



# VORTEX - 450 SERIES HORIZONTAL AIR-FLOW FAN

## FEATURES

- Corrosion resistant - Heavy duty stainless steel body, Corrosion free injection moulded impellor.
- Dimensions - 450mm diameter x 330mm length
- Safety grilles at both ends
- Excellent Air-flow and Air-throw, with medium level
- Simple four point suspension system, with chain included
- Motor nominal - 230V/240V, 910rpm, 370w, 0.9A, single phase.

### History and Application:

Horizontal airflow principles have been around for many years and Redpath Pacific Ltd have been distributing Vortex circulation fans for over 20 years.

Horizontal air flow will invigorate the internal air environment and help circulate /mix + stabilize the temperature, humidity and CO<sub>2</sub>

Another 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 & condensation moisture from the foliage and lowers the dew point at the leaf surface.

### Installation Suggestions:

In a greenhouse situation, to generate a circular horizontal air movement, position the unit(s) above head height of the crop and approximately 3-5 metres in from the gable end wall and (See Diagram A). This will provide a gentle drift of air down one side then across the end and back up the opposite side where it will be recirculated.

Suspend the units using the supplied chain and all four suspension eyelets. Use a longer chain or cable if your structure requires this (not supplied).

Attach to your roof structure at sufficiently strong supports that are at spacing's longer than the actual fan. This will brace the fan and reduce the potential for any swinging, spinning or sway induced by the airflow.

Use one fan per bay and on multi-bay 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. 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, Nominal 230V/240V, 910rpm, 370w, 0.9A single phase.

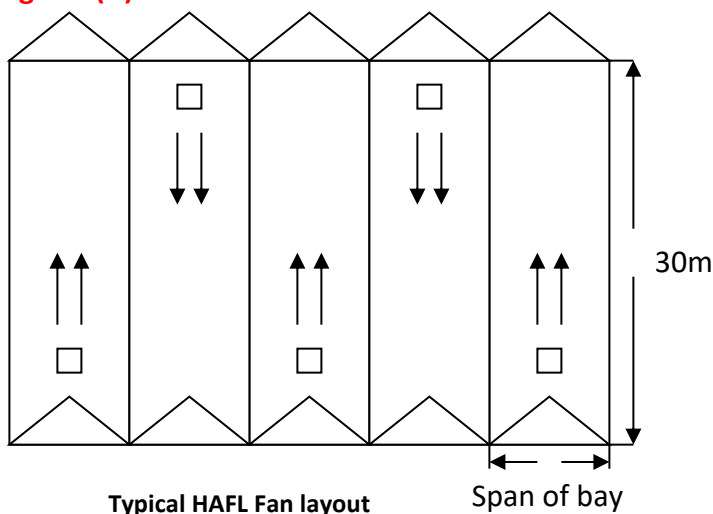
## Precautions.....

- Only a registered electrician or suitably qualified person is permitted to fit the appropriate plug for your installation environment of your Vortex Fan.
- Ensure the unit is wired into an ELBC circuit (Earth Leakage Breaker Circuit) (RCD)
- Ensure the power supply is disconnected before handling or completing any maintenance of 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, or mesh to the inlet or exhaust side. (Check with your supplier first).
- Do not drop the unit. (the fan body may become out of shape or out of balance if it is miss-handled)
- 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 / fan body when operating.
- Keep people/children clear of the unit when operating, Install above head height & out of reach.
- Ensure the fan is pointing in the correct direction for output airflow.
- Ensure that any surrounding materials cannot be drawn into the intake of the fan when operating
- Vortex fans are designed to operate for extended periods, do not operate in a constant on-off working environment.
- Discuss with your Consultant the suitability of these fans for your particular crop and ideal positioning
- Warranty is as per conditions on the Redpath website [www.redpath.co.nz](http://www.redpath.co.nz) and maintenance plan

## Maintenance Plan:

- 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.
- Replace starting capacitor if start-up issues develop or as required

## Diagram (A)



## Suspension from 4 x included eyelets

