

# SMOKESTOP™

ACTIVE SMOKE BARRIERS

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**coopers**

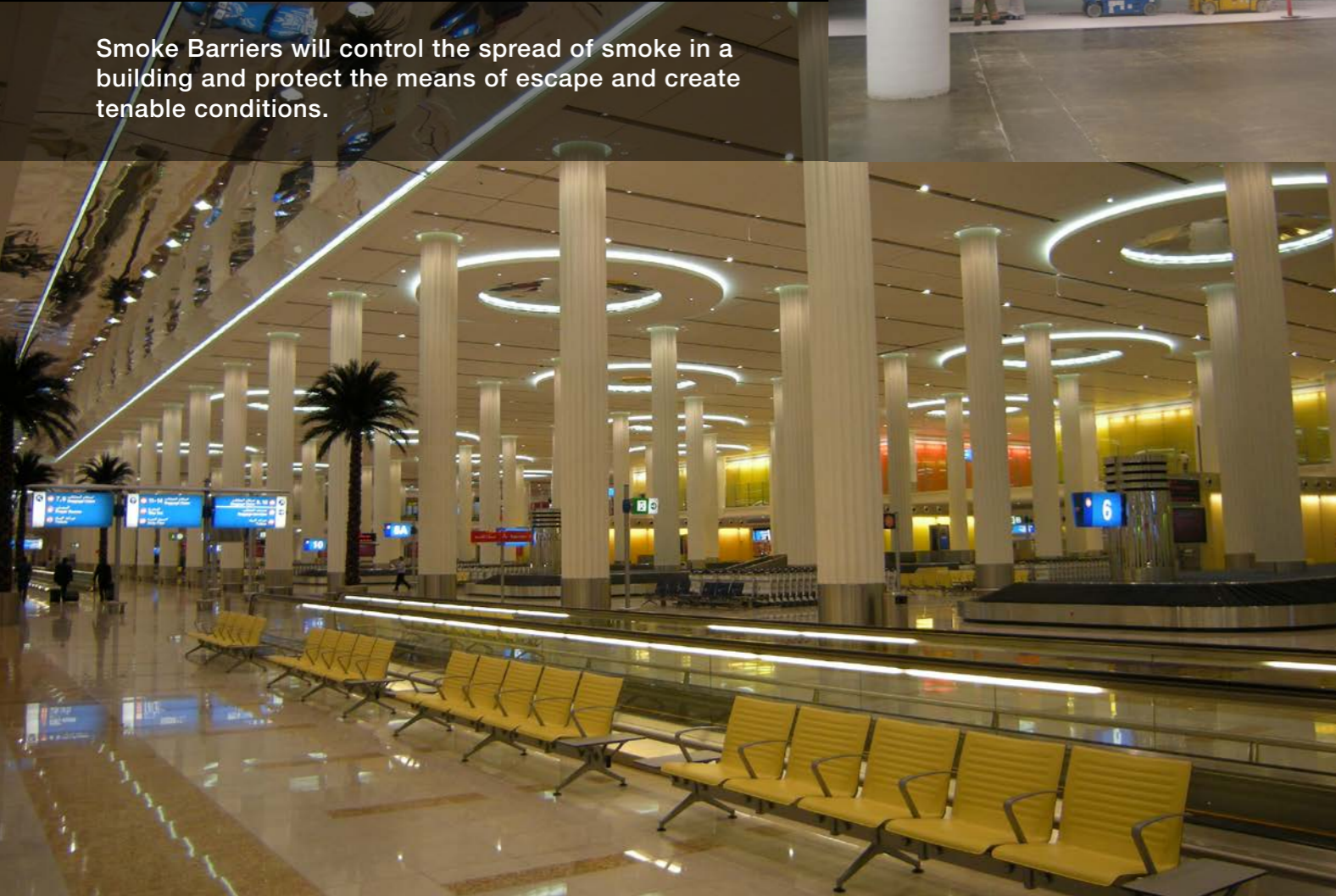
EST. 1983

LEADING THE WAY IN FIRE PROTECTION

Active Smoke Barriers 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 fire operational position.

To be compliant, Smoke 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.

Smoke Barriers will control the spread of smoke in a building and protect the means of escape and create tenable conditions.



PRODUCT ADVANTAGES

- Single roller assembly curtains for spans up to 8m
- All Barriers allow escape for occupants and entry for emergency services
- Total Gravity Fail-Safe (TGFS) operation ensures safe rates of descent even following total power loss, wiring, short circuit or system corruption
- Unique overlapping design with continuous, conjoined bottom bar in unlimited widths

HOW ACTIVE SMOKE BARRIERS WORK

OPEN SPACE

- 'Invisible' Smoke Barriers enable maximum visibility with unlimited curtain widths, with areas up to 1000m<sup>2</sup>

COMPARTMENTATION

- Eliminate smoke spread to other areas of the building

MEANS OF ESCAPE

- Barriers create protected routes to reinforce tenable conditions

ATRIA

- Barriers allow multi-floor concourse openings for large atria

ESCALATORS & STAIRWELLS

- No need for smoke-rated bulkheads or down stands



Single Roller Assembly



Multiple Roller Assembly

- Multiple roller assembly curtains for spans from 5m up to 8m as standard
- Fully synchronised intelligent drive system with 'slave line' for multiple rollers
- Unlimited spans of literally hundreds of linear metres and drops up to 10.5m

CASE STUDY:  
BLUEWATER  
SHOPPING CENTRE

KENT UK

For Lend Lease, selecting a service provider capable of building long-term service partnerships is vital for success. Adopting this principle proved critical when appointing a Smoke Curtain supplier for Europe's largest shopping complex, Bluewater.

From the start, Coopers Fire confirmed their expertise by assisting Bluewater's appointed Fire Consultant to develop a smoke containment strategy designed to protect the shopping mall's means of escape from smoke migration and allowing for the safe evacuation of the complex in the event of a fire.

Following a comprehensive tender, Lend Lease appointed Coopers Fire to manufacture, install, and commission some 300 SmokeStop™ smoke barriers, which were designed to fit the shopping mall's vaulted ceiling, curved features and critical evacuation points. It was also important for all 300 barriers to remain hidden within the ceiling until activated by a fire alarm, meaning that the aesthetics of the building are not compromised.

BENEFITS

- Product approved under Independent Third Party Certification
- CE Marked
- Installed and serviced by qualified engineers
- Bespoke design and manufacture
- Manufactured by Coopers Fire in the UK under ISO 9001

*"We are extremely confident in the service and support given to us by Coopers Fire over the past 10 years and look forward to the on-going level of support".*

Steve Williams, Chief Engineer  
Facilities Management Lend Lease

## STANDARD HEADBOX SIZES

**Single rollers**

**SS 15/15**

**SS 18/18**

**Multiple rollers**

**SS 15/28**

**SS 18/36**

Model No.	Maximum Barrier Width up to	Maximum Barrier Drop up to
SS 15/15	5 metres*	5 metres*
SS 18/18	5 metres*	10 metres*
SS 15/28	Unlimited	5 metres*
SS 18/36	Unlimited	10 metres*
SS 25/15	Unlimited	5 metres*

**SS 25/15\* Side by Side**

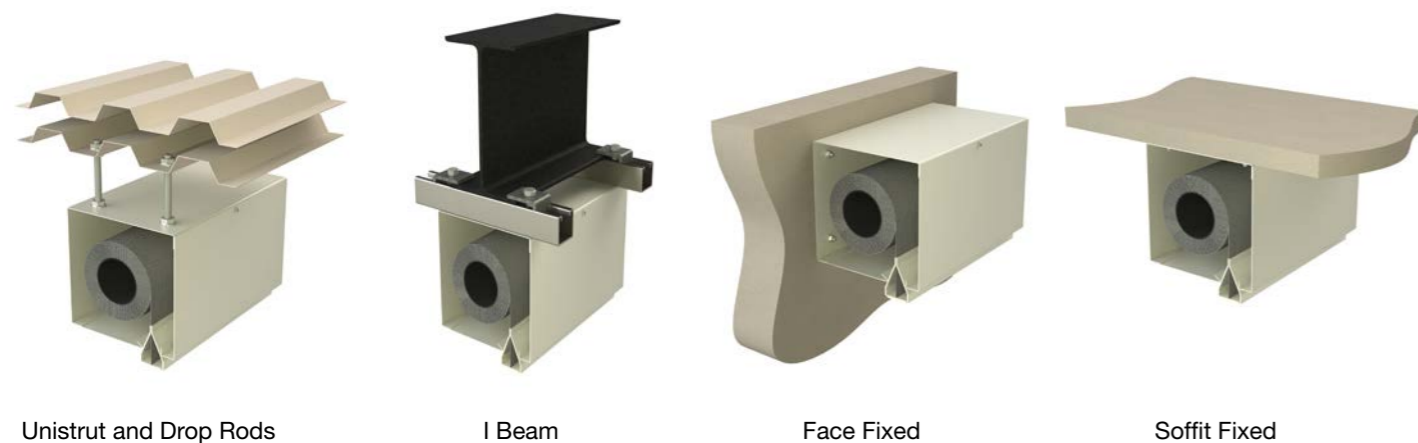
\*headbox and bottom bar not applicable for the DH60 models

Coopers has a design solution for any size requirement. The headboxes illustrated here are appropriate for the D<sub>600</sub> A models. For DH60 models or models requiring side channels or specific sizes, please contact our technical department.

\*For CE Marked maximum width and maximum drops, please contact our technical department.

## HOW THE HEADBOXES ARE INSTALLED

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.



## BESPOKE SIZES, SHAPES AND APPLICATIONS



### HOW ARE THE BARRIERS CONCEALED?

SmokeStop™ 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.

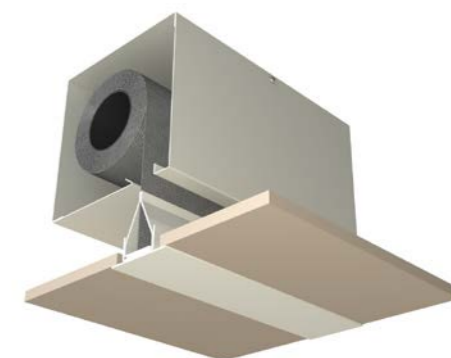
For illustrative purposes only



Flush fit



Suspended ceiling with SLAT™ (Self Levelling Access Trim) the unique patented Coopers' system



Reinforced Suspended ceiling with recessed shadow gap

## HOW IS THE BARRIER ACCESSED?

(Remember, regular service and maintenance is a legal mandatory requirement)

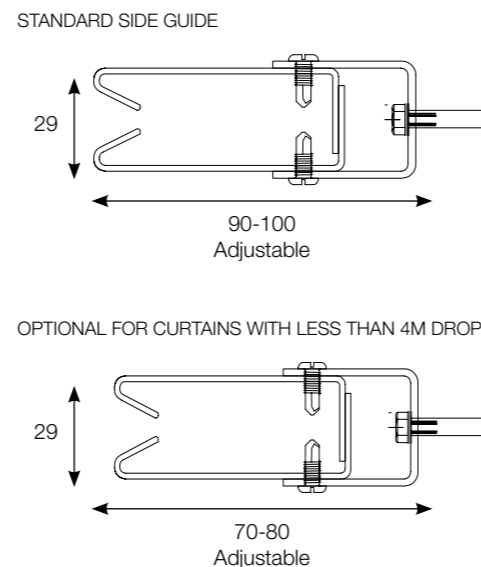
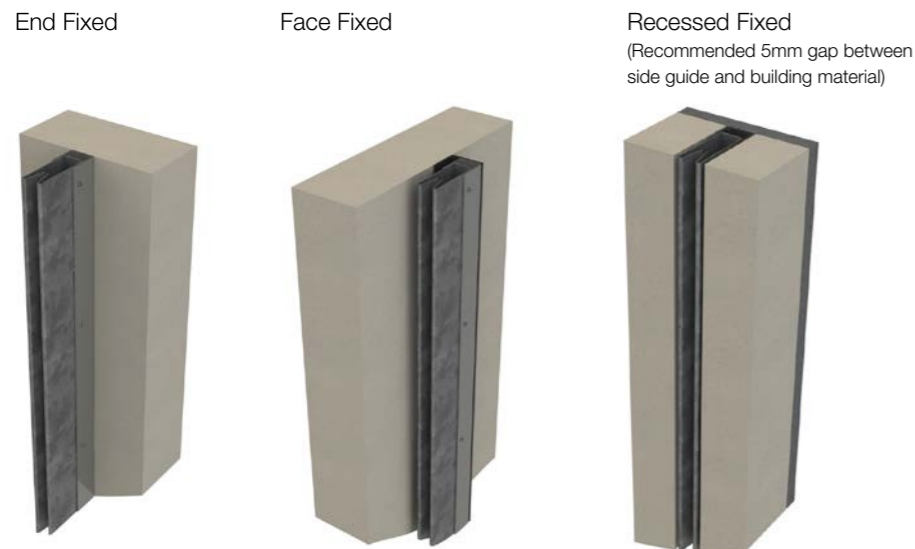


## SIDE CHANNELS

Smoke Barriers do not necessarily need side channels and are designed to be free hanging. The product standard BS EN 12101-1:2005+A1:2006 permits permissible gaps between barriers and the construction works. A SHEVS design will accommodate smoke leakage as required.

Side channels can be used to create a seal between a Smoke Barrier and construction works to further reduce smoke leakage, if required, due to air pressure.

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 retention locking system has been developed and proven over many years and forms part of our CE Mark.

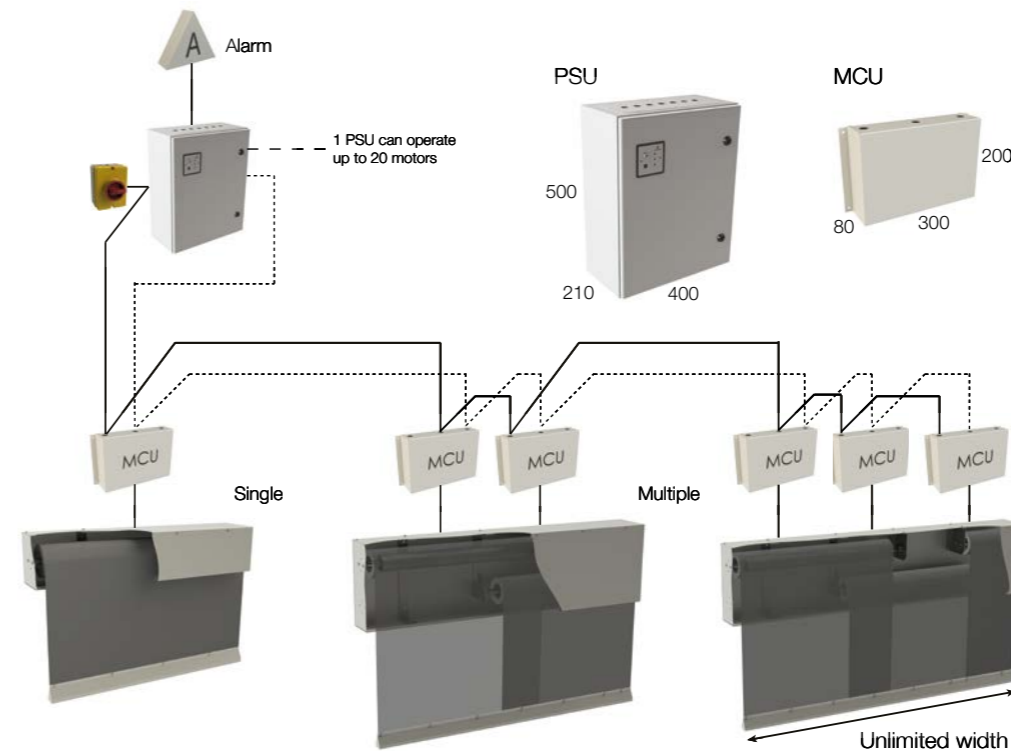


## CONTROL OPTIONS

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

The complete system is CE Marked in accordance with the Construction Products Regulation (305/2011), as required by the CE Marking Directive (93/68/EEC), when tested in accordance with BS EN 12101-1+A1:2005. Systems are classified as D<sub>600</sub>A and DH60 in accordance with BS EN 13501-4:2007+A1:2009. The complete system is also classified to DA or DLA to BS ISO 21927-1:2008.

The fabric is additionally tested to BS EN ISO 1716:2010 and BS EN 13823:2010; and is classified to 'A2-s1 d0' in accordance with BS EN 13501-1:2007+A1:2009. 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) Approved Document B 2006 Edition 'Fire Safety' to the Building Regulations 2000 England and Wales.

EFPT<sup>™</sup> 2/A2 is a long established, high performance fire textile composite material of woven glass fibre with a high performance coating, containing a micronised aluminium enriched polymer, which when exposed to fire, is absorbed into the surface of the curtain to provide high temperature performance. This coating was developed and used first by Coopers Fire.

## DON'T BE LIABLE

Smoke Barriers are legally required to be CE Marked under the Construction Products Regulation. They must be fail safe 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 the only supplier with Independent Third Party Certification by a UKAS approved certification body, and CE Marked as fully compliant with BS EN 12101-1:2005+A1:2006.

## 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)



FM 22356

LQR 4007272



CPD ACCREDITATIONS



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

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Coopers Fire Ltd has a policy of  
continuous product improvement.

As such we reserve the right to  
change design and specifications  
without prior notice.

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Multiple patents granted and pending.



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