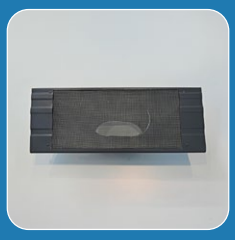
All Metal

Ventilation Systems



The Professional **Metal Contractors Choice**

Contents

Ventilation Systems

Ventilation is a key factor in maintaining a comfortable indoor climate year-round. Proper ventilation ensures fresh air circulation and moisture control, preventing issues like mould and condensation.

Upgrading or adding ventilation systems during your projects can help enhance air quality and energy efficiency.

- ✓ **Improved Comfort:** Keeps your home warmer in winter and cooler in summer by maintaining a stable indoor temperature.
- ✓ **Energy Efficiency:** Reduces the need for heating and cooling, lowering energy bills and carbon footprint.
- ✓ **Improved Air Quality:** Reduces indoor pollutants, allergens, and excess moisture, leading to a healthier living environment.
- ✓ **Moisture Control:** Prevents mould, mildew, and condensation issues by ensuring proper airflow and humidity regulation.

Summary

National Construction Code (NCC) 2022 Requirements

The introduction of NCC 2022 has changed the way houses are built in terms of ventilation.

The new Code has two applicable sections:

- Housing Provisions Standard 2022 Section 10.8.2 Exhaust System Ventilation (Stale Air)
- Housing Provisions Standard 2022 Section 10.8.3 Passive Roof Ventilation System (Fresh Air)

Exhaust Systems Overview 10.8.2 (Stale Air)

Exhaust fans, rangehoods, and vented clothes dryers are required to be vented externally to the outside air.

- All venting locations have advantages and disadvantages.
- Most homes have multiple appliances requiring external ventilation and a combination will likely be required.

Passive Roof Ventilation System 10.8.3 (Fresh Air)

Depending on the Climate Zone, 6, 7 & 8 require additional venting at the eave and high-level venting at the ridge.

- Cooler air is drawn up through the eave venting as warmer air is expelled at the higher level on the roof.
- To calculate venting requirements, you need to determine which type of roof, the horizontal roof length, the roof pitch, and open area of the vents being used.

Exhaust System Examples

FasciaFlo

Low Profile Roof Vents

Brick and Wall Vents

Roof Vents / Cowls

Roof space ventilation requirements summary guide

Roof Pitch	Ventilation Openings
< 10°	25,000mm²/m provided at each of two opposing ends
≥ 10° and < 15°	≥ 10° and < 15° 25,000mm²/m provided at the eaves and 5,000mm²/m at high level
≥ 15° and < 75°	7,000mm²/m provided at the eaves and 5,000mm²/m at hight level, plus an additional 18,000mm²/m at the eaves if the roof has a cathedral ceiling

Note:

1. Ventilation openings are specified as a minimum free open area per metre length of the longest horizontal dimension of the roof.
2. The most common roof constructed is 22.5 degrees to 26 degrees.

Maestro BAL Roof Ventilator

The Maestro BAL Ventilator is a powerful, mechanically driven ventilator that continuously and reliably improves the comfort and health of your home all year round.

The high-quality aluminium-based ventilator is preset to a continuous fixed speed and offers four additional speed settings (automatic, low, medium and high) to manage excess heat and dampness in the roof space.

Features

Fire rating up to BAL-40 (AS3959-2018).

Maximum flow rate of 880m3/hr.

Multiple fixed and variable speed options.

High efficiency 24V DC motor.

Aluminium construction in 21 colours.

Two-year warranty on the body & motor, one-year on the power pack & speed controller.

Benefits

- ✓ **Bradford Air iQ smart box automatically detects and responds to heat and humidity.**
- ✓ **Ideal for homes in bushfire rated areas.**
- ✓ **Effective ventilation in most climates.**
- ✓ **Complements most metal or tile roofs.**

Alpine Roof Ventilator

The Alpine Roof Ventilator has an aerodynamic design to resist rain and wind. The curved, overhanging top protects from wind and rain penetration, along with internal deflector which protects from water entering the circular opening in the base.

Its pliable aluminium base installs like a rotary vent, making this ventilator easier and faster to install than traditional cowl, pipe and flashing.

Features

Wind loading AS/NZS 4740 compliant.

Fire rating up to BAL-40 (AS3959-2018).

Coloured finishes powder coated with UV stabilised materials.

Standard four colour range: Monument, Shale Grey, Surfmist, Night Sky.

Additional COLORBOND® colours available with three-day lead time & small extra cost.

Benefits

- ✓ **Unobtrusive low-profile design.**
- ✓ **Hidden tile installation strap for high wind protection.**
- ✓ **Duct adapter twist locks into base for easy attachment.**
- ✓ **Stainless steel and aluminium construction for maximum durability and longevity.**
- ✓ **Versatile base compatible with tiled and metal roofs.**
- ✓ **Multi-purpose design compatible with ducting to vents, fans and rangehoods or to vent out roof space.**
- ✓ **Static design means no noise, damage or maintenance.**

Aluminium Mushroom Cowl Vents and Galvanised Steel Pipes

Mushroom Cowls are a popular all round roof vent. They are ideal for venting out exhaust fans and rangehoods.

These cowls are used in conjunction with a length of galvanised pipe and an appropriate roof flashing for a metal or tiled roof. The cowl is usually riveted or attached to the galvanised steel pipe with an adhesive.

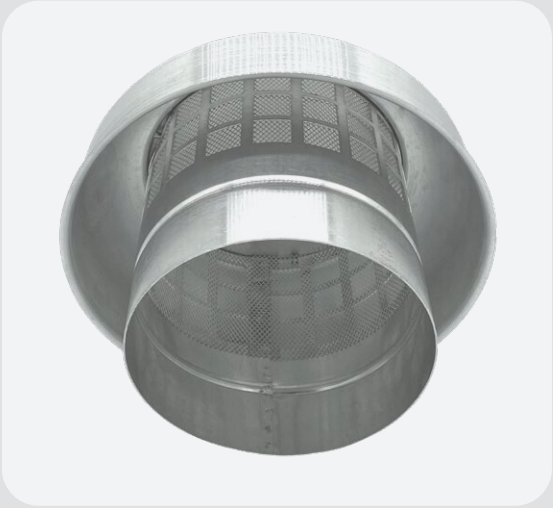
Features: Cowl

Contemporary design in full aluminium construction.

Fire rating up to BAL-40 (AS3959-2009).

Easy affixion to steel pipes with silicone, glue or rivets.

Available in two sizes: 150mm and 200mm.



Benefits: Cowl

- ✓ **Slip over cowl prevents rainwater drippage.**
- ✓ **Stainless steel mesh for protection against insects or rodents.**
- ✓ **Domed cowl provides maximum protection against weather and wildlife.**
- ✓ **Rust-proof aluminium construction.**

Features & Benefits: Galvanised Steel Pipes

- ✓ **Available in 600mm lengths.**
- ✓ **Crimped male end attaches to ducting.**
- ✓ **Joinable male and female ends.**
- ✓ **Pipe supplied with a clip seam for a secure, air-tight fit.**

Bradford WindMaster Ventilators

The WindMaster is a wind driven turbine ventilator, designed to exhaust heat & moisture from the roof space of a home without the use of electrical energy.

The high-quality ventilator combines modern design with high tech features for guaranteed long lasting performance. Constructed from lightweight aluminium, it comes with a 15-year warranty for long-lasting peace of mind and comfort in your home.

Features

Aluminium shaft, variable pitch and flashing.

300mm throat.

Stainless steel ball bearings.

Total weight: 1.9 kg.

Wind speed rating: 205.2 km/h.

Fire rating up to BAL-29 (AS3959-2009).

Benefits

- ✓ **Turns in light winds.**
- ✓ **Removes heat load in warm months and reduces condensation in cool months.**
- ✓ **Improved air quality.**
- ✓ **Ideal for residential buildings.**
- ✓ **Available in 24 colours.**

Bradford SupaVent Ventilators

Bradford SupaVent Ventilators are wind driven, roof mounted, quality polymer-based ventilators used to exhaust heat & moisture from the roof space of a home without the use of electrical energy.

Constructed from lightweight, high-quality polymer, it comes with a 15-year warranty for long-lasting peace of mind and comfort in your home.

Features

ASA plastic head and polycarbonate support ring.

Aluminium shaft, variable pitch and flashing.

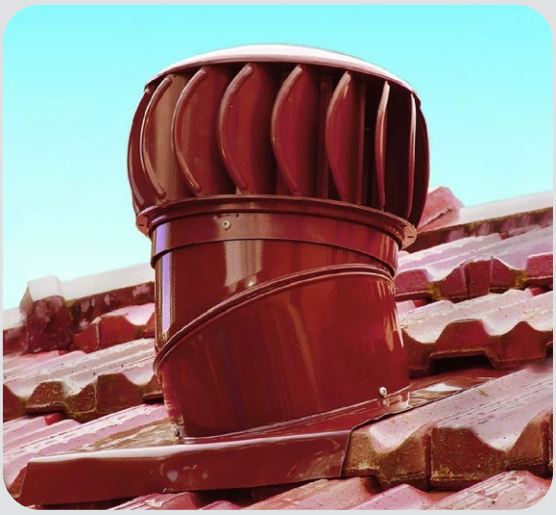
250mm throat.

Stainless steel ball bearings.

Total weight: 1.9 kg.

Wind speed rating: 205.2 km/h.

Designed for coastal areas.



Benefits

- ✓ **Removal of heat and moisture in roof spaces.**
- ✓ **Suitable for metal and tiled roofs in 14 roof colours.**
- ✓ **Appropriate for residential, commercial and public buildings.**
- ✓ **Ideal for areas with direct contact with sea spray.**

Roof Ducting Kits

Roof ducting kits are an effective and easy way to vent an exhaust fan or rangehood via the roof. These premium kits include all components required more most installations.

Features

- For venting rangehoods and exhaust fans via the roof.
- Fire rating up to BAL-12.5 (AS3959-2009).
- Contemporary BAL-40 cowl.
- 150mm ducting converts to 125mm applications with an adapter (if required).
- Contains all the components to suit most installations.
- Ducting complies with AS/NZS 4254.1 and 1668.
- Ideal for use with rotary roof vents for air intake or for 2022 NCC Condensation Management provisions under 10.8.3.

Benefits

- ✓ **Cools the roof space in summer.**
- ✓ **Prevents dampness and mould in winter.**
- ✓ **Small holes designed to prevent pests and insects entering the roof cavity.**
- ✓ **Works as effectively as mesh.**

Alpine Flexible Foil Ducting 3M

Alpine Flexible Foil Ducting is an uninsulated flexible solution. Used for general purpose ducting across venting rangehoods, dryers, exhaust fans or for sub floor ventilation.

This ducting is constructed with aluminium foil layers supported by a cylindrical steel wire which supports the shape of the ducting. It can be secured with worm clamps, duct tape or both. This flexible foil ducting is also robust and is easier to use than semi-rigid or rigid ducting.

Features

- Multi layered uninsulated foil construction.
- Compliant with and tested to AS4254.1.
- AS1668.1 compliant.
- 4-zero fire rated to AS1530.3.
- 3m in length with a 150mm and 200mm internal diameter.

Benefits

- ✓ **Ensures compliance with Australian Building Codes.**
- ✓ **Ensures Airflow Optimisation.**
- ✓ **An efficient and durable ventilation solution.**
- ✓ **Flexibility in usage, being suitable for both residential and commercial applications.**

EaveFlo™

EaveFlo™ is a coordinated ventilation system designed for all roof pitches and gutter designs, ensuring optimal airflow and compliance with Australian building standards. Proudly manufactured in Australia from 5005 H34 0.6mm aluminium sheet, EaveFlo™ provides durable and efficient roof ventilation for all metal roofs.

EaveFlo™ is designed to meet NCC 2022 Section 10.8.3 requirements for low-level roof ventilation in climate zones 6, 7, and 8. It ensures effective airflow in metal roofs with evenly distributed openings, meeting compliance for various roof pitches.

Each model provides a specific free open area (mm^2/m) based on ventilation needs and roof design. Note: For cathedral ceilings, additional eave ventilation of 18,000 mm^2/m is required.

Features

EaveFlo™ EG7000 & BF7000

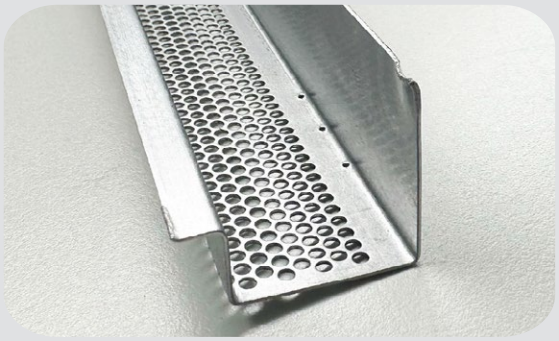
Suitable for roof pitches of 15°–75°.

Provides a free open area of 10,047 mm^2/m.

EaveFlo™ BG25000 & SBP25000

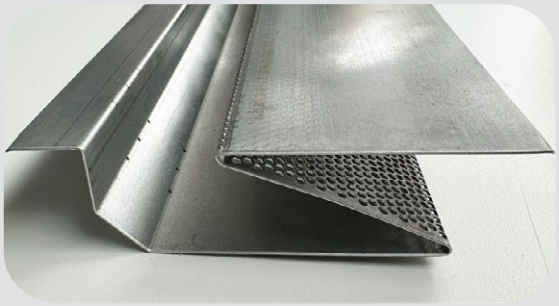
Designed for roof pitches below 15°.

Provides a free open area of 30,140 mm^2/m.



Benefits

- ✓ **EaveFlo™ enhances roof ventilation efficiency.**
- ✓ **Ensures compliance with Australian building standards, BAL compliance.**
- ✓ **Made in Australia by All Metal.**

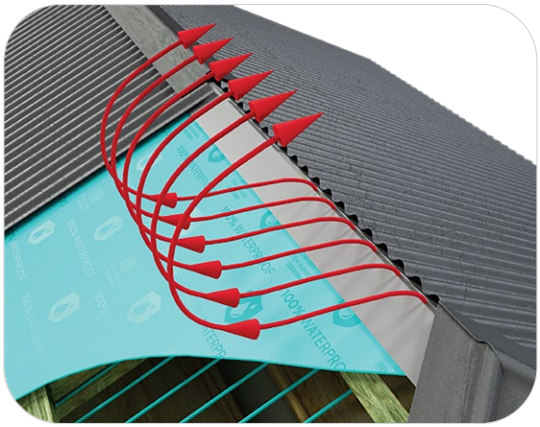


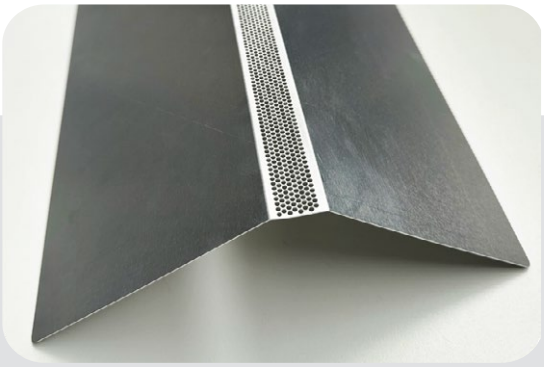
RidgeFlo™

RidgeFlo™ is a coordinated ventilation system designed for all roof pitches and gutter designs, ensuring optimal airflow and compliance with Australian building standards. Proudly manufactured in Australia from 5005 H34 0.6mm aluminium sheet, RidgeFlo™ provides durable and efficient roof ventilation for all metal roofs.

RidgeFlo™ products meet the NCC 2022 Section 10.8.3 requirements for ventilating roof spaces in climate zones 6, 7, and 8. Designed to optimise airflow, they provide compliance for both high-level and low-level ventilation, ensuring effective air circulation for metal roofs.

Each RidgeFlo™ product is engineered to meet the specified free open area (mm^2/m) requirements based on roof pitch and ventilation needs. Additionally, all models comply with AS4200.2:2017, Section 3.3.1 (f), allowing membrane termination at the ventilation point when a specifically designed ridge vent is installed.





Features

RidgeFlo™ RC5000

Suitable for roof pitches of 0°–75°.

Provides a high-level free open area of 10,047 mm^2/m.

Positioned below ridge capping at the truss apex.

RidgeFlo™ C05000

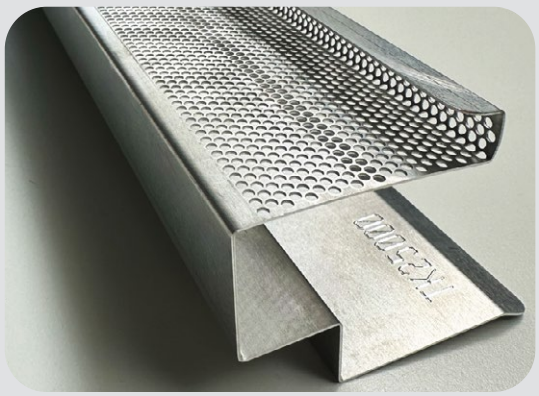
Suitable for roof pitches of 10°–75°.

Provides a high-level free open area of 5,024 mm^2/m.

RidgeFlo™ TK25000

Designed for roof pitches below 1°–10°.

Provides a low-level free open area of 30,140 mm^2/m.



Benefits

- ✓ **Ensure compliance with Australia Building Codes.**
- ✓ **Enhances roof ventilation efficiency.**
- ✓ **Made in Australia by All Metal.**

FasciaFlo®

Discreet, Compliant and Australian-Made Ventilation

FasciaFlo® is an innovative fascia ventilation solution designed to eliminate unsightly roof vents while ensuring compliance with NCC 2022 Section 10.8.2 (Exhaust Systems). Engineered for domestic dwellings with or without eaves, it provides an efficient and visually appealing alternative for venting extraction fans. Proudly made in Australia, FasciaFlo® is BAL-rated up to BAL-40 and seamlessly integrates with all roof types.

DUCT CHAMBER

COVER PLATE

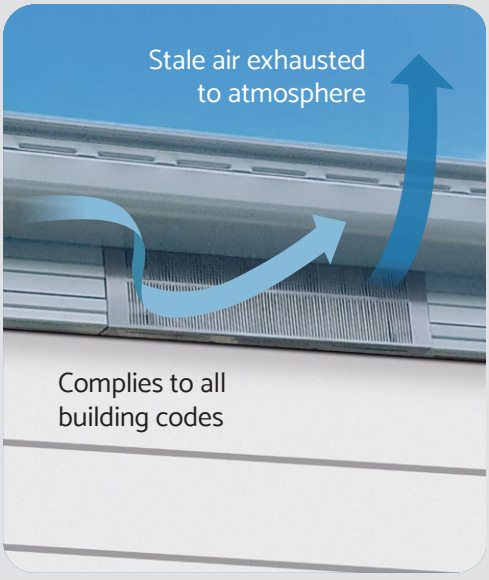
Benefits

- ✓ **Enhanced Visual Appeal** – Eliminates exposed roof vents, with colour-matched cover plates that blend seamlessly with the fascia.
- ✓ **Reliable & Leak-Free Design** – Reduces the risk of roof leaks by eliminating unnecessary roof penetrations.
- ✓ **Simplified Installation** – Installed by fascia and gutter fitters, requiring fewer fixings than traditional roof vents.
- ✓ **Efficient Ducting** – Allows for shorter, more effective duct runs, reducing the need for excessive flexible ducting.
- ✓ **Versatile Compatibility** – Suitable for homes with or without eaves and compatible with all roof types.
- ✓ **BAL Compliant** – Rated up to BAL-40, featuring a stainless-steel mesh that meets AS3959:2018 bushfire requirements.

How It Works

FasciaFlo® consists of two key components:

- **Duct Chamber**
  Installed within the fascia profile, providing a secure connection point for the exhaust fan's flexible duct.
- **Vent Cover Plate**
  Mounted to the outer fascia for a seamless, colour-coordinated finish.

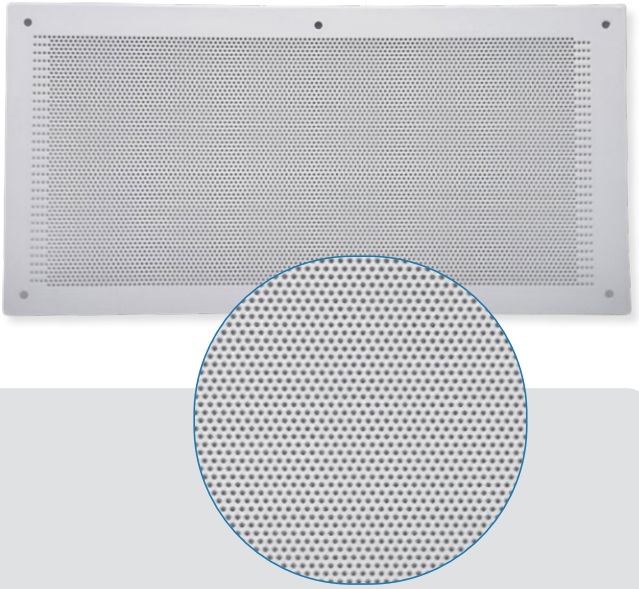


Colour Range

- **Duct Chamber**
  Powder-coated in Monument.
- **Cover Plate**
  Available in all Standard COLORBOND® colours.

Powder Coated Eave Vent: MEV2040W

- All houses that fall under 10.8.3 require a level of venting at the eaves.
- The Alpine MEV2040W provides an elegant solution to this requirement.



Features

Compliant with fire rating requirements of AS3959-209 up to BAL-40.

Ideal for use with rotary roof vents for air intake or for 2022 NCC Condensation Management provisions under 10.8.3.

White matte finish powder coated thick steel construction (0.9mm) 2 per pack.

Each vent has an open area of approx. 21,000 mm2.

Size: 200 x 400mm.

Benefits

- ✓ **Cools the roof space in summer.**
- ✓ **Prevents dampness and mould in winter.**
- ✓ **The small holes prevent pests and insects entering the roof cavity and work as effectively as a mesh.**

Note:
Does not include fixings – 15mm x 8g button head screws (6 per vent) are required.

The Professional
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With a stunning new choice of metal architectural products, All Metal (Australia) is a leading manufacturer of architectural panels, guttering, custom flashings and tradework in a range of metals such as COLORBOND® steel, ZINCALUME® steel, VM Zinc, Unicote LUX, stainless steel, PREFA aluminium and copper. We also distribute a wide range of roll form products and accessories to numerous industries. We hold up to 250 tonnes of coil at any time across our seven manufacturing facilities in Sydney, Wollongong, Central Coast and Newcastle.

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