

Airocle™

Think Natural.™
Think Smarter.



8 Series

INSPIRED BY THE NATURAL FORCES FOR MAXIMUM ROOF-BASED VENTILATION



Roof

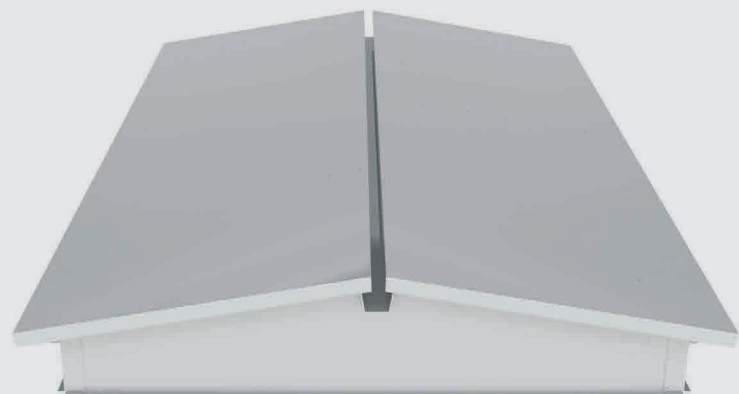
8 SERIES

VENTS & VENTILATORS

FIRE & SMOKE VENT

Previously **Pyravent Series**

CSIRO CERTIFIED



Tested and certified by CSIRO® for
airflow, fire and weather performance

Fire & Smoke Vents



Passive Natural Ventilation



Engineered Design



Market Leading Performance



Ideal For Sustainable Building Design



Tested and certified by CSIRO® for airflow, fire and weather performance

8 SERIES



Ideal for effective and efficient removal of smoke from a building.

The fundamental principles of fire ventilation are to facilitate evacuation by reducing the impact of fire gases and heat on trapped persons, prevent or contain the spread of fire or fire gases within a building, and to assist fire fighting by reducing thermal load and improving visibility in a fire situation.

Naturally ventilated smoke hazard management is simple, robust and common practice across the world. By embracing the natural tendency for warm smoke to rise up and out of the building, the need for mechanical fans is reduced or eliminated. Going natural also means the size of the fire is less of a concern, because the larger the fire, the greater the rate of exhaust.

With the increasing interest in green and sustainable building design, natural smoke hazard management has established itself as the leading method of smoke control for both new buildings and existing buildings during refurbishment.



Design

Exhaust Performance

Quick release mechanisms, a high coefficient of discharge and large effective aerodynamic area make the **8 Series** ideal for effectively and efficiently exhausting smoke from a building. With CSIRO tested airflow performance, our ventilators provide designers certainty when implementing a natural smoke management system.

Safety

With automatic control with manual override and fail safe fusible links, the **8 Series** ensures unparalleled reliability in emergency situations. With each system using full copper airlines (for pneumatic systems) or fire rated cabling (for electric systems), the certainty of keeping building occupants safe and exhausting dangerous heat and smoke is assured.

Integrity

The **8 Series** is designed to close post-event to protect your internal environment from the elements. Designed and fabricated in Australia to stringent Australian Standards, the **8 Series** is engineered with the quality to ensure weather-tight security when closed and high levels of exhaust when open.

Benefits

Rapid Response

Non-stick-slip bidirectional operating cylinders ensure that the **8 Series** rapidly opens and closes on command with minimum delay. The ability to provide immediate response to changing weather, operational and emergency situations provides occupants, owners and emergency crews increased control in how they manage often variable environments.

Weather Tight

Protecting the internal environment from the outside elements is essential for many buildings. With an engineered design focused on weather performance when closed, the **8 Series** has been trusted by the Australian Department of Defence to protect a range of aircraft and military equipment due to its weather tight performance even in storm and cyclone conditions*.

Fail Safe

Fusible links, manual release points, and controls with automatic and manual override ensure the **8 Series** has three layers of activation for fail safe operation. The use of copper airlines in the pneumatic version minimises the risk of air leaks in the system compared to PVC airlines. Fire rated cabling in electrically operated systems ensure reliable, safe and dependable connections.

Known Performance

CSIRO tested airflow performance provides building engineers design certainty. Coefficient of Discharge figures of 0.85 deliver high levels of air flow efficiency and effectiveness allowing you to get the most out of your design and ensure reliability in your smoke hazard management approach.

Reduced Maintenance

The simplicity and clever engineered design of the **8 Series** reduces the level of maintenance and failure rates experienced by current mechanical ventilation systems. This results in lower servicing and maintenance costs and reduced energy use over the lifetime of your building.

Projects

Unrivalled reliability, safety and response have made the **8 Series** the optimal smoke venting solution for:

- Aircraft Hangars
- Theatres and Public Halls
- Stage Areas
- Galleries
- Workshops
- Warehouses
- Chemical Storage
- Entertainment Complexes
- Atriums

Quality



RAIN
AS2428.1



WIND
AS2428.2



FIRE
AS2428.4



COEFFICIENT OF DISCHARGE
AS2428.5



CYCLONE RATED

The **8 Series** is designed to satisfy the Building Code of Australia and Australian Standards for the most hazardous and demanding of environments. Engineered to withstand cyclonic conditions and meet the strictest of safety and reliability standards, the **8 Series** deliver performance and peace-of-mind to both building designers, occupants and owners.

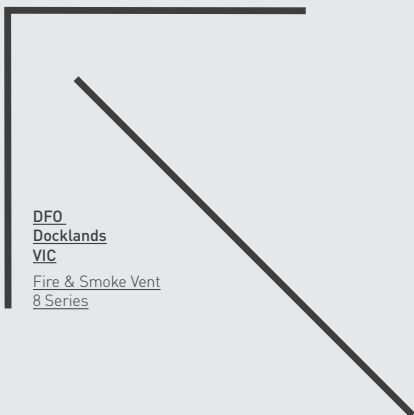


8 Series > Fire & Smoke Vent

Delivering high levels of air flow efficiency and effectiveness, 8 Series allows you to get the most out of your design and ensure reliability in your smoke hazard management approach.



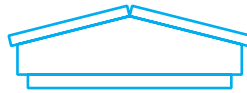
- WAREHOUSING + STORAGE
- INDUSTRIAL WORKSHOPS
- SCHOOLS + EDUCATION FACILITIES
- HALLS, GYMNASIUMS + INDOOR POOLS
- DEFENCE + GOVERNMENT BUILDINGS
- ELECTRICITY SUBSTATIONS + WATER PUMP HOUSES



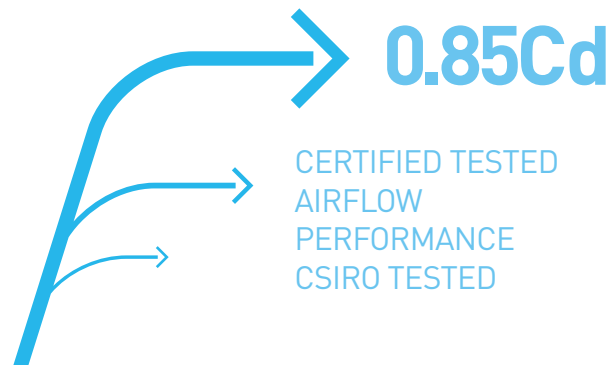
DFO
Docklands
VIC
Fire & Smoke Vent
8 Series

8S

FIRE & SMOKE VENT DESIGN



Designed and fabricated in Australia to stringent Australian Standards, the 8 Series is engineered to deliver high levels of air flow efficiency.



Fire & Smoke Performance

Clever design and engineering results in the 8 Series providing maximum performance in removal of dangerous fire gases. Coefficient of Discharge figures of 0.85 deliver high levels of air flow efficiency and effectiveness allowing you to get the most out of your design and ensure reliability in your smoke hazard management approach.

Features

The **8 Series** has a range of unique features that ensure reliability in smoke hazard management.

Functionality

We understand that complete control over your system is important. With the option of pneumatic, electric or manual operation, and a range of timing, smoke and weather sensors, we have developed a fully functional solution that can be tailored to your building. Need a delay between an alarm and the vents opening to minimise false alarms? Want to open the vents manually to let natural light in and close again in rain? The control of every system is up to you.

Reliability

The worst outcome for a smoke exhaust system during a fire is to not operate. The **8 Series** incorporates 3 fail safe points of activation to ensure smoke is reliably exhausted from your building. Automatic opening through FIP, BMS or Smoke Detector signalling, a 71°C fusible link, and manual latch override ensures that your vent system is guaranteed to open.

Sustainability

Improve the environmental and financial performance of your building by going natural. With the ability to remove costly mechanical fans, building designers and occupants are able to reduce electricity use and costs as well as reduce maintenance and servicing expenditure. The chance to improve their environmental and financial bottom line has seen the **8 Series** become a popular choice with new buildings as well as building refurbishments.

Workmanship


Designed and manufactured in Australia using Australian materials, the **8 Series** is manufactured under strict quality control processes to ensure engineering integrity. Workshop drawings, documentation and technical support are available throughout the system design and installation process.

Inlet/Makeup Air

Due to the need for makeup air, adequate inlets are essential for any ventilation system to operate effectively. While it is recommended an inlet ratio of 1.5 : 1 (inlet : discharge) exist, Airocle can assist in designing or developing a ventilation system to suit custom circumstances.

Sizes and Dimensions

Designed for community and small industrial smoke and fire venting, the 8 Series provides high levels of airflow in an economical way. The wide range of sizes allow architects and engineers flexibility in incorporating the vents into building design while ensuring that occupants of schools, halls, theatres, cinemas and shopping centres are provided with adequate smoke relief in emergency situations.

MODEL 	INTERNAL OPENING (mm)		EXTERNAL SIZE (mm)			FREE OPEN AREA (m ²)	EFFECTIVE AERODYNAMIC AREA (m ²)	ACTUATOR OPTIONS		LID
	WIDTH	LENGTH	WIDTH	LENGTH	HEIGHT			PNEUMATIC	ELECTRIC	
8FV-0912	1200	900	1410	1000	225	1.08	0.92	✓	✓	SINGLE
8FV-0918	1800	900	2010	1000	310	1.62	1.38	✓	✓	DOUBLE
8FV-0924	2400	900	2610	1000	310	2.16	1.84	✓	✓	DOUBLE
8FV-0930	3000	900	3210	1000	310	2.70	2.30	✓	✓	DOUBLE
8FV-1212	1200	1200	1410	1300	225	1.44	1.22	✓	✓	SINGLE
8FV-1218	1800	1200	2010	1300	310	2.16	1.84	✓	✓	DOUBLE
8FV-1224	2400	1200	2610	1300	310	2.88	2.45	✓	✓	DOUBLE
8FV-1230	3000	1200	3210	1300	310	3.60	3.06	✓	✓	DOUBLE
8FV-1512	1200	1500	1410	1600	225	1.80	1.53	✓	✓	DOUBLE
8FV-1518	1800	1500	2010	1600	310	2.70	2.30	✓	✓	DOUBLE
8FV-1524	2400	1500	2610	1600	310	3.60	3.06	✓	✓	DOUBLE
8FV-1530	3000	1500	2610	1600	310	3.60	3.06	✓	✓	DOUBLE
8FV-1812	1200	1800	1410	1900	310	2.16	1.83	✓	✓	DOUBLE
8FV-1818	1800	1800	2010	1900	310	3.24	2.75	✓	✓	DOUBLE
8FV-1824	2400	1800	2610	1900	310	4.32	3.67	✓	✓	DOUBLE
8FV-1830	3000	1800	3210	1900	310	5.40	4.59	✓	✓	DOUBLE

*Inlet/Makeup Air

Due to the need for makeup air, adequate inlets are essential for any ventilation system to operate effectively. While it is recommended an inlet ratio of 1.5 : 1 (inlet : discharge) exist, Airocle can assist in designing or developing a ventilation system to suit custom circumstances.

Applications

Aircraft hangars, warehousing, large public spaces, processing plants and infrastructure projects make the 8 Series the ideal method of exhausting large smoke compartments quickly. With an impressive coefficient of discharge of 0.85, large free open areas, and ability to incorporate polycarbonate lids for natural lighting, the 8 Series provides building designers and occupants high levels of amenity while guarding against serious emergency fire and smoke events.



Options

The **8 Series** has a range of options to assist in specialised circumstances.

Acoustic Insulation

For projects that require increased acoustic insulation such as performance stages, theatres, cinemas, halls, libraries and research buildings, all units are able to be fitted with increased acoustic insulation within the door and walls of each unit to meet a Sound Transmission Class (STC) of 17. We ensure that noise transmission into and out of your building is minimal.

Note: For NATA Accredited testing data contact Airocle.

Thermal Insulation

All **8 Series** models are provided with thermally insulated lids which utilise non-flammable mineral rockwool acoustic insulation to meet most existing roof insulation standards for typical building use.

For projects requiring increased thermal insulation, our unique internal frame design found in every **8 Series** model allows building designers to incorporate increased thermal insulation. Ring our design staff on 1800 805 062 to discuss how the **8 Series** can benefit your project.

Air Sensors and Controls

All **8 Series** models can be linked to a range of smoke, fire, temperature or air quality sensors to ensure that your ventilation system is responsive to your specific demands. Our purpose-designed control panel allow your vents to link with Fire Indicator Panels (FIPs) and Building Management Systems (BMS) and gives you complete control over your system.

Security Mesh

The high value and sensitive nature of buildings requiring smoke and fire relief venting means that security can be essential. The nature of many of these buildings makes them the target of vandals and intruders. With the use of tamper-proof screws along with specifically engineered frames and mesh, this option ensures that your building remains secure even under the heaviest of attacks.

Typical Installation

The 8 Series are delivered to site fully assembled and ready for hoisting to the roof. Installation must ensure that the centre gutter is aligned down the roof to ensure effective drainage.



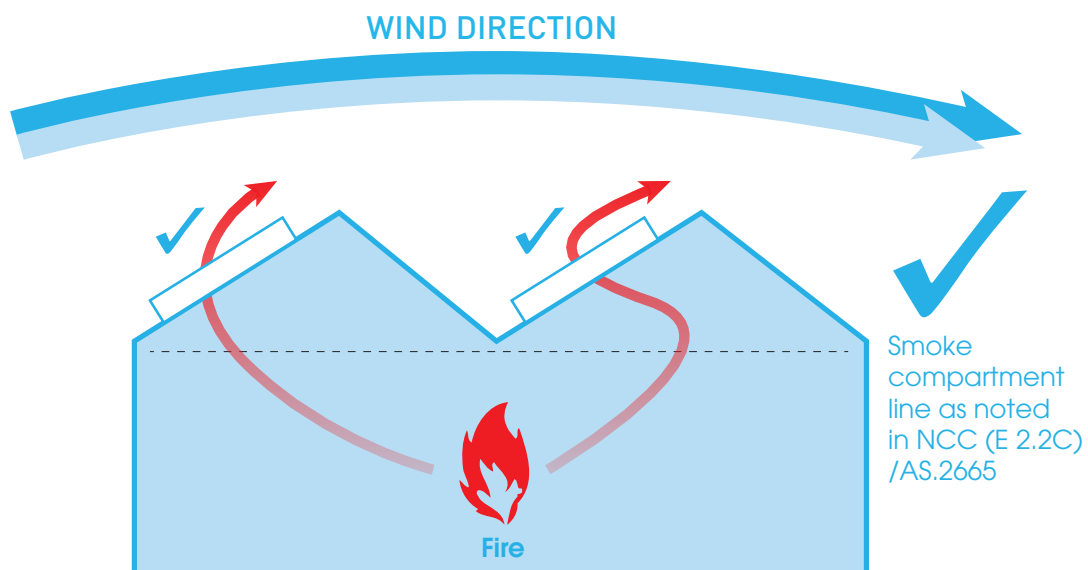
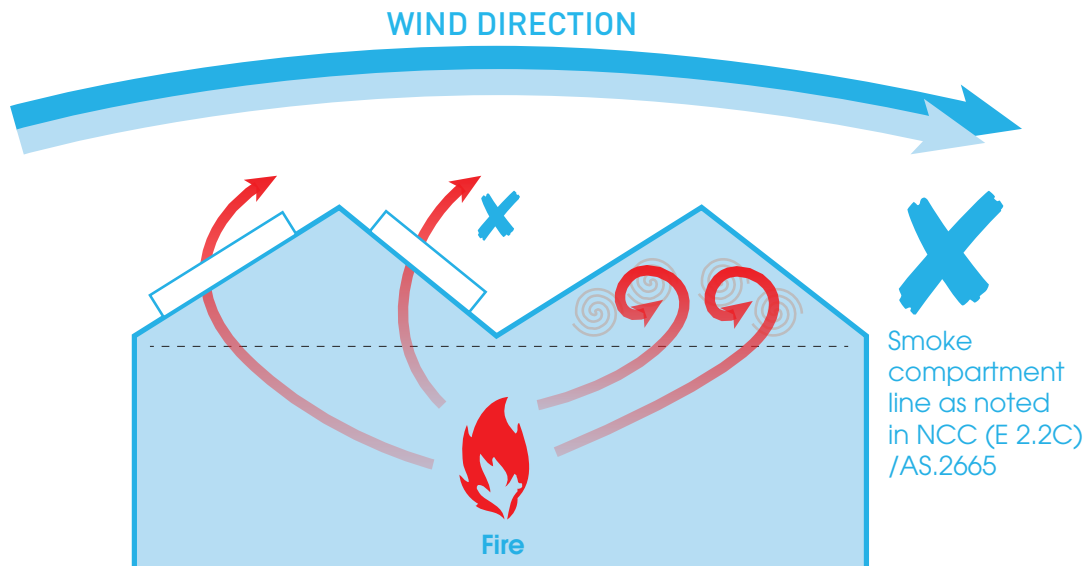
Installing on Roofs

The building contractor must ensure that the vent is fitted appropriately to the roof structure and that any internal structural supports do not impede the flow path through the vent and that all vent doors are able to freely move such that they can fully open and close under normal operating conditions.

Installation details are available from Airocle on request. Please contact us on 1800 805 062 as we are more than willing to help.

Determining Vent Location

The most favourable location for smoke venting and fire relief is close to where anticipated incidents may occur and towards the highest point in that immediate area. When designing a smoke hazard management system which incorporates passive ventilation, ensure the appropriate design of potential smoke compartments to minimise airflow barriers and the build up or stagnation of smoke and other airborne contaminants.





The 8 Series allows you to get the most out of your design and ensure reliability in your smoke hazard management approach.

Materials & Finishing

We have ability to suit every application including corrosive or volatile environments by fabricating the **8 Series** in a range of materials and finishes including:

- Colorbond®
- Colorbond® Ultra
- Zinalume®
- Aluminium
- Stainless steel

Our manufacturing process also allows us to colour match custom colours as well as provide all Colorbond®, Colorbond® Metallic and Dulux® colour finishes. All units are available with Matt Black internal as standard although this can be changed to meet specifications.

The **8 Series** is available in completely assembled units ready for installation.

How to Specify

Description

Smoke relief ventilator(s) shall be a strut actuated openable door design incorporating bi-directional and fail safe operation. Design shall include all applicable actuators, thermal release links, manual release links, fixings, trims, flashings and other specified fittings. Install to manufacturers recommendations.

Performance

Smoke relief ventilator(s) shall be designed to open upon the release of a 71°C fusible link or via manual or signalled release.

Smoke relief ventilator(s) shall be electrically/pneumatically/manually actuated and controlled via FIP/BMS/Smoke Detector. Ventilators shall also be linked to two (2) emergency break glass switches.

Smoke relief ventilator(s) shall have a Coefficient of Discharge of ≥ 0.85 to ensure engineered ventilation design requirements for the space are met.

Size

Smoke relief Ventilator(s) to have an internal size of _____ mm long x _____ mm wide with a throat area of _____ m² based on performance requirements as above.

Proprietary Item

8 Series Model _____ as manufactured by Airocle (www.airocle.com.au)

Features

Ventilator shall incorporate:

- Internal acoustic insulation with a sound transmission class (STC) of 17. Advanced acoustic performance is available on request.
- Internal thermal insulation for reduced heat transmission
- Security Mesh in 0.9mm 304 grade stainless steel with tamper resistant screws and frame with $\geq 61\%$ FOA

Fabrication and Finish

Ventilator to be constructed in Zinalume®/Colorbond®/Aluminium/Stainless Steel/Copper with Colour to match adjacent roof sheeting unless specified. Refer to External Finishes Schedule

Disclaimer

The information contained in this work has been provided with every effort having been made to ensure accuracy and completeness. However, many of the statements contained in the catalogue are of a general nature and no guarantee is given, nor responsibility taken by Airocle for errors or omissions and Airocle does not accept responsibility in respect of any information or advice given in relation to or as a consequence of anything contained herein. Purchasers should seek their own independent advice as to the suitability of the products and materials contained in the catalogue for their particular circumstances. As Airocle are committed to ongoing product development, all dimensions, designs, specifications, descriptions, text results and exhaust capacities represented in this catalogue are subject to change without prior written notice.



Australian owned, Airocle provides customers with a comprehensive and balanced portfolio of innovative natural ventilation solutions for sustainable commercial, industrial and community building design.

Think Natural. Think Smarter.

To find out more visit our website
Airocle.com.au or call **1800 805 062.**



KNOWLEDGE BANK
INSPIRE + EDUCATE

The Airocle Knowledge Bank is an online resource centre designed to inspire and educate you and your clients on the benefits of natural ventilation. To find out more visit Airocle.com.au



AUSTRALIAN
OWNED + MADE

IVR GROUP TRADING AS AIROCLE