

Hurricane™ BAL Turbine Ventilator

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

Issue D

Product Type & Application

The Bradford Hurricane™ BAL is a bushfire rated, wind-driven, roof mounted turbine ventilator designed to exhaust heat and moisture. It is constructed with an ember guard assembled in the flashing of the ventilator; and is deemed compliant with AS 3959 and suitable for use in BAL 12.5 to 40 zones.

Compliance with the NCC

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

NCC2022

- **Construction in Bushfire Prone Areas** - Meets the requirements of NCC 2022 Volume 1 Amend. 2 G5D3, and NCC 2022 Volume 2 Amend. 2 H7D4 through compliance with AS 3959.
- **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

- **Construction in Bushfire Prone Areas** - Meets the requirements of NCC 2019 Volume 1 Amend. 1 G5 and NCC 2019 Volume 2 Amend. 1 3.10.5 through compliance with AS 3959.
- **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.

Evidence of Suitability

- BAL Assessment –
 - CSIRO Assessment FCO-3478.
- Weatherproofing –
 - Excelo Consulting Engineers Performance Solution Report ECE24168 Commercial.

Conditions of Storage, Use & Maintenance

- Store in the original packaging in a cool and dry area.
- This product requires regular checking for wear/tear.
- The ember guard must be cleaned regularly to maintain product flowrate.
- 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.
- **IMPORTANT** - The ember guard mesh must not be removed from this product but should be periodically inspected. Remove foreign objects and/or dust build-up to maintain airflow.
- This product is compliant with the requirements of AS 3959-2018 up to BAL40 when installed on non-combustible roof cladding in accordance with AS 3959 and the product installation guide.
- Refer to the table on page 6 for acceptable roof pitches for each ventilator size.
- 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 flashing must be formed to seal gaps between the roof cladding and flashing – gaps must be $\leq 2\text{mm}$. Sealant may only be used for weatherproofing purposes.
- The table below shows the minimum make-up air requirement per ventilator that should be provided in accordance with AS 1668.2

Product	Make-Up Air per ventilator - 100% open, evenly distributed open area
Hurricane BAL 100-400	$\geq 0.3\text{m}^2$
Hurricane BAL 450-600	$\geq 0.5\text{m}^2$
Hurricane BAL 700-900	$\geq 0.9\text{m}^2$

- 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 drawn between ventilators of different sizes.
- Note that make-up air openings may also require ember protection in BAL zones, which restrict airflow. This would require implementation of increased make-up air mesh surface area to draw through enough replacement air for the volume the ventilator is removing.
- 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)

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

Hurricane™ BAL Turbine Ventilator

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 is only suitable for installations on non-combustible roof cladding.
- Refer to the table on page 6 below for roof pitch limitations.
- 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.
- Product flow rate will be reduced if the ember guard mesh is not adequately maintained.
- This product is not suitable for BAL-FZ rated areas.
- Seek technical advice from Bradford Ventilation on application suitability if unsure.
- This product is not suitable for use within 500m of a saltwater body.

Applicable Product Codes (SKU)

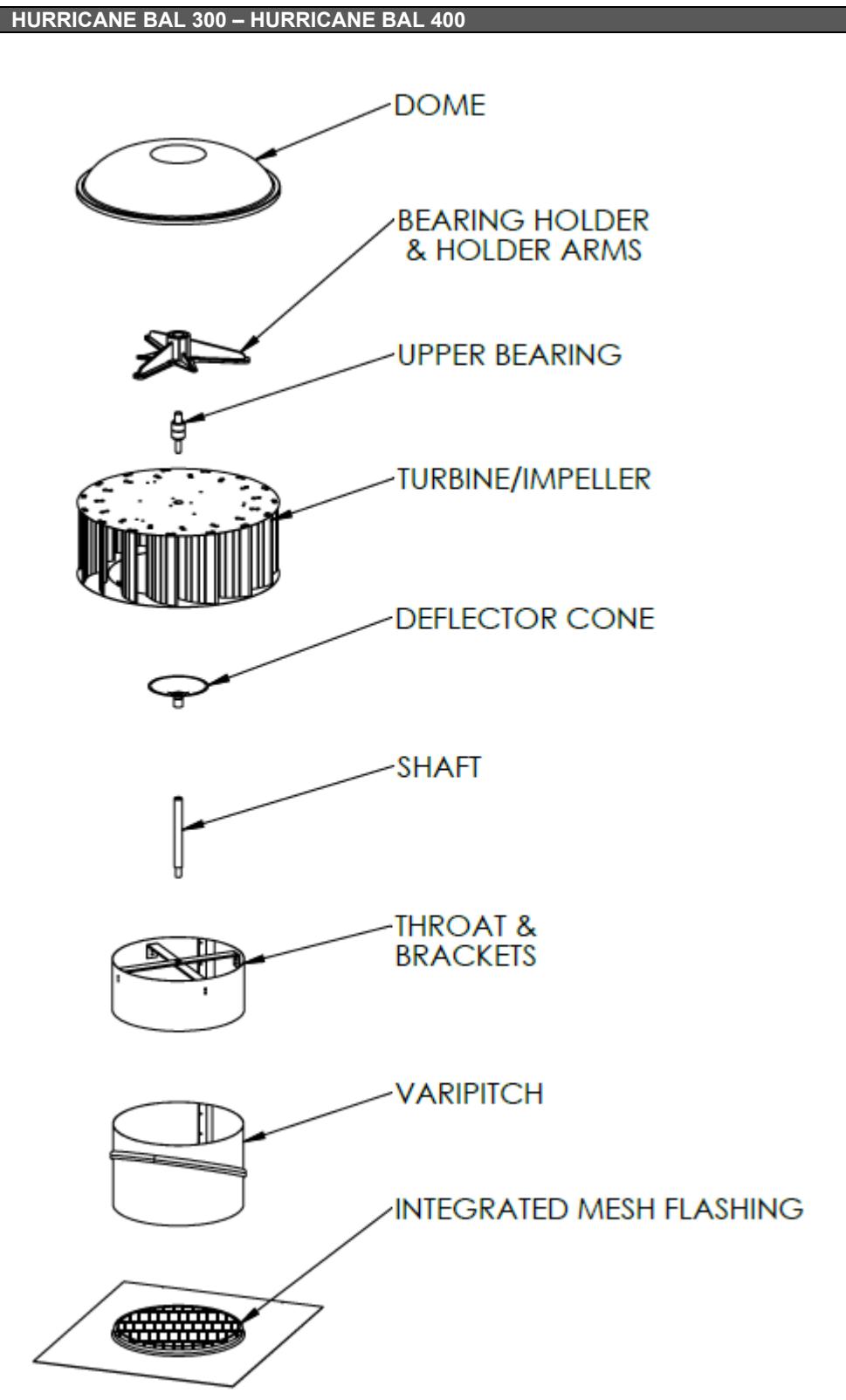
HURRICANE BAL COMPLETE*	MILL FINISH	CUSTOM COLOUR
300	600670	600670
400	600671	600671
450	600672	600672
500	600673	600673
600	600674	600674
700	600675	600675
900	600677	600677

These products cannot be supplied with Polyolefin coating.

*This product is only available as a complete assembly, the top section is not sold separately.

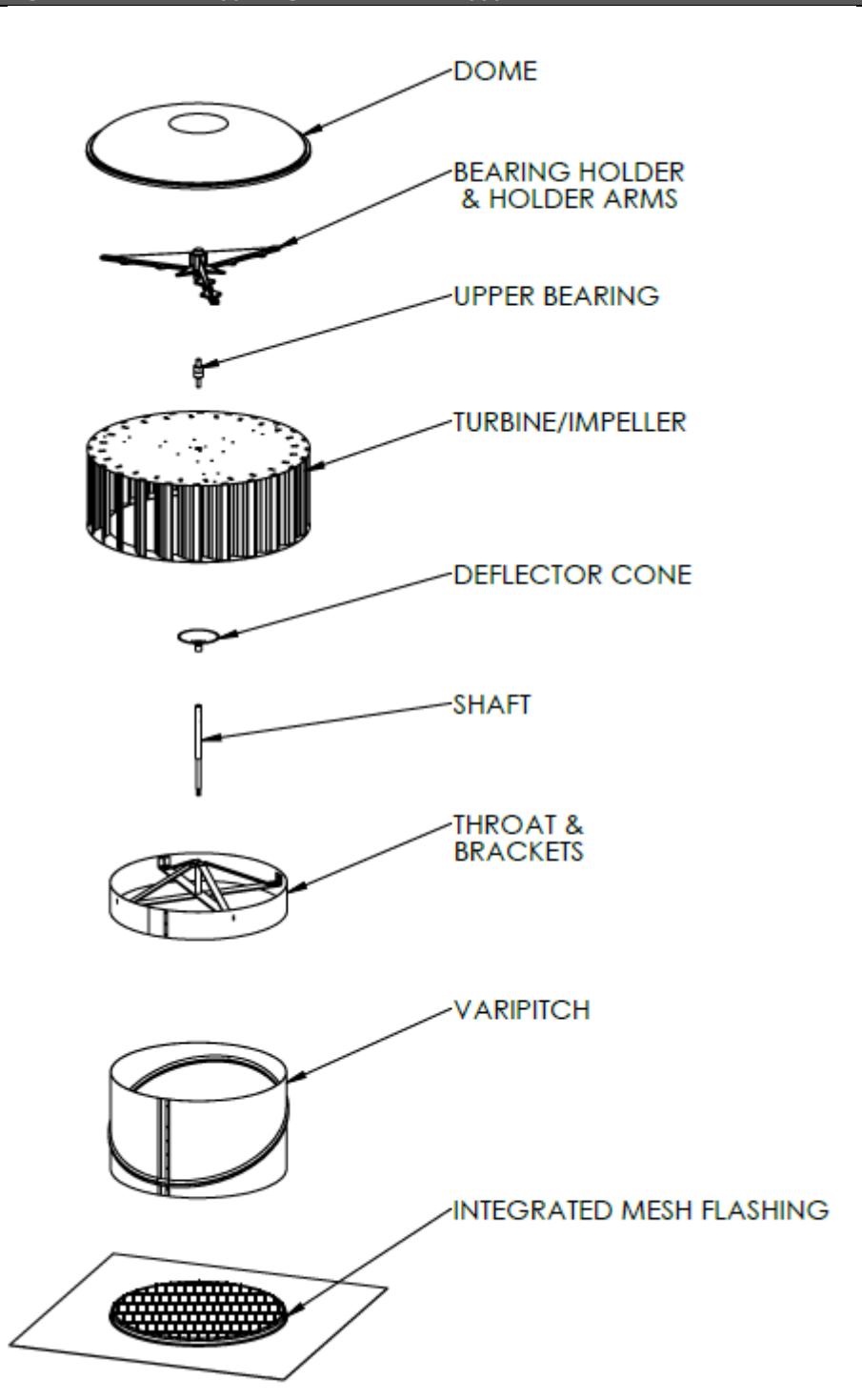
Hurricane™ BAL Turbine Ventilator

Product Specifications (in exploded view)



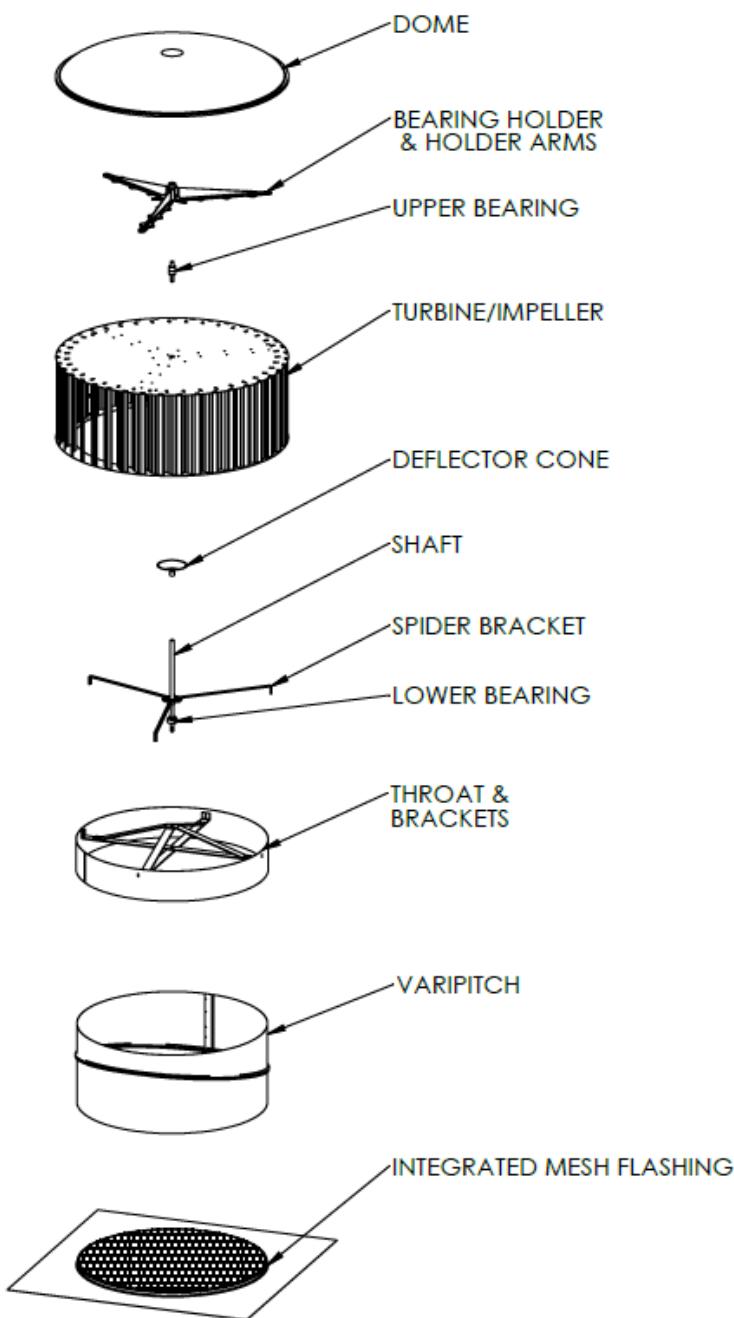
Hurricane™ BAL Turbine Ventilator

HURRICANE BAL 450 – HURRICANE BAL 600



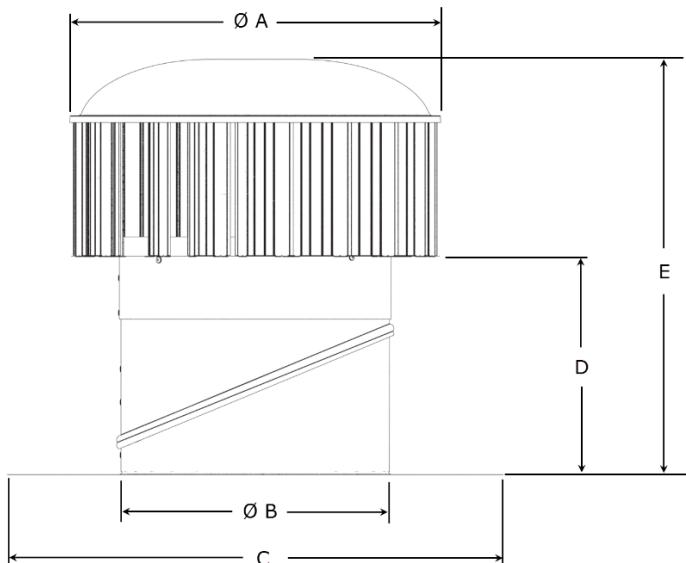
Hurricane™ BAL Turbine Ventilator

HURRICANE BAL 700 – HURRICANE BAL 900



Hurricane™ BAL Turbine Ventilator

Product Dimensions (mm)



Model	Dimension (mm)					Weight (kg)	Roof Slope Range
	ØA (OD)	ØB (ID)	C	D	E		
BAL 300	477	305	600 x 500	225	480	4.9	3° - 45°
BAL 400	561	405	750 x 700	274	564	6.3	3° - 45°
BAL 450	648	458	750 x 700	319	634	8.1	3° - 45°
BAL 500	702	507	750 x 700	345	700	9.2	3° - 45°
BAL 600	766	598	1000 x 1000	359	724	11.8	3° - 45°
BAL 700	876	699	1000 x 1000	371	796	15.8	3° - 22.5°
BAL 900	1096	895	1200 x 1200	421	936	24.1	3° - 22.5°