

# FIREMASTER® PLUS<sup>2</sup>

TENABLE ZONE / HEAT PROTECTION  
ACTIVE FIRE CURTAIN BARRIER ASSEMBLIES

[WWW.COOPERSFIRE.COM](http://WWW.COOPERSFIRE.COM)



**coopers**

EST. 1983

LEADING THE WAY IN FIRE PROTECTION

# MEANS OF ESCAPE PROTECTION

Active Fire Curtain Barrier Assemblies comprise technologically advanced fire-resistant fabric barriers encased in a compact steel housing. Barriers remain invisibly retracted until activated by an alarm or detector signal, at which time they descend safely to their operational position. To be compliant, Fire Barriers must be protected from a short circuit and or total power failure, this is achieved with our patented Total Gravity Fail-Safe (TGFS) system. Fire barriers will stop and control the spread of fire in a building.

The revolutionary FireMaster® Plus<sup>2</sup> Curtain Barrier uses a fabric that is an exclusive development and woven and produced by Coopers themselves. It uses a unique rapid reaction graphite flake which expands to over 20 times its original thickness on exposure to heat and fire, creating an insulating carbon barrier to heat.



### REDUCES RADIANT HEAT

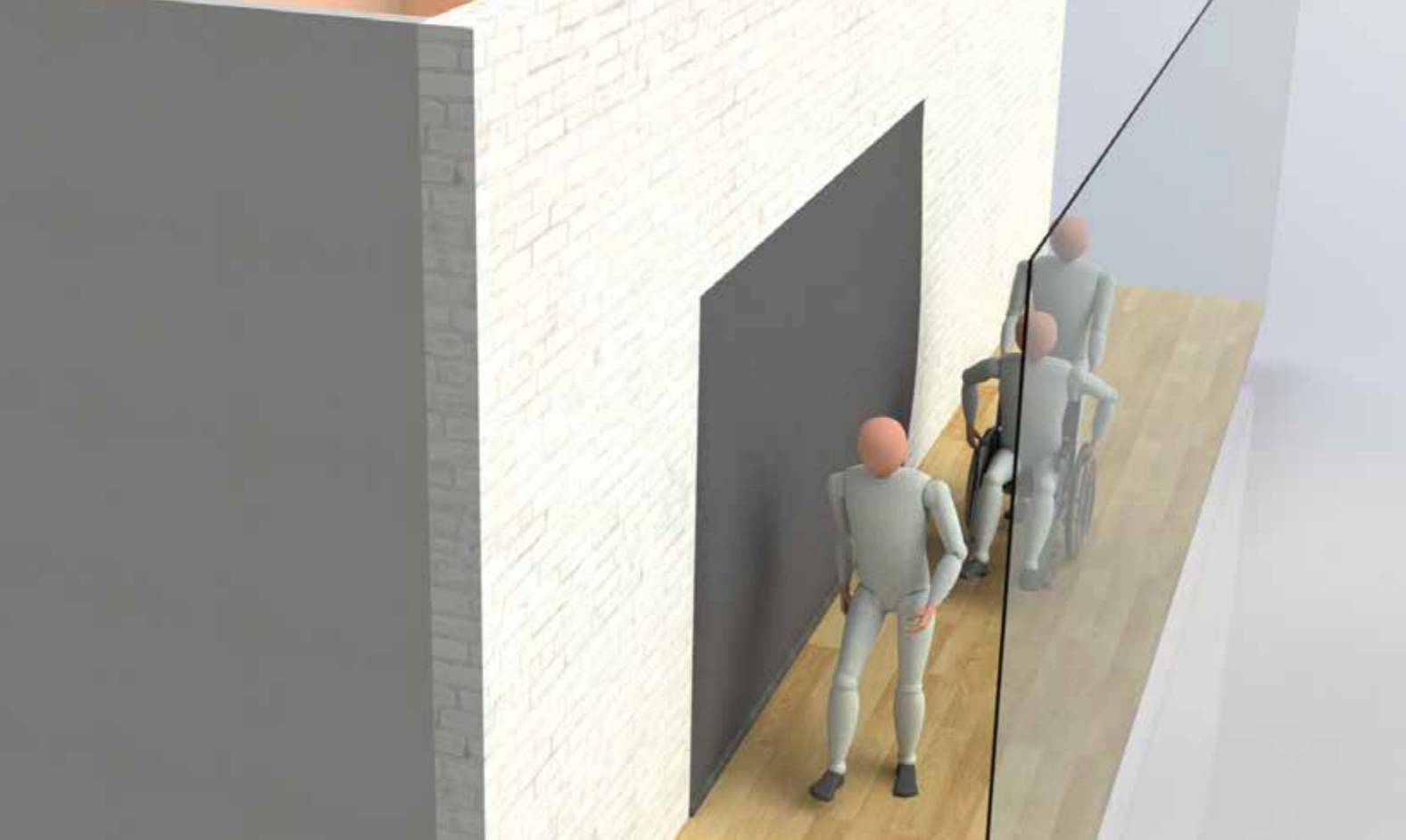
- FireMaster® Plus<sup>2</sup> reduces radiant heat to under 10 kilowatts per sq mtr for 60 minutes. You can escape safely just a few inches away from a +600°C fire (over 3 times the heat of a domestic oven)

### STOP FIRE SPREADING

- FireMaster® Plus<sup>2</sup> stops fire for 180 minutes and offers a protected means of escape

### FAST REACTION TIME

- FireMaster® Plus<sup>2</sup> expands twice as fast and double the thickness of any other product when exposed to heat and fire



Single Roller Assembly



Wide Single Roller Assembly

### PRODUCT ADVANTAGES

- Remove walls and partitions to create wide open spaces
- Remove fire doors to make free flowing corridors
- Total Gravity Fail-Safe (TGFS) operation ensures safe rates of descent even following total power loss, wiring, short circuit or system corruption
- Single roller assembly curtains for spans up to 4m as standard and Wide Single Roller assembly curtains for spans over 5m as standard

- Fully synchronised intelligent drive system with 'slave line' for multiple rollers
- All barriers allow egress for occupants and access for emergency services

## CASE STUDY: SSE HYDRO

GLASGOW UK

At the centre of the SSE Hydro's interior is its large, open plan atrium purposely designed to complement the venue's unique exterior looks. However, ensuring that the SSE Hydro's open plan designs meet stringent fire regulations required a modern alternative to traditional fire protection equipment.

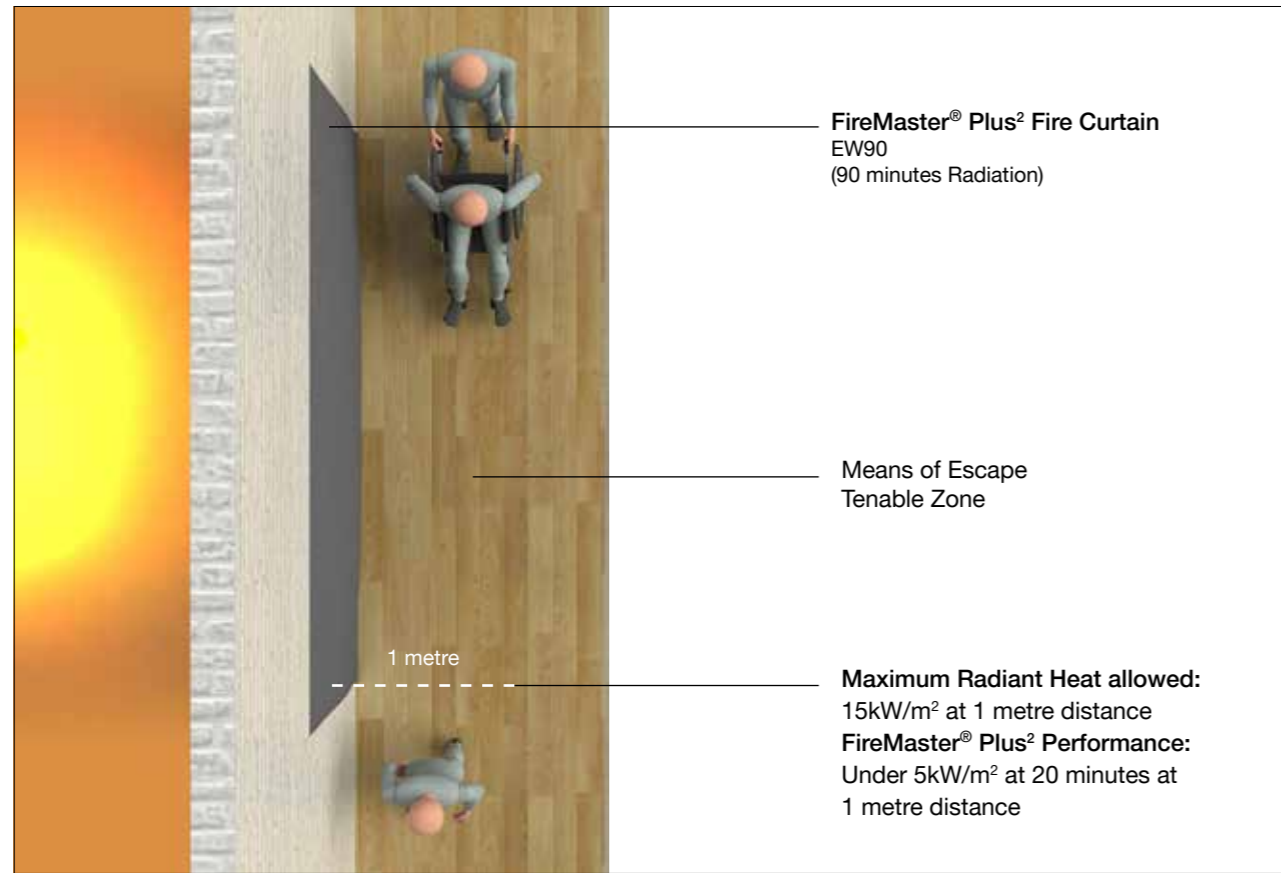
As the leading manufacturer of fire and smoke curtains, Coopers were appointed to protect the un-insulated glazing installed above the atrium's reception area with an approved fire curtain barrier system approved to provide a 2 hour tenable zone. Coopers also developed a smoke curtain system to provide an unintrusive method capable of controlling smoke migrating from the lower floors.

Coopers installed two FireMaster® Plus fire curtain barriers to deploy vertically to protect the atrium's angled glazing situated on the first floor. Developed and installed to meet fire regulations, the FireMaster® Plus fire curtain barriers will provide the SSE Hydros' un-insulated glazing with a tenable zone approved to protect a means of escape for up to 2 hours.

### BENEFITS

- Accredited by Independent Third Party Certification for both Product and Installation
- Manufactured by Coopers in the UK under BS EN ISO 9001 and 14001 systems
- Total Gravity Fail-Safe (TGFS)

## TENABLE ZONE - PROTECTED MEANS OF ESCAPE



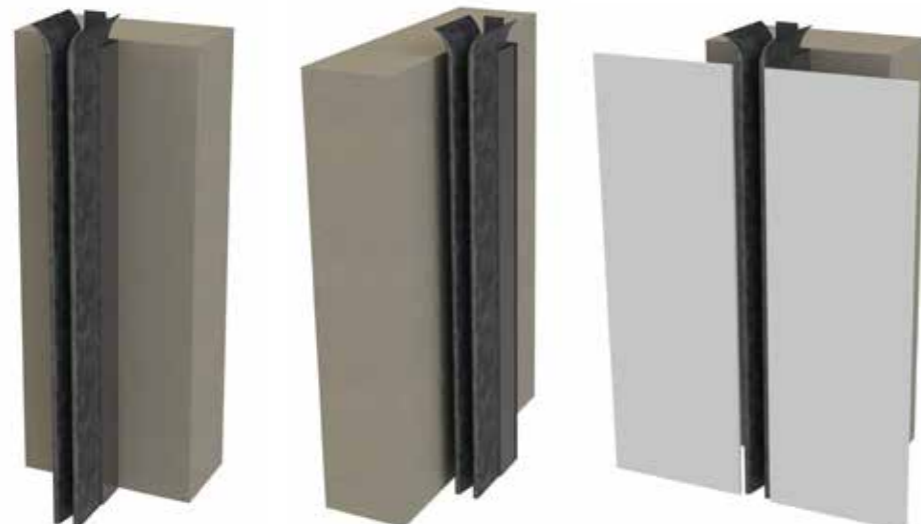
## SIDE CHANNELS

Side channels seal the curtain fabric and the building. Fire can cause extreme positive or negative pressures. Side guide channels are made from galvanised steel (available in standard RAL colours) that can be either surface mounted or recessed into the wall structure to give a flush finish. Coopers' unique fabric locking system has been developed and proven over many years.

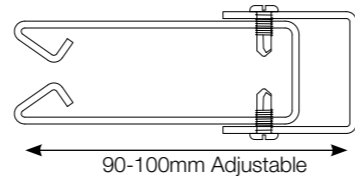
End Fixed

Face Fixed

Recessed Fixed  
(Recommended 5mm gap between side guide and building material)



STANDARD SIDE GUIDE  
Available with or without smoke seal for smoke control



Other side guide sizes are available and drawings can be provided on request. For queries about special size requirements, please contact our technical department.

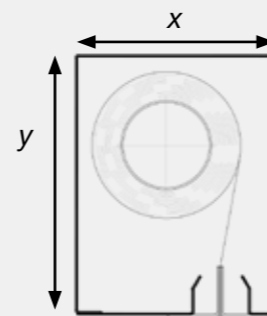
## STANDARD AND SMOKE SEAL (SS) HEADBOX SIZES

Model	Maximum Barrier Width up to	Maximum Barrier Drop up to	Dimensions	
			X	Y
<b>Single Roller</b>				
FMP 15/20	4 metres	2.5 metres (2.5m with Smoke Seals)	150mm	200mm
FMP 18/22	4 metres	4 metres (3m with Smoke Seals)	180mm	220mm
FMP 18/26	4 metres	6 metres (4m with Smoke Seals)	180mm	260mm
FMP 25/30	4 metres	6 metres (6m with Smoke Seals)	250mm	300mm
FMP 30/34	4 metres	8 metres (8m with Smoke Seals)	300mm	340mm
<b>Wide Single Roller</b>				
FMP 23/23 WSR	Contact Coopers Fire	4 metres (n/a with Smoke Seals)	235mm	235mm
FMP 23/25 WSR	Contact Coopers Fire	5 metres (4m with Smoke Seals)	235mm	250mm
FMP 25/30 WSR	Contact Coopers Fire	6 metres (6m with Smoke Seals)	250mm	300mm
FMP 30/34 WSR	Contact Coopers Fire	8 metres (8m with Smoke Seals)	300mm	340mm

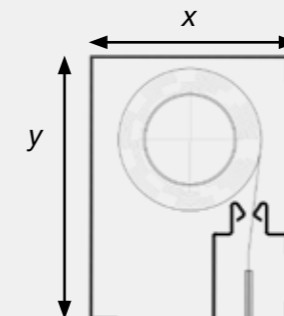
Coopers Fire has a design solution for any size requirement. The table above represents maximum possible working dimensions for each product model. For product certification dimensions please contact Coopers Fire. For technical drawings please visit [www.coopersfire.com](http://www.coopersfire.com). For queries about special size requirements and oversized barrels, please contact our technical department.

## HEADBOX ILLUSTRATIONS

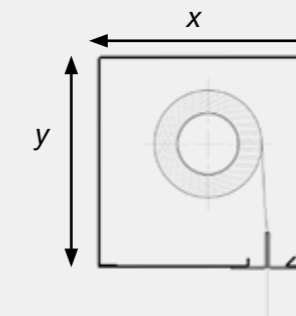
Single Roller



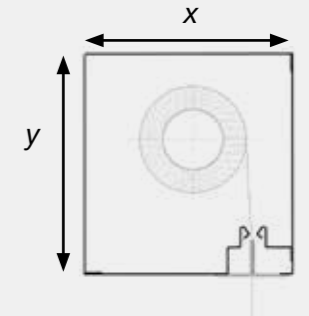
Single Roller with Smoke Seal



Wide Single Roller (WSR)



Wide Single Roller (WSR) with Smoke Seal



## HOW THE HEADBOXES ARE INSTALLED

Unistrut and Drop Rods

I Beam

Face Fixed

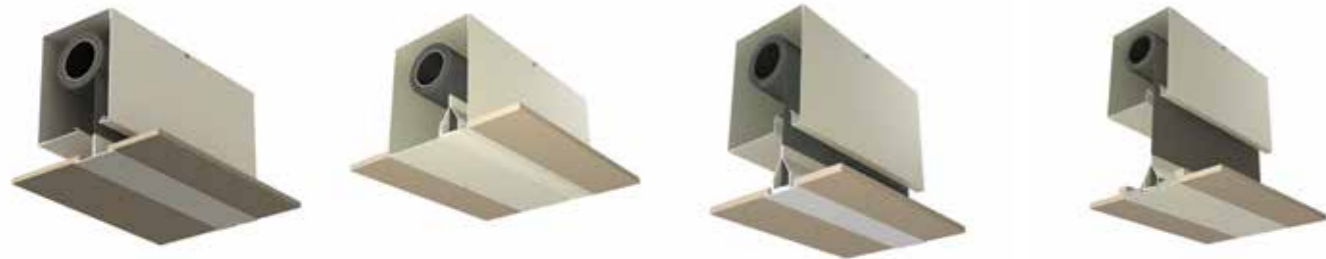
Soffit Fixed

There are many fixing options to suit all types of ceiling configurations. Barriers can be integrated with both solid and suspended ceilings, enabling total project design flexibility.



## HOW ARE THE BARRIERS CONCEALED?

FireMaster® Plus<sup>2</sup> systems provide a range of ceiling interfaces and can even invisibly conceal the barriers in the ceiling whilst still allowing access for service and maintenance. All our systems remain totally concealed when non-operational.



**T Bar**  
(BS 8524 Compliant)

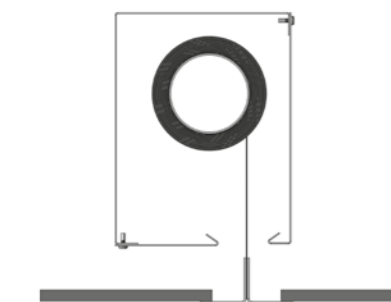
**Jumbo Bar Flush Fit**  
(BS 8524 Compliant)  
(limited to 3m wide x 3m drop)

**Jumbo Bar with Stall Plate**  
(BS EN 1634-1 Compliant  
as part of an assessment)

**Jumbo Bar with Ace Capping**  
(BS EN 1634-1 Compliant  
as part of an assessment)

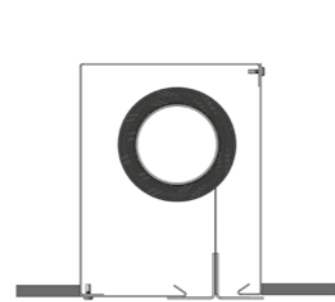
## HOW IS THE BARRIER ACCESSED?

**T Bar**  
(compliant with BS 8524)



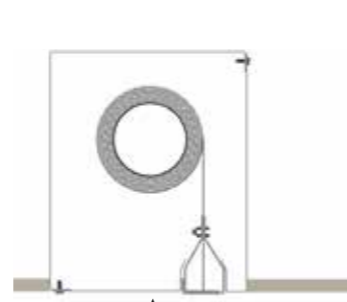
Removable ceiling interface for maintenance access

**T Bar Flush Fit**  
(compliant with BS 8524)



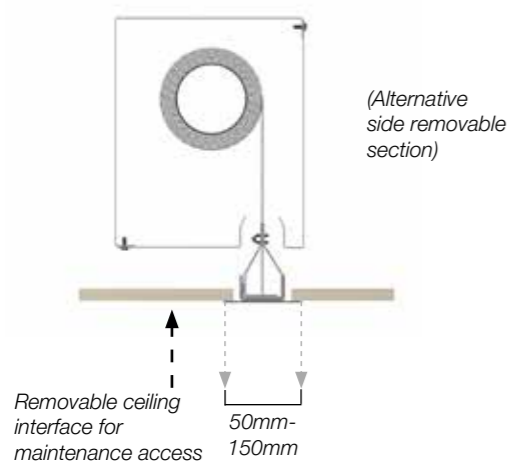
Removable section - access required

**Jumbo Bar Flush fit**  
(compliant with BS 8524)



Removable section - access required

**Jumbo Bar with Stall Plate**  
Only available under BS EN 1634-1

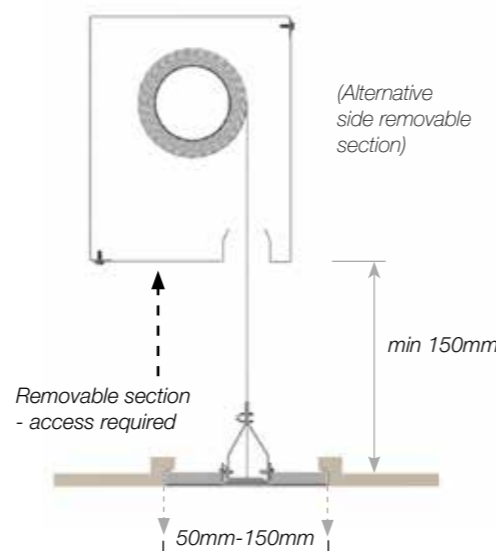


Removable ceiling interface for maintenance access

(Alternative side removable section)

50mm-150mm

**Jumbo Bar with Ace Capping (suspended ceiling)**  
for ease of maintenance through ceiling - no need for destructive access  
Only available under BS EN 1634-1



Removable section - access required

min 150mm

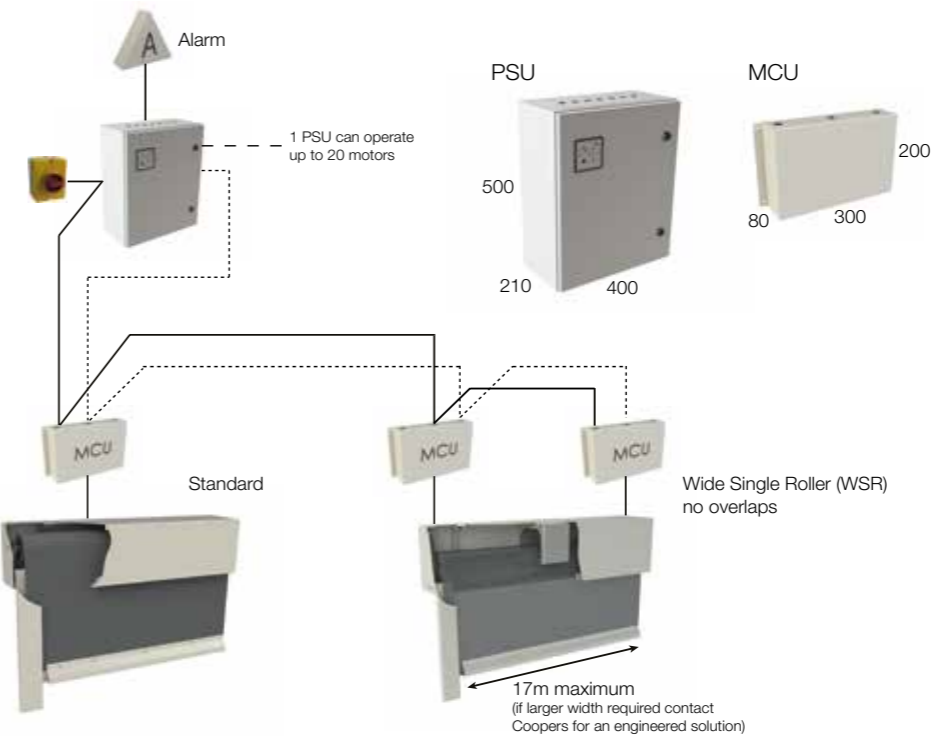
50mm-150mm

## CONTROL OPTIONS

Controls are custom made to be fully compatible with both existing alarm systems and the number of barrier units installed, whether single or multiple roller assemblies.

Coopers also design and build Grouped Control Panels to accommodate customers requirements. This allows all controls to be installed within a single enclosure for easier installation, commissioning, servicing and reduction in field wiring. Please contact Coopers for more information on Grouped Controls.

When an alarm signal is detected, the control panel will automatically trigger all the Barrier systems to deploy by controlled descent using our unique Total Gravity Fail-Safe (TGFS) system.



## PRODUCT SPECIFICATION

Under BS 8524-1:2013 the fire curtain achieves 180mins (3 hrs). The complete system is tested to BS EN 1634-1:2014 and is classified as E180 EW90 for a Single and Wide Single Roller panel curtain in accordance with BS EN 13501 2:2007+A1:2009. The FireMaster Plus<sup>2</sup> has a Smoke Leakage rate of less than 3m<sup>2</sup>/m/h to BS EN 1634-3:2004.

The fabric is additionally tested for fire propagation to BS 476 6:1989+A1:2009 and surface spread of flame to BS 476-7:1997 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.

EFP™ 2/1000/DGI is a high performance textile composite material of woven glass fibre with an intumescent graphite silicone coating

on both sides. This forms a rapid, expanding carbonaceous char at 160°C and reduces heat radiation. This coating was developed and used first by Coopers Fire.

Materials used in the fire curtain assembly are non-hazardous and can be disposed of in household waste.

## DON'T BE LIABLE

Fire Curtain Barriers MUST have a 'Total' Fail-Safe by Gravity\* in the event of total mains, wiring, short circuit and/or system corruption.

Coopers Fire, with their unique patented Total Gravity Fail-Safe (TGFS) system, are Independently Third Party Certified by a UKAS approved certification body to BS 8524-1:2013.

## CONTROLS SPECIFICATION

**POWER SUPPLY**  
230V AC 50Hz dedicated supply via all pole isolator

**BATTERIES**  
2 x 12V 12A/h lead acid batteries

**ALARM SIGNAL**  
Normally closed volt-free contacts. Open on activation

**TEST FACILITY**  
Zone Control Panel (ZCP) located on front of Power Supply Unit (PSU)

**DISPLAY**  
Power ON, Alarm ACTIVE and Alarm OFF status LED's on ZCP

**POWER SUPPLY SIZE**  
400mm(w) x 500mm(h) x 210mm(d)

**MOTOR CONTROL UNIT SIZE**  
300mm(w) x 200mm(h) x 80mm(d)

Control Panels are EMC compliant.

QUALITY ASSURANCE AND CERTIFICATION



MEMBERSHIP



CPD ACCREDITATIONS



For information, to get a quote  
or to book a CPD workshop

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As such we reserve the right to  
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\*Multiple patents granted and pending.

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