



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

Issue A, 11/2023

#### **Product Type & Application**

The Bradford Ventilation Roof Valve is a low-profile static roof ventilator that allows the release of air from the roof space. The Bradford Roof Valve is suitable for residential, noncyclonic applications.

#### Compliance with the New Zealand Building Code

When correctly specified and installed, this product meets or contributes to compliance with the following performance requirements of the building code:

- **B2 Durability** B2.3.1(c) The materials of construction of the Bradford Ventilation Roof Valves have a well-established history of use in service.
- **E2 External Moisture** E2.3.2 The Bradford Ventilation Roof Valve has more than 15 years' history of use. It complies with the Australian NCC for use in all noncyclonic wind zones and is tested to AS4046.9.
- **G4 Ventilation** G4.3.1, G4.3.3 (contribute to) provides air changes to maintain air purity.
- **F2 Hazardous building materials** F2.3.1 The materials of construction of the Bradford Ventilation Roof Valve do not emit or give rise to harmful concentrations of gas, liquid, radiation or solid particles.

#### **Basis of Compliance**

- CSR Research Laboratory Test Report ETR-00092, Roof Valve Ventilator Dynamic Weather Resistance Test (in accordance with AS4046.9), 23 September 2021.
- Arcadis Report 30051677\_4, CSR Bradford Roof Ventilator Weatherproofing Performance Solution, 17 December 2021.
- Acceptable Solutions and Verification Methods for New Zealand Building Code Clause B2 Durability Second edition (Amendment 12), 28 November 2019.
- Verification Methods E2/VM1 and Acceptable Solutions E2/AS1, E2/AS2 and E2/AS3 for New Zealand Building Code Clause E2 External Moisture Third edition (Amendment 10), 5 November 2020.
- Acceptable Solutions and Verification Methods for New Zealand Building Code Clause G4 Ventilation Fourth edition, 27 June 2019.

#### 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.
- Do not use for exhausting hazardous, abrasive, acidic and alkaline vapour or areas containing explosive or corrosive materials.
- This product has not been tested for use in cyclonic wind regions.
- This product is not subject to any warning or ban declared by MBIE under section 26 of the Building Act 2004.
- Seek technical advice from Bradford Ventilation on application suitability if unsure.

#### **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.
- Recommended Roof Valve positioning:
  - Tiled Roof: Between third and fourth row of tiles from the ridge cap.
  - Metal Roof: Ideally at the ridge cap but no lower than 1.2m from the ridge cap.
- New construction refer to the tables below for recommended ventilation levels. (These tables are based on compliance with the Australian Building Code and provide design guidance for New Zealand).
- Installation must be in accordance with the Bradford Ventilation Roof Valve Installation Instruction.

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

This Product Technical Statement is published in accordance with the Building Act 2004 Section 14g. It relates to this product when it is produced at a CSR approved facility in accordance with CSR Specifications and approved materials, is unmodified, and installed in accordance with the technical data, plans, specifications, and advice prescribed by the manufacturer. It relates to the provisions of the building code in effect at the date of issue of this Product Technical Statement.



#### Specific Design or Installation Instructions cont.

Table1 below indicates how many ventilators and vents are required for condensation management based on the longest horizontal dimension (e.g., the longest length of gutter) of the roof. Ventilation openings should be evenly distributed.

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

#### Table 1. Ventilators and vents for condensation management

Products	Roof Valve Static 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.
$\geq 10^{\circ}$ and $< 15^{\circ}$	1 Roof Valve for every 3.5m of the longest	1 Eave Vent for every <b>1.4m</b> of the longest horizontal
	horizontal roof length.	roof length.
≥15° and <75°	1 Roof Valve for every 3.5m of the longest	1 Eave Vent for every 5.0m of the longest horizontal
	horizontal roof length.	roof length.
≥15° and <75°	1 Roof Valve for every <b>3.5m</b> of the longest	1 Eave Vent for every <b>1.4m</b> of the longest horizontal
Cathedral	horizontal roof length.	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 3.5m) is calculated as follows: 20m divided by the recommended Roof Valve Static spacing of 3.5m = 20/3.5 = 5.7 vents which should be rounded up to 6 Roof Valve Static Vents, 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.

Table 2 below indicates the ventilation opening requirements for condensation management when kitchen, bathroom, sanitary compartment or laundry exhaust systems are discharging into the roof space.

- $\circ$  Calculate the area (m²) of ceiling directly under the roof space;
- Determine the pitch of the roof;
- o Look-up the recommended number of Roof Valves and Bradford metal eave vents in Table 2 below;
- $\circ$   $\;$  Distribute the Roof Valve(s) and Bradford Metal Eave Vents evenly.

## Table 2. Ventilators and vents for condensation management when exhaust systems are discharging into the roof space

Roof Pitch	Total Ceiling Area <sup>1</sup> (m <sup>2</sup> )	Number of Roof Valve required	Bradford Metal Eave Vents required
	14	1	1
	29	2	2
	43	3	3
> 22°	58	4	4
	72	5	5
	87	6	6
	101	7	7

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

Where the roof pitch is  $\leq 22^{\circ}$ , the number of ventilators and eave vents specified must be doubled for the same ceiling area.

Bradford NZ, 14 The Furlong, Takanini, Auckland For further technical advice call 0800 277 123/ visit bradfordinsulation.co.nz/ email bradford@csr.co.nz Bradford NZ is a business division of CSR Building Products (NZ) Limited (NZBN 9429040750194)

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#### Applicable Product Codes (SKU)

Clear 61379

#### **Product Specifications**

General		
Ventilator Type	Static Ventilator	
Head Diameter	259 mm	
Throat Diameter	150 mm	
Product Weight	0.8 kg	
Roof Slope Installation Range	<b>Tiled Roofs</b> 15° to 35° <b>Metal Sheet Roofs</b> 3° to 35° Note: Where applicable all roof pitches must comply to AS1562.1, the Building Code and associated standards.	

Material		
Ventilator Head	ASA	
Flashing	Aluminium (0.7mm thickness)	

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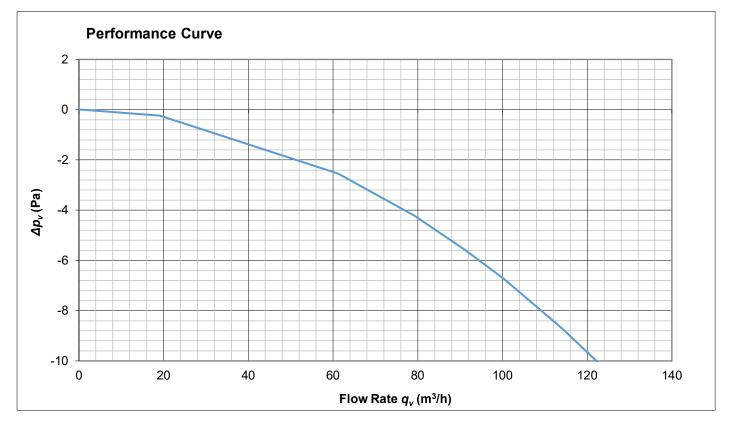
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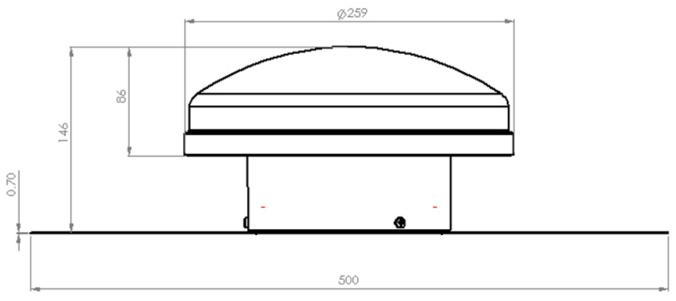




#### Product Airflow Performance - Static Ventilator



#### Product Dimensions (in mm)



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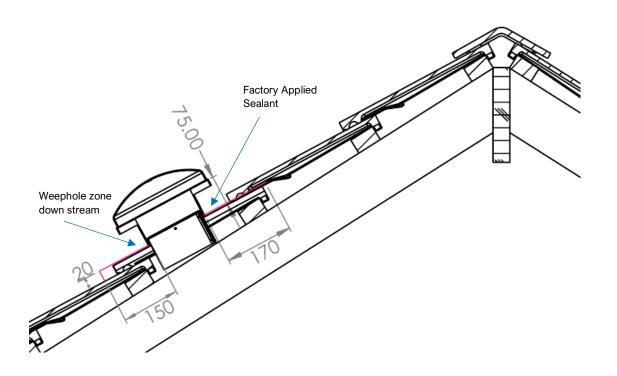
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Product Assembly Dimensions (in mm)



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