



PRODUCT DATA SHEET

ALSYNITE INDUSTRIAL TURBINE VENTILATORS

Alsynite Industrial Turbine Ventilators are available in four sizes; 150mm, 300mm, 600mm and 900mm, they utilise the renewable energy of the wind to create a positive flow through the ventilator. Even the slightest wind speeds will cause the head to spin.

An area of low pressure is created on the leeward side of the vent and the air drawn out between the vanes on the head of the ventilator feed this low pressure zone.

This process allows for a continuous air flow through the vent. The centripetal forces created by the rotation of the vent will expel the air outwards from the edge of the vanes and this hot and stale air is replaced by cooler and fresh air from outside the building. Thermal currents and temperature differentials will also allow the ventilation process with the vent, even with no wind.

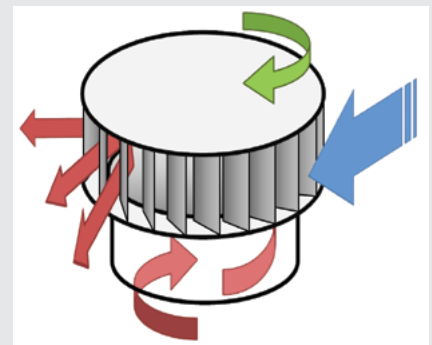
The design principles that are utilised by the Alsynite Industrial Turbine Ventilators have been wind driven for over 30 years in Australia.

DIMENSIONS

Vent Type	AITV150	AITV300	AITV600	AITV900
Throat Area	0.018m ³	0.071m ³	0.283m ³	0.636m ³
Total Weight (kg)	2.5	5	12	25
Overall Diameter (mm)	332	480	770	1100
Overall Height (mm)	435	480	720	940
Throat Diameter (mm)	150	300	600	900
Flashing size (mm)	400 x 400	500x600	900x900	1200x1200

Make-up air inlet area should be 3 times that of the exhaust (throat) area

Alsynite Industrial Turbine Ventilators offer you:



- Vertical vane technology for better performance at all wind speeds.
- Up to three times the exhaust capacity than round shaped ventilators.
- Light weight, high strength aluminium constructions means no rust.
- Performance without electricity.
- Year-round ventilation.
- High-precision, quality bearings.
- Larger exhaust openings for better ventilation results.
- 15 Year Warranty*

SPECIFICATIONS

Part of Vent	Material
Vanes	Aluminium 5005 H34
Plates	Aluminium 5005 H34
Angle Adaptor	Aluminium 5005 H34
Flashing	Aluminium 5005 H34
Dome	Aluminium 1200 H0
Brackets	Aluminium 6060 T591
Tri-Bracket	Powder coated Mild Steel
Shaft	304 Stainless Steel
Upper Bearing	Double row ball bearing - BWF30-119Z
Lower Bearing	Single row ball bearing - SB204-12C
Upper Bearing Assembly	Glass reinforced ASA
Upper Bearing Protector	Aluminium 1200 HO
Lower Bearing Protectors	304 Stainless Steel
**Tri-bracket & Lower Bearing only used on 900mm Vent	

IDEAL AIR CHANGES PER HOUR	
Factories & Warehouses	5 to 10
Gymnasiums	10 to 15
Assembly Halls	10 to 15
Toilets	10 to 15
Laundries	15 to 20
High Smell (eg Piggeries, Chicken Sheds, etc)	20 to 30
NOTE: recommended air changes depends on building usage	

PERFORMANCE TABLE

Exhaust capacity: (L/sec) in following wind speeds

Vent type	AITV150	AITV300	AITV600	AITV900
Diameter	150mm	300mm	600mm	900mm
6km/hr	110	270	620	1560
12km/hour	210	480	1140	2700
16km/hr	280	620	1420	3460

The basic principles for ventilating a building.

For any ventilation system to work effectively there must also be an appropriate amount of inlets vents, relative to the amount of roof ventilators, to access the cooler and fresher air on the outside of the building.

The image below show you the difference between a non-ventilated building (1), a ventilation building with insufficient inlets to allow fresh air into the building (2), and a properly ventilation building (3).

