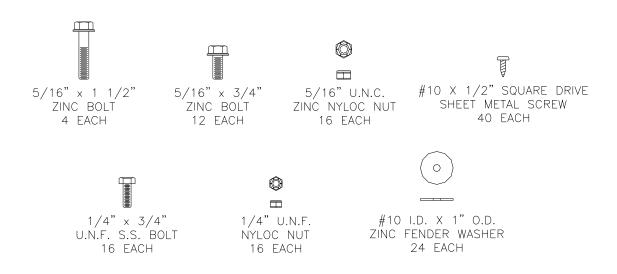
Read carefully the information provided. Retain manual for future reference.

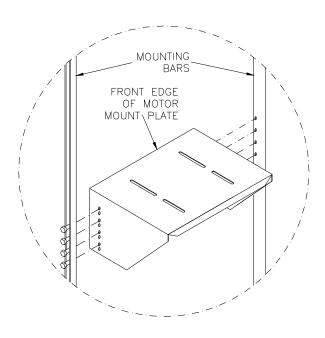
# 36" GALVANIZED BOX FAN, DIRECT DRIVE



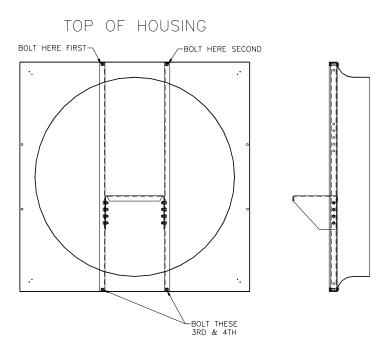
Step 1. Unpackage and become familiar with all of the fan components and hardware. The legend below will help to familiarize yourself with the hardware required for this assembly.



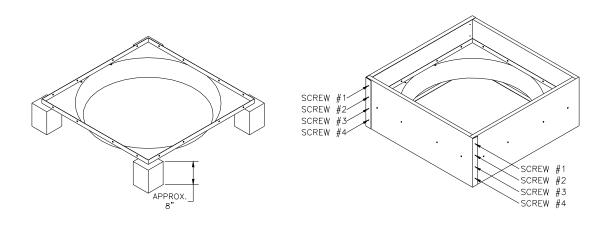
Step 2. Motor mount assembly – Mount the motor plate to the mounting bars, (using the set of holes in the motor plate nearest the motor, and the holes in the mounting bars nearest the motor also) with eight  $5/16-18 \times 3$ %" bolts. Insert the bolts into the mounting bars so the head of the bolt ends up hidden. Complete the fastening with the 5/16-18 nyloc nuts.



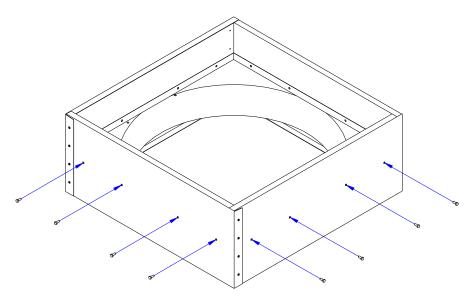
Step 3. Insert the motor mount assembly into the fan orifice and fasten, using  $5/16 - 18 \times 1 \times 1/2$ " bolts and nyloc nuts.



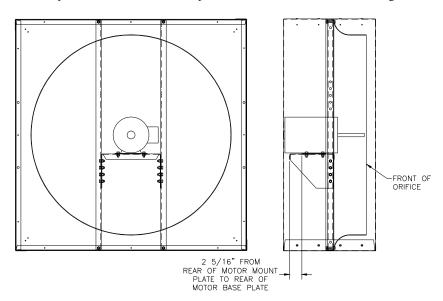
Step 4. Support the orifice (motor mount assembly not shown for clarity) on 4 blocks approximately 8" off the floor. Assemble the 4 side panels around the orifice by loosely screwing the panels together using the  $\#10 \times 1/2$ " square drive sheet metal screws. Take care that the orifice is supported between the #2 & #3 screws on the side panels.



Step 5. Using 1/4"-20 x ¾" hex head bolts & 1/4" U.N.C. nyloc nuts fasten the orifice (motor mount assembly not shown for clarity) to the side panels. Once the orifice has been securely fastened to all four side panels, tighten the side panels to each other by tightening the #10 x ½" sheet metal screws.

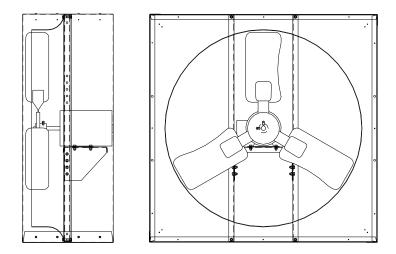


Step 6. Loosely mount the motor to the motor plate using four 5/16 -18 x 3/4" serrated bolts with washers . The motor shaft must end up on the side of the motor plate that is attached to the mounting bars.



## Step 7.

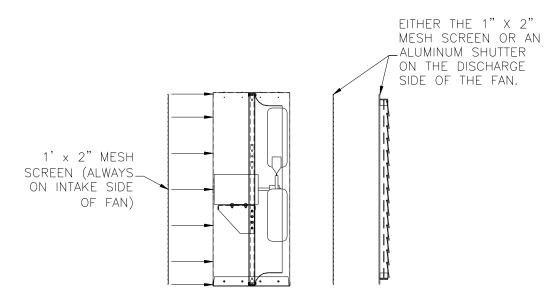
Install the fan blade onto the motor shaft. Ensure that the boss of the blade hub goes onto the shaft first and keep the shaft end extended ½" beyond the blade hub. Install the key into the key way and tighten the blade set screw to the shaft using a 5/16" open-end wrench. (if using a cast aluminum blade, equally tighten the ½" – 20 screws on the face of the "H" bushing; or tighten the tran torque nut). Now it is necessary to locate the fan in the orifice center and then tighten the motor mounting bolts. If the top and bottom of the fan are not a uniform distance from the orifice opening edge, the eight bolts holding the motor mount to the motor must be loosened and the fan centered again.



Step 8. Attach the 1" x 2" guard screen to the intake side of the fan using the #10 x  $\frac{1}{2}$ " square drive sheet metal screws and #10 fender washers.

The following step shall only be done at the point of use of the fan.

Attach either the 1" x 2 " guard screen or the exhaust shutter to the discharge side of the fan using the #10 x  $\frac{1}{2}$ " square drive sheet metal screws and #10 fender washers.



# **FAN MAINTENANCE**

**CAUTION:** Disconnect electrical power before servicing fan.

**Inspect propeller:** Check to see that the propeller is secure on the shaft and that there are no signs of damage.

Fasteners: Retighten nuts and bolts on a quarterly basis.

**Lubrication:** Lubricate the pillow block bearings on a quarterly basis with an NLG1 type grease.

#### Clean Fan:

**Motor:** Remove any dust accumulation from motor using a brush or cloth. (DO NOT USE A PRESSURE WASHER ON THE MOTOR) A clean motor will run cooler and last longer. Check if the motor is secure in its mount.

**Shutter:** Carefully clean dust from shutter vanes and frame so that shutter opens and closes freely. If shutters are extremely dirty you can lose up to 45% of your fan capacity.

Guard: Clean any dust or dirt buildup from fan guards using a brush. Dirty guards can also reduce airflow.

**Housing:** Remove dust and dirt accumulations from housing with a pressure washer.

**Inspect Fan Controls:** All controls should be inspected every six months to assure optimum protection of your ventilation system.

- Check all covers for a tight fit.
- Wipe enclosures with a damp rag to remove dirt and dust.
- Clean sensors with a damp rag to remove dirt and dust. Be very careful not to damage sensors.
- NEVER CLEAN ELECTRICAL EQUIPMENT WITH A POWER WASHER!

WIRING DIAGRAM: Be sure power is "OFF" before doing any wiring. All wiring will be installed in accordance with national, state and local electrical codes. Fans used to ventilate livestock buildings or other rooms where continuous air movement is essential should be connected to individual electrical circuits. For electrical connection requirements, refer to diagram on the motor nameplate or the enclosed wiring diagram. Motors are pre-wired for 230 volts. Motor overload protection should be provided for each fan. A circuit breaker switch or slow blow motor type fuse must be used.

Three phase motors do not include overload protection. Specifications subject to change without notice. **NOTE: A safety cut-off switch should be located adjacent to the fan.** 

**PROPER SHUTTER INSTALLATION:** When installing the shutter, make sure the shutter vanes open upward.

<u>WARNING</u> If these ventilation products are used to support life in agricultural structures where failure of the system could result in loss or injury, the user must provide an adequate backup and alarm system. The user must accept all risks of such loss or injury due to the possible failure of the ventilation system.

<u>CAUTION</u> Do not install fan with moving parts within seven feet of floor or grade level without a guard that complies with OSHA Regulations. Do not use unless electrical wiring complies with all applicable codes. Do not wire without providing for power source disconnect at the fan itself. Do not service except by a qualified maintenance technician and only after disconnecting the power source. Do not install in room where flammable material is stored or flammable vapors might build up. Failure to observe all of these precautions can result in serious injury or death.

## SERVICE AND TECHNICAL ASSISTANCE

Your dealer or the Raydot Service Department will be happy to answer all technical questions which will improve your use of the Galvanized fan series. Be prepared with the model number and necessary information before you place a call to your dealer or Raydot L.L.C. If your fan requires service when the warranty period has expired, please contact your dealer for assistance or return the unit to Raydot L.L.C. for repair.

## **Inquiries**



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