



# VORTEX FAN

## THE TOTALLY NEW 510 SERIES

### INSTRUCTIONS AND WARRANTY

Please read all instructions before installing or operating fan.

- Corrosion resistant;
  - Heavy duty painted coating on body,
  - Marine Grade Aluminum body
  - Corrosion free injection moulded impellor,
  - Nylon 66 injection moulded grilles at both ends,
  - Galvanised x 2 suspension hangers.
- 200 watt motor especially produced for this new style VORTEX FAN designed for harsh environments.
- Safety Guards both ends for improved safety.
- Increased Airflow... The new 510 series greatly increases airflow and throw.
- Simple two point suspension system.
- 3 year warranty on all body parts, 1 year warranty on motor

**“Professionally designed for professional growers  
and Built stronger to last longer”**

## History

Horizontal airflow principles have been around for many years and Redpath Pacific Ltd have been distributing Vortex circulation fans for over 20 years. They are used in many applications worldwide.

The 510 series of Redpath Vortex Fan has been designed to offer improved corrosion resistance.

Following the simple instructions will ensure your Vortex Fan operates for many years to come and is an extremely worthwhile investment.

## How do Vortex Fans Work?

The very simple principle of Horizontal air flow is firstly to invigorate the internal environment and secondly to circulate, mix and stabilize the temperature regime. In still air, warm air rises and will quickly pool in the highest point of the roof, however this is very easily prevented by causing some gentle air motion. This air motion needs only to be very slight but thoroughly throughout the entire house.

The third but most important benefit is the reduction in fungal sprays required as a result of installing Vortex Fans.

The reason for this is that the gentle air movement displaces transpiration moisture from the foliage and lowers the dew point at the leaf surface. The combination of air movement and drier foliage radically inhibits fungal growth of all kinds and may substantially reduce the need to use fungicides.

Originally butcher's type vertical ceiling fans were used but growers soon found detrimental side effects in the crop directly underneath. Also considerably fewer VORTEX FANS are required per house.

***As a result Horizontal Air Flow is now accepted as the industry standard.***

## Installation Suggestions;

In a greenhouse situation, to generate a circular horizontal air movement, site the unit above head height and approximately 3-10 metres in from the gable end wall and 3-8 metres or one third from the side wall. (See Diagram A). This will provide a gentle drift down one side across the end and back up the opposite side where it will be recirculated.

Suspend the units from chain or stout cord and attach to the roof at strong supports longer than the actual fan. This will brace the fan and prevent any swinging or sway induced by the airflow.

Use one fan per bay and on multibay structures; site each adjacent fan at opposite ends of the house. In longer houses than 35-40 metres we would suggest a second fan unit be situated halfway down the bay to assist air movement full length.

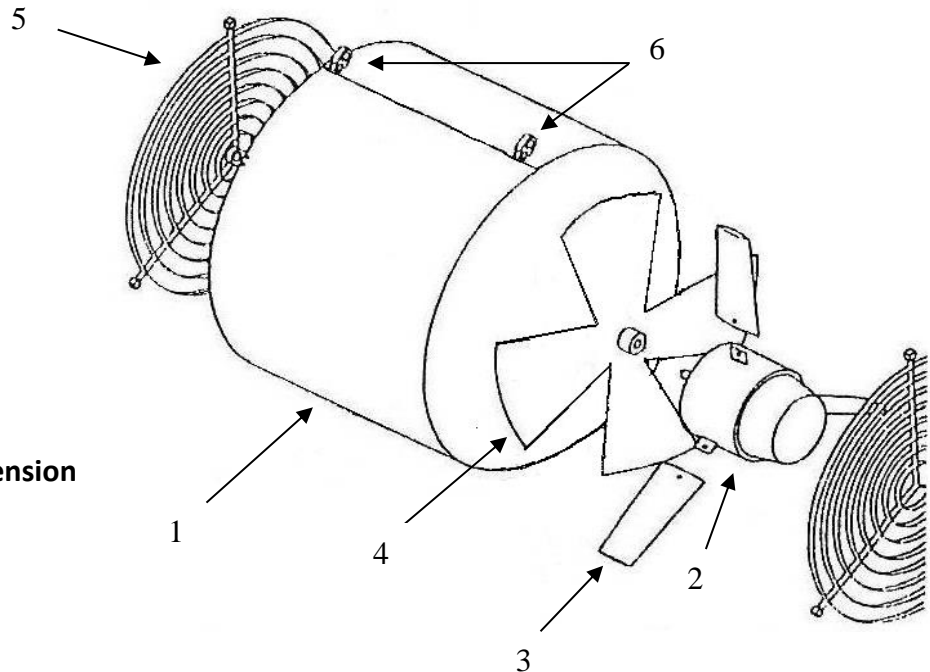
In poultry houses the siting of the VORTEX FAN is virtually the same, well above bird and head height in similar positions to create the circular movement.

The Vortex Fan may be interlocked with ventilation fans or heaters to operate at similar times or merely left operating constantly.

The motor has a continuous duty rating, 230V/200 watt single phase, with a similar electricity consumption of two moderate size light bulbs. The VOR 200 is designed to operate within the Greenhouse or Eco-shelter® environment.

## Parts List.....

1. Body
2. Motor
3. Motor Mounts (three)
4. Fan Blade
5. Grills (pair)
6. Galvanised x two suspension hangers
7. Fastenings (full set)

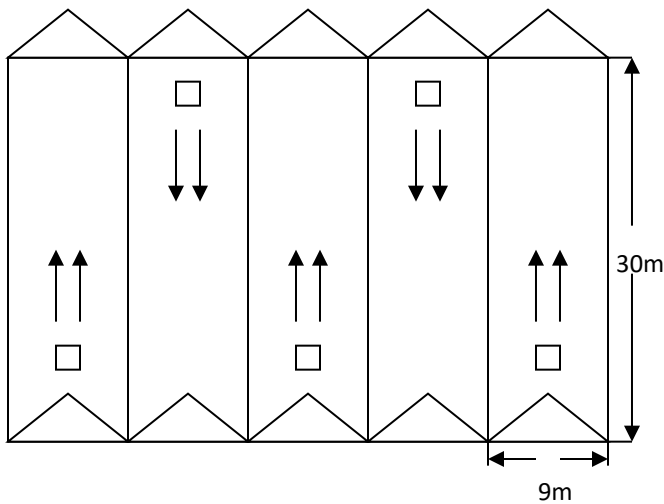


## Precautions.....

- Only a registered electrician or suitably qualified person is permitted to fit the appropriate plug to your Vortex Fan. (Note: Diagram B).
- Ensure the power supply is disconnected before handling the unit.
- Do not operate the Vortex Fan without the safety grills in place.
- Do not restrict the airflow in any way. (For example, fitting ducting, insect mesh, check with your supplier).
- Do not drop the unit.
- Check the unit for damage when unpacking, if the unit appears damaged or is damaged during installation; return it to your supplier for inspection before use.
- Keep hands or equipment out of the chamber when operating.
- Keep children well away from the unit when operating. Install above head height!
- Ensure the fan is pointing in the correct direction for output airflow.
- Discuss with your Consultant the suitability of these fans for your particular crop.

## Maintenance.... (Is a condition of warranty)

- Clean the Vortex Fan & blades every six months to prevent dirt build-up on the blade, this will ensure the blade remains in balance and will enhance the motor life.
- Do not water blast. Use an air gun or a cloth to remove dust.
- In poultry sheds, clean every 4 months or between runs.
- Do not expose the fan to corrosive sprays.
- Do not directly apply sprays or expose the fan to a wet environment.
- Always disconnect the Vortex fan from the power supply before handling.



**Typical Fan layout**

Diagram A

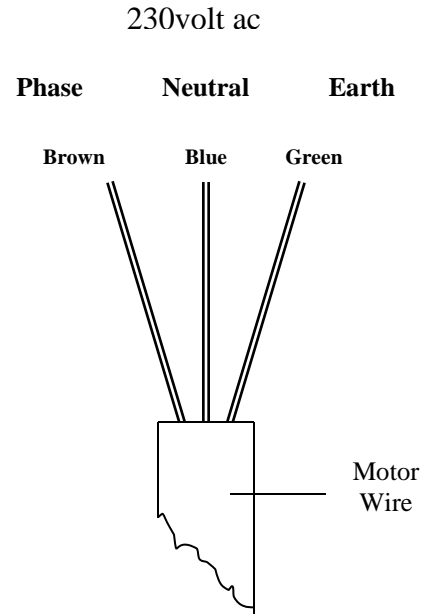


Diagram B

## WARRANTY

This Company provides a warranty on this VORTEX FAN for the period of three years on the body, guards, fan blade and hangers and one year on the motor. This warranty is effective from the date of invoicing.

This warranty is conditional upon normal and sensible usage of the equipment in the conditions for which it is designed and intended, that maintenance is performed at recommended intervals and does not cover fair wear and tear, vandalism, improper installation or storm damage. It does not cover faulty repair or unapproved modifications.

In the event of a fault developing in the VORTEX FAN, the customer should return the fan to the supplier from whom it was purchased immediately, advising the problem. The warranty period includes all elapsed time until the supplier is notified!

This warranty is limited to the replacement only of the item under warranty and does not include nor imply responsibility for damage/s or loss/s as a result or subsequent to the malfunction.

Incorrect or unapproved wiring or otherwise altering a pre-wired unit without the manufacturer's authority renders the warranty null and void.

Failure to pay for the goods in full in the agreed period without the prior agreement of this company renders the warranty null and void. Any warranties or service requirements stipulated are not applicable until payment is made in full.

Goods should be forwarded freight prepaid to the nearest servicing address and will be repaired or replaced at this company's discretion, the items will be dispatched as rapidly as practical. Damaged parts supplied under warranty must be returned to the nearest supplier.

### Your Nearest Master Distributor is .....

Australia  
New Zealand

Bendigo,  
Palmerston North,

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