FireMaster® Plus²

Generated on 03.09.2018

Coopers Fire Ltd
Edward House
Penner Road
Havant
Hampshire
PO9 1QZ

Tel: +44 (0)23 9245 4405

www.coopersfire.com
info@coopersfire.com

Detailed description

Active fire curtain barrier assembly comprising technologically advanced fire-resistant fabric enclosed within a 1.2 mm galvanized mild steel box which is wound on to a steel roller with 1:600 deflection performance to BS 6323□5, which is powered by an internal 24 V d.c electric motor. A bottom bar to suit the deflection performance requirements of the project and the desired ceiling configuration is fitted to the bottom edge of the fabric curtain.

Motors contain the necessary drive mechanisms, a mechanical epicyclical gearbox retarder, automatic overload protection, and both automatic and manual distance travel positioning, linked to an internal 24 V d.c electromagnetic brake with regenerative braking system. When motors are retracted, their internal drive motor isolates from all power, and the barrier will be held in position by an internal electromagnetic brake. This ensures that the barriers not drift upward or downward.

Motors are tested for reliability, durability and self-closing to BS 8524-1, Annex E, and are tested for operation at temperatures of 400 °C as required by BS 8524-1, Annex G.

Operated with fail-safe by gravity, using patented true TOTAL, Total Gravity Fail Safe, (TGFS), in accordance with BS 8524-1, Annex D, and they are able to move to their fire-operational position even in the event of open or closed circuit wiring, or total system corruption, with controlled braking system and drive mechanisms. All working parts are enclosed and protected within the steel roller, and are tested as part of the complete assembly for fire resistance.

A range of heavy bottom bar weights ensures positive operation when subjected to pressure.

The barrier assemblies have the ability to operate with the barrier retained in side channels to resist pressure (as standard 20 Pa) and impact (Double Severe Duty) and remove edge gaps in accordance with BS 8524-1, Annex D.

Primary, secondary and auxiliary power supplies are CE marked in accordance with the Construction Products Regulations (305/2011) when tested to BS EN 12101□10. Control panels are tested to BS ISO 21927□9.

All power supplies and control panels are tested in accordance with the Low Voltage Directive (2006/95/EC) BS EN 61010□1, EMC Directive (2004/108/EC) BS EN 12101□10, BS EN 61000-6-3 and BS EN 50130□4, Machinery Directive (2006/42/EC) and ROHs Directive (2011/65/EU).

Any optional ancillary devices are tested as part of a complete specimen to BS 8524-1, Annex H.

Operation:

In the event of mains power failure, they remain retracted using their own dedicated battery back-up power supply for a pre-determined period (nominally 30 minutes). If signalled to descend during this period, they fail-safe by gravity in a controlled manner to their fire-operational position. At

the end of the pre-determined time delay, they shall fail-safe by gravity in a controlled manner. This safety feature is essential to avoid dangerous guillotine/ free-fall deployment.

Movement is commenced upon initiation of power or system failure, and they move to the fire-operational position, in all operating modes, at site-specific adjustable and synchronized velocities within the range of 0.06–0.15 m/s using the unique VarioSpeed™ function. Operating speeds are adjustable without altering bottom bar mass. Speeds may be dictated by those authorities having jurisdiction for 'safety in use' according to the location, nature or function of each unit.

They have the facility to deploy to a partial drop position prior to moving to their fire-operational position under both mains and emergency power. In their retracted or 'stalled' position, all power is removed from the motor(s) to prolong motor life. Any that require multiple overlapping barriers have a continuous bottom bar system conjoining the run with mutual operation, i.e. one down – all down (handshaking).

Using a 'soft ascent facility' to ensure no damage to the surrounding ceiling interface when retracting, they have a built-in protection in the event that they are prevented from ascending to their retracted position, or descending to their fire-operational position. This ensures that they are always in their required position and avoids damage to the barrier assemblies' mechanism and surrounding ceiling finishes. In sensitive ceiling aesthetic areas, a unique patented SLAT® ceiling interface can be provided. Any combination of the alarm/ control signal provided by the electrical subcontractor, and/ or the specified fail-safe functions, will activate the system.

Fabric:

The fabric material is tested as part of the complete assembly in the orientation and standard use of the application and installation in accordance with the fire resistance test in accordance with BS EN 1363□1 and □2, as required by BS EN 1634□1 in accordance with BS 8524□1.

The fabric material shall be tested as part of the complete assembly (where applicable) for permeability to BS EN 1634□3 with a rate <3 m³/h/m at ambient temperature at 25 Pa (0.1 in water) in accordance with BS 8524-1, Annex F. Fabrics shall be measured per m³/h/m².

The fabric material is tested independently for fire propagation to BS 476□6+A1, and for surface spread of flame to BS 476□7 to achieve National Class ‘0’ in accordance with A13(b) of Approved Document B (Volumes 1 & 2) 2006 Edition ‘Fire Safety’ to England & Wales Building Regulations 2000.

The fabric material is tested independently for formaldehyde concentration in accordance with BS EN ISO 14184□1:2011 to achieve <16 ppm.

Fabric type is EFP™ 2/1000/DGI: a glass fibre, stainless steel wire-reinforced fabric, coated with an intumescent graphite silicone elastomer 1900 g/m² –5% +10%.

Product guidance - As Standard

Fire resistance:

180 minutes.

Period of radiation:

107 minutes <15 kW/m².

Classification:

E180 EW60 C1 Grade 1, A1 (single).

Standards, certification and testing:

- BS 8524□1:2013, Specification for active fire curtain barrier assemblies.
- BS EN 1634□1:2014, Fire resistance and smoke control tests for door, shutter and, openable window assemblies and elements of building hardware. Fire resistance tests for doors, shutters and openable windows.
- BS EN 1634□3:2004, Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware. Smoke control test for door and shutter assemblies.
- BS EN 1363□1:1999, Fire resistance tests – Part 1: General requirements.
- BS EN 1363□2:1999, Fire resistance tests – Part 2: Alternative and additional procedures.
- BS EN 13501□2:2007+A1, Fire classification of construction products and building elements. Classification using data from fire resistance tests, excluding ventilation services rating.
- BS EN 14600:2005, Doorsets and openable windows with fire resisting and/ or smoke control characteristics. Requirements and classification.
- BS 476□6:1989+A1:2009. Fire tests on building materials and structures. Method of test for fire propagation for products.
- BS 476□7:1997. Fire tests on building materials and structures. Method of test to determine the classification of the surface spread of flame of products.
- BS EN ISO 14184□1:2011. Textiles. Determination of formaldehyde. Free and hydrolysed formaldehyde (water extraction method).
- BS 6323□5:1982, Specification for seamless and welded steel tubes for automobile, mechanical and general engineering purposes. Specific requirements for electric resistance welded (including induction welded) steel tubes.
- BS EN ISO 9001:2008, Quality management system.
- BS EN ISO 14001:2004, Environmental management system.
- Complete barrier assemblies are certified with an independent accredited certification body operating a Level 5 scheme as defined in ISO Guide 65, and in accordance with BS EN ISO 17065.
- Complete barrier assemblies are certified with an independent accredited certification body operating an accredited UKAS scheme for installation, commissioning and servicing.
- Complete barrier assemblies shall be tested for fire resistance to BS EN 1634□1 as required by BS 8524□1.
- Complete barrier assemblies shall be tested for smoke leakage to BS EN 1634□3 as required by BS 8524□1.

- Complete barrier assemblies shall be tested for impact to BS 5234□2 as required by BS 8524□1.
- Complete barrier assemblies shall be tested for reliability, durability and self-closing to BS EN 14600 as required by BS 8524□1.
- Complete barrier assemblies shall be tested for gravity fail-safe as required by BS 8524□1.
- Complete barrier assemblies must show tested ability to adjust and control speeds on site to suit specific site requirements as required by BS 8524□1.
- Motor(s) used within barrier assemblies: the above tests shall be tested for operation at temperatures of 400 °C (752 °F) as required by BS 8524□1.

Warranty:

One year.

Product specification

Manufacturer

- Name: Coopers Fire Ltd
- Web: www.coopersfire.com
- Email: info@coopersfire.com
- Tel: +44 (0)23 9245 4405
- Fax: +44 (0)23 9249 2732
- Address: Edward House,Penner Road,Havant,Hampshire PO9 1QZ

Product reference	FireMaster® Plus²
Size	[_____]
Accessories	[None] [Beam protection and obstruction warning] - Will sound in the event of an obstruction being placed at the barrier drop line. [Emergency retract] - Touch-button retract facility for multi-escape. [Split drop delay] - Will partially deploy to pre-determined level to permit escape. [Visual alert system] - Light warning system. [Voice warning] - Auto-spoken multi-message facility.