Bradford™ SAINT-GOBAIN

Product Technical Statement

Hurricane® FR Turbine Ventilator

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

Product Type & Application

The Bradford Hurricane® FR is a high temperature rated, wind driven, roof mounted turbine ventilator suitable for high temperature exhaust applications. It is suitable for commercial roof applications (Class 2 to 9) in non-cyclonic and non-BAL regions.

Compliance with the NCC

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

NCC2025

- **Weatherproofing**- Meets the requirements of the NCC 2025 Volume 1 Weatherproofing Objective F1O1 via Deemed-to-Satisfy (DtS) and performance solution pathways.

NCC2022

- **Weatherproofing** - Meets the requirements of the NCC 2022 Volume 1 Amend. 2 Weatherproofing Performance Requirement F3P1 via Deemed-to-Satisfy (DtS) and performance solution pathways.

NCC2019

- **Weatherproofing** - Meets the requirements of the NCC 2019 Volume 1 Amend. 1 Weatherproofing Performance Requirement FP1.4 via Deemed-to-Satisfy (DtS) and performance solution pathways.

This product has been tested in accordance with the heating conditions of Section 4.8.1 of AS 1668.1:1998.

- The product continued to operate for over 120 minutes with an exhaust air temperature of at least 200°C.
- The product continued to operate for over 30 minutes with an exhaust air temperature of at least 300°C.

Note: This product was not tested to the full requirements of this standard.

Evidence of Suitability

- Testing to AS 1668.1:1998 at exhaust air temperatures of 200°C and 300°C –
  - CSIRO Report FSZ 1079.
- Weatherproofing -
  - Excelo Consulting Engineers Performance Solution Report ECE24168 Commercial.

Specific Design or Installation Instructions

- Isolate power before installation.
- **Caution**: The turbine head of this product can rotate without warning (even during installation) – always keep body parts away from moving components.
- Maximum exhaust air temperatures and exposure times should not exceed those stated in AS 1668.1:1998 Section 4.8.1.
- The table below shows the minimum make-up air requirement per ventilator that should be provided in accordance with AS1668.2

Product	Make-Up Air per ventilator - 100% open, evenly distributed open area
Hurricane® FR 900	≥ 0.9m²

- Make- up air ingress should be provided via evenly distributed openings which are permanently open and positioned to help the ventilator work more effectively and efficiently (refer to the product installation guide for guidance).
- If make-up air is insufficient the ventilators will draw make-up air from each other. This will diminish the system effectiveness - air will be drawn inward through ventilators which are meant to be exhausting air. It will also increase the risk of drawing external water into the building during periods of rain. Further to this, it is recommended that ventilators of the same size are used together to prevent make-up air being drawing between ventilators of different sizes.
- The rotating head of this product must be installed horizontally to ensure correct operation – adjustment of the varipitch and base flashing is critical to achieve this orientation (refer to the installation guide for details).
- This product may be used in moist or dusty applications in conjunction with a regular inspection and maintenance program. Refer to installation guide for details.
- If the product is installed with a stainless-steel mesh, it should be periodically inspected to remove foreign objects and/or dust build-up to maintain airflow.
- 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.
- Ensure sealants used are rated for the expected exhaust temperatures.

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

Hurricane® FR Turbine Ventilator

Limitations of Use

- This product does not comply with all provisions of AS 1668.1:1998 and is not suitable for use as a smoke exhaust fan.
- 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, and is not suitable for use in cyclonic wind regions C or D.
- This product is not suitable for use in Bush Fire BAL-12.5 to BAL-40 or BAL-FZ rated areas.
- The optional stainless-steel mesh available for use in this product as an insect guard does not comply with BAL requirements.
- This product is not suitable for use within 500m of a saltwater body.
- Seek technical advice from Bradford Ventilation on application suitability if unsure.

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.
- This product requires regular checking for wear/tear.

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

Applicable Product Codes (SKU)

Hurricane® FR 900mm	
Mill Finished 61929	Custom Colour 600677

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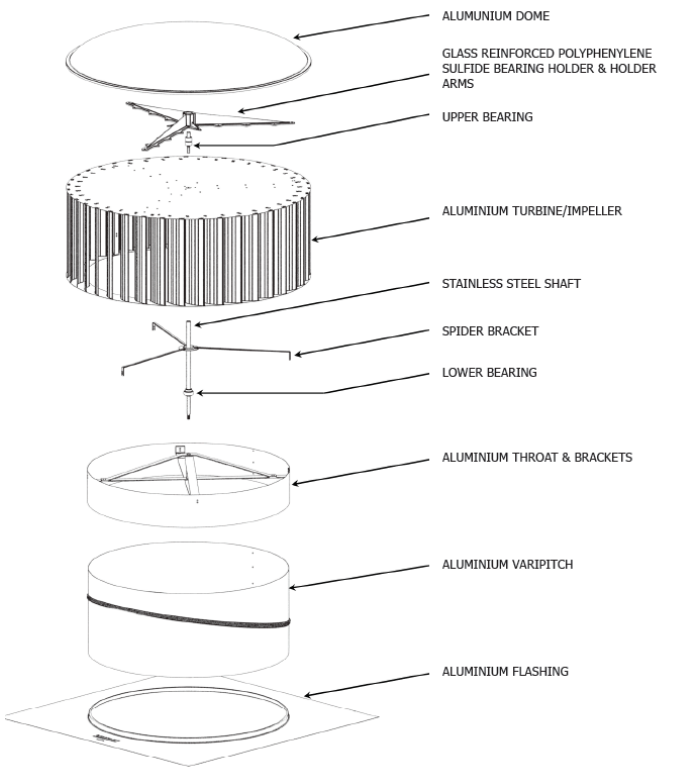
Hurricane® FR Turbine Ventilator

Product Specifications (in exploded view)

Hurricane® FR 900



Product Information Summary Hurricane® FR 900

Ventilator Range	Hurricane®
Ventilator Model	FR 900
Ventilator Type (AS/NZS 4740:2000 cl 1.5)	
Ventilator Performance Class (AS/NZS 4740:2000 Table 1.2)	
Rain Resistance	50 m/s No Water - Class A
Effective Aerodynamic Area, EAA	0.374 m^2
Discharge Coefficient, C_d	0.63 - Class 2
Flow Coefficient, C_f	0.17 - Class 4
Nominal Performance* (m^3/h)	
0 m/s	3194 m^3/h
3 m/s	3267 m^3/h
6 m/s	3477 m^3/h

**In accordance to AS/NZS 4740:2000 nominal performance parameters where h = 6m, ΔT = 14°C, T = 20°C*

CSR Bradford Locked Bag 1345 North Ryde BC NSW 1670
csrbradford.com.au

For further technical advice
call **1300 850 305** or visit **csrbradford.com.au**

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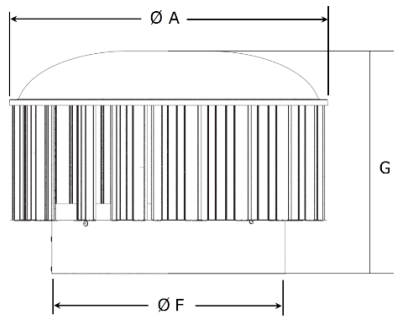
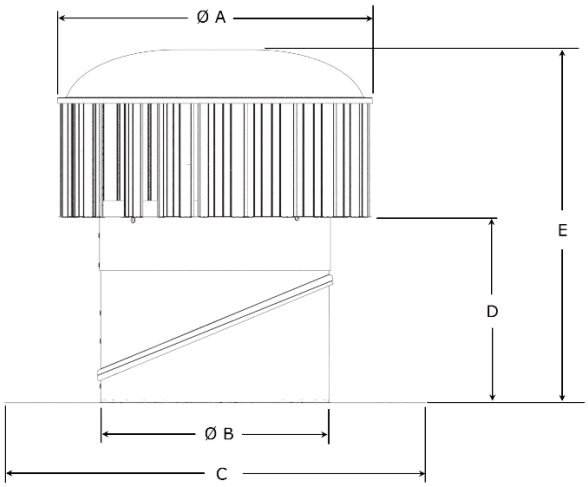
Product Dimensions (in mm)

Top



Model	Dimension (mm)			Weight (kg)
	ØA	ØF	G	
H900	1096	897	643	18.1

Assembly



Model	Dimension (mm)					Weight (kg)	Roof Slope Range
	ØA	ØB	C	D	E		
H900	1096	891	1200 x 1200	421	936	24.1	0° - 22.5°

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