

# fire curtains and smoke curtains



delivering engineered solutions





## company profile



Greene Fire is a family owned and operated business. We pioneered fire and smoke curtains within Australia and more recently our capability in delivering engineered solutions has expanded to offer fire shutters, fire rated glazing and smoke ventilation, along with several non-fire rated solutions.

We are excited about building innovation and assisting designers in achieving their goals for their development by improving on life safety, building comfort and value. Our range of products, service and expertise is constantly growing as we strive to provide best value for our customers.

We are proud that we have helped to protect more than 500 buildings across Australia and New Zealand.

## delivering engineered solutions



Greene Fire have supplied and installed fire and smoke protection solutions in many iconic buildings across Australia and New Zealand. Working with the countries largest builders, developers and designers. We help make beautiful buildings such as Sydney Opera House, Victoria Comprehensive Cancer Centre, Chadstone Shopping Centre, International Towers at Barangaroo.

## fire curtains and smoke curtains



Fire and smoke curtains comprise of technologically advanced fire resistant fabric encased in a compact steel housing. The fire and smoke curtain will remain invisibly retracted until activated by an alarm or detector signal, at which time they close safely to their fire operational position. They will stop and control the spread of fire and smoke throughout a building.

Developed to provide an alternative to fixed non-loadbearing walls, partitions and fire shutters, fire and smoke curtains can be used as part of a fire engineering solution in commercial, residential and industrial applications such as airports, shopping centres, offices and hotels or where the need for maintaining open areas for access is vital.

Fire and smoke curtains assist with building design by providing a lightweight solution to protect large openings. Traditional building materials normally can not protect such openings, require more space within the building and are a heavy load on the structure.



The innovative Concertina fire and smoke curtain offers greater flexibility to designers to create open plan buildings that remove the requirement for columns or corner posts and intrusive ceiling interfaces that may be required for alternative fire and smoke safety products.

The Concertina can be configured in a variety of bespoke sizes and shapes, like a square or circle and an arc or trapezoid. In fact, the Concertina can be configured in most shapes in unlimited spans.



### product features

- Concertina™ fire curtain compliant to AS1530.4, BS 8524-1, PAS 121, UL 10B, 10C, 10D, 1784 and NFPA 252. Assessed in accordance with EN 1634-1 and EN 13501-2
- Concertina smoke curtain is CE marked and classified to DH60 or D600A and assessed in accordance with EN 12101-01
- Unlimited widths and bespoke engineered products available
- Third Party Approved by IFC Certification, Warrington Certification and other certification bodies
- Bespoke shapes achievable to allow open plan designs meet fire regulations
- Metal work is fully finished in RAL 9010 White (30% MATT)

### some of the possibilities



Product Name	Maximum Width	Maximum Drop	Tested To	Fire Resistance or Classification	Compliance Certificate
FIREMASTER® CONCERTINA™ OPEN †*	Unlimited	5 metres	AS BS EN	- / 240 / - E180 EW60	EWFA26822 IFCC1014
FIREMASTER® CONCERTINA™ CLOSED †*	Unlimited	5 metres	AS BS EN	- / 240 / - E180 EW60	EWFA26822 IFCC1014
SMOKESTOP DH60/D60 CONCERTINA™ OPEN	Unlimited	6 metres	BS EN	DH60/D60	CF 5477
SMOKESTOP DH60/D60 CONCERTINA™ CLOSED	Unlimited	6 metres	BS EN	DH60/D60	CF 5477

† Compliant to BS 8524-1:2013 contact Coopers Fire for size limitations and classification

\*Assessed to 240 minutes for heights to 6m to AS1530.4 and 120 minutes for heights to 8m to BS EN 1634-1.





Coopers Fire manufacture a range of active Vertical fire and smoke curtains that can be installed for various applications.

Vertical fire curtains are used to prevent the spread of fire within a building and can be discreetly installed to be hidden from view until required. All Coopers vertical active fire curtains use the Total Gravity Fail-Safe (TGFS) system which ensures the fire curtains will activate even if there is a total power failure or short circuit.

Vertical smoke curtains are used to prevent the spread of smoke and/or work as part of a smoke control system to channel smoke for extraction from a building. Smoke curtains can also be discreetly installed and activate using the Total Gravity Fail-Safe system.



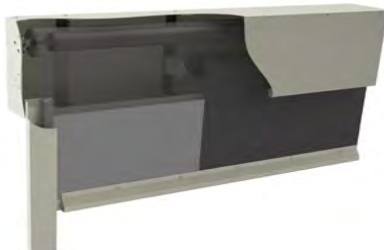
## product features

- Up to 4 hours fire rating to AS1530.4
- Integrity, Radiance and Insulated vertical fire curtains available
- Compact headbox and side guides
- Some smoke curtain solutions may not need side guides
- Lightweight material enables large openings to be fire and smoke protected

## single roller



## multiple roller



## Vii Fire

Is a compact fire and smoke curtain that is fully assembled in the factory and supplied pre-commissioned for ease of installation by a competent trades person.

Controls are plug and play and sizes limited to 4 metres.

Product Name	Maximum Width	Maximum Drop	Tested To	Fire Resistance or Classification	Compliance Certificate
FIREMASTER® †	30 metres	9 metres	AS BS EN	-/240/- & E120 EW30	EWFA21553, IFCC1160 & CF5459
FIREMASTER® PLUS <sup>2</sup> †	30 metres	7.5 metres	AS BS EN	-/120/- & E180 EW60	EWFA22049, IFCC1255
FIREMASTER® SUPERPLUS™	30 metres	3 metres	AS BS EN	-/120/120 & EI120	Contact Coopers
FIREMASTER® EGRESS	18 metres	7 metres	UL	180 minutes Fire Rating	Contact Coopers
FIREMASTER® MARINE A-0	2.4 metres	2.6 metres	EN	A-0	Contact Coopers
SMOKESTOP D600A SINGLE	6 metres*	8 metres	BS EN	D600A	1720-CPR-0014A
SMOKESTOP D600A OVERLAPPING	Unlimited**	10.5 metres	BS EN	D600A	1720-CPR-0014A
SMOKESTOP DH60 SINGLE	8 metres	8 metres	BS EN	DH60	1720-CPR-0014B
SMOKESTOP DH60 OVERLAPPING	Unlimited**	10.5 metres	BS EN	DH60	1720-CPR-0014B
SMOKESTOP EVACU8™	Unlimited	6.7 metres	BS EN	D600A	1720-CPD-0038
Vii®FIRE FM † (DOOR, SERVE, CABIN)	4 metres	4 metres	AS BS EN	-/120/- & E120 EW30	FCO-2902, IFCC1280
Vii®FIRE iZONE <sup>2</sup> †*	4 metres	4 metres	AS BS EN	-/120/- & E180 EW60	FCO-2904, IFCC1219

† Compliant to BS 8524-1:2013 contact Coopers Fire for size limitations and classification

\*Contact Coopers Fire for a bespoke solution and sizes outside of this range

\*\*Overlapping system has the maximum roller width of 5 metres

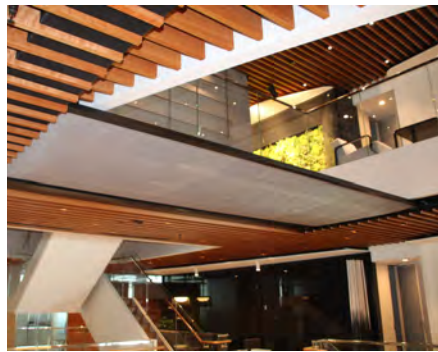
# horizontal



Coopers Fire active FireMaster Horizontal fire curtains offer an alternative way to close off stairwells and atria. Horizontal curtains can be used instead of installing fire rated glazing or non-load bearing ceilings therefore creating open plan areas.

All Coopers Fire Horizontal fire curtains have No Visible Supports (NVST<sup>TM</sup>) which means the unique design allows the curtain to run under tension in a guide down each side, leaving the opening free from any supports for the curtain once installed.

There are three types of the FireMaster Horizontal fire curtain, the Mini Simplex, Simplex and Duplex. Both the Mini Simplex and Simplex close from one end to the other, whereas the Duplex is used for much larger areas and closes from each end of a void to meet and close in the middle.



### product features

- Provides vertical compartmention
- Allows horizontal smoke management strategies for cost savings
- No visible supports throughout the void
- Almost invisible once installed
- 2 hour fire separation in floor
- Low radiation solution with FireMaster Plus

### mini simplex

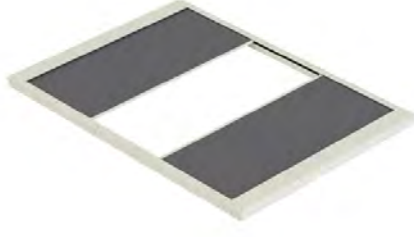
Suitable for smaller, narrow openings in residential and skylights.

### simplex

Standard product for most openings

### duplex

Suitable for large openings including atria. Closes in half the time.



Product Name	Maximum Width	Maximum Length	Tested To	Fire Resistance or Classification	Compliance Certificate
FIREMASTER <sup>®</sup> NVST <sup>TM</sup> HORIZONTAL SIMPLEX <sup>TM</sup> †	9 metres	10 metres	AS BS EN	- / 120 / - E120 EW30	EWFA25596, 26527 IFCC1016
FIREMASTER <sup>®</sup> NVST <sup>TM</sup> HORIZONTAL DUPLEX <sup>TM</sup> †	9 metres	20 metres	AS BS EN	- / 120 / - E120 EW30	EWFA25596, 26527 IFCC1016
FIREMASTER <sup>®</sup> PLUS NVST <sup>TM</sup> HORIZONTAL SIMPLEX <sup>TM</sup> †	4 metres	5 metres	AS BS EN	- / 120 / - E120 EW60	EWFA26607 IFCC1017
FIREMASTER <sup>®</sup> PLUS NVST <sup>TM</sup> HORIZONTAL DUPLEX <sup>TM</sup> †	4 metres	10 metres	AS BS EN	- / 120 / - E120 EW60	EWFA26607 IFCC1017

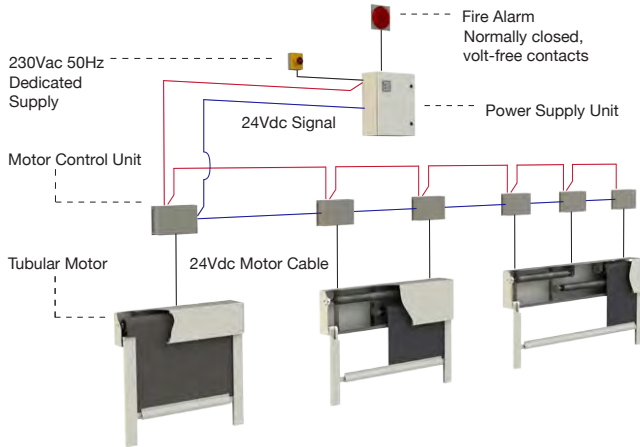
† Maximum sizes vary slightly under BS EN certification .



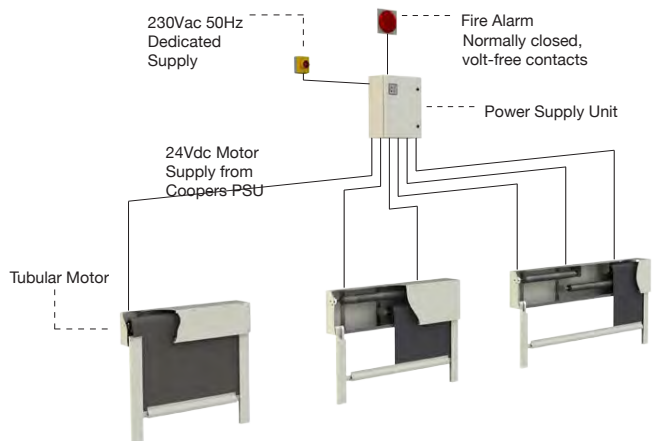
The Variospeed®6 system is used for fire and smoke curtains. It uses 24Vdc electrical motors with an internal 24Vdc electro-magnetic brake. When the fire or smoke curtains are fully retracted, the internal electro-magnetic brake is powered, keeping the curtain in their retracted position. Power to the motor is completely isolated, prolonging the life of the motor and maintaining the manufacturers supply warranty.

The motors include built in short circuit and open circuit protection, meaning the curtains will deploy under Total Controlled Gravity Fail-Safe at a descent rate compliant with standards BS EN 12101 and BS 8524 - even if the motor wires are severed, i.e. shorted together or disconnected from the Motor Control Card (MCC). In the event of an alarm activation the electromagnetic brake will de-energise and the fire or smoke curtain will immediately deploy to their Fire Operational Position under Gravity Fail-Safe.

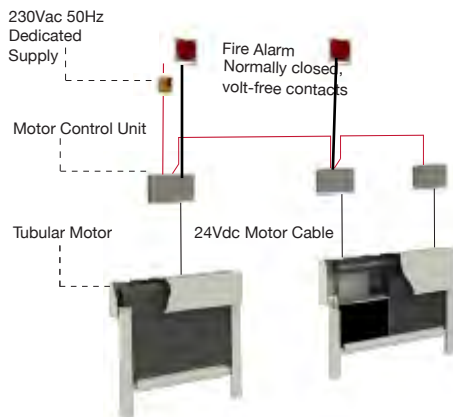
## variospeed®6 controls at motor (cam)



## variospeed®6 controls grouped (cg)



## variospeed®6 no battery backup



## optional features

- Light Warning
- Voice Warning
- Obstruction Warning
- Test Reset Switch
- Heat Detector
- Smoke Detector
- Emergency Retract
- Split Drop Delay
- Dual Drop
- Building Management System (BMS) Interface
- Safety Edge / Bump Stop



## gravity fail-safe

Is the ability of the fire and smoke curtain to completely close without any consumable power source.

If there is a mains power failure the fire or smoke curtains will be held in the retracted position for 30 minutes (adjustable) under Battery Backup (BBU) before deploying to their Fire Operational Position (FOP). If essential services power is available BBU is optional.

If an alarm activation is received during a mains power failure, the curtains will immediately deploy to their FOP. The fire and smoke curtains will descend under total and controlled Gravity Fail-Safe.

## product features

- Can be connected to BMS for monitoring of system
- Up to 20 fire or smoke curtain rollers from one Power Supply Unit (PSU)
- Adjustable electronic descent speeds
- Motor protected from short circuits or open circuits
- 24Vdc motors with internal electromagnetic brakes as standard
- Adjustable battery backup
- Multiple alarm input and output
- Low power consumption



# applications



Fire and Smoke curtains offer various solutions to architects, engineers, consultants and specifiers providing the ability to design complex buildings that adhere to fire regulations and offer protection against fire or smoke. When specifying a fire or smoke curtain system, it is essential to consider the whole package from quality, performance, installation and maintenance to after sales care. Greene Fire offers third party certificated products as well as manufacturer trained installation and specialist after care packages, tailored to your specific requirements and application.

## ATRIUM



Prevent the spread of smoke and fire from one floor to another in an atrium with Horizontal or Concertina curtains. Smoke curtains can create active baffles to stop smoke spill into the atria.

## LIFTS, LOBBIES & RECEPTIONS



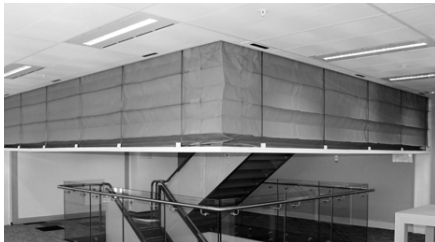
Stop the spread of smoke and fire through lift openings. The compact Vii Fire range is ideal to protect these openings and potentially eliminate the requirement for a lobby.

## BOUNDARY PROTECTION



Protect property boundaries with compact fire curtains instead of fire shutters, fire windows or sprinklers. Bush fire solutions are also available

## STAIRS AND ESCALATORS



Open up stairwells or protect escalators by using Vertical or Concertina fire and smoke curtains. The Concertina product has been used to fully encapsulate stairs or escalators to allow open plan designs, without the need for columns or walls.

## OPENINGS IN WALLS



Greene Fire fire curtains can be used to replace non-load bearing walls and fire rated glazing offering open plan designs that still meet fire regulations. Protect servery openings or larger walkways.

## PROTECTED MEANS OF ESCAPE



Our advanced fire fabrics provide a range of insulating zone fire curtains that provide architects and fire engineers with a non-invasive, protected means of escape.

## EGRESS & CORRIDORS



Protect escape routes for mass evacuation. The evacU8 smoke curtain allows egress through a compartment that contains smoke. It offers the capability to split deployment to encourage safe evacuation psychology where assemblies cross potential escape routes.

## THEATRES



Fire and smoke curtains can be provided as a safety curtain to protect proscenium openings in theatres. They can also be used as part of a complete smoke management solution.

## COMPARTMENTATION



Fire and smoke curtains can be used to create compartments to contain fire and smoke and prevent it from spreading. The product range is used particularly in this instance in large open spaces in buildings. Solutions to protect basement carparks



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Coopers Fire are the original patentees of the electromechanical fail safe system, which set the benchmark for active smoke and fire barriers worldwide, and help to continue to remain a market leader using patented and proprietary technology.

Coopers Fire offer an unparalleled range of vertical and horizontal fire and smoke curtain barrier systems that are tested extensively in many different countries to many international standards meeting a wide range of regulation.