

# Installation Instructions for Type TEBC Duct Fans

OPERATION AND MAINTENANCE INSTRUCTIONS—OTHER SIDE

## 1. Pre-Installation Check of Fan.

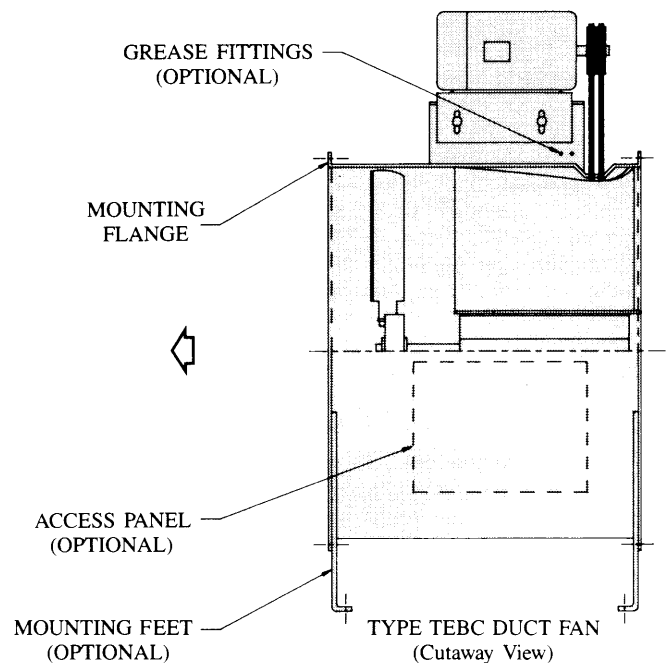
Before installation of an American Coolair fan, a careful check should be made for shipping damage which may affect its operation. If damage is found, file a claim immediately with delivering carrier. Pulley alignment and belt tension should be checked (see paragraph 2 under Operation and Maintenance). Before connecting to power source, make sure propeller turns freely without striking duct or any foreign object. Check motor nameplate to be sure correct phase and voltage are being used. Note direction arrow adjacent to propeller and make sure rotation is correct when power is connected.

## 2. Installation Procedures.

(a) **Duct Connections.** The American Coolair duct fan has flanged ends for convenient mounting directly in the duct work. Flexible connections or transition pieces may be utilized.

(b) **Motor Position and Wiring.** From an operating standpoint, the American Coolair duct fan and motor may be mounted in any position. For convenience in wiring and service, the motor should be readily accessible.

(c) **Mounting Feet (Optional Accessory).** If duct fan is not adequately supported by duct work or otherwise, mounting feet should be utilized. Type and location of mounts furnished will be based on customer's information as to type of support (floor to ceiling) available.



**NOTE:** All local, state and federal codes should be checked to make sure all wiring, guarding and intended usage of the fan unit(s) comply with all applicable codes. The proper type and class of fan and motor should be used for air being handled such as explosive or other hazardous air mixtures.

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# Operation & Maintenance Instructions For Type TEBC Duct Fans

INSTALLATION INSTRUCTIONS—OTHER SIDE

1. **Cleaning and Adjustment.** The entire fan assembly should be cleaned as necessary to remove accumulated dust, dirt and other foreign matter which may collect on the blades or other parts. Access to fan through duct work is essential for proper cleaning. An optional access panel on fan may have been furnished. If so, removal of this panel allows limited access to fan for inspection and cleaning. Belt(s) should be inspected and tension adjusted (see below). Belt alignment should also be checked to avoid excessive wear and premature failure. This same inspection of belts and adjustment of tension should be made after the first 8–10 hours of usage following installation. If rust or corrosion are found anywhere on the fan, the affected area should be thoroughly cleaned and refinished.

## 2. Belt Replacement, Tension and Adjustment.

(a) To change belts, loosen motor bracket bolts and tension adjustment bolts and remove belt(s) from motor and fan pulleys. Install new belt(s) and adjust as indicated below. When replacing belt(s), do not roll new belt(s) over pulleys under tension. This practice can damage belt(s) severely.

(b) To tension belt(s), place a finger midway between the motor pulley and fan pulley and push belt(s) inward about  $\frac{1}{2}$ " (at approximately 5 lb. force) for proper tension. To adjust tension, loosen motor bracket bolts and use tension adjustment bolts to obtain correct belt tension. Be sure to retighten motor bracket bolts to maintain proper belt tension. Recheck alignment of belt(s) between motor pulley and fan pulley. **CAUTION:** Use of tension adjustment bolts makes it easy to overtighten belt(s). When this occurs belt(s) will soon fail. Do not overtension.

3. **Blade Pitch Adjustment.** AMERICAN COOLAIR DOES NOT RECOMMEND FIELD ADJUSTMENT OF BLADE PITCH ON TYPE TEBC FANS. Blade pitch is factory set for specified performance with standard motor fully loaded. Any change in blade pitch will affect motor load. Contact your American Coolair representative before making any field adjustment of blade pitch on these propellers.

4. **Adjustment of Fan Speed and Air Volume.** On models with a variable pitch motor pulley, fan speed and air flow are easily regulated. *Motor capacity must be carefully checked before any increase in fan speed is made.* On Type TEBC models, air volume may be adjusted through a change in blade pitch. *Contact your American Coolair representative before making any field adjustment of blade pitch. Motor capacity must be carefully checked before any increase in blade pitch is made.*

5. **Lubrication.** Fan bearings are factory lubricated for extended service. Relubrication annually or more frequently is recommended. For best results, use Shell Alvania No. 3 lubricant or equivalent. For lubrication of electric motors, see instructions supplied by motor manufacturer.

## 6. Repair Parts

(a) **Belts.** Replacement belts are standard V-belts used on industrial machines. Replacements may be obtained through local industrial supply houses. If more than one belt is used on the fan, be sure to replace with matched sets. To install belts, see instructions above for belt replacement.

(b) **Propeller.** If one or more propeller blades are damaged, it is recommended that the entire propeller be removed and returned to the factory for repairs. If an unbalanced condition develops, thoroughly clean blades to remove dirt or other foreign matter. If unbalance still exists, treat as blade damage and return to factory.

(c) **Bearings.** Replacement pillow block bearings may be obtained through local industrial supply houses.

(d) **Motor.** Motor repairs should be performed only by an authorized motor repair station. Contact the motor manufacturer or American Coolair for location of repair station.

**CAUTION:** Do not return damaged or defective parts to American Coolair without prior authorization. If repairs under warranty are claimed, see warranty terms in American Coolair catalog or contact the factory in Jacksonville, Florida. Claims for warranty repairs to electric motors should be made direct to the motor manufacturer.

### WARNING



### CAUTION

**DO NOT** INSTALL FAN WITH MOVING PARTS WITHIN 8 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 A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

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