#### **Ecotech Exhaust Blowers**

Ecotech's new and improved Turbo 4000 Series II sets the standard for in-line blower performance. Utilizing advanced fan blade design techniques, Attwood has developed a blower system that matches air flow of existing in-line blowers at a significantly reduced noise level. The first 12 VDC vane axial-flow fan blower designed using aerospace technology to maximize performance. No other 12 volt blowers in the industry provide such powerful system output at such a low power input in a compact size.

- Patented in-line design provides ventilation for composting toilets, engine compartments, galleys, bilges, and heads. Mounting feet allow vertical or horizontal installation in confined spaces. Install with #10 fasteners. Individual carton includes 2 tie straps for tubing. All are CE certified. 16-gauge tinned and caulked copper wire leads.
- 12 Volt Direct Current 2.6 ampere
- 200 CFM
- Nickel-plated motor can for corrosion resistance
- Stiffening ribs to reduce housing distortion
- Motor cap to seal wires and motor for water resistance
- Five-blade fan maximize airflow and efficiency
- Tabs in intake and exhaust hold ventilation hose/ clamp firmly in place
- Low amp draw motor for longer blower and battery life
- Built-in mounting feet allow easy vertical or horizontal install
- 3-Year Warranty This Ecotech Turbo Blower 4000 utilizes advanced fan blade design techniques. Ecotech with its manufacture has developed a 12-Volt blower system with a quality airflow at a reduced noise level. This quiet blower features engineered plastic housing for added durability. The

housing resists deformation during installation and prevents blade-to-housing interference. This compact-sized 12-Volt blower provides ventilation for composters and other ventilation requirements.

### **Ecotech Turbo Blower 4000:**

- Advanced fan blade design
- Significantly reduced noise level
- An engineered plastic housing for added durability
- Resists deformation during installation and prevents blade to housing interference
- Voltage: 12V

### **MOUNTING INSTRUCTIONS**

#### **Reminder:**

To prevent personal injury, disconnect one of the main battery leads prior to installing the blower.

1. Select a flat mounting surface high above the toilet seat, preferably in the attic. Blower should be mounted high and dry, clear of moisture from water drips from rain or condensate.

2. Position blower with fan nose cone pointing toward exhaust pipe. Also, where possible, mount blower at an angle to prevent moisture build-up.

3. Mark mounting holes using blower mounting feet as a template.

Drill holes for #10 screws.

4. Secure unit in place using #10 screws. Do not over tighten screws, as this will crack the mounting feet.

6. <u>For insertion into 4" ID plastic pipe</u>, put a bead of silicone around outside perimeter of the fan (see Figure D) and push into the opening of the 4" id exhaust pipe until stopped by the ridge. Bring the 4" pipe above the peak of the

roof and top with a 4" sanitary T bloused with fly screen to keep the bugs, rain



and snow out.

7. For hose installations, twist duct hose over exhaust and intake openings on blower. Ensure the retainer tabs engage corrugated rings of hose. Install tie strap or hose clamp on the hose. Position the strap or clamp around blower housing, beyond the tabs. Tighten the strap. When using a hose clamp, tighten until snug — 8 in/lb. (.5N.m) max. Do not over-tighten straps or clamps.

8. Route exhaust end of hose directly to exhaust pipe with as few bends as possible. Connect hose securely to exhaust pipe.

9. To further reduce resistance and therefore possible odor; procure a 4" to 6" increaser from a plumbing department, use 6" pipe up through the roof and top with a 6" sanitary T bloused with fly screen to keep the bugs, rain and snow out.

## FEATURES

Turbo In-Line Bilge Blowers provide ventilation for engine compartments, bilges, and marine head closets. Their unique fan blade is computer-designed using the latest in aerospace technology.

The blowers' compact in-line design allows for installation in confined areas; their built-in mounting feet allow vertical or horizontal installation. Tabs on the hose flanges grip the ventilation hose and prevent hose clamps from sliding off after installation.

## WARNING:

To prevent personal injury, always disconnect electrical connection when installing or servicing this product. Connect to 12-volt D.C. systems only.

Always use a fuse with 4 amp rating. Failure to do so could result in serious personal injury or fire hazards.

Before using the toilet for the first time after installation of the blower, place a flameless smoke source such as a incense stick or lit cigarette just inside the toilet opening and operate blower a minimum of four minutes, then check the toilet to be sure the smoke is going down the toilet and up the exhaust pipe

Do not operate in area of high heat over 160F (71C). Do not operate while flammable fumes are present.

## **REQUIRED FOR INSTALLATION**

- Drill and suitable drill bit
- Screwdriver
- Two #10 x 1/2" (13mm) stainless steel pan head screws
- Corrugated vinyl duct hose, 4" (102mm) I.D. hose
- Two tie straps or hose clamps for 4" (102mm) I.D. hose
- Fuse—4-amp for 4" (102mm) blower,
- Suitable in-line fuse holder
- 5-amp ON/OFF switch
- 16-gauge wire
- Crimp-on wire connectors for 16-gauge wire
- Silicone caulk

## WIRING INSTRUCTIONS

**Reminder:** Wiring has been installed in accordance with industry standards. The yellow wire is the positive side of the power source, and the black wire is the negative side.

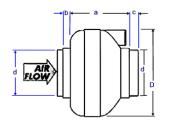
1. Using the wire leads provided (and additional 16-gauge wire if necessary).

In a location that is easily accessible for changing fuses, splice a suitable fuse holder into the lead from the positive (+) battery terminal. Fuse holder must be installed within 72" (183cm) of the battery (+) terminal. Use 4-amp fuse for 4" (102mm) blower.

Connect an ON/OFF switch into the 12 volt DC circuit and mount it in an accessible area.

2. Adhere a **12 volt DC ONLY** warning label in a highly visible position

Remember that a fan is an impediment to air flow when it is not running! Before you buy a fan, try a simple plastic Tee on top of the exhaust pipe. However, if you really need a fan, make sure it is moisture proof.



The blower we specify for 115 volt AC is by Fantech<sup>™</sup> See

## http://www.fantech.net/fr.pdf

The FR Series from Fantech is according to the manufacturer "An in line duct fan, made of an Engineered Thermoplastic Resin UL listed for outdoor use or in wet locations. Direct drive external rotor motorized impeller assembly. True airfoil backward curved wheel. Installs in any orientation. 4 " duct diameter

## For more information:

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