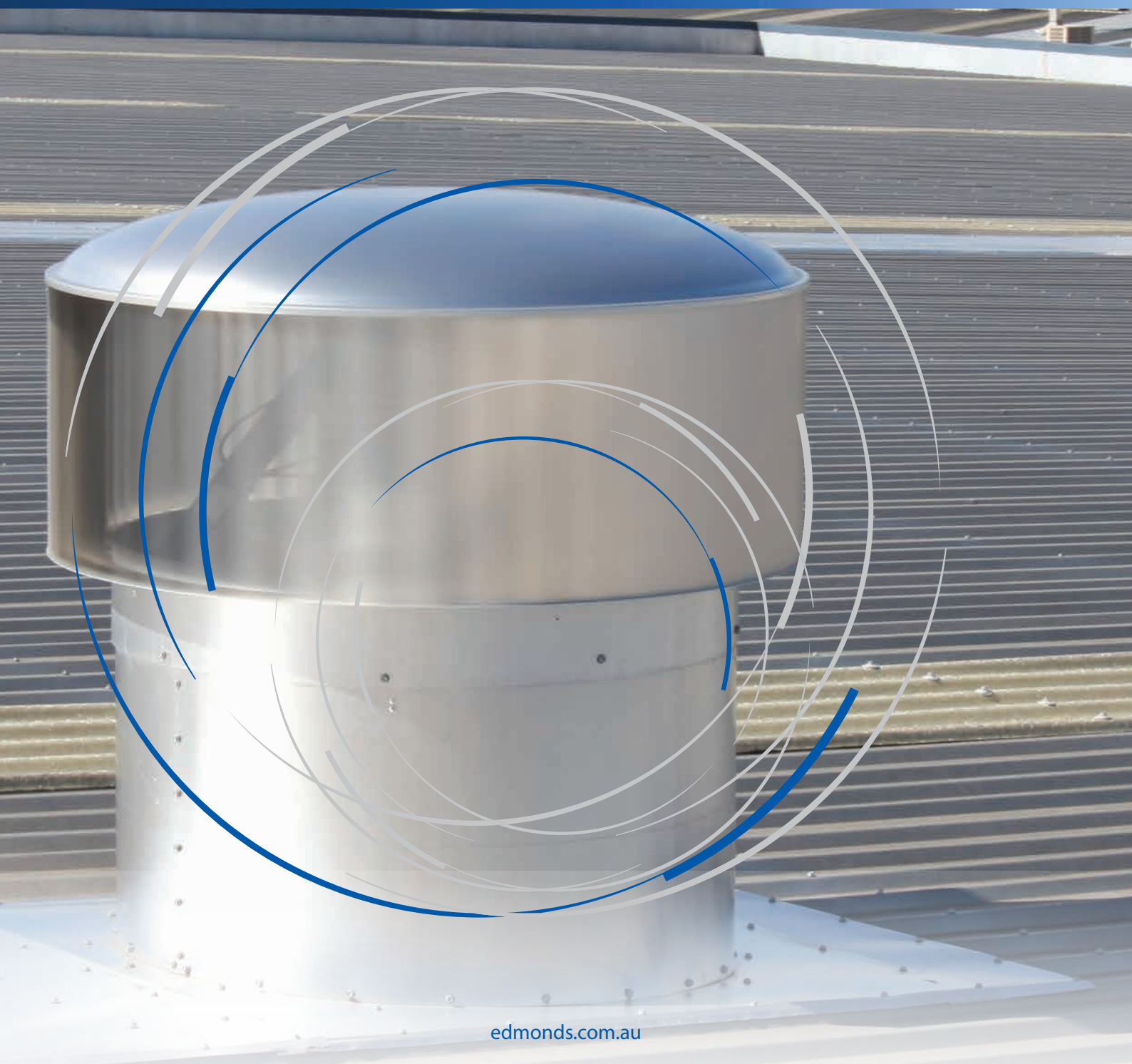


EcoPower® Product Data Catalogue

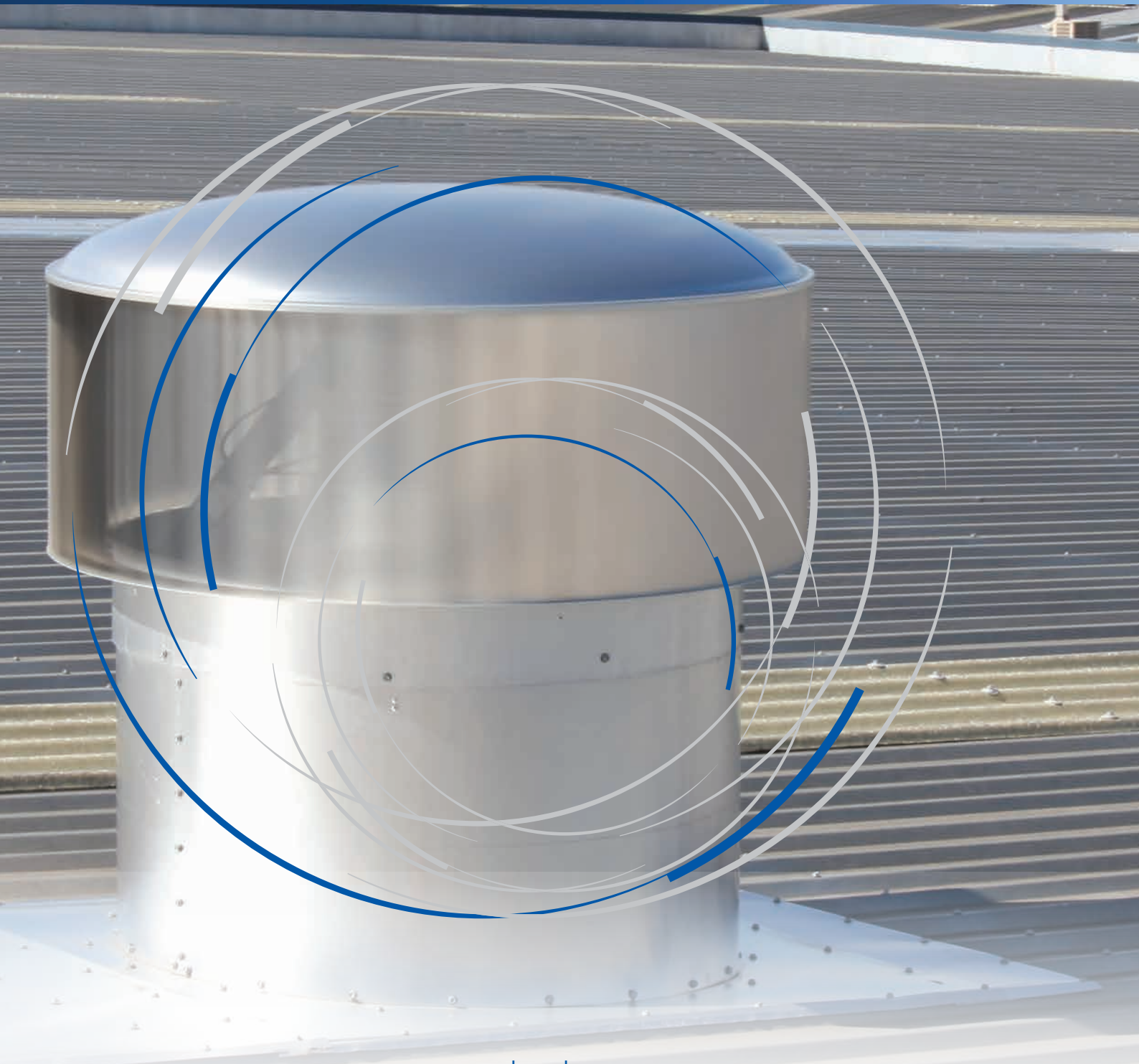




EcoPower® Product Data Catalogue



EcoPower® Product Data Catalogue



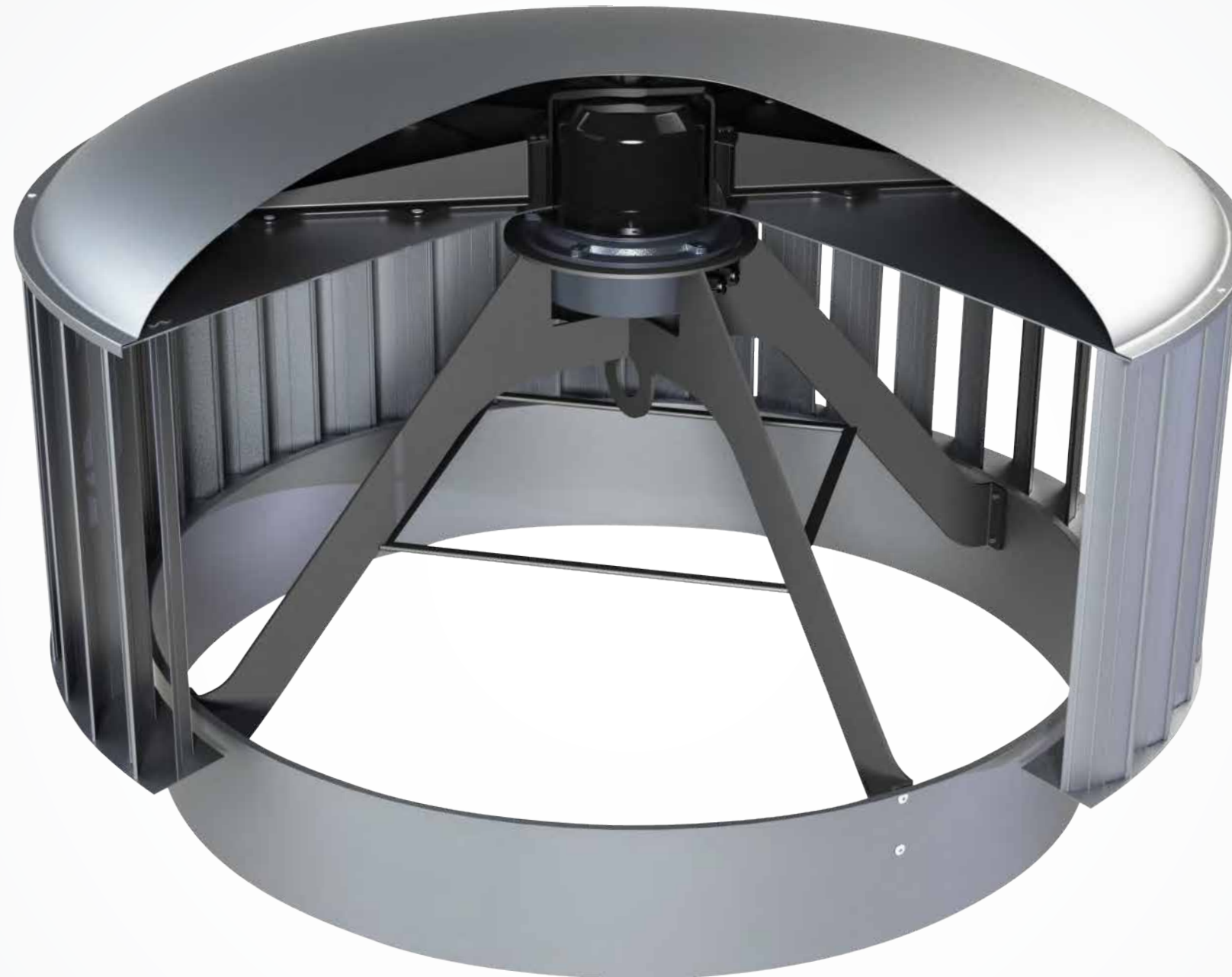
PRODUCT OVERVIEW

The EcoPower® incorporates Australian-engineered 'hybrid' patented ventilation technology. Its hybrid design is an innovative combination of natural ventilation and efficient mechanical ventilation and operates in either natural mode; power mode; or both modes simultaneously.

The natural mode functions through two processes.

1. The 'stack effect' allows hot air to escape as a result of buoyancy pressure.
2. Ambient wind drives the turbine/impeller unit thereby creating flow through a centrifugal suction process.

The efficient power mode allows flow rates to be boosted as required by powering the Electronic Commutated (EC) motor to drive the turbine/impeller. This provides on-demand response to meet performance conditions.



FEATURES & BENEFITS

- Hybrid ventilation technology that innovatively combines natural wind driven and efficient mechanical ventilation.
- Low energy consumption of only 3.69 x 10-5 kW/CFM for EP900.
- Patented hybrid ventilator design that enables an open throat to improve airflow performance.
- Reliable ventilation available when required through power mode.
- Virtually inaudible from typical background sound pressures, at 45.5 dB(A) for EP900, even in power mode.
- No scheduled maintenance required for the life of the product.
- Hybrid design eliminates potential air back-drafting.
- Unique capability to take advantage of freely available wind energy even in mechanical mode.
- Can operate as a wind driven ventilator alone, when conditions suit or power is lost.
- Can be utilised to drive an economiser system when conditions permit.
- Lightweight aluminium construction for ease of installation and minimal roof loading.
- Efficient EC motors directly connect to AC mains with single phase power input.
- Large Input voltage range of 200-277 VAC and 50-60 Hz.
- 0-10V variable speed control option available for EP900 only. Factory pre-programming required.
- Optional built-in variable speed control that responds to temperature. For EP900 only, to factory pre-set temperature range.



All models are
UL 705 listed



Global-Mark.com.au®
All models are designed, manufactured
and distributed according to AS / NZS
ISO 9001-2008



AIRAH Company Member



National Export Award
for Edmonds Business



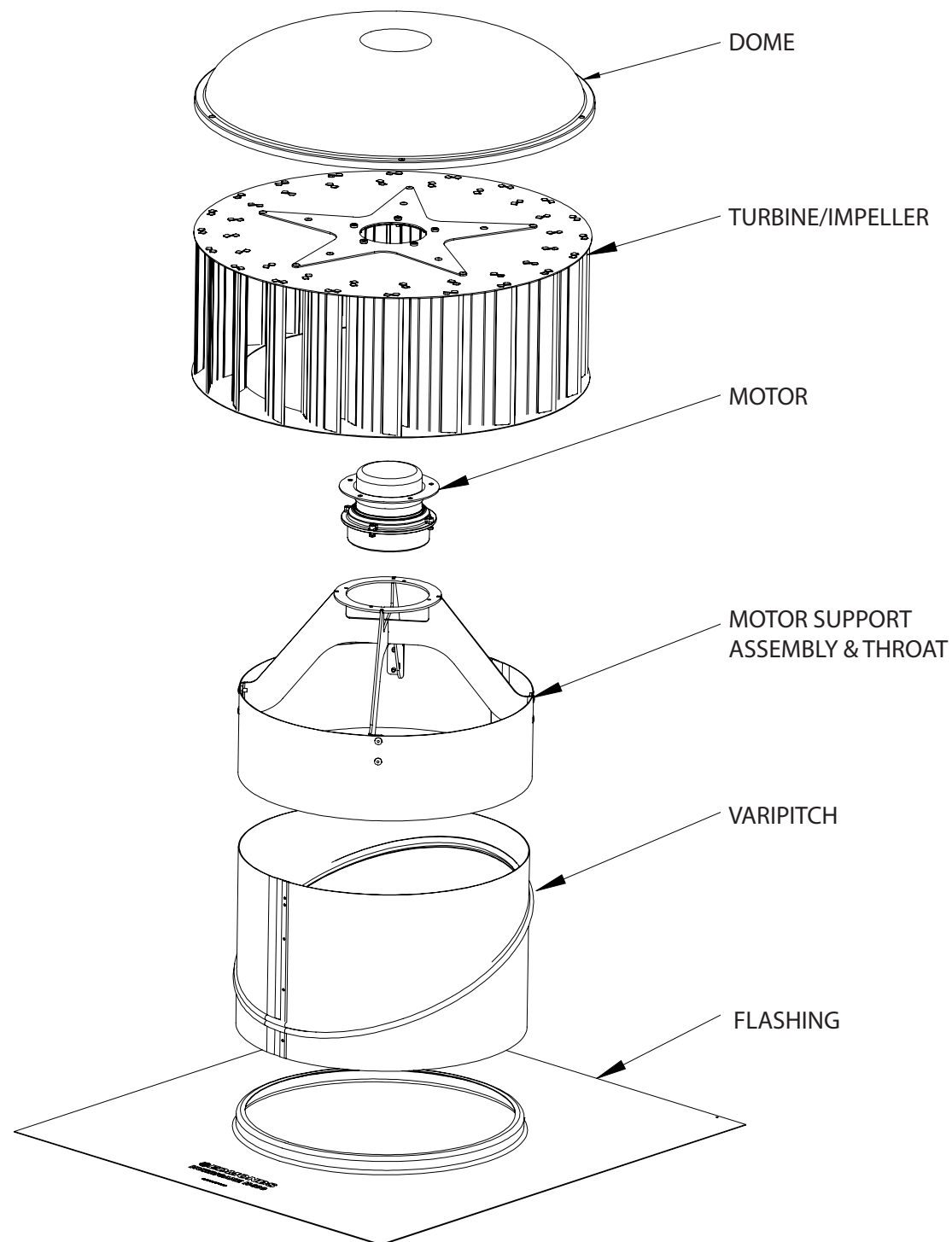
HVAC Achiever award
for EcoPower®



Note: Image for illustrative purposes only.

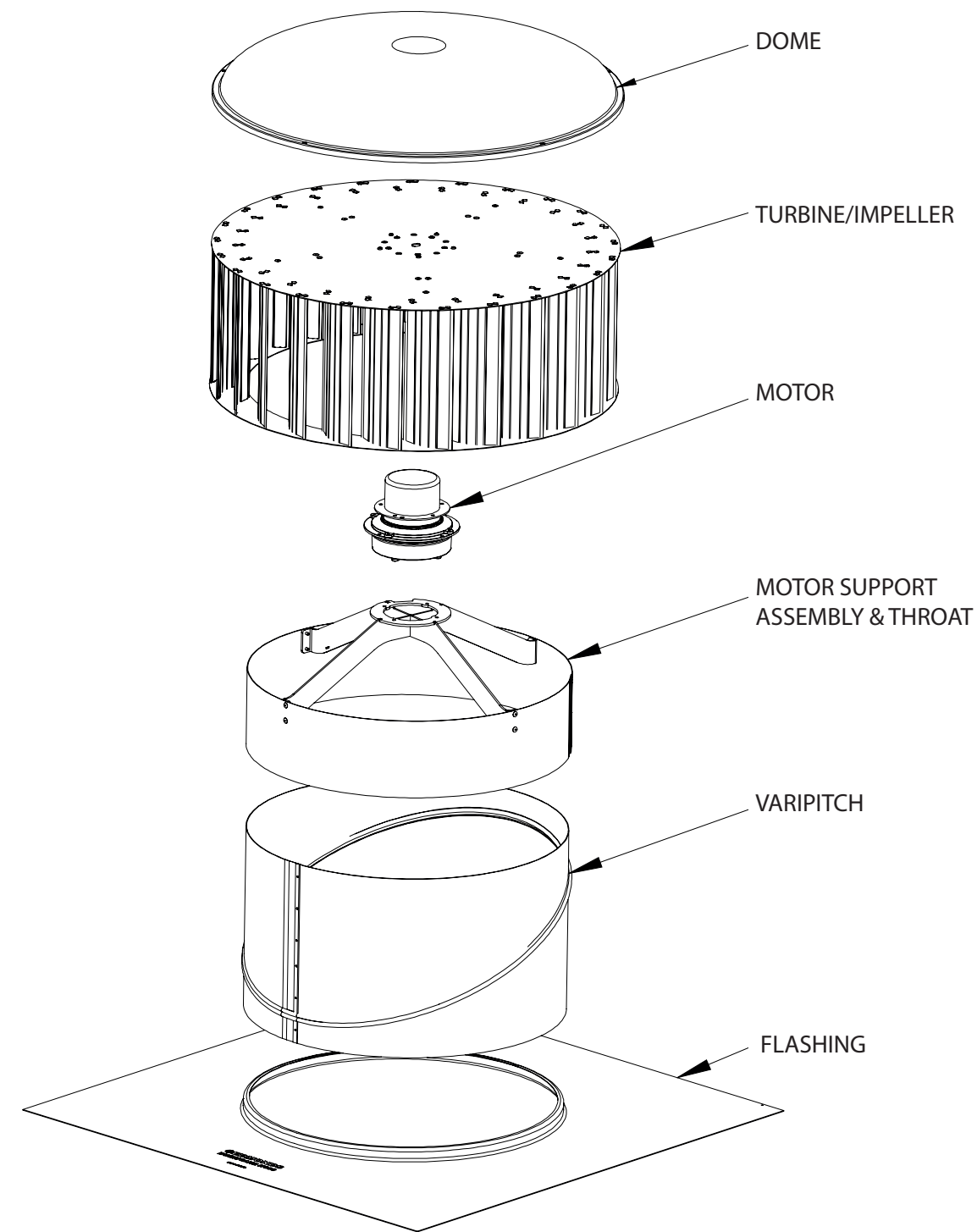
EXPLODED VIEW

EP400



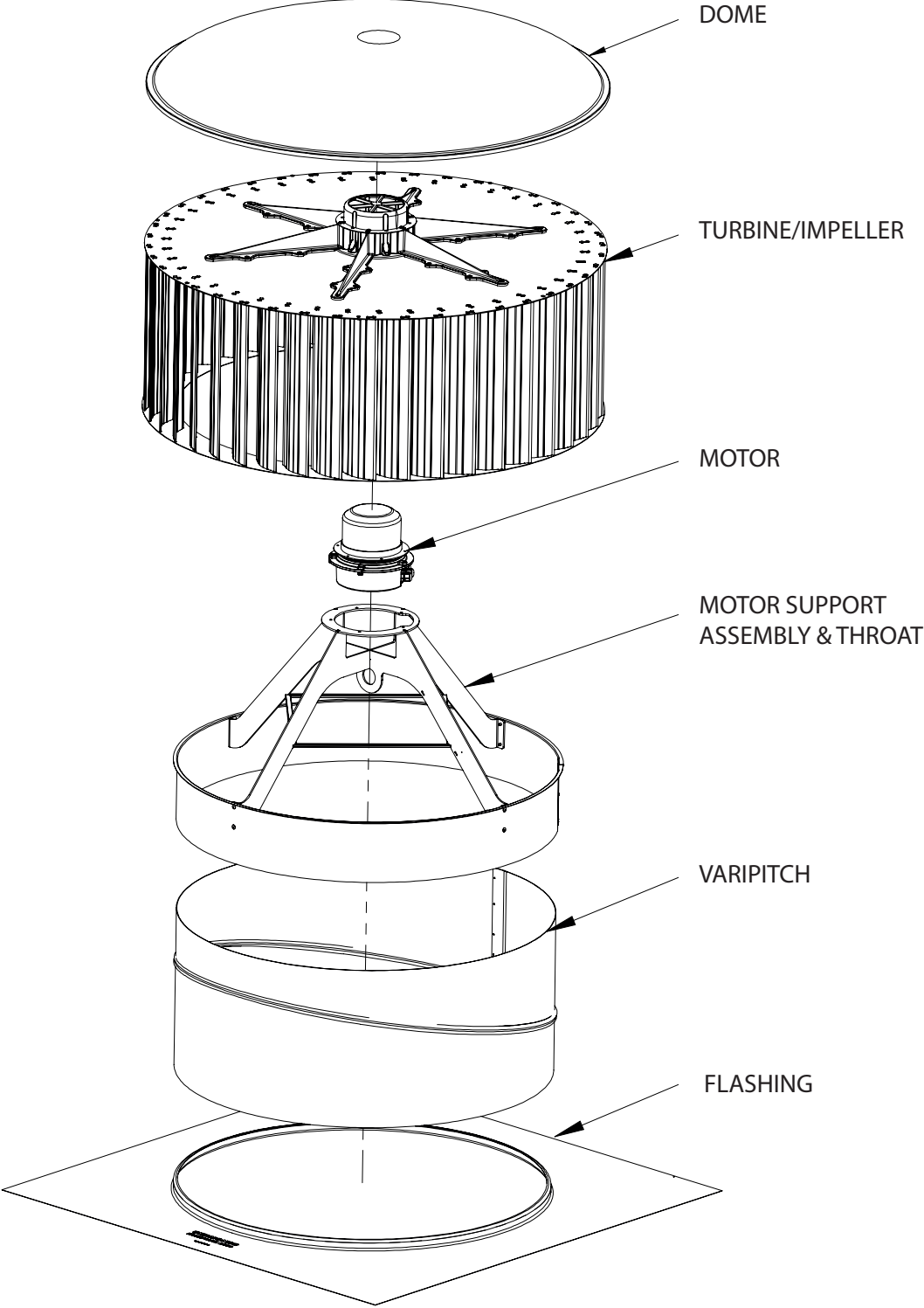
EXPLODED VIEW

EP600

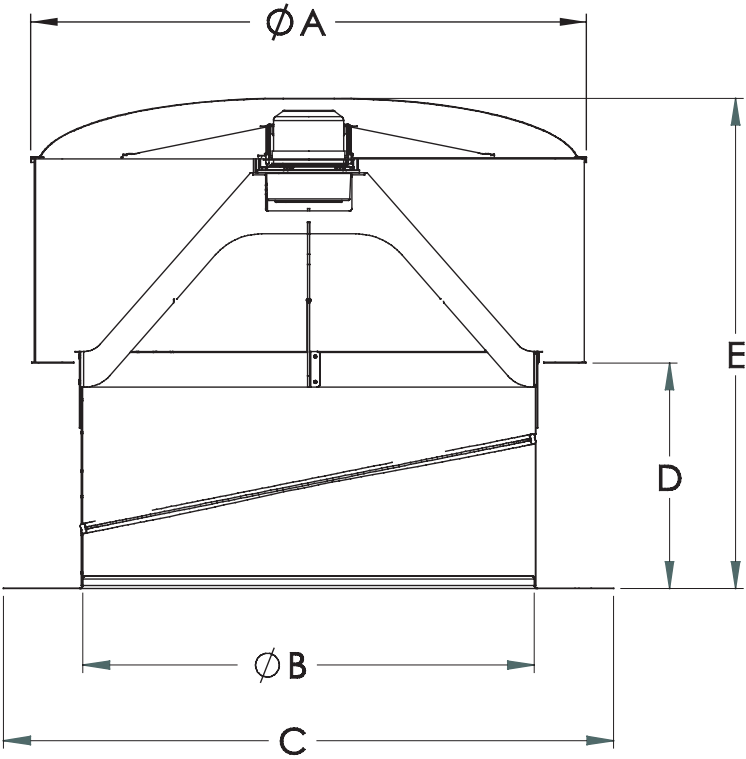


EXPLODED VIEW

EP900



PRODUCT DIMENSION & WEIGHT



In SI Units

Model	Fan Dimensions* (mm)					Product Wt.
	A	B	C	D	E	Kgs
EP400	561	410	750 x 700	205	574	9.42
EP600	766	602	1000 x 1000	275	734	18.14
EP900	1093	899	1200 x 1200	400	962	36.02

*Tolerance is within +/- 5mm and +/- 0.5 Kgs

In I-P Units

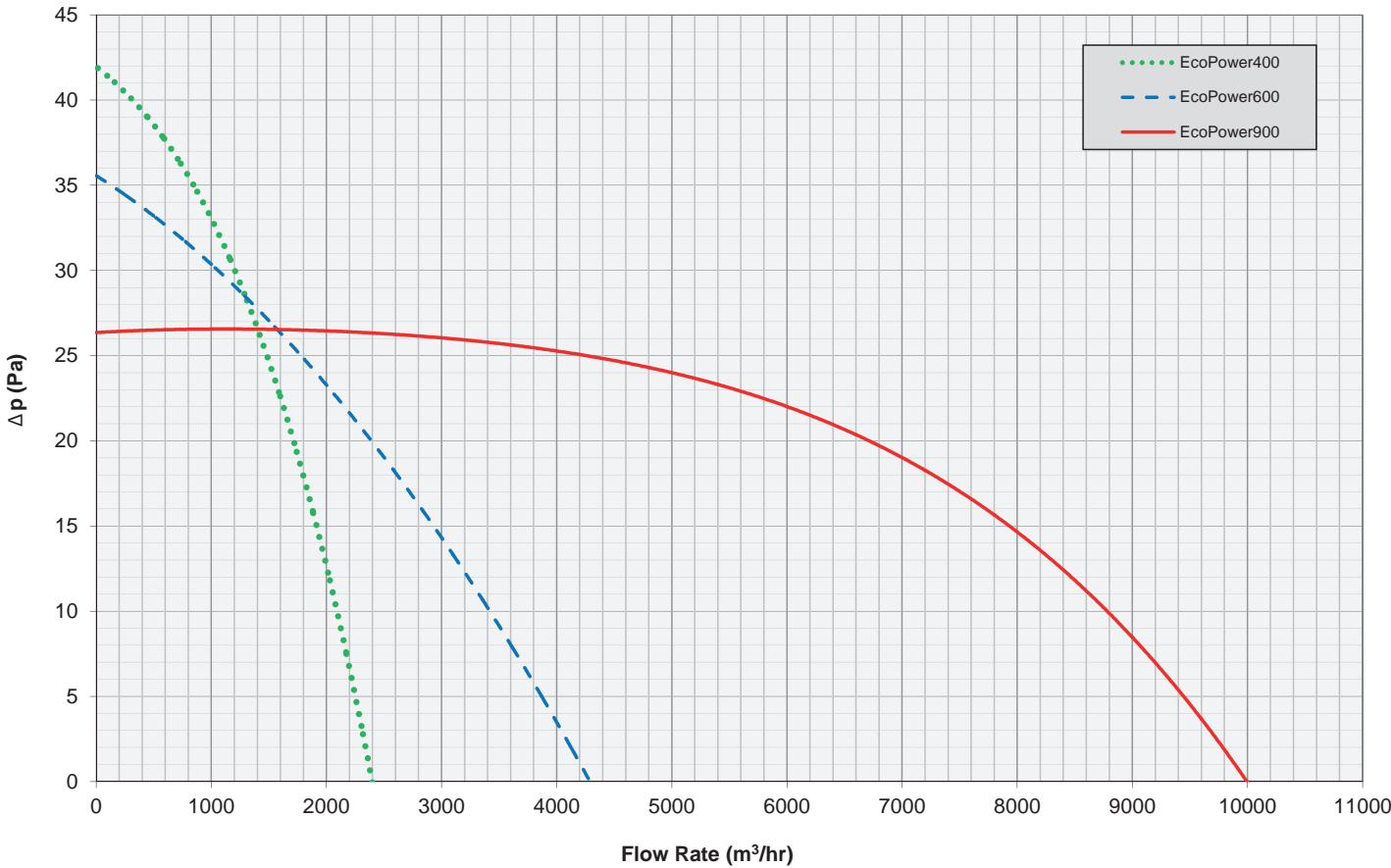
Model	Fan Dimensions# (inches)					Product Wt.
	A	B	C	D	E	Lbs
EP400	22.1	16.1	30 x 28	8.1	22.6	20.8
EP600	30.2	23.7	39.4 x 39.4	10.8	28.9	40.0
EP900	43.0	35.4	47.2 x 47.2	15.7	37.9	79.4

#Tolerance is within +/- 0.2 inches and +/- 1.1 lbs

PERFORMANCE DATA IN SI UNITS

Nominal Data	Single Phase Motor					Maximum Amb. Temp.	Specific Flow Rate @ dP=0	Sound Pressure ³ Level @ 3m
	Input Voltage	Frequency	Speed	Max Input Power	Max Current Draw			
Model ¹⁻⁴	VAC	Hz	RPM	W	A	°C	CMH/W	dB(A)
EP400	200-277	50 - 60	363	68	0.28	60	38	46
EP600	200-277	50 - 60	257	116	0.47	50	41	49
EP900	200-277	50 - 60	180	260	1.21	60	46	45.5

Performance Curve ²

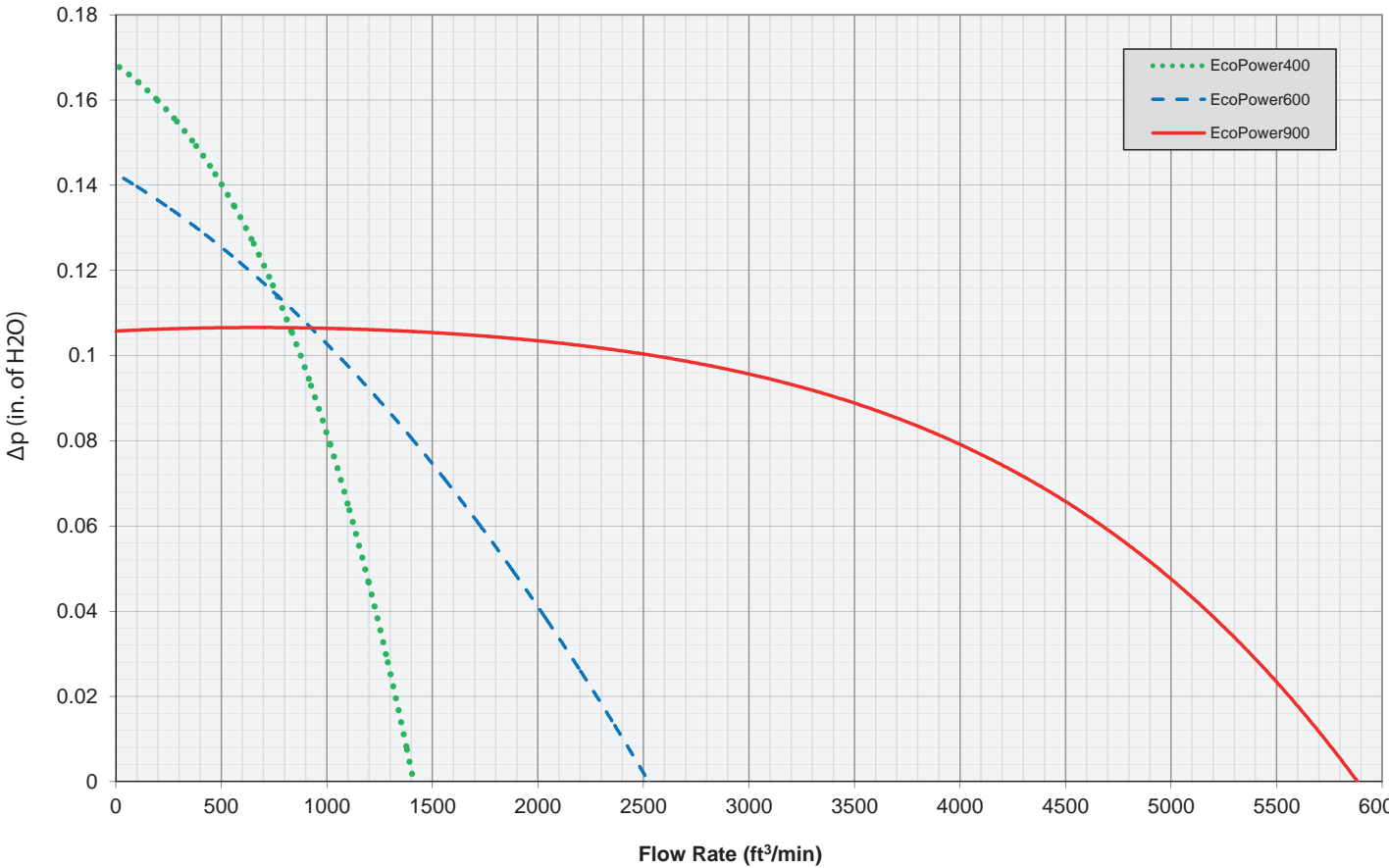


1. UL 705 versions are available on request.
2. Air Performance measured as per ISO 5801.
3. Suction-side noise levels measured at 3m distance to fan axis.
4. All models have been tested and comply with IEC 60335.2.80:2002 (SASO 2031) and IEC 60335.1:2010 (SASO 1062:2007) except for EP400.

PERFORMANCE DATA IN I-P UNITS

Nominal Data	Single Phase Motor					Maximum Amb. Temp.	Specific Flow Rate @ dP=0	Sound Pressure ³ Level @ 9.8 ft.
	Input Voltage	Frequency	Speed	Max Input Power	Max Current Draw			
Model ¹⁻⁴	VAC	Hz	RPM	W	A	°F	CFM/W	dB(A)
EP400	200-277	50 - 60	363	68	0.28	140	22.37	46
EP600	200-277	50 - 60	257	116	0.47	122	24.13	49
EP900	200-277	50 - 60	180	260	1.21	140	27.07	45.5

Performance Curve ²



1. UL 705 versions are available on request.
2. Air Performance measured as per ISO 5801.
3. Suction-side noise levels measured at 3m distance to fan axis.
4. All models have been tested and comply with IEC 60335.2.80:2002 (SASO 2031) and IEC 60335.1:2010 (SASO 1062:2007) except for EP400.

DESIGN SPECIFICATIONS

PERFORMANCE

Fans shall be tested in accordance with DIN EN ISO 5801 and AS 4740:2000. UL 705 compliant models are available for EP400, EP600 & EP900.

CONSTRUCTION

Fans shall be constructed with high quality engineering materials:

- Dome, turbine and throat shall be made of aluminium.
- The brackets shall be powder coated mild steel.
- Support arms and motor housing shall be glass reinforced nylon 6.
- Available in a range of colours upon request.

OPEN THROAT

The hybrid ventilator shall incorporate an open throat design. This design improves air flow rates by eliminating the need for a separate axial fan.

Research using AS4740:2000 (Performance of Natural Ventilators) has shown clearly that any obstruction in the throat of a natural ventilator will greatly decrease vent performance.

MOTOR

The hybrid ventilator shall use a high efficiency Electronic Commutation (EC) motor. This also results in improved performance, improved durability, and reduced maintenance.

DRIVE ASSEMBLY

The ventilator shall use a direct drive centrifugal design where the bearing system of the motor functions as the bearing system of the ventilator. This means the vent can be free spinning under wind load and/or power activated as conditions require.

CONTROL DEVICES

The control of the ventilators shall be via BMS or via a separate controller with or without integrated sensors for on/off, temperature, humidity, CO₂, CO, VOC and Wind Speed Control.

ACCESSORIES

When specified, accessories such as manual damper, electric damper, EC damper grilles, and special bases (spigot, square to round and ex base) are available upon request.

WARRANTY

CSR Building Products Limited ABN 55 008 631 356
T/A Edmonds (“Edmonds”) warrants from the date of purchase, for a period of TWO (2) YEARS that the Electronic Commutating Motor and for a period of TEN (10) YEARS that the Turbine Body of the Edmonds EcoPower® Hybrid Ventilator will retain its performance characteristics and be free from faulty materials and workmanship on the condition that the vent is installed in accordance to the installation instructions. Please refer to Warranty Document on edmonds.com.au for full details.

APPLICATIONS

AUDITORIUMS, HALLS AND GYMNASIUMS

Large spaces with high occupancy usage load are often accompanied by excess heat build-up. In many cases, natural ventilation is not adequate during times of high usage periods. EcoPower allows demand controlled ventilation to significantly increase the rate of extraction. This delivers better airflow control, improved occupant comfort and reduces the load on air conditioning systems.



Epsom Girls Grammar Gymnasium, New Zealand.
5 x EP900

MULTI-STOREY BUILDINGS – VENTILATION SHAFTS

Noisy and relatively inefficient 3 phase powered ventilators have traditionally been used in these applications. EcoPower offers a high efficiency option with lower running costs and reduced environmental impact, along with lower operating noise levels.



The Park at Pearl Ridge, Honolulu. 8 x EP600

CLASSROOM

When ducted to the ceiling, EcoPower allows natural ventilation during the day to meet minimum outdoor air ventilation rates. The powered mode can be activated at night by a timer or temperature sensor (only available as specified). The night purge operation can remove the room of excess heat build-up and allow replacement with cooler night air. This reduces air conditioning load and lowers energy consumption



Alexandra Hills State School. 12 x EP600

COMMERCIAL, INDUSTRIAL, FACTORIES AND WAREHOUSE FACILITIES

EP900 can be configured and programmed to automatically respond to set temperatures.



Washington State University Stack Assist



Established in 1934, Edmonds is a pioneer in home, commercial and industrial ventilation solutions in Australia as well as across the globe.

Edmonds is passionate about delivering superior comfort and performance whilst reducing its impact on the environment. It is this vision of a 'sustainable future' which has resulted in the design and development of many energy efficient innovations. These include passive, wind-driven; hybrid and turbine ventilation technology.

Regarded as a leading industry innovator, Edmonds ventilation products are engineered and manufactured at its ISO9001 accredited facility in Seven Hills, Australia. Edmonds was awarded the AIRAH Excellence in Sustainability Award in 2013 and Achiever Award in 2008. It was also recognised with a Good Design Award at the 2013 Australian International Design Awards and Master Builders Australia 2012 National Export Award.

With strong synergies between insulation and ventilation in the built environment, Edmonds was acquired by CSR Building Products Limited in 2005. Its vision remains to create Technologies for a Sustainable Future.

1300 858 674

www.edmonds.com.au

CSR Edmonds.

PO Box 231, Seven Hills, NSW 1730, Australia

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