LEAK LOCK INSULATION
CONTRACTING LLC

Wind Driven
Turbine Ventilators

Constructed with super light weight aluminium alloy with revolutionary Fluorine Carbon Polyester Coating

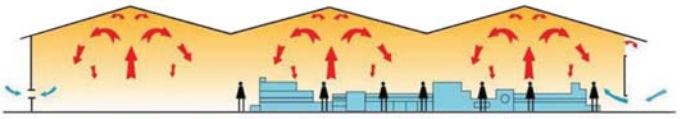
› RESIDENTIAL › COMMERCIAL › INDUSTRIAL

Wind Driven Turbine Ventilators

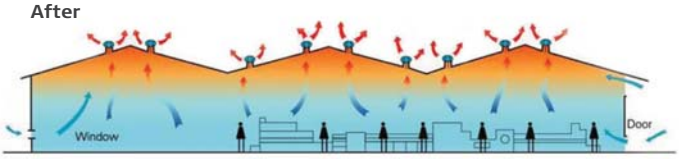
How it Works

our ventilators work by drawing stale air upwards and out of the building. This air is then replaced by fresh air which is drawn in by way of a convection current through other openings in the building.

Before



After



Key Benefits

- Low cost
- Easy Installation
- Fits all roof types
- Efficient
- Silent running
- Corrosion resistant
- Eco-friendly
- Fully waterproof
- 5 sizes available
- No wiring
- No maintainence
- No ongoing costs

EXTRACTS:

- Hot, humid air
- Polluted air and fumes
- Condensation
- Smells and animal odours
- Corrosive air

Installation

Each ventilator is boxed with full installation instructions, and a 15 year manufacturer's warranty. Ideally ventilators should be positioned as close to the peak of the roof as possible. If this is not an option, a cowl flashing can be made to fix further down the roof.

Superiority

- 30% more venting efficiency than Stainless Steel ventilators
- Ventilators is suitable for corrosive fume extraction and coastal areas due to the anti-corrosive flurocarbon polyester coating.

Construction

our ventilators are constructed using a high quality revolutionary aluminium alloy with a flurocarbon polyester coating.

This Coating creates a corrosion resistant ventilator superior to others on the market. Its super light weight allows for a greater speed spin sensitivity starting at only 0.12 metres per second.

our ventilators contain a high quality sealed and self-lubricating NSK axial bearing and reinforced supports.

Note: Ventilators not powdercoated by Roofquip Ltd will result in the warranty being void. Please contact us to discuss powdercoating options

10 YEAR WARRANTY

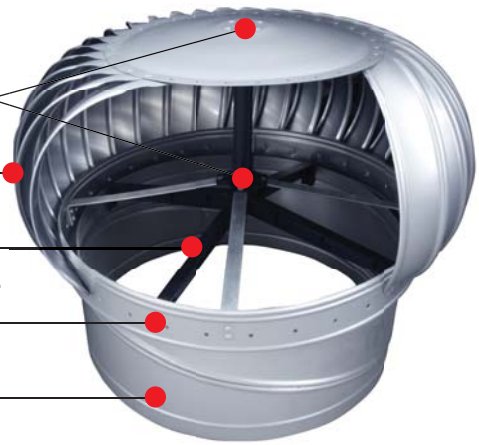
NSK axial bearing, sealed, self lubricating

32 pieces dual-arc vanes made from fluorine carbon coating aluminum alloy top keep rain from flowing backwards.

Fireproofing reinforced nylon plastic support with high strength, high tenacity and easy recovering from deformation

0.7mm Korea Puxiang 304/2B stainless steel plate as medium circle

Variable Pitch






What size do you need?



Residential / Small Applications

"An average family with children can release in excess of 12 litres of moisture into the air every 24 hours!"

Damp warm conditions without air movement can encourage dust mites, mould and condensation- all potential health hazards for your family or workplace.

The simple action of ventilators also keeps energy costs down while ventilating any building, from a small home to a large warehouse.

300mm

- Houses - Sheds - light Commercial - light Industrial

House Size m²	Number of ventilators required
90 - 120	1 - 2
130 - 180	2 - 3
200 - 350	3 - 4

Includes: Base Flashing and Variable Pitch to fit roofs up to 30°

200mm

Ideal for fixing to pipes or ducting penetrating the roof, the 200mm has a fixed throat without a base flashing.

Commercial/Industrial Applications

Wind ventilators reduce heat and fumes which creates a better working environment. Adequate ventilation has been proven to enhance staff effectiveness and prolong shelf life of stored goods.

500mm
600mm

- Factories
- Farm Sheds
- Workshops
- Gyms
- Halls

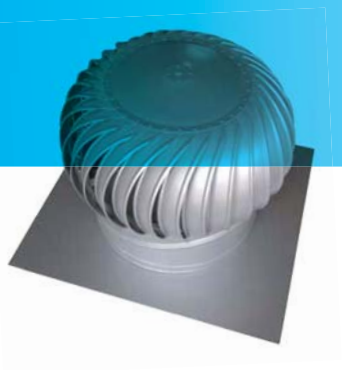
Includes: Base Flashing and Variable Pitch to fit roofs up to 22°.

A square to round base adaptor can be made to allow for fitting up to 45°.

900mm

An industrial flat vane ventilator made from Aluminium (without fluoro coating). Includes: Base flashing and variable pitch to fit roofs up to 22°.

How many ventilators do I need?



Commercial/Industrial

1. Calculate the buildings M³ (length x width x height)
2. Determine the number of air changes required for the building type. (Table 1)
3. To calculate the venting capacity m³/h (Table 2), you will need to know:
   - Typical area wind speed (1m/s to 5m/s).
   - Temperature difference between indoors & outdoors (0°).
   - Roof height.
4. Insert the information into the formula to calculate total number of ventilators required.

Table 1

Recommend* No. of air changes per hour			
Building Type	**Air Changes P/Hr**	**Building Type**	**Air Changes P/Hr**
Warehouses	3-5	Laundries	7-15
Factories/workshops	3-8	Welding Workshops	12-21
Gyms/sport halls	3-8	Animal Housing	10-50
Assembly Halls	6-12	Garages	6-12
Toilets	12-15	Cooking Factories	6-12

*Air change rate must conform to local health department's code specific to building type.

Table 2

		Temperature difference between indoors and outdoors (0°)											
		3°c				5°c				10°c			
		Roof Height				Roof Height				Roof Height			
Vent size	Wind Speed	6m	10m	15m	20m	6m	10m	15m	20m	6m	10m	15m	20m
200mm	1m/s	180	230	320	380	300	340	410	460	350	580	700	810
	2m/s	260	370	500	590	550	680	760	830	590	750	920	930
	3m/s	470	720	770	880	730	830	930	1030	800	870	1060	1000
	4m/ s	720	900	1060	1150	1000	1130	1250	1320	1060	1250	1280	1300
	5m/s	1080	1120	1230	1400	1100	1230	1320	1360	1180	1300	1390	1430
300mm	1m/s	270	340	420	490	360	430	500	550	510	720	940	1050
	2m/s	320	510	610	760	610	740	840	936	720	870	1110	1220
	3m/s	580	930	960	1080	870	990	1100	1200	1000	1090	1280	1340
	4m/ s	860	1240	1290	1350	1200	1300	1480	1530	1310	1490	1580	1680
	5m/s	1310	1480	1580	1840	1450	1490	1630	1680	1520	1670	1810	1910
500mm	1m/s	910	1090	1090	1410	1000	1230	1450	1750	1250	1570	1990	2040
	2m/s	1390	1540	1570	1710	1430	1570	1820	2010	1630	1640	2270	2530
	3m/s	1640	2246	2080	2210	1840	2010	2250	2420	2100	2250	2710	2860
	4m/ s	2570	2610	2610	2800	2450	2650	2730	2910	2620	2750	3200	3300
	5m/s	3110	3120	3130	3220	3120	3130	3370	3440	1350	3380	3410	3770
600mm	1m/s	1210	1450	1820	2050	1390	1820	2210	2600	1840	2340	2850	3380
	2m/s	1900	2050	2300	2600	2090	2310	2680	3059	2360	2780	3230	3690
	3m/s	2640	2880	3050	3140	2830	2990	3250	3510	3050	3380	3920	4160
	4m/ s	3600	3600	3720	4120	3620	3770	3930	4160	3830	4090	4420	4740
	5m/s	4320	4450	4530	4880	4450	4580	4710	4870	4600	4860	5130	5395
900mm	1m/s	2848	3389	3897	4385	3321	3952	4624	5318	3873	4609	5393	6202
	2m/s	4410	4983	5581	6162	4884	5519	6181	6824	5408	6111	6845	7556
	3m/s	7825	8764	9728	10652	8589	9619	10677	11692	9427	10558	11720	12833
	4m/ s	9344	10278	11306	12324	10073	11080	12188	13285	10859	11944	13139	14321
	5m/s	11259	12047	12890	13535	11806	12633	13517	14193	12380	13247	14174	14883

$$\frac{M^3 \times \text{Air Changes (Table 1)}}{\text{Venting Capacity (Table 2)}} = \text{Number of Ventilators Required*}$$

*If this exceeds the amount of ventilators suitable to fit the roof with the recommended spacing of 5m, (no less than 3m) then recalculate using a larger sized ventilator.