



OWNERS MANUAL & INSTALLATION INSTRUCTIONS KNOCKED DOWN BREEZEMASTER BDR- TOP MOTOR BASE

BDR COMPONENTS		
CODE	DESCRIPTION	QTY
1	Roll Pin	1
2	Propeller	1
3	5/16 Whiz Lock Nut	20
4	Orifice	1
5	Support Angle	2
6	5/16 x 3/4 Bolt	20
7	Bearing Base	2
8	Bearing	2
9	Shaft	1
10	Fan Sheave (with or without bushing)	1
11	Motor Base	1
12	Rubber Ring	2
13	Motor	1
14	Motor Sheave	1
15	Belt	1
16	Belt Tightener	1
17	Belt Tightener Base	1
18	1/4 x 3/4 Bolt	4
19	1/4 Whiz Lock Nut	4
20	Key 8mm x 8mm	1
21	3/8 Lock Washer	1
22	3/8 x 1 1/4 Bolt	1

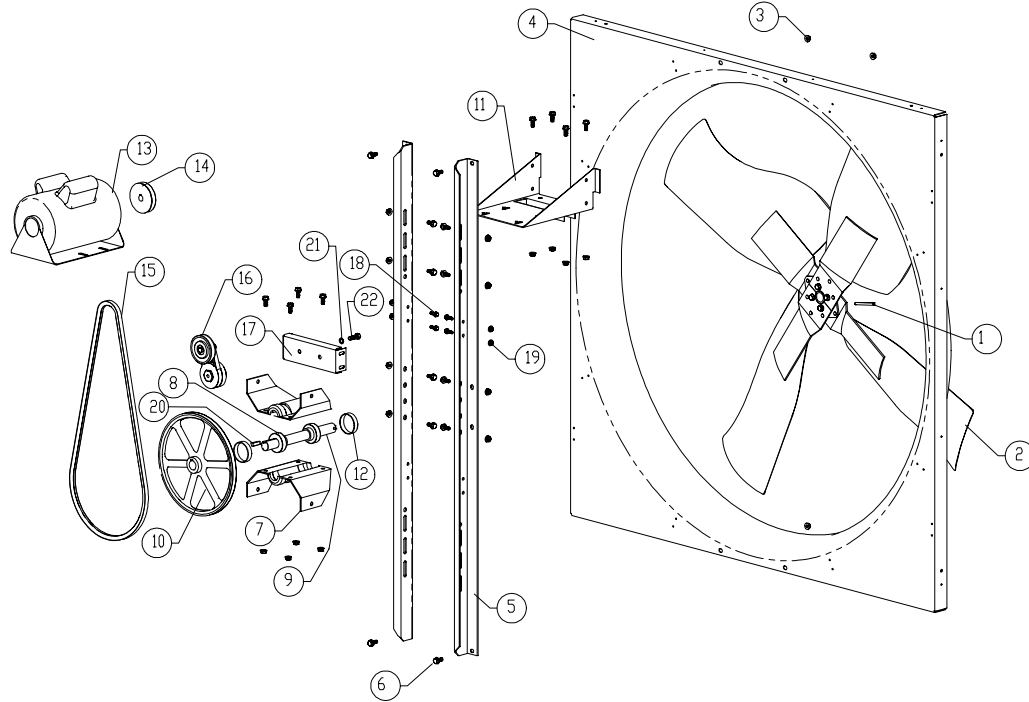


FIGURE 1

WARNING! DO NOT use fans in hazardous environments where the fan's electrical system could provide ignition to combustible or flammable materials, unless built specifically for that environment. This unit has rotating parts and safety precautions should be exercised during installation, operation and maintenance.

1. Unpack the fans and locate all parts as identified in Figure 1.
2. Locate the shaft and bearing assembly. Make sure there is a rubber ring on each bearing. If not, locate the rubber rings and place them on the bearings.
3. Assemble the shaft and bearing assembly complete with rubber rings and the two bearing bases (# 7) as shown in Figure 1 using the 5/16 inch bolts and nuts provided.
4. Lay the orifice panel on a flat surface with the discharge side down. Attach the support angles (# 5) to the orifice in the relationship shown in Figure 1 using the 5/16 inch bolts and nuts provided. Do not tighten the bolts at this time.
5. Attach the shaft and bearing base assembly to the support angle as shown in Figure 1 using the 5/16 inch bolts and nuts provided. Install the shaft with the end with the 1/4 inch diameter hole towards the discharge of the orifice. The shaft should be perpendicular to the support angle.
6. Attach the motor base to the support angles as shown in Figure 1 with the motor base perpendicular to the support angles.
7. Tighten the bolts connecting the support angles to the orifice.

8. Install the fan sheave (with the supplied bushing if a bushing is required) to the fan shaft as shown in Figure 1 using the 8mm square key. The fan sheave is the larger of the two sheaves provided.
9. Attach the propeller to the shaft using the roll pin (# 1) as shown in Figure 1.
10. To center the propeller in the orifice, lay the discharge of the fan on a flat surface. The fan will be supported by the propeller. The propeller can be centered horizontally by loosening the bolts that hold the support angles to the orifice. Move the orifice to one side or the other in relation to the propeller and tighten the bolts. To center the propeller vertically in relation to the support angles, loosen the bolts holding the bearing base and shaft assembly to the support angles. Move the orifice in relation to the bearing base and shaft assembly and tighten the bolts. Make sure the propeller is free to move in the orifice (minimum clearance of 1/8 inch).
11. Attach the belt tightener base to the support angles as shown in Figure 1 using the ¼ inch bolts and nuts provided. Hand tighten only at this time.
12. Install the motor to the motor base as shown in Figure 1 using the 5/16 inch bolts and nuts provided.
13. Install the motor sheave to the motor as shown in Figure 1 using the square key supplied with the motor.
14. Install the belt as shown in Figure 1 and align the motor sheave and fan sheave using a straight edge to insure alignment.
15. Tighten the belt by moving the motor base toward the top of the fan and tighten the motor base mounting bolts. Re-check the belt and sheave alignment.
16. Attach the belt tightener to the belt tightener base as shown in Figures 1, 2, and 3 using the 3/8 inch bolt and lock washer. Hand tighten only at this time.

FIGURE 2
SIZE 36

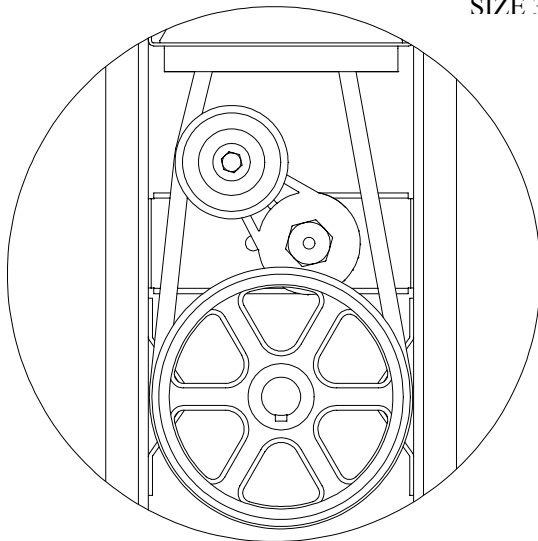
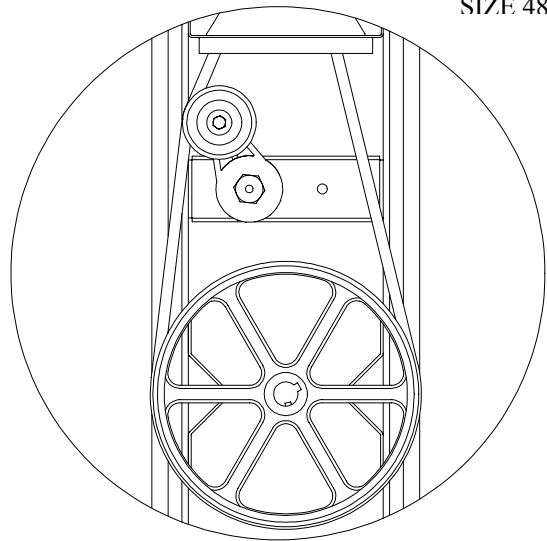


FIGURE 3
SIZE 48 & 54



17. Rotate the belt tightener around to the slack side of the belt (the left side when viewing the fan from the sheave side) and seat the belt into the idler sheave of the belt tightener (# 7). When the belt tightener and belt are aligned, tighten the ¼ inch bolts and nuts that hold the belt tightener base to the support angles.

18. Check the alignment of the belt tightener idler pulley with the motor and fan sheaves. Any misalignment must be corrected.
19. Place a wrench on the hex nut in the belt tightener body as shown in Figure 4 and a wrench on the mounting fastener.
20. Using the wrench on the belt tightener body, apply pressure in the appropriate direction (see Figure 4) until the belt is properly tensioned.
Note: The belt tightener body has marks on it as shown in Figure 5 representing degrees. The proper alignment after tightening the mounting bolt is shown in Figure 6.
21. With the belt tightener securely held in position, tighten the belt tightener mounting bolt.
22. Before starting the drive, recheck the drive alignment and check all mounting fasteners for tightness.

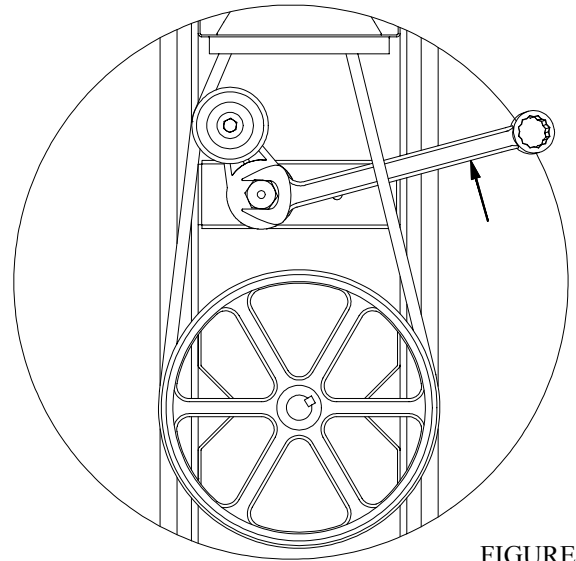


FIGURE 4

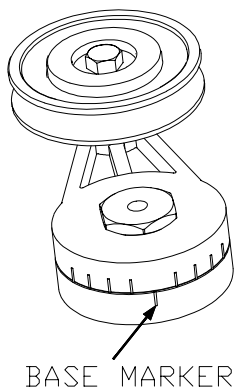


FIGURE 5

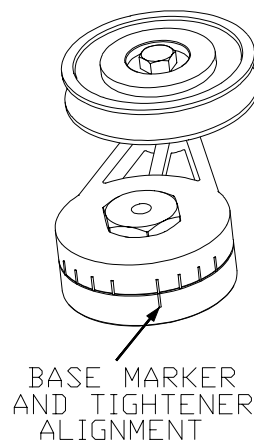


FIGURE 6

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.



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