



Tornado 900

High Performance - Industrial Straight Vane Turbine Ventilation System



- **Economically Priced – Easy to install**
- **Available With Either a Fabricated Square To Round Fixed Base or a Variable Pitch Base – For Roofs 0° To 22.5°**
- **Maintenance Free, Whisper Quiet With No Running Costs**
- **High Performance Light Weight Aluminium Construction**

The Tornado 900

Keeping air circulating and at an effective rate can be difficult and expensive. Galaxy Rooflite's *Tornado 900* Industrial Ventilator is the inexpensive, reliable and efficient ventilation solution.

Using only the power of the wind, Galaxy Rooflite's *Tornado 900* Industrial Ventilator silently draws hot, damp and stagnant air from the building, replacing it with clean, fresh air - all year round... without running or maintenance costs. As you would expect, it is not only whisper quiet in operation and totally maintenance free, but built to withstand heat and moisture extremes well in excess of normal operating conditions. In the case of a fire Galaxy's *Tornado 900* Industrial Ventilators will aid in extracting deadly smoke and fumes from the building, allowing occupants a much better chance of escaping safely.

Galaxy Rooflite's *Tornado 900* rotates freely, due to the permanently lubricated bearing system. The unique variable pitch base also allows rapid installation, as one size fits up to 22.5° roof pitch angles. A fabricated square to round fixed base is also offered as an alternative fitting system, subject to special order. The *Tornado* complies with AS2428.1 – 1993 to wind speeds of 200 km/hr and to the entry of wind driven rain at a range of 2.5L/sec, under cyclonic conditions.

* *Special fixings are required for cyclonic areas.*

Benefits of the Tornado 900 Straight Vane Series

- **No Operation Costs**

As the Tornado, is a self contained wind powered design, there are no operational costs incurred.

- **Reduced Power Costs**

Proper ventilation provides a cooler, damp free and low humidity working environment, reducing the need for costly air conditioners or industrial fans.

- **Reduced Installation Costs**

Due to the versatility of the variable pitch throat, installation costs are reduced as one unit fits all.

- **Reduced Building Maintenance Costs**

Rising damp & humidity causes corrosion of building structures, painted surfaces, metal fittings and potential corrosion damage to electrical wiring. Proper ventilation eliminates these problems.



The Tornado Package

The Tornado 900 is suitable for all composite metal and fibre cement roofs, with pitches up to 22.5°. The Tornado package comes in a two durable cardboard boxes one contains the turbine head and the second contains a matching diameter variable pitch throat tube and base flashing.

Optional fixed, square to round base is available, subject to special order.

Distributed By;



Calculating How Many Ventilators

1. Determine the Volume (**VOL**) of the building in cubic meters. (Length x Width x Height).
2. Depending on the building type, select the required Air Changes (**A/C**) per hour, from the table below.
3. From local authority records, determine the typical wind speed. 6, 8, 10, 12 or 16 km/h. This will establish the exhaust capacity M³ per hour (Refer Table).
4. Calculate:

$$\text{No of Ventilators} = \frac{\text{VOL} \times \text{A/C} \times 0.278}{\text{Exhaust Capacity L/Ps}}$$

Recommended Air Changes (A/C) for various buildings

Building Type	Recommended A/C/Hour
Warehouses	5 to 8
Factories & Workshops	5 to 10
Sports Centres	5 to 10
Assembly Halls	10 to 15
Garages	10 to 15
Toilet Blocks	12 to 15
Laundries	12 to 20
Stables, Piggery	10 to 50

Performance Table

(Exhaust Capacity in litres per second at wind speed (Km/h))

Model	900mm
6 km/h	1600 L/Ps
12 km/h	2800 L/Ps
16 km/h	3600 L/Ps

The performance data above is calculated in accordance with the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE). Air change rate must conform to local health department building codes covering the type of installation. Some designs, such as Tornado 900, have superior flow coefficients to spherical vane vents while any obstructions in the throat of a ventilator, such as a fan blade or motor, will decrease the discharge coefficient.



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