Bradford™

Product Technical Statement

SupaVent™ Wind Driven Turbine Ventilator

Refer to product table below for applicable product codes covered by this document

Issue **G**

Product Type & Application

The Bradford Ventilation SupaVent is a wind driven turbine ventilator designed to exhaust heat and moisture from the roof space, without the use of electrical energy.

Compliance with the NCC

When correctly specified and installed this natural roof ventilator:

NCC2022

- **Ventilation of Roof Spaces** - Meets the requirements of NCC2022 Volume 1 F8D5 and ABCB Housing Provisions Standard 2022 10.8.3 as a Deemed to Satisfy solution for condensation management for NCC Climate Zones 6, 7 and 8.
- **Weatherproofing** - Meets the requirements of the NCC 2022 Volume 2 Weatherproofing Performance Requirement H2P2 via Deemed-to-Satisfy (DtS) and performance solution pathways.

NCC2019

- **Ventilation of Roof Spaces** - Meets the requirements of the NCC2019 Volume 1 Amend.1 F6.4 and NCC 2019 Volume 2 Amend.1 3.8.7.4 as a Deemed-To-Satisfy solution.
- **Weatherproofing** - Meets the requirements of the NCC 2019 Volume 2 Amend. 1 Weatherproofing Performance Requirement P2.2.2 via Deemed-to-Satisfy (DtS) and performance solution pathways.

Evidence of Suitability

- Ventilation of roof spaces - Bradford Ventilation DTS Solution Calculation.
- Weatherproofing - Arcadis Report 30051677_4.

Conditions of Storage, Use & Maintenance

- Store in the original packaging in a cool and dry area.
- Do not attempt to repair – contact Bradford Ventilation for service advice.

Refer to the product warranty at bradfordventilation.com.au for more information.

Limitations of Use

- **IMPORTANT** - Do Not Modify This Product: Compliance with the evidence of suitability data referenced in this document is only achieved by the product or configuration listed in this PTS.
- This product has not been tested for use in cyclonic wind regions C or D.
- Do not use for exhausting hazardous, abrasive, acidic and alkaline vapour or areas containing explosive or corrosive materials.
- This product is not suitable for use on Bush Fire BAL-12.5 to BAL-40 or FZ related areas.

Specific Design or Installation Instructions

- Isolate power before installation.
- This product requires specific areas to be sealed against water entry and other areas to be left unsealed to allow internal condensation drainage – refer to the installation guide for details.
- Installation must be accordance with the Bradford Ventilation Residential Turbine Ventilator Installation Instruction.
- The rotating head of this product must be installed horizontally to ensure correct operation.
- Refer to the table below for recommended ventilation levels. Note that there are differences between NCC 2019 and NCC 2022.

For general installation guidance refer to the product installation guide at www.bradfordventilation.com.au

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Specific Design or Installation Instructions cont.

NCC2022 Ventilation of Roof Spaces Deemed-To-Satisfy Solution Requirements Calculation in Table 1:

The table below indicates the ventilation opening requirements for condensation management in NCC Climate Zones 6, 7 and 8. The NCC gives and open area requirement per meter length of the longest horizontal dimension (e.g., the longest length of gutter) of the roof, the table indicates how many products are required based on this. Ventilation openings should be evenly distributed.

SupaVent ventilators should be installed not more than 900mm below the ridge or highest point of the roof space, measured vertically.

Table 1. NCC 2022 Bradford Deemed-To-Satisfy Solution

Products	SupaVent Roof Ventilator Requirement	Bradford Metal Eave Vent Requirement	Bradford Poly Eave Vent Requirement
Roof Pitch			
<10°		Install 1 Metal Eave Vent for every **0.7m** of the longest horizontal roof length. These must be equally divided between the two opposing ends of the roof.	Install 1 Poly Eave Vent for every **0.4m** of the longest horizontal roof length. These must be equally divided between the two opposing ends of the roof.
≥10° and <15°	1 SupaVent for every **9.2m** of the longest horizontal roof length.	1 Metal Eave Vent for every **1.4m** of the longest horizontal roof length.	1 Poly Eave Vent for every **0.9m** of the longest horizontal roof length.
≥15° and <75°	1 SupaVent for every **9.2m** of the longest horizontal roof length.	1 Metal Eave Vent for every **5.0m** of the longest horizontal roof length.	1 Poly Eave Vent for every **3.3m** of the longest horizontal roof length.
≥15° and <75° Cathedral	1 SupaVent for every **9.2m** of the longest horizontal roof length.	1 Metal Eave Vent for every **1.4m** of the longest horizontal roof length.	1 Poly Eave Vent for every **0.9m** of the longest horizontal roof length.

IMPORTANT APPLICATION NOTE: The number of vents required should be rounded up, not down, to ensure that the ventilation provided meets or exceeds the recommended requirement. For example, the ventilation requirement for a 10° pitched roof 20m long in the longest horizontal direction is calculated as follows:

- The ventilator requirement (1 per 9.2m) is calculated as follows: 20m divided by the recommended SupaVent spacing of 9.2m = 20/9.2 = 2.2 vents which should be rounded up to 3 SupaVents, to be evenly distributed along the roof.
- The metal eave vent requirement (1 per 1.4m) is calculated as follows: 20m divided by the recommended metal eave vent spacing of 1.4m = 20/1.4 = 14.2 eave vents which should be rounded up to 16 metal eave vents, evenly distributed around the roof.

NCC2019 Ventilation of Roof Spaces Deemed-To-Satisfy Solution Requirements Calculation in Table 2:
The table below indicates the ventilation opening requirements for condensation management in all NCC Climate Zones when kitchen, bathroom, sanitary compartment or laundry exhaust systems are discharging into the roof space.

- Calculate the area (m²) of ceiling directly under the roof space;
- Determine the pitch of the roof;
- Look up the recommended number of SupaVent and Bradford Metal Eave vents in the Deemed-To-Satisfy Solution Table below;
- Distribute the SupaVent(s) and Bradford Metal Eave Vents evenly.

Table 2. NCC 2019 Bradford Deemed-To-Satisfy Solution

Roof Pitch	Total Ceiling Area (m²)	Number of SupaVents required	Bradford Metal Eave Vents required	Bradford Poly Eave Vents required
> 22°	46	1	4	5
	92	2	7	10
	138	3	10	14
	184	4	13	19
	231	5	16	23
	277	6	19	28
	323	7	22	32

Total Ceiling Area is defined as the total ceiling area directly under the roof/attic space.
Where the roof pitch is ≤ 22°, the number of ventilators and eave vents specified must be doubled for the same ceiling area.

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Applicable Product Codes (SKU)

BASALT 136911	WOODLAND GREY 61174	SURFMIST 61168	COTTAGE GREEN 61173	DEEP OCEAN 61179	DUNE 61176
HEADLAND 61170	IRONSTONE 61182	JASPER 61180	MANOR RED 61171	MONUMENT 105182	NIGHTSKY 61169
PALE EUCALYPT 61172	PAPERBARK 61175	SHALE GREY 61177			

Product Specifications

General		Material	
Ventilator Type	Wind Driven Natural Ventilator	**Turbine**	ASA Plastic
Turbine Diameter	327.5 mm	**Varipitch**	Aluminium
Varipitch Diameter	255.5 mm	**Flashing**	Aluminium
Minimum Open Area	46215 mm^2	**Shaft**	Aluminium
Product Weight	2.6 kg	**Bearings**	Twin Stainless-Steel Bearings
Roof Pitch	**Tiled Roofs** 15° to 45° **Metal Sheet Roofs** 3° to 45° Note: Where applicable all roof pitches must comply to AS1562.1, the NCC & Australian Standards		

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Product Dimensions (in mm)