

## INSTRUCTIONS FOR CHANGING BEARINGS ON FANS

### DUPLEX SPLIT PILLOW BLOCK BEARINGS

1. Shut off power to fan. Use standard lockout procedure.
2. Remove belt.
3. Loosen the set screw of the pulley on the shaft and remove fan pulley.
4. Note position of impeller in relation to inlet orifice.
5. To insure correct spacing of new bearings, measure the distance between old bearings and distance between bearing and end of shaft.
6. Remove bolts from bearing cap.
7. Remove impeller and shaft assembly.
8. Drive roll pin out of impeller, where used. Remove shaft-bearing assembly.  
**NOTE:** Impellers are secured to the shaft with roll pins, or set screws, or a combination of both. Be sure all retainers are loosened before attempting to remove impeller.
9. Loosen set screws in bearing set collars. Where locking type collars are used, the collars should be removed.
10. Remove bearings and neoprene rings.
11. Install new bearings into neoprene rings and onto the shaft.
12. Position bearings in die formed recess and tighten set screws. If locking collar type is used, collar must first be positioned against inner race on bearing nearest impeller and turned in direction of impeller rotation with drift pin and hammer until locks. Locking collars must be on inboard (facing) sides of the bearings. Secure locking collar with set screw.



13. Lock and secure other bearing to shaft in same manner.
14. Place impeller on correct end of shaft and secure with roll pin or set screw.
15. Check positioning of impeller. Its relationship to the inlet orifice must be same as was found in step 3.
16. Replace die formed bearing cap and tighten four bolts.
17. Place pulley on shaft and align with motor pulley.
18. Replace belt and adjust tension.

### UNITARY PILLOW BLOCK BEARINGS

1. Shut off power to fan. Use standard lockout procedure.
2. Remove belt.
3. Loosen the set screw of the pulley on the shaft and remove fan pulley.
4. Note position of impeller in relation to inlet orifice.
5. To insure correct spacing of new bearings, measure the distance between old bearings and distance between bearing and end of shaft.
6. Remove bolts from bearing flanges.
7. Remove impeller and shaft assembly.
8. Drive roll pin out of impeller, where used. Remove shaft-bearing assembly.  
**NOTE:** Impellers are secured to the shaft with roll pins, or set screws, or a combination of both. Be sure all retainers are loosened before attempting to remove impeller.
9. Loosen set screws in bearing set collars.
10. Remove bearings.
11. Slide new bearings onto the shaft to desired location and bolt bearing blocks loosely to support base.
12. Slide shaft back and forth in secured bearing (do not drive with steel hammer) and rotate to make certain it turns freely.



13. Replace impeller onto shaft and drive roll pin into place.
14. Check correct positioning of impeller with inlet orifice.
15. Tighten bearing bolts securely to support base.
16. Tighten bearing set screws against shaft.
17. Place fan pulley on shaft and align with motor pulley.
18. Replace belt and adjust tension.

## TERMS AND CONDITIONS

**DESIGN CHANGES** Acme reserves the right to make changes in design, improvements and additions in and to its products any time without imposing any liability or obligations to itself to apply or install the same in any product manufactured by it.

**TITLE** The title and right of possession of the equipment sold herein shall remain with the Company and such equipment shall remain personal property until all payments herein (in-

cluding deferred payments whether evidenced by notes or otherwise) shall have been made in full in cash and the Purchaser agrees to do all acts necessary to perfect and maintain such right and title in the Company.

**SAFETY ACCESSORIES** The Company manufactures equipment designed to serve multiple applications and offers a wide range of safety equipment, including guards and other devices, as may be required to meet customer specifica-

tions. Without exception, the Company recommends that all orders include applicable safety devices. Equipment ordered without applicable safety devices is clearly the responsibility of the Purchaser. Further, the Purchaser warrants that he has determined and acquired any and all safety devices required for equipment sold by the Company. Weather covers and guards for motor and V-belt drives, couplings, shafts and bearings, along with inlet and outlet screens, are optional accessories noted in the price list.

These instructions cover the usual installation, operation and maintenance methods for which the product(s) was designed. They do not purport to cover all details or variations in the product(s) nor to provide for every possible contingency that might be met in connection with the installation, operation and maintenance. For any departures from these instructions, or should particular problems arise which are not covered sufficiently for the purchaser's purpose, the matter should be referred to the Company.

**WARNING** Acme products are designed and manufactured to provide reliable performance but they are not guaranteed to be 100% free of defects. Even reliable products will experience occasional failures and this possibility should be recognized by the User. If these products are used in a life support ventilation system where failure could result in loss or injury, the User should provide adequate back-up ventilation, supplementary natural ventilation or failure alarm system, or acknowledge willingness to accept the risk of such loss or injury.

**WARNING** DO NOT use in HAZARDOUS ENVIRONMENTS where fan's electrical system could provide ignition to combustible or flammable materials unless unit is specifically built for hazardous environments. Comply with all local and national safety codes including the National Electrical Code (NEC) and National Fire Protection Act (NFPA).

**CAUTION** Guards must be installed when fan is within reach of personnel or within seven (7) feet (2.134 m) of working level or when deemed advisable for safety.

**DISCLAIMER** The Company has made a diligent effort to illustrate and describe the products in this literature accurately; however, such illustrations and descriptions are for the sole purpose of identification, and do not express or imply a warranty that the products are merchantable, or fit for a particular purpose, or that the products will necessarily conform to the illustrations or descriptions or dimension.

## LIMITED WARRANTY

**WARRANTY AND DISCLAIMER:** Acme Engineering and Manufacturing Corporation extends this limited warranty to the original buyer and warrants that products supplied by the Company, shall be free from original defects in workmanship and materials for two years from date of shipment (except for the warranty periods noted for products listed below), provided same have been properly handled, stored, installed, serviced, maintained and operated. This warranty shall not apply to products which have been altered or repaired without the Company's express authorization, or altered or repaired in any way so as, in the Company's judgment, to affect its performance or reliability, nor which have been improperly installed or subjected to misuse, negligence, or accident, or incorrectly used in combination with other substances. The Buyer assumes all risks and liability for results of use of all products.

Evaporative cooling pads are warranted to be free of defects in materials and workmanship for a period of two years from date of shipment provided same have been properly handled, stored, installed, serviced, maintained and operated; and further, not subjected to excessive heat, corrosive agents or chemicals, or mechanical abuse that may cause tearing, crushing or undue deterioration, nor used on a system or in a manner other than that for which it was designed as explained in the product literature.

The following products are warranted to be free of defects in materials and workmanship for the periods shown from date of shipment: Acme's exclusive duplex split pillow block bearings and shaft five years, belts one year, Polyethylene tubing 90 days, AIR40 Heater warranty one year, AIR40 Emitter warranty three years and

DDP fan lifetime warranty on its propeller, cone, and housing.

**LIMITATION OF REMEDY AND DAMAGES:** All claims under this warranty must be made in writing and delivered to P. O. Box 978, Muskogee, Oklahoma, 74402, within 15 days after discovery of the defect and prior to the expiration of two years from the date of shipment by the Company of the product claimed defective, and Buyer shall be barred from any remedy if Buyer fails to make such claim within such period.

Within 30 days after receipt of a timely claim, the Company shall have the option either to inspect the product while in Buyer's possession or to request Buyer to return the product to the Company at Buyer's expense for inspection by the Company. The Company shall replace, or at its option repair, free of charge, any product it determines to be defective, and it shall ship the repaired or replacement product to Buyer F.O.B. point of shipment; provided, however, if circumstances are such as in the Company's judgment to prohibit repair or replacement to remedy the warranted defects, the Buyer's sole and exclusive remedy shall be a refund to the Buyer of any part of the invoice price, paid to the Company, for the defective product or part.

The Company is not responsible for the cost of removal of the defective product or part, damages due to removal, or any expenses incurred in shipping the product or part to or from the Company's plant, or the installation of the repaired or replaced product or part.

Implied warranties, when applicable, shall commence upon the same date as the express warranty provided above, and shall, except for warranties of title, extend only for the duration of the express warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. The only remedy provided to you under an applicable implied warranty and the express warranty shall be the remedy provided under the express warranty, subject to the terms and conditions

contained therein. The Company shall not be liable for incidental and consequential losses and damages under the express warranty, any applicable implied warranty, or claims for negligence, except to the extent that this limitation is found to be unenforceable under applicable state law. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

No employee, agent, dealer, or other person is authorized to give any warranties on behalf of the Company or to assume for the Company any other liability in connection with any of its products except in writing and signed by an officer of the Company.

**REPLACEMENT PARTS** If replacement parts are ordered, buyer warrants that the original components in which these replacement parts will be placed are in satisfactory working condition, and when said replacement parts are installed, the resultant installation will operate in a safe manner, at speeds and temperatures for which the original equipment was purchased.

**TECHNICAL ADVICE AND RECOMMENDATIONS, DISCLAIMER:** Notwithstanding any past practice or dealings or any custom of the trade, sales shall not include the furnishing of technical advice or assistance or system design. Any such assistance shall be at the Company's sole option and may be subject to additional charge.

The Company assumes no obligation or liability on account of any recommendations, opinions or advice as to the choice, installation or use of products. Any such recommendations, opinions or advice are given and shall be accepted at your own risk and shall not constitute any warranty or guarantee of such products or their performance.

**GENERAL** In no event shall any claim for consequential damages be made by either party. The Company will comply with all applicable Federal, State, and local laws.



**ACME ENGINEERING AND  
MANUFACTURING CORPORATION**  
P.O. Box 978  
Muskogee, Oklahoma 74402  
Telephone 918/682-7791  
Fax 918/682-0134