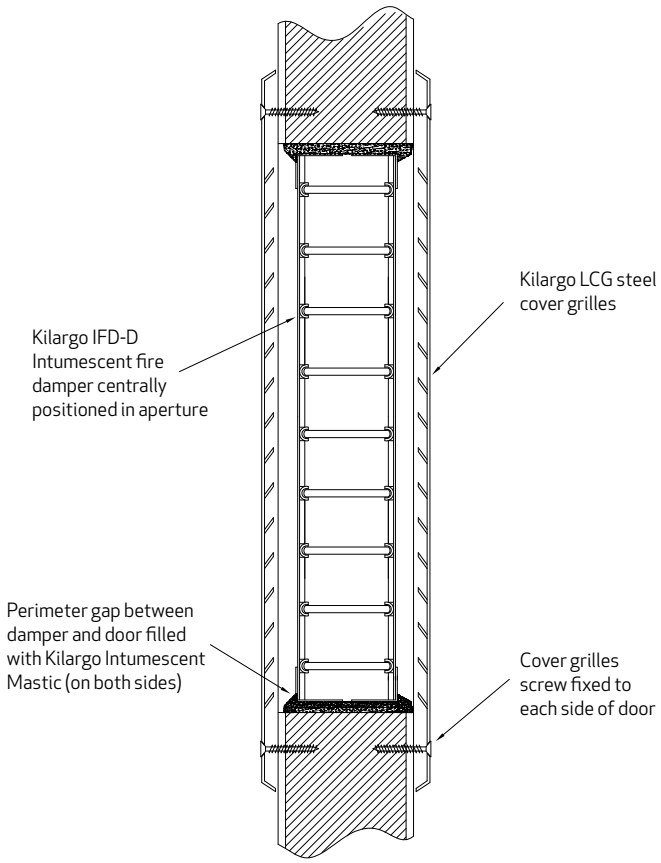
Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.

Kilargo



Building Element	Pyropanel Fire Doors
Application	Fitted to Pandor, FR & Pyrolite Fire Doors
Maximum Size	600mm x 600mm, 600mm x 300mm or 450mm x 450mm
FRL	See table
Test Reference No.	BRANZ CERT442
System No.	**FD2**



Performance summary of Kilargo IFD-D mounted in E-Core fire doors

Application	Nom. 37mm MINI door	Nom. 47mm MAXI door
Fire Resistance Level (FRL)	-/120/30	-/120/30
Approved size mm	600 x 300mm 450 x 450mm *2 grilles may be installed per leaf*	600 x 300mm 450 x 450mm *2 grilles may be installed per leaf*

Installation Instructions

IFD-D mounted in Proprietary Fire Door

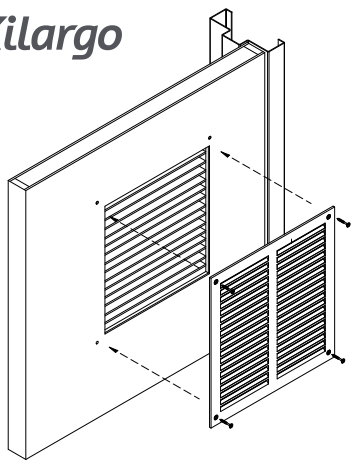
1. Check with fire door manufacturer that Kilargo IFD-D series Intumescent fire damper is approved for the door type into which it is to be installed.
2. Mark out the proposed location Note: Dampers must not be positioned within 200mm of door top / bottom, and 110mm from door edges.
3. Mark out the size and location of the damper cut-out. Note that the cut-out should be 10mm larger than the Kilargo IFD-D size supplied - for example a 450 x 450mm damper requires a cut out of 460 x 460mm.
4. Cut out the opening for the fire damper in the door leaf.
5. Slide the fire damper into the opening and centre it in the aperture by using small non combustible packers.
6. Apply Kilargo Intumescent Mastic to both sides of the grille - ensuring that the gap is filled full depth. Once cured this mastic retains the damper in position.
7. Face fix steel cover grilles over the fire damper to either side of the door leaf using the fixings provided.

   NOTE: Cover grilles are supplied with decorative paint finish and are suitable for interior use only. If intended for exterior use they must be treated with appropriate weather resistant finish. (by others)

Notes

1. Product must be fitted in accordance with this detail, including the use of Kilargo Intumescent Mastic to ensure compliance with Kilargo Fire Test Approval detailed.

Kilargo



Building Element	E-Core Fire Doors
Application	Fitted to Maxi & Mini Fire Doors
Maximum Size	600mm x 300mm or 450mm x 450mm (up to 2 off per leaf)
FRL	-/120/30
Test Reference No.	CSIRO FC01211, FC02982
System No.	**FD3**

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