Metashield L

Integrity only laterally deploying metal ridged slat fire shutter specification

PERFORMANCE REQUIREMENT:

The Metashield – L Laterally deploying 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)..

The fire shutter shall resist a pressure differential of no more than 50 Pa when fully deployed.

PRODUCT SPECIFIED

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

System parameters;

a) -/120/- or -/240/- FRL AS1530.4:2005
b) Smoke leakage: N/A
c) Maximum size;
    i) 18m x 3.8m height (note: large heights may be possible on a projects specific basis)
d) Deployment speed nominally 100mm/s
e) Dimensions
    i) Shutter box
        i. Systems up to 6m width; 850mm W x 700mm D
        ii. Systems up to 12m width; 1100mm W x 850mm D
        iii. Systems up to 18m width; 1350mm W x 850mm D
    ii) Top Track;
        i. 150mm H x 55mm welded steel section. (note: total hanger width larger than this to encompasses required partition bulkhead, nominally 170mm W)
    iii) Receiving track;
        i. 120 mm x 90 mm metal receiving track must be rebated into fire rated structure or clad with fire rated board.
    iv) Slats: 75x0.7-1.2mm profile with metal clips
f) Power requirements – 415V 3 phase 16 Amps (240v single phase available on request for small sizes)
g) Alarm Input – 0V nominally closed contacts
h) Duty; maximum 3 cycles per hour.
i) Pressure resistance maximum;
    i) 0Pa when deploying
    ii) 50Pa when deployed

    Note: higher pressure resistance may be available depending on application, speak to Smoke Control Technical department
j) System weights/load requirements; Due to variations in system size and pressure this information is available on specific project request.

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.

k) Supporting construction type;
    i) Masonry
    ii) Concrete

Ancillary items required; (delete not applicable)

l) Control system: Shall allow fail safe operation on receipt of a general building alarm signal
m) Battery back up; Shall be installed to reduce the likelihood of nuisance deployments and allow 5 complete open-close cycles.

n) 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.
o) 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.
p) Fire Rated Bulkhead; shall be installed to provide an FRL of -/120/120 or -/240/240 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
q) 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)
- Separation of fire compartment where it exceed 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.

Fire shutter headbox must be rebated 70mm into floor to permit normally 20mm running tolerance at threshold.

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. The metal receiving track at the end of the shutter deployment must be rebated into fire rated structure or clad with fire rated board.

Fire Rated Bulkheads

A fire rated partition above the top track assembly is required to be installed and certified as per Smoke Control Pty ltd published data. Penetrations through the partition should be appropriately fire sealed in accordance with fire rated board published data and AS4072.1:2005.

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 retracted 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.