

## INFLATOR FANS

Please note solar powered options will be available if you do not have a convenient electricity source near the structure. There are separate instructions for this option.



An inflator fan is a small blower which puts air in between two layers of roof cover on a greenhouse. Benefits of *inflator fans* are:

- to achieve some degree of heat efficiency (up to 30% reduction in heat loss).
- virtually eliminates condensation (by insuring that there are no holes in the cover and making sure the edges are sealed, you will create the dead air space required)
- ensures the cover is always tight since you simply get more air during warm weather
- creates longer cover life since nothing is ever rubbing on anything.
- reduces wind stress on the structure since it acts as a shock absorber.

The best location for the inflator fan is the corner from which the prevailing wind comes, usually the north or west side. (suggestion only)

**Usually the unit draws inside air. If you are in a very high humidity application, it would be advisable to draw outside air.**

Most inflator fans come with a hanger plate rather than a mounting board. The mounting bracket of the *fan* can be fastened to the end framing or to the end *hoop*. The direction of the output is determined by convenience.

**The motor shaft MUST be horizontal because of the type of bearings used.**

Plug the *fan* in for a few seconds to make sure it is working properly.

The adapter is usually attached 2' to 3' down from the *ridge* and 1' to 2' in from outside edge. A double output *fan* has the adapters secured equal distance from *ridge*.



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1. Using a pen or pencil, make a **small** hole in the **inside** layer where you wish to install the adapter.

It is **CRITICAL** that you make the small hole with a pen or pencil **THEN** stretch it bigger. This is the **ONLY** way the flange will be sealed!!

2. **Stretch** the hole to an approximate 2" diameter.
3. Before inserting the adaptor into the hole, make sure the wire reinforced hose is attached to the adapter. Secure hose to adapter with electrical or duct tape (electrical tape is best).
4. There is a notch in the flange of the adapter, hook this into the edge of the hole in the plastic and rotate once. The flange should now be in between the two layers of cover.
5. Slide the free end of the hose over the blower adapter. Secure with electrical or duct tape.
6. **If you have to stretch the hose a lot, it is too short and the blower should be moved closer. If the hose hangs with a kink it is too long and should be trimmed.**
7. Larger structures will get a dual output inflator which means you will repeat steps 1-6 for both sides of the ridge.
8. **The time it takes to completely inflate will depend on the size of the structure.. 4" of air space is ideal. It should not take a great deal of effort to push the outside layer against the inside layer.**
9. If the air does not go over the *ridge*, undo some of the *wire inserts* and slide a 12" piece of garden hose between the two layers. This artificially creates a place for the air to move.

**These motors run quite warm but are intended to run continually.** There is no need to periodically oil them. When units get older, it may not always start by itself after a power outage. **The motor should not make any more sound than humming.**

PLEASE NOTE: Any italicized words in this document are words that are listed in the glossary.