

SMOKE CONTAINMENT SCREENS

(FOR LARGE OPENINGS IN SMOKE WALLS)



To provide open space, assist with way finding and to comply with smoke compartment wall requirements in this building, Fiberseal was installed to operate as an automatic smoke wall.

GENERAL

Fiberseal automatic smoke containment screens are the first smoke curtain type product to provide proven smoke leakage performance.

Even with side guides, conventional smoke curtains will typically allow the passage of large volumes of smoke around their perimeter and through the head box. Only Fiberseal contains an innovative patented and proven perimeter sealing system combined with a specially coated screen capable of reducing the smoke permeability through the system.

Fiberseal is designed to protect openings in smoke walls from 3m to 7m wide. The system may also be used in Fire Safety Engineered solutions to increase tenability conditions in basement car parks, underground train stations and other large compartments with relatively low ceiling heights for example. Where combined fire and smoke performance is needed refer to the Fiberseal FS system should be specified.

The Fiberseal system has been tested in accordance with both AS/NZS1530.7 for smoke leakage and tested as a smoke curtain in accordance with BS7346.3. This system has also been fire tested in accordance with AS1530.4 to provide a fire resistance level of up to 2 hours.

The FIRST smoke tight screen fully tested to reduce smoke leakage through large openings

KEY FEATURES

- The FIRST smoke-tight smoke curtain.
- Patented smoke sealing system provides up to 30 times longer tenability conditions
- Tested in accordance with AS/NZS1530.7
- Suits openings up to 7m wide
- Ideal for Fire Safety Engineered buildings
- Ideal for use in high traffic areas in lieu of smoke doors
- Remarkable architectural features with minimal spatial requirements.
- Easily concealed in light weight partitions and masonry walls
- For openings less than 3m wide use the Smoke Guard System (refer section 1)
- Easily maintained
- Mechanical limit settings
- Gravity fail safe operation

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Description

Fiberseal automatic smoke containment screens consist of a compact header box and flexible screen connected to a control system. The compact header box dimensions means this system can be easily integrated into existing buildings.

The specially reinforced and coated glass fibre fabric screen offers superior radiation shielding properties.

Complementing the unique head box smoke sealing system and bottom smoke gasket is a patented labyrinth sealing system incorporated into the side guides.

Operation

The system is designed to activate on receipt of an alarm signal from the master fire control panel or our stand alone control system that allows up to 40 smoke detectors to be connected.

As with all of our curtain and screen systems deployment is by gravity (gravity fail safe). The rate of descent is controlled mechanically to approximately 4.5m/min to significantly reduce the likelihood of injury to occupants that may be passing through.

Fire and/or smoke curtain systems that do not have this gravity fail safe function do NOT comply with the Building Code of Australia requirements for fail safe in the event of power failure. (Refer to BCA Clause C3.6 for example). Power failure can mean either a blackout type event or disconnection/damage of the electrical cable.

A 240 volt tubular motor which incorporates an electro-magnetic brake, adjustable mechanical upper and lower limits is used only to rewind the system on reset of an alarm or power.

Battery back up is available as an option to reduce the likely hood of nuisance deploys in the event of a power failure but NOT essential to the effective operation of the system in fire mode.



Fiberseal FS fire and smoke containment screen used to separate a car park from a shopping centre to upgrade existing glazing system. The system has commenced deployment.



Fiberseal FS fully deployed

There is a complete range of control options and combinations to suit specific project functionality requirements including a basic trigger unit, preprogrammed master control and battery back up.

Our office can assist with selection of the most cost effective control system to suit your needs.

Each barrier can be individually operated from a low-level surface mounted key switch, push button or break glass.

Other features include Safety Edge (system stops deployment if it hits an obstruction), audible and visual warning system and staged deployment.

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Reliability

As with any fire or smoke protection system a regular and adequate maintenance program conducted by properly trained personnel significantly increases overall system reliability. Unlike some fire and smoke protection systems, Fiberseal's performance is easily verified during annual inspection and maintenance. Fiberseal contains a unique tensioning system to prevent potential binding of the curtain inside the header box, thus significantly reducing the potential for motor burnout and increasing the reliability of the system.

Installation

In line with Smoke Controls mission to provide customers with reliable solutions, the Fiberseal system is installed by our fully trained and approved installer network.

Verification of Performance

Unlike complex pressurisation systems that may take weeks or even months to successfully commission, Fiberseal is easily commissioned as soon as power is available.

In addition, the system is not susceptible to being chocked open like smoke doors in smoke lobbies or re-commissioning due to internal refurbishments or fit outs like pressurisation systems.

Maintenance

Annual maintenance and verification of system operation should be conducted by trained personnel in strict accordance with our documented procedures. Contact us for details.

Technical support

We provide an excellent technical support service free of charge from design through to installation and commissioning.

Full copies of test reports are available on request.

Please do not hesitate to contact us for a no-obligation discussion on the various options for your project requirements.



Maximum Sizes

7m wide x 4.5m drop.

(larger sizes subject to project specific approvals)

Operating Speed

Approximately 4.5m per minute.

Project specification

"An automatic smoke containment screen, complete with labyrinth sealing system shall be installed in the designated openings. The system shall be tested in accordance with^() AS/NZS1530 Part 7 to provide a leakage rate of no more than 1 m³/min per m² of door opening at 25 Pa and 200⁰C. The system shall be the Fiberseal* smoke containment screen.*

(*) for the system is also approved in accordance with AS1530.4, Fiberseal should be substituted with "Fiberseal FS" when combined fire and smoke performance is required.

* include "AS1530.4 for a -/120/- fire rating and AS/NZS 1530.7" if Fiberseal FS is required.

Information given in this publication is given to the best of our knowledge and in good faith. Smoke Control is not responsible if recipients of test reports, assessments or literature misinterpret the contents and wrongly use products based on those misinterpretations. No liability is accepted for error omissions in this document. Smoke Control reserves the right to change specification without notice.

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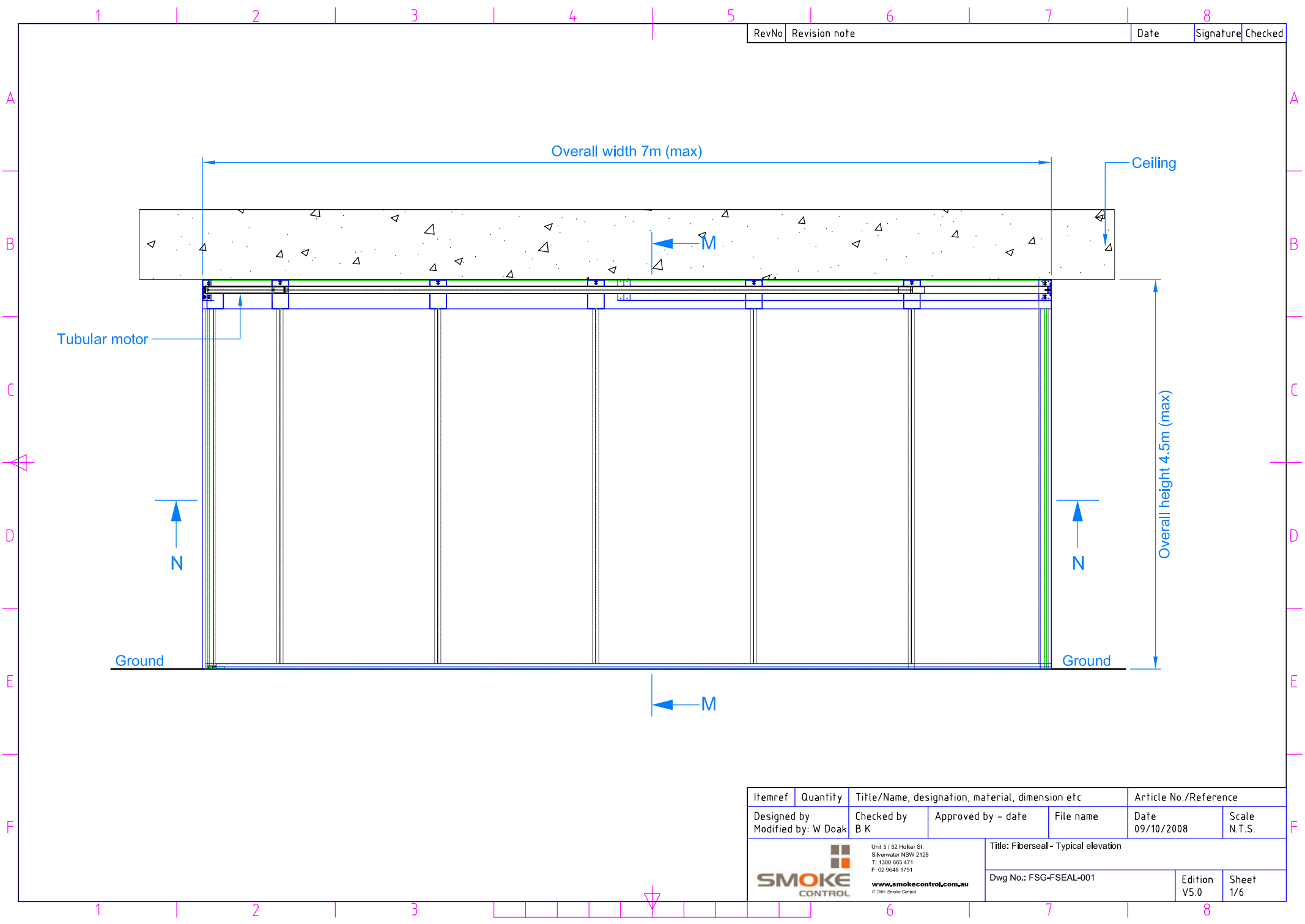



Design Drawings

DWG #	Description
FSG-FSEAL-001	Fiberseal - Typical elevation
FSG-FSEAL-002	Fiberseal - Head box mounting options
FSG-FSEAL-003	Fiberseal - Side guide mounting options
FSG-FSEAL-004	Fiberseal - Head box dimensions
FSG-FSEAL-005	Fiberseal - Side guide finish options
FSG-FSEAL-006	Fiberseal - Head box finish options

FIBERSEAL

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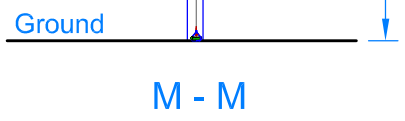
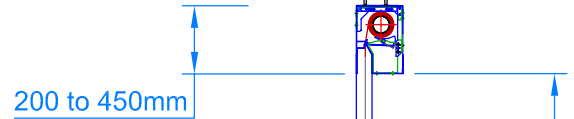
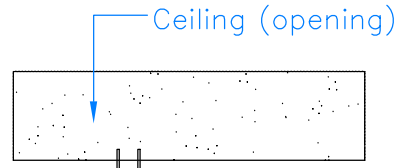


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Designed by	Checked by	Approved by - date	File name	Date	Scale	
Modified by: W Doak	B K			09/10/2008	N.T.S.	
 <small>Unit 5 / 52 Hoker St, Silverwater NSW 2128 T: 1300 665 471 F: 02 9548 1791 www.smokecontrol.com.au © 2008 Smoke Control</small>			Title: Fiberseal - Typical elevation			
			Dwg No.: FSG-FSEAL-001		Edition	Sheet
				V5.0	1/6	

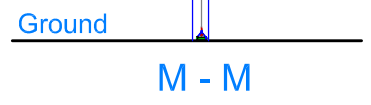
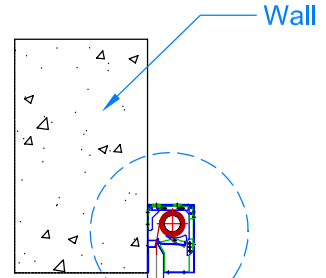
Header Box mounting option:


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Mounting into the opening



Mounting to the wall

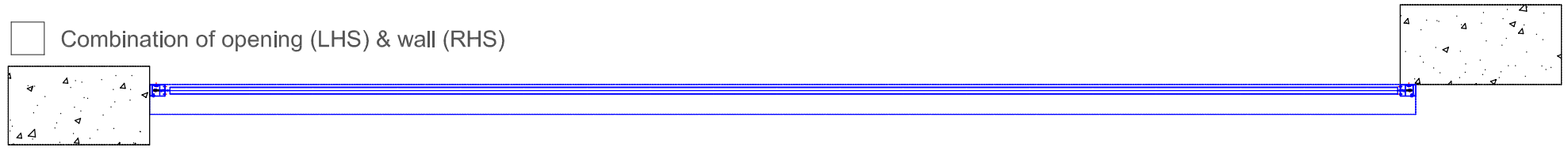
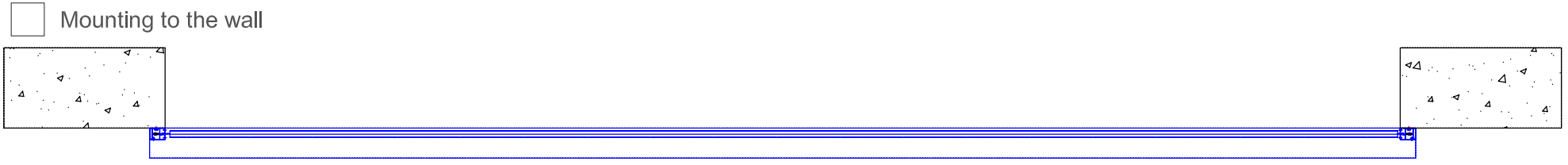
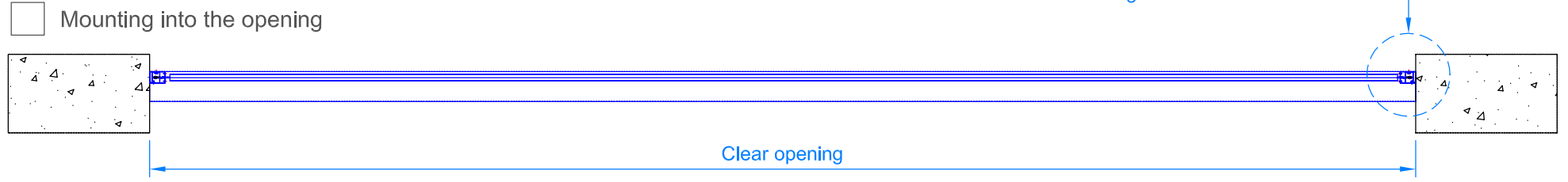


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Designed by Modified by: W Doak	Checked by Brendan K	Approved by - date	File name	Date 09/10/2008	Scale N.T.S.	
 Unit 5 / 52 Hoker St, Silverwater NSW 2128 T: 1300 665 471 F: 02 9548 1791 www.smokecontrol.com.au © 2008 Smoke Control			Title: Fiberseal - Header Box mounting options			
			Dwg No.: FSG-FSEAL-002		Edition V5.0	Sheet 2/6


Installation configurations: (side guides)

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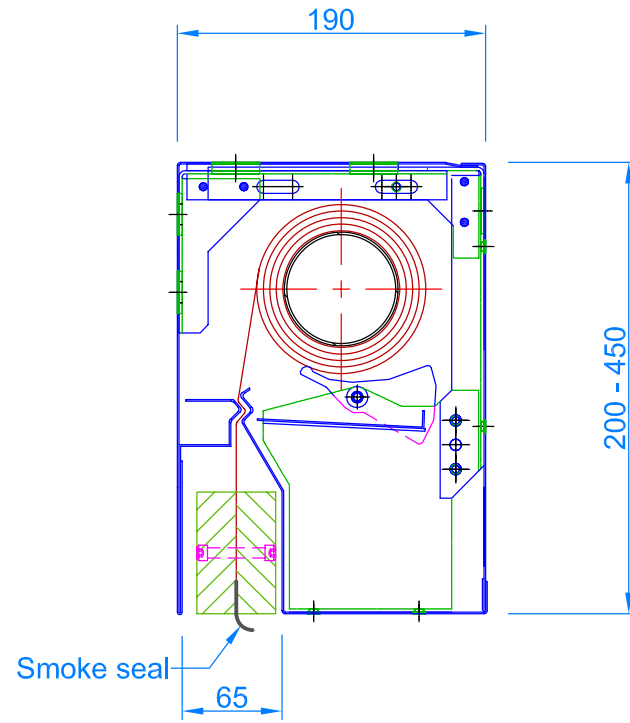
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Dwg No.: FSG-FSEAL-005



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 Unit 5 / 52 Hoker St, Silverwater NSW 2128 T: 1300 665 471 F: 02 9548 1791 www.smokecontrol.com.au © 2008 Smoke Control			Title: Fiberseal - Side guide mounting options			
			Dwg No.: FSG-FSEAL-003		Edition V5.0	Sheet 3/6

RevNo	Revision note	Date	Signature	Checked
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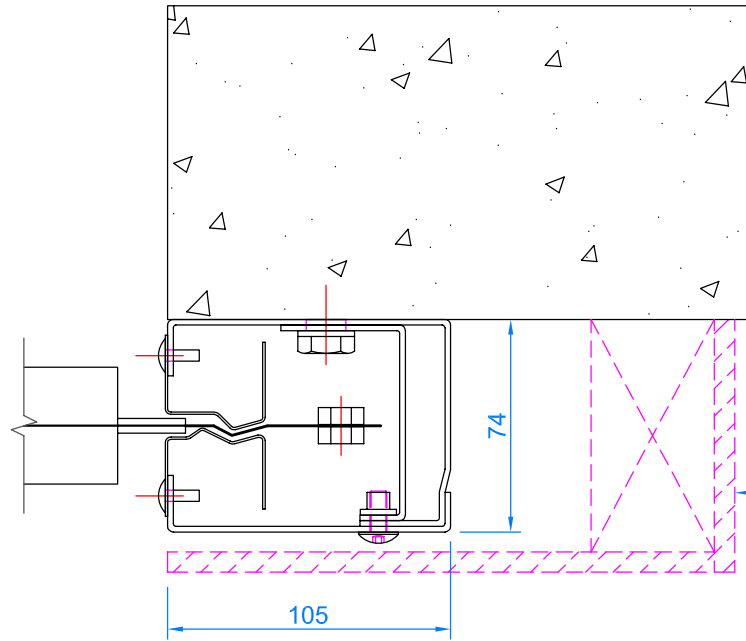


Detail: A

Notes:
 (i)- Typical head box dimensions shown, this may increase with drop heights over 4m.
 (ii)- Optional head mounting details (refer to Dwg No.: FSG-FSEAL-006)

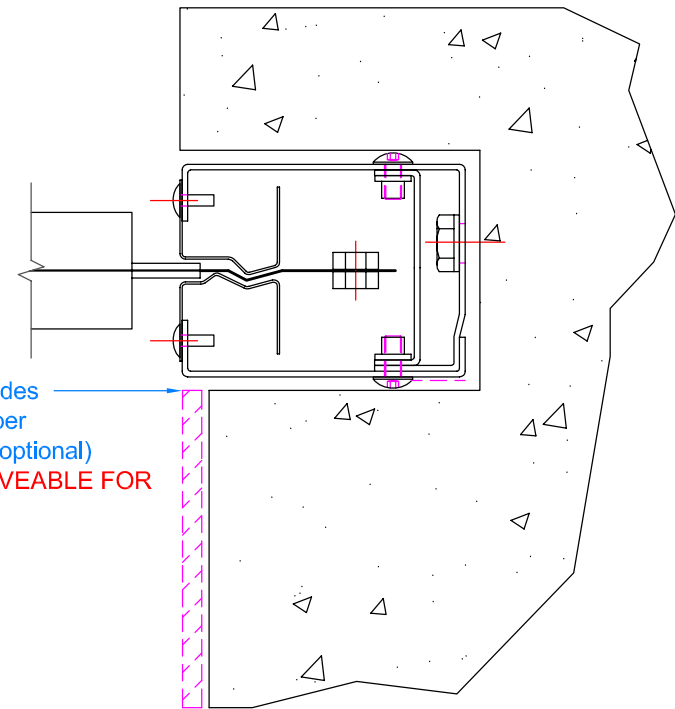
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 Unit 5 / 52 Hoker St, Silverwater NSW 2128 T: 1300 665 471 F: 02 9548 1791 www.smokecontrol.com.au © 2008 Smoke Control			Title: Fiberseal - Header Box dimensions			
			Dwg No.: FSG-FSEAL-004		Edition V5.0	Sheet 4/6


Mounting side guides:



Conceal Side Guides with cladding as per Architects detail (optional)
MUST BE REMOVEABLE FOR MAINTENANCE

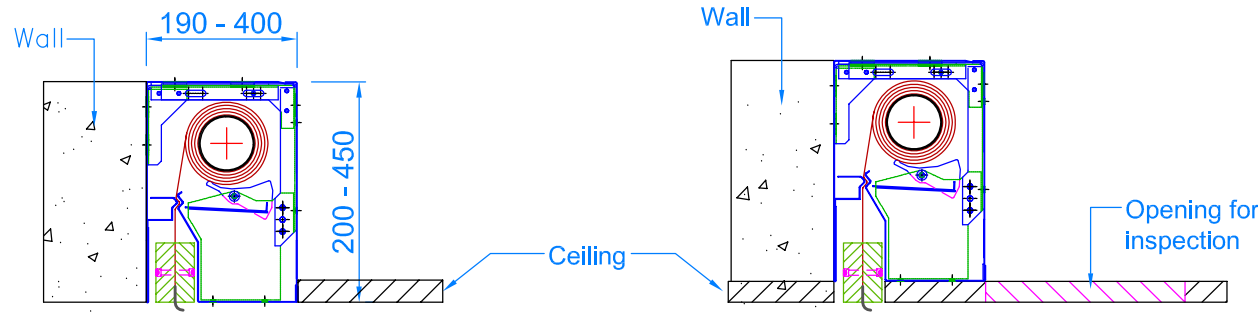
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 Unit 5 / 52 Hoker St, Silverwater NSW 2128 T: 1300 665 471 F: 02 9548 1791 www.smokecontrol.com.au © 2008 Smoke Control			Title: Fiberseal - Side guide finish options			
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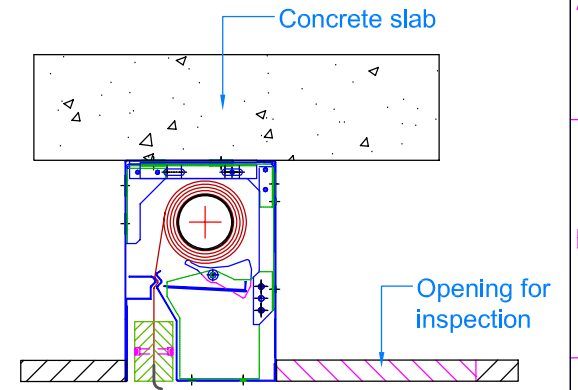
Wall mounted:

Ceiling mounted:



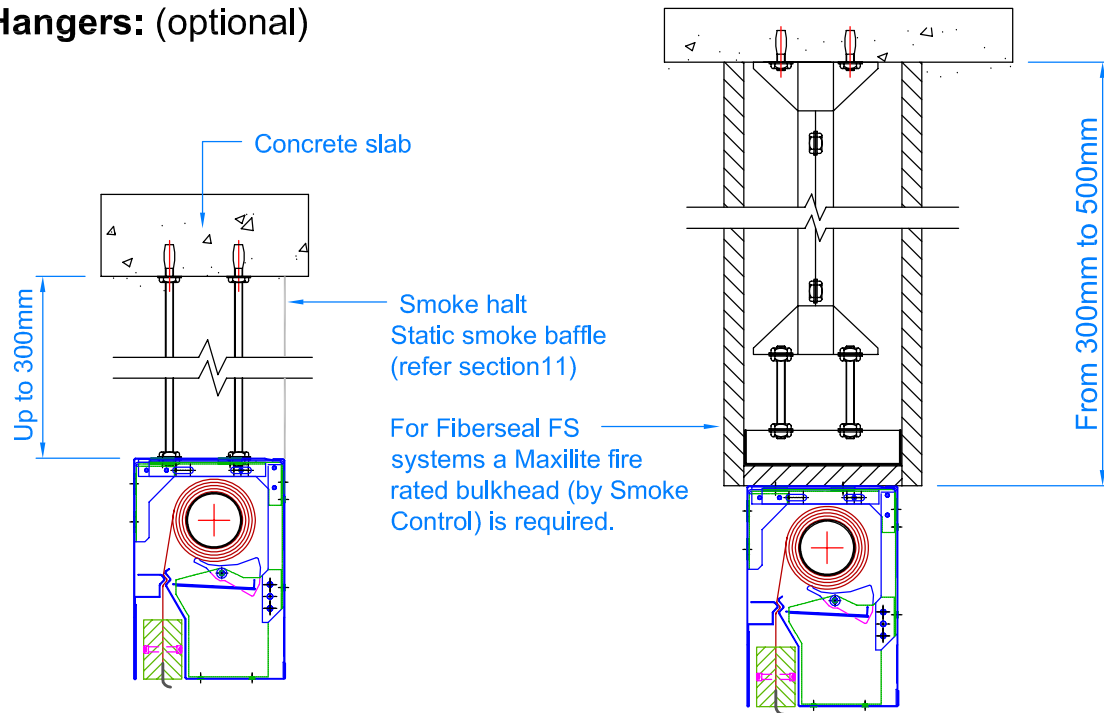
Option 1A: Mounted to the wall (semi-concealed)

Option 1B: Mounted to the wall (semi-concealed)



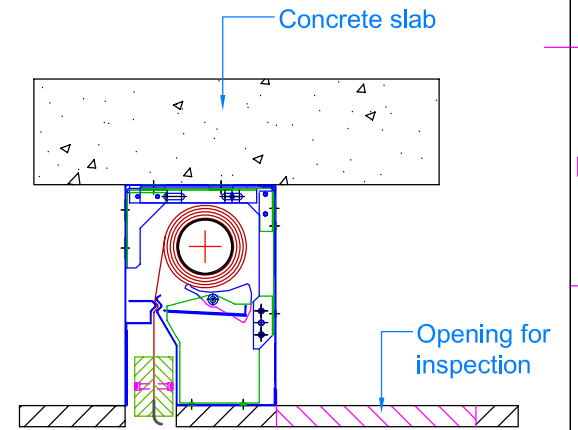
Option 2A: Mounted to the ceiling (semi-concealed)

Hangers: (optional)




Option 3A: Extension up to 300mm (From the slab above)

Option 3B: Extension from 300mm to 500mm. (From the slab above)



Option 2B: Mounted to the ceiling (fully-concealed)

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Designed by	Checked by	Approved by - date	File name	Date	Scale
Modified by: W Doak	B K			09/10/2008	N.T.S.
 <small>Unit 5 / 52 Hoker St, Silverwater NSW 2128 T: 1300 665 471 F: 02 9548 1791 www.smokecontrol.com.au © 2008 Smoke Control</small>		Title: Fiberseal - Header Box finish options			
		Dwg No.: FSG-FSEAL-006	Edition V5.0	Sheet 6/6	