

WindMaster™ DTC Natural Roof Ventilator

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

Issue **G**

Product Type & Application

The Bradford Ventilation WindMaster DTC is a wind driven natural ventilator designed to exhaust heat & moisture from the roof space, without the use of electrical energy. The product is Deemed to Comply (DTC) for residential properties in wind region C in the Northern Territory only, and is listed in the Northern Territory Building Advisory Committee Deemed to Comply Manual.

Compliance with the NCC

For use in Australia, when correctly specified and installed, this product provides the following compliance:

NCC 2022

- **Ventilation of Roof Spaces** - Meets the requirements of NCC2022 Volume 1 Amend. 2 F8D5 and ABCB Housing Provisions Standard 2022 Amend. 2 10.8.3 as a Deemed to Satisfy solution for condensation management for NCC Climate Zones 6, 7 and 8.
- **Structural Resistance for High Wind Areas** - Meets the NT Deemed to Comply Manual requirements as referenced in ABCB Housing Provisions Standard 2022 Amend. 2 2.2.4(r).
- **Weatherproofing** - Meets the requirements of the NCC 2022 Amend. 2 Volume 2 Weatherproofing Performance Requirement H2P2 via Deemed-to-Satisfy (DtS) and performance solution pathways.

NCC 2019

- **Ventilation of Roof Spaces** - Meets the requirements of NCC 2019 Volume 1 Amend. 1 F6.4 and NCC 2019 Volume 2 Amend. 1 3.8.7.4 as a Deemed to Satisfy solution.
- **Structural Resistance for High Wind Areas** - Meets the NT Deemed to Comply Manual requirements as referenced in NCC 2019 Volume 2 Amend. 1 3.0.4 (q).
- **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.
- Northern Territory Deemed to Comply Manual – M-350-01a Notice of Approval from NT Building Advisory Committee.
- Weatherproofing - Excelo Consulting Engineers Performance Solution Report ECE24168 Class 1 & 10.

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.
- The WindMaster DTC is designed for Class 1 and Class 10 construction in the Northern Territory for wind region C, and non-cyclonic regions.
- Not suitable for AS/NZS 1170.2 wind region 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 in Bush Fire BAL 12.5 to BAL 40 or BAL-FZ-rated areas.
- The product is only suitable for Custom Orb-type roofs.
- The product is suitable for roof pitches 5° to 35°.
- The product is suitable for roof systems consisting of cyclonic-rated roof sheeting, battens/purlins, and fixings only.
- The product is to be positioned a minimum of 1.2m from the perimeter of the roof edge.
- Under the Northern Territory DTC approval the product is suitable only for Topographic Classifications T0, T1 and T2. Refer to the Northern Territory DTC Manual shielding requirements in the Ventilator Use Table under 'Specific Design or Installation Instructions'.
- The ventilator cannot be used where V_{des} exceeds 57m/s.
- This product is not suitable for use within 500m of a saltwater body.

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.

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.
- The cyclone straps provided with this product must be installed to comply with Northern Territory Deemed To Comply Manual requirements.
- Installation must be in accordance with the WindMaster DTC certified instruction manual.
- Refer to the tables below for recommended ventilation levels. Note that there are differences in requirements between NCC 2019 and NCC 2022.
- The rotating head of this product must be installed horizontally to ensure correct operation.

Product Technical Statements are referenced as suitable documentary evidence to support the use of a product for a Performance Requirement or a Deemed-to-Satisfy Provision of the BCA under Part A5.2(1)(f) (2019 Amend. 1) or A5G3(f) (2022 Amend. 2).

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Specific Design or Installation Instructions cont.

Northern Territory DTC Manual

Table 1. Ventilator Use Table

Wind Region	Terrain Category	Topographic Classification								
		T0			T1			T2		
		FS	PS	NS	FS	PS	NS	FS	PS	NS
A	3	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓
B	3	✓	✓	✓	✓	✓	✓	✓	✓	✗
	2.5	✓	✓	✓	✓	✓	✓	✓	✗	✗
	2	✓	✓	✓	✓	✓	✗	✓	✗	✗
	1	✓	✓	✗	✓	✗	✗	✗	✗	✗
C	3	✓	✓ (10-50)	✓ (20-50)	✓ (5-50)	✓ (30-50)	✗	✓ (25-50)	✗	✗
	2.5	✓	✓ (25-50)	✓ (35-50)	✓ (20-50)	✓ (40-50)	✗	✓ (35-50)	✗	✗
	2	✓ (10-50)	✓ (35-50)	✓ (45-50)	✓ (30-50)	✗	✗	✗	✗	✗
	1	✓ (30-50)	✗	✗	✗	✗	✗	✗	✗	✗

Notes

FS = Full Shielding

PS = Partial Shielding

NS = No Shielding

(x-50) = Distance in km from the smoothed boundary (coastline or higher wind region).

'Terrain Category' – refer AS 4055:2021 page 11.

'Topographic Classification' -refer AS 4055:2021 page12.

'Shielding' – refer AS 4055:2021 page 13.

NCC2022 Amend. 2 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 NCC Climate Zones 6, 7 and 8. The NCC gives an 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.

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

Table 2. NCC 2022 Amend. 2 Bradford Deemed-To-Satisfy Solution

Products	WindMaster Roof Ventilator Requirement	Bradford Metal 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.
≥10° and <15°	1 WindMaster for every 12.5m of the longest horizontal roof length.	1 Eave Vent for every 1.4m of the longest horizontal roof length.
≥15° and <75°	1 WindMaster for every 12.5m of the longest horizontal roof length.	1 Eave Vent for every 5.0m of the longest horizontal roof length.
≥15° and <75° Cathedral	1 WindMaster for every 12.5m of the longest horizontal roof length.	1 Eave Vent for every 1.4m of the longest horizontal roof length.

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Specific Design or Installation Instructions cont.

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 12.5m) is calculated as follows: 20m divided by the recommended WindMaster spacing of 12.5m = 20/12.5 = 1.6 vents which should be rounded up to 2 WindMasters, 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 Amend. 1 Ventilation of Roof Spaces Deemed-To-Satisfy Solution Requirements Calculation in Table 3:

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 (m^2) of ceiling directly under the roof space;
- Determine the pitch of the roof;
- Look-up the recommended number of WindMasters and Bradford metal eave vents in the Deemed-To-Satisfy Solution Table 3 below;
- Distribute the WindMaster(s) and Bradford Metal Eave Vents evenly.

Table 3. NCC 2019 Amend. 1 Bradford Deemed-To-Satisfy Solution

Roof Pitch	Total Ceiling Area ¹ (m^2)	Number of WindMasters required	Bradford Metal Eave Vents required
> 22°	< 62	1	5
	< 124	2	9
	< 187	3	13
	< 249	4	17
	< 312	5	22
	< 374	6	26
≤ 22°	< 62	2	10
	< 124	4	18
	< 187	6	26
	< 249	8	34
	< 312	10	44
	< 374	12	52

¹ Total Ceiling Area is defined as the total ceiling area directly under the roof/attic space.

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

Applicable Product Codes (SKU)

61222 MILL	127556 WALLABY	61224 SURFMIST	61225 NIGHTSKY	61226 HEADLAND	61227 MANOR RED
61229 COT GREEN	61230 WOOD GREY	61231 WILDERNESS	61232 CLASSIC CREAM	61228 PALE EUCALYPT	61233 PAPERBARK
61234 DUNE	61235 WINDSPRAY	61236 SHALE GREY	61240 DEEP OCEAN	61242 JASPER	61247 IRONSTONE
90676 EVENING HAZE	90677 LOFT	90678 MONUMENT	127551 GULLY	127552 BASALT	127553 TERRAIN
127554 COVE	127555 MANGROVE	481888 BLUEGUM	481886 DOVER WHITE	481887 SOUTHERLY	

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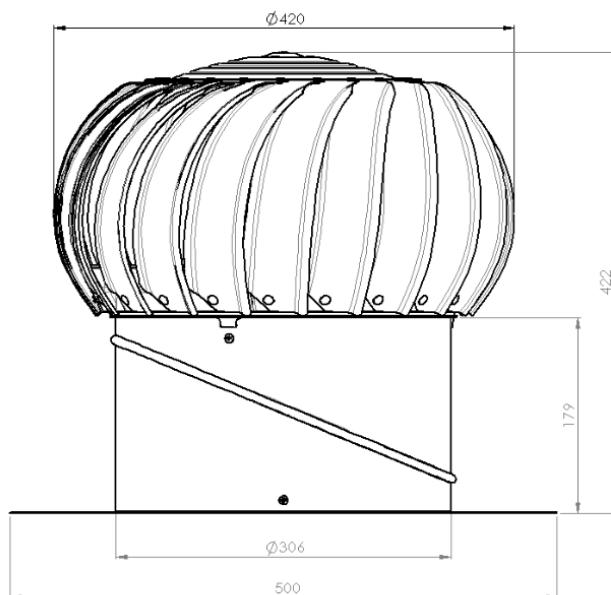
Product Specifications

General	
Ventilator Type	Natural Roof Ventilator
Turbine Diameter	420 mm
Varipitch Diameter	306 mm
Product Weight	1.90 kg
Wind Loading	Passed Wind Loading Test in accordance to AS/NZS 4740 up to 205 km/h
Roof Pitch	5 to 35°

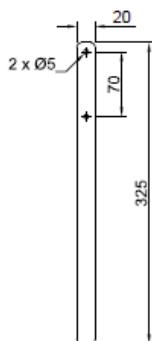
Component	Material
Turbine	Aluminium
Varipitch	Aluminium
Flashing	Aluminium
Shaft	Zinc passivate plated mild steel
Bearing Holder, Support Ring and Brackets	Glass-Filled Nylon
Screws	Stainless Steel and Galvanised
Cyclone Strap	Galvanised Steel

Product Dimensions (in mm)

Ventilator



Cyclone Strap (2 pcs)



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