Product Technical Statement

Hurricane® Standard (H) Turbine Ventilator

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

Issue **A**

Product Type & Application

The Bradford Hurricane Standard (H) is a wind-driven turbine ventilator designed to exhaust heat and moisture from non-BAL residential (Class 1) and commercial roofs (Class 2 to 9).

Compliance with the NCC

No compliance reference within the NCC

Evidence of Suitability

No compliance reference within the NCC – refer below for product performance data.

Conditions of Storage, Use & Maintenance

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

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

Limitations of Use

- Do not use for exhausting hazardous, abrasive, explosive materials, alkaline vapour, corrosive or in very high moisture environments (such as water tanks).
- This product is not suitable for use in cyclonic regions.
- This product is not suitable for use in Bush Fire (BAL) or FZ rated areas.
- The optional stainless-steel mesh used in this product as an insect guard does not comply with BAL requirements
- Seek technical advice from Bradford Ventilation on application suitability if unsure.

Specific Design or Installation Instructions

- **Caution**: The turbine head of this product can rotate without warning (even during installation) – always keep body parts away from moving components.
- This is a general-purpose ventilation product, always refer to the installation guidance provided with the product prior to installation.
- 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 100-400	≥ 0.3m²
Hurricane 450-600	≥ 0.5m²
Hurricane 700-900	≥ 0.9m²

- Make-up air 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) – note that these openings may also require ember protection in BAL zones which may restrict airflow and require the replacement air/make-up air area calculation to be increased.
- The source of make-up air should be outdoor air.
- 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)
- 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.

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

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**

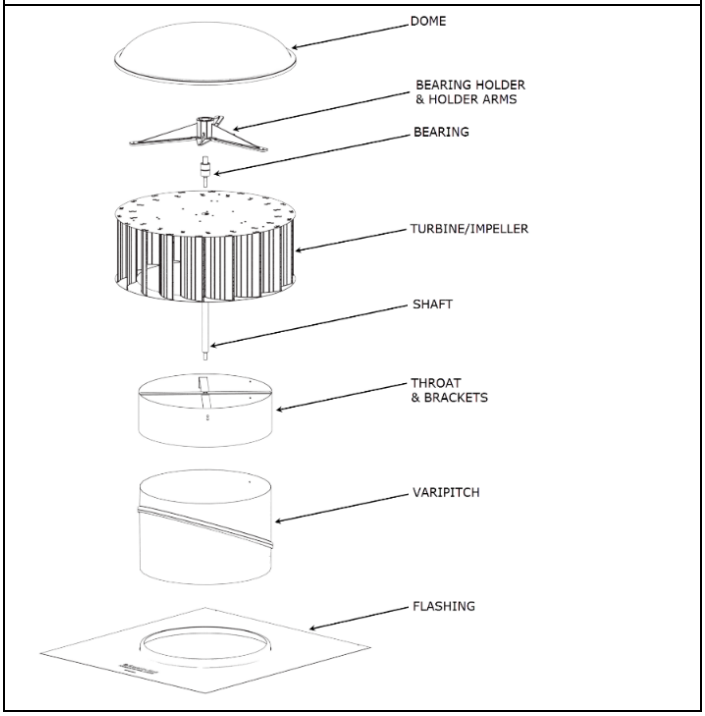
Hurricane® Standard (H) Turbine Ventilator

Applicable Product Codes (SKU)

Hurricane 100mm	Hurricane 150mm	Hurricane 300mm	Hurricane 400mm
Mill Finished 61452	Mill Finished 61478	Mill Finished 61504	Mill Finished 61530
Custom 601150	Custom 601162	Custom 600670	Custom 600671

Product Specifications (in exploded view)

Hurricane 100 – Hurricane 400



Product Information Summary H100 / H150 / H300 / H400

Ventilator Range	Hurricane®			
Ventilator Model	H100	H150	H300	H400
Ventilator Type (AS/NZS 4740:2000 cl 1.5)	Type 4 – Rotating Wind-Driven Roof Ventilator			
Ventilator Performance Class (AS/NZS 4740:2000 Table 1.2)				
Rain Resistance	50 m/s No Water - Class A	50 m/s No Water - Class A	50 m/s No Water - Class A	50 m/s No Water - Class A
Effective Aerodynamic Area, EAA	0.004 m^2	0.011 m^2	0.044 m^2	0.078 m^2
Discharge Coefficient, C_d	0.6 - Class 2	0.67 - Class 2	0.71 - Class 1	0.7 - Class 1
Flow Coefficient, C_f	0.26 - Class 4	0.28 - Class 4	0.31 - Class 3	0.24 - Class 4
Wind Loading	57m/s - Level 1	57m/s - Level 1	57m/s - Level 1	57m/s - Level 1
Nominal Performance* (m^3/hr)				
0 m/s	31 m^3/hr	97 m^3/hr	376 m^3/hr	669 m^3/hr
3 m/s	32 m^3/hr	103 m^3/hr	404 m^3/hr	699 m^3/hr
6 m/s	37 m^3/hr	119 m^3/hr	478 m^3/hr	783 m^3/hr

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

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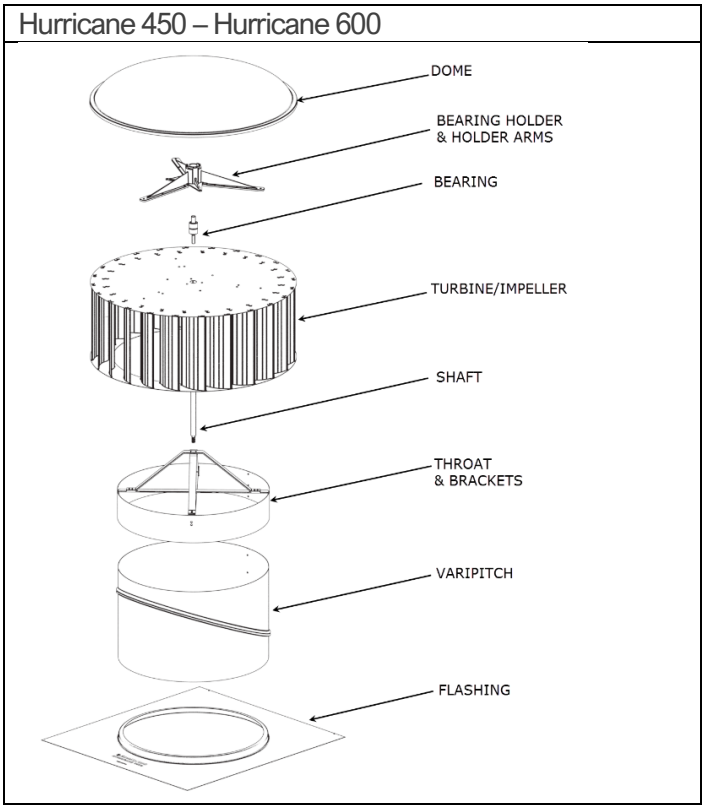
Hurricane® Standard (H) Turbine Ventilator

Applicable Product Codes (SKU)

Hurricane 450mm	Hurricane 500mm	Hurricane 600mm
Mill Finished 61556	Mill Finished 61582	Mill Finished 61608
Custom 600672	Custom 600673	Custom 600674

Product Specifications (in exploded view)

Hurricane 450 – Hurricane 600



Product Information Summary H450 / H500 / H600

Ventilator Range	Hurricane®		
Ventilator Model	H450	H500	H600
Ventilator Type (AS/NZS 4740:2000 cl 1.5)	Type 4 – Rotating Wind-Driven Roof Ventilator		
Ventilator Performance Class (AS/NZS 4740:2000 Table 1.2)			
Rain Resistance	50 m/s No Water - Class A	50 m/s No Water - Class A	50 m/s No Water - Class A
Effective Aerodynamic Area, EAA	0.109 m^2	0.128 m^2	0.139 m^2
Discharge Coefficient, C_d	0.77 - Class 1	0.73 - Class 1	0.54 - Class 2
Flow Coefficient, C_f	0.22 - Class 4	0.22 - Class 4	0.18 - Class 4
Wind Loading	57m/s - Level 1	57m/s - Level 1	57m/s - Level 1
Nominal Performance* (m^3/hr)			
0 m/s	933 m^3/hr	1090 m^3/hr	1189 m^3/hr
3 m/s	969 m^3/hr	1132 m^3/hr	1220 m^3/hr
6 m/s	1068 m^3/hr	1248 m^3/hr	1307 m^3/hr

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

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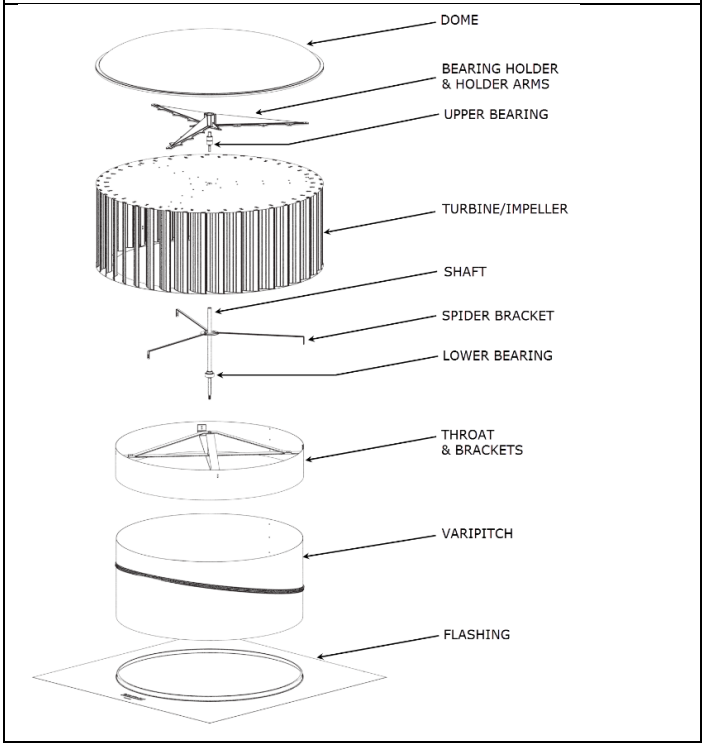
Hurricane® Standard (H) Turbine Ventilator

Applicable Product Codes (SKU)

Hurricane 700mm	Hurricane 900mm
Mill Finished 61634	Mill Finished 61686
Custom 600675	Custom 600677

Product Specifications (in exploded view)

Hurricane 700 – Hurricane 900



Product Information Summary H700 / H800 / H900

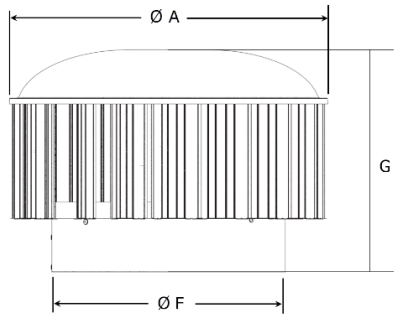
Ventilator Range	Hurricane®		
Ventilator Model	H700	H800	H900
Ventilator Type (AS/NZS 4740:2000 cl 1.5)	Type 4 – Rotating Wind-Driven Roof Ventilator		
Ventilator Performance Class (AS/NZS 4740:2000 Table 1.2)			
Rain Resistance	50 m/s No Water - Class A	50 m/s No Water - Class A	50 m/s No Water - Class A
Effective Aerodynamic Area, EAA	0.193 m^2	0.298 m^2	0.374 m^2
Discharge Coefficient, C_d	0.54 - Class 2	0.64 - Class 2	0.63 - Class 2
Flow Coefficient, C_f	0.12 - Class 4	0.16 - Class 4	0.17 - Class 4
Wind Loading	57m/s - Level 1	57m/s - Level 1	57m/s - Level 1
Nominal Performance* (m^3/hr)			
0 m/s	1650 m^3/hr	2546 m^3/hr	3194 m^3/hr
3 m/s	1669 m^3/hr	2597 m^3/hr	3267 m^3/hr
6 m/s	1068 m^3/hr	2746 m^3/hr	3477 m^3/hr

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

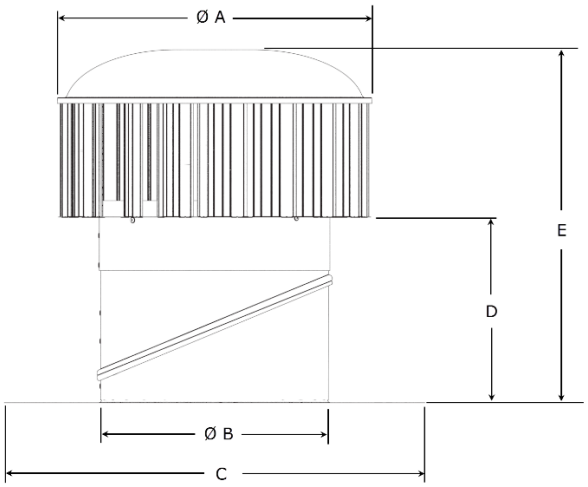
Hurricane® Standard (H) Turbine Ventilator

Product Dimensions (in mm)

Top



Turbine



Model	Dimension (mm)			Weight (kg)
	ØA	ØF	G	
H100	290	107	253	1.3
H150	332	155	283	1.9
H300	477	308	364	3.7
H400	561	410	389	4.5
H450	648	462	443	6.2
H500	702	511	459	6.9
H600	766	602	484	8.1
H700	876	705	556	11.6
H800	1003	799	590	14.9
H900	1096	897	643	18.1

Model	Dimension (mm)					Weight (kg)	Roof Slope Range
	ØA	ØB	C	D	E		
H100	290	98.6	430 x 430	139	313	1.8	0° - 45°
H150	332	145.6	430 x 430	164	363	2.4	0° - 45°
H300	477	298	600 x 500	225	480	4.9	0° - 45°
H400	561	401	750 x 700	274	560	6.3	0° - 45°
H450	648	452	750 x 700	319	634	8.1	0° - 45°
H500	702	502	750 x 700	345	700	9.2	0° - 45°
H600	766	592	1000 x 1000	359	724	11.8	0° - 45°
H700	876	695	1000 x 1000	371	796	15.8	0° - 22.5°
H800	1003	792	1200 x 1200	393	848	20.6	0° - 22.5°
H900	1096	891	1200 x 1200	421	936	24.1	0° - 22.5°

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