Metashield V

Integrity only single coil metal ridged slat fire shutter specification

PERFORMANCE REQUIREMENT:

The Metashield – V vertical rigid slat fire shutter shall be supplied and installed in accordance with AS1905.2:2005 except that the primary means of activation is to be from an AS1670.1:2018 smoke detection system. When fire tested in accordance with Clause 3 Determination of Fire Resistance they shall provide a minimum Fire Resistance Level (FRL) of -/120/ or -/240/- (application dependant). System shall provide security separation between the two adjacent compartment.

The fire shutter shall resist a pressure differential of no more than 1000 Pa when fully deployed.

PRODUCT SPECIFIED

Metashield - V fire shutter by Smoke Control T: 1300 665 471; info@smokecontrol.com.au or approved equivalent.

System parameters;

a) -/120/- or -/240/- FRL AS1530.4:1997
b) Smoke leakage: N/A
c) Maximum size;
    i) 4m W x 4m H
d) Deployment speed nominally 150mm/s
e) Dimensions
    i) Headbox;
        i. Systems up to 4m x 4m; 600mm H x 600mm W
    ii) End Plates;
        i. Systems up to 4m x 4m; 525mm H x 510mm W
    iii) Side Guide;
        i. 75mm W x 30mm face fixed
    iv) Slats: 75 x 0.8mm profile with metal clips. Minimum set back from edge 20mm.
f) Power requirements – 240v 10amp GPO. (3 phase option available on request)
g) Alarm Input – 0V nominally closed contacts
h) Duty; maximum 5 cycles per hour.
i) Pressure resistance maximum;
    i) 100Pa when deploying
    ii) 1000Pa when deployed
    Note: higher pressure resistance may be available depending on application, speak to Smoke Control Technical department
j) System weight;
    i) 75kg/m of system width up to 3m H
    ii) 90kg/m of system width up to 4m H

Note: for applications where pressure differentials are expected consideration should be given to the induced loading on the surrounding structure of this pressure to ensure appropriate restraint of the system.

a) Supporting construction type;
    i) Masonry
    ii) Concrete
b) Approved installation configuration;
    i) Headbox;
        i. Face fixed to the wall
    ii) Side guides;
        i. Face fixed to the wall

Ancillary items required; (delete not applicable)

c) Control system: Shall allow fail safe operation on receipt of a general building alarm signal
d) Battery back up; Shall be installed to reduce the likelihood of nuisance deployments and allow 5 complete open-close cycles.
e) Exclusion Zone Sensors; IRS36 shall be installed in accordance with Smoke Control's recommendations to protect each fire shutter asset during normal building use and significantly increase the likelihood of full deployment when in fire mode.
f) Sounders and strobes: Shall be installed on *(delete not applicable)* both sides/on the same side as the egress path and operate on a signal from the FIP.
g) Fire Rated Bulkhead; shall be installed to provide an FRL of -/120/120 when fire tested in accordance with AS1530.4 and shall facilitate any service penetrations to be installed and certified in accordance with AS4072.1:2005
h) Maintenance: All fire shutters shall be listed on the Essential Services Register and shall be maintained by competent technicians in accordance with AS1851 and the manufacturers recommendations

APPLICATIONS

- Protection of openings in external walls (NCC C3.4)
- Protection of openings in fire compartment walls (NCC C3.5)
- Non-required stairways, ramps and escalators (NCC D1.12 & Spec D1.12)
- Construction of proscenium walls (NCC Specification H1.3)
- Separation of fire compartment where it exceeds maximum size or volume (NCC C2)
- Security separation between two areas

Note: Some applications listed above may require a Performance Solution to be compliant. Please check with your Certifier prior to specifying this product.

INSTALLATION

Fire Shutter

The fire shutters shall be installed, certified, commissioned and tagged in accordance with AS1905.2 -2005 and this Fire Engineering Report by an ISO9001 Quality, ISO18001 WHS and ISO14001 Environment Accredited manufacturer.

When installed the system shall consist of a single overhead barrel for the full width of the opening. While some Registered Testing Authorities provide Formal Opinions in regards to the expected fire resistance level of fire shutters, they do not discuss nor provide a warranty in regards to their reliability.

Threshold

Unless addressed as part of an appropriate performance solution the curtain must deploy onto a fire rated or non-combustible threshold as per requirements of AS1905.2:2005 and AS1530.4:2014. Maximum gap permitted at threshold 25mm.

Fire Rated Bulkheads

System is test directly fixed to a fire rated masonry or concrete wall structure. Top fixing of the shutter is not possible.

COMMISSIONING

Once installed it shall be demonstrated that the system shall fail safe close on loss of power using mains power in combination with battery backup and on the receipt of an alarm signal. On reset of fire alarm and pushing of retraction button, shutter should retract to its upper position. The fire shutter must be tested a minimum of 3 consecutive times on general building alarm without failure.

Certificates of Compliance shall be issued by the sub-contractor in accordance with National Construction Code A2.2 and A2.3 Evidence of Suitability and AS1905.2:2005 Clause 7 Certification.

All details and approvals are current as of the date displayed. This document supersedes all previous versions.