

EP8AC Portable Ventilation Blower

Temporary Operator's Instruction & Parts Manual



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Can you really afford anything less?

Notice to Operators

IF YOU CAN NOT READ OR DO NOT FULLY UNDERSTAND THE CONTENTS OF THIS MANUAL, PLEASE CONTACT THE FACTORY FOR PROPER ASSISTANCE BEFORE ATTEMPTING TO OPERATE THIS PRODUCT.

SI TU NO PUEDES LE'ER O NO COMPRENDES EL CONTENIDO DE ESTE MANUAL FAVOR DE PONERSE EN CONTACTO CON LA FABRICA PARA ASISTENCIA- A PROPIA ANTES DE INTENTAR PARA OPERAR ESTE PRODUCTO.

SOLLTEN SIE DIESE GEBRAUCHSANWEISUNG NICHT LESEN KOENNEN ODER ES NICHT VOLLKOMMEN VERSTEHEN, WENDEN SIE SICH BITTE AN DEN HERSTELLER FUER RICHTIGE HILFE EHE SIE VERSUCHEN DIESES PRODUKT ZU OPERIEREN.

SI VOUS NE LISEZ OU NE COMPRENDRE ENTIEREMENT LES MATIERES DE CE MANUEL, S'IL VOUS PLAIT, CONTACTEZ L'USINE POUR L'ASSISTANCE APPROPRIEE AVANT D'UTILISER LE PRODUIT.



CAUTION



DANGER

These safety alert symbols identify important safety messages in this manual. When you see these symbols, be alert to the possibility of personal injury and carefully read the message that follows.

Do not allow anyone to operate the Blower without first reading this Operator's Manual and becoming familiar with its operation. The manufacturer of this Blower has gone to great extremes to provide the owner(s) and/or operator(s) with the finest equipment available for its intended job function of providing air for portable ventilation purposes. Yet, the possibility exists that the Blower can be utilized in and/or subjected to job applications not perceived and/or anticipated by the manufacturer. Such misuse and/or misapplication of the Blower can lead to the possibility of serious damage, injury or even death. It is the responsibility of the owner(s) and/or operator(s) to determine that the Blower is being utilized and/or operated within the scope of its intended job function. It is the responsibility of the owner(s) and/or operator(s) to establish, monitor and constantly upgrade all safety programs and/or practices utilized in and for the operation of the Blower. The purpose of such programs is to provide for owner(s) and/or operator(s) safety. Operators must be instructed to recognize and avoid unsafe conditions associated with their work (29 CFR 1926.21 (b)(2)) and/or applicable updated revisions. It is the responsibility of the owner(s) and/or operator(s) to determine that no modifications and/or alterations have been made to the Blower. Modifications and/or alterations can lead to the possibility of serious damage, injury or even death. It is the responsibility of the owner(s) and/or operator(s) to make this Operator's Manual available for consultation during all phases of operation. Refer to OSHA 2207 and/or applicable updated revisions which contains all OSHA job safety and health rules and regulations (1926 and 1910) covering construction.



CAUTION

The concept of portable air ventilation blowers has been successfully utilized for many years as a practical solution to many types of air ventilation job requirements. The basic concept is proven and well accepted within the associated marketplaces. Use of a Blower requires strenuous work activity. This type of work activity can be considered to be greater in magnitude than that experienced with the use of many other types of both light construction and lawn and garden related equipment. This type of work activity should only be attempted by operators of adequate physical size and stature, mental awareness and physical strength and condition. The body parts most noticeably affected during the

planing process are the arms, hands, wrists, shoulders, lower back and legs. The planing process can also produce excessive stress/strain directly to the back muscles, spinal vertebrae and many other body parts. Back related pain can be a side effect of utilizing a Blower. An operator with a chronic back related problem or a history of back and/or other medically related problems should not attempt to utilize the Blower. Use of the Blower may only aggravate this and any other medically related problem. Because of the diverse type of prevailing job applications, job site conditions, operator experience levels and operator physical characteristics, no warranty, guarantee, representation and/or liability is made by the manufacturer as to the absolute correctness or sufficiency of any operational procedure, operational position and/or technique. There is no absolute guarantee that an operator of any given experience level, physical size and/or physical condition will be immune to the possibility of and/or probable physical side effects of the normal use of the Blower. Each potential operator of the Blower must be made aware of and assume the operational and physical liability described and/or associated with the use of the Blower. Each potential operator not willing to assume the operational and physical liability described and/or associated with the use of the Blower should not operate the Blower. Proper levels of operator experience, skill and common sense are essential for maximizing the safe and efficient operation of the Blower.

Record the Blower and engine/electric motor serial numbers in the spaces provided below.

_____ Model Number

_____ Serial Number

_____ Engine/Electric Motor Serial Number

_____ Date of Purchase

Specifications and design are subject to change without notice or obligation. All specifications are general in nature and are not intended for specific application purposes. General Equipment Company reserves the right to make changes in design, engineering or specifications and to add improvements or discontinue manufacture at any time without notice or obligation. General Equipment Company and its agents accept no responsibility for variations which maybe evident in actual products, specifications, pictures and descriptions contained in this publication.

Operator Instructional Data Sheet

The following undersigned operators of the Blower described and/or pertaining to this Operator's Manual have received formal safety and operational information/instruction from the undersigned owner(s)/instructor(s) in accordance to OSHA 29 CFR 1926.21 (b)(2) and/or applicable updated revisions pertaining to, but not necessarily limited to the:

- 1) **READING, COMPREHENSION AND ACKNOWLEDGEMENT OF THE MATERIAL COMPRISING THE ENTIRE CONTENTS OF THE APPLICABLE OPERATOR'S MANUAL AND SAFETY AND OPERATIONAL INFORMATION VIDEO TAPE FOR THE BLOWER.**
- 2) **FORMALIZED OPERATOR'S SAFETY PROGRAM TO BE DEvised BY THE OWNER OF THE BLOWER IN CONJUNCTION WITH THE CONTENTS OF THE APPLICABLE OPERATOR'S MANUAL AND SAFETY AND OPERATIONAL INFORMATION VIDEO TAPE FOR THE BLOWER.**
- 3) **OSHA RULES AND REGULATIONS RESEARCHED FOR AND/OR BY THE OWNER OF THE BLOWER AND DEEMED APPLICABLE TO THE SAFE AND PROPER USE AND/OR OPERATION OF THE BLOWER FOR ANY SPECIFIC JOB APPLICATION.**
- 4) **LOCAL LAWS, REGULATIONS AND CUSTOMS RESEARCHED FOR AND/OR BY THE OWNER OF THE BLOWER AND DEEMED APPLICABLE TO THE SAFE AND PROPER USE**

AND/OR OPERATION OF THE BLOWER FOR ANY SPECIFIC JOB APPLICATION.

5) FORMALIZED MAINTENANCE PROGRAM FOR THE BLOWER TO BE DEvised BY THE OWNER OF THE BLOWER IN ACCORDANCE WITH, BUT NOT NECESSARILY LIMITED TO, THE SPECIFICATIONS, GUIDELINES AND OPERATIONAL INFORMATION CONTAINED IN THE APPLICABLE OPERATOR'S MANUAL.

6) COMPREHENSIVE OPERATIONAL INSTRUCTIONS FOR THE CORRECT AND PROPER USE OF THE BLOWER AS PER THE CONTENTS OF THE APPLICABLE OPERATOR'S MANUAL AND SAFETY AND OPERATIONAL INFORMATION VIDEO TAPE.

_____ Operator	_____ Owner/Instructor	_____ Date
_____ Operator	_____ Owner/Instructor	_____ Date
_____ Operator	_____ Owner/Instructor	_____ Date
_____ Operator	_____ Owner/Instructor	_____ Date
_____ Operator	_____ Owner/Instructor	_____ Date
_____ Operator	_____ Owner/Instructor	_____ Date

NOTE: INSERT COPIES OF THIS PAGE WITHIN THE OPERATOR'S MANUAL IF SPACE FOR ADDITIONAL OPERATORS IS REQUIRED.

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Safety Precautions

DANGER

THE FOLLOWING SAFETY PRECAUTIONS PROVIDE SOME COMMON SENSE GUIDES TO PROMOTE SAFETY AND EFFICIENCY WITH THE BLOWER. NO WARRANTY, GUARANTEE OR REPRESENTATION IS MADE BY THE MANUFACTURER AS TO THE ABSOLUTE CORRECTNESS OR SUFFICIENCY OF ANY INFORMATION OR STATEMENT. THESE SAFETY PRECAUTIONS ARE INTENDED TO DEAL PRINCIPALLY WITH COMMON PRACTICES AND CONDITIONS ENCOUNTERED IN THE USE OF THE BLOWER AND ARE NOT INTENDED TO BE ALL INCLUSIVE. PROPER LEVELS OF OPERATOR EXPERIENCE, SKILL AND COMMON SENSE ARE ESSENTIAL FOR SAFE AND EFFICIENT OPERATION. THE BLOWER IS DESIGNED FOR PORTABLE AIR VENTILATION PURPOSES ONLY. THE BLOWER IS NOT DESIGNED FOR TRANSPORTING LIQUID, SEMI-SOLID OR SOLID MATERIALS. THE ELECTRIC MOTOR AND BLOWER WHEEL/FAN HOUSING ARE NOT DESIGNED FOR OPERATION IN AN EXPLOSIVE AND/OR FLAMMABLE ATMOSPHERE. OPERATION OF THE BLOWER IN AN EXPLOSIVE AND/OR FLAMMABLE ATMOSPHERE WILL RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR EVEN DEATH. INCORRECT USE OF THE BLOWER CAN RESULT IN AN ELECTRICAL SHOCK AND/OR ELECTROCUTION. ALWAYS OPERATE THE BLOWER IN COMPLIANCE WITH CURRENT OSHA AND NATIONAL ELECTRIC CODE REGULATIONS.

DANGER

INCORRECT USE OF THE BLOWER CAN RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR EVEN DEATH. TO REDUCE THIS POSSIBILITY, GIVE COMPLETE AND UNDIVIDED ATTENTION TO THE JOB AT HAND AND FOLLOW THESE SAFETY PRECAUTIONS.

PREPARATION

1) This Blower is a specialized type of powered equipment, designed for a specific job function and requires adequate and thorough instruction BEFORE it is operated. Each operator must receive adequate,

professional instruction regarding the proper operation of this Blower BEFORE being allowed to operate it. Refer to OSHA 2207 (and/or applicable updated revision) which contains all OSHA job safety and health rules and regulations (1926 and 1910) covering construction. BEFORE attempting to utilize this Blower, read this Operator's Manual and the safety and operational information video tape supplied by the manufacturer to familiarize each operator with its correct operating procedures. When you are going to utilize this Blower-DO IT RIGHT-avoid the urge not to take the time to read this Operator's Manual BEFORE utilizing the Blower. DO NOT OPERATE THIS BLOWER UNTIL EACH OPERATOR COMPLETELY COMPREHENDS THE CONTENTS OF THIS MANUAL AND HAS VIEWED THE SAFETY AND OPERATIONAL INFORMATION VIDEO TAPE.

2) Develop a comprehensive program for the safe operation of the Blower by its owner(s) and/or operator(s). Such a program will include, but is not limited to: instructional requirements for operation, applicable OSHA requirements, local laws and regulations, jobsite safety and a Blower maintenance program. Constantly examine and upgrade this program to guarantee owner(s) and/or operators(s) safety. Each operator must be fully instructed regarding the specifics of this safety program. Refer to (29 CFR 1926.21 (b) (2)) and/or current revision.

3) Determine that the Blower is in its original, factory configuration and has not been modified in any manner. Many modifications can result in potentially dangerous configurations that can lead to property damage and/or personal injury. If there are any questions about possible modifications made to the Blower, contact the Factory for specific information BEFORE utilization.

4) Minors should never be allowed to operate the Blower. Bystanders, especially children and animals should not be allowed in the area where a Blower is in use.

5) Operators must be in adequate physical condition, mental health and not under the influence of any substance (drugs, alcohol, etc.) which might impair vision, dexterity or judgement. Working with the Blower can be strenuous. If you have any condition that might be aggravated by strenuous work, check with your doctor BEFORE operating the Blower. Guard against the possibility of back related injuries. Always lift the Blower with leg muscles and not with the back.

6) Clothing must be sturdy and snug fitting, but allow complete freedom of movement. Never wear loose fitting jackets, scarves, neckties, jewelry, flared or cuffed pants or anything that could become caught on controls or moving parts. Wear long pants to protect your legs. Protect your hands with heavy duty, nonslip gloves to improve your grip. Good footing is most important when transporting the Blower. Wear sturdy

boots with nonslip soles. Steel-toed safety boots are highly recommended. Never wear tennis shoes or other similar type shoes which afford little or no protection. Wear an approved safety hard hat to protect the operator's head(s) where there is a danger of head injuries. Noise, generated by the Blower, can damage your hearing. Wear sound barriers (ear plugs or ear muffs) to protect your hearing. Continuous and regular operators should have their hearing checked regularly.

7) Visually inspect the Blower for damaged or worn parts. Check for loose and/or broken parts. Determine that all safety devices are operative and information decals are readable. Check to see that the Blower and all related accessories are in good mechanical condition BEFORE utilization.

8) The Blower utilizes an external wiring harness comprising of AWG 12-2 wire. Connecting devices include 50 ampere rated battery clamps and NEMA 2-20P cord cap. It is designed to operate ONLY from a 12 volt nominal power source. All electrical wiring installations and connections must comply with all applicable National Electric Code (NEC) statutes and with all applicable local codes and practices. Consult current National Electric Code publications for specific information.

9) Attach the Blower to the power source in accordance to established procedures and practices. For specific information, consult the National Electric Code publications, OSHA publications 210-22D for construction sites and 555-3 for marinas (for use around any area containing water). When attaching the Blower to a vehicle battery, consult the material supplied by the vehicle manufacturer. Follow the basic procedures as outlined in the material for attaching the clamps to the battery.

10) While the standards and regulations governing the use of a portable air ventilation blower may vary slightly, their basic content will each include the following parameters:

- a) The definition of a confined work space
- b) The requirements for both initial and recurrent personnel training
- c) The various classes of confined work spaces and their individual requirements for identification and permit to enter

Because these standards and regulations are under constant revision, it is highly recommended that current information regarding any confined work space entry be obtained by first contacting your local Federal and State OSHA offices.

11) Portable air ventilation blowers are not generally utilized for a confined work space entry that requires a

written permit. Work in these types of confined spaces will usually require the use of a self contained breathing apparatus, an approved safety belt and life line, and other, specialized equipment. In addition, a designated person is usually assigned to remain outside the confined work space and be in constant contact with the workers inside. The standby person has no other duty but to react in an emergency situation. Contact your local Federal and State OSHA offices for additional information.

12) Under certain conditions where flammable gases or vapors have displaced the oxygen level but are still too rich to burn, forced ventilation by the Blower may dilute them until these gases or vapors are within their explosive range. Improper job applications for Blowers can produce a resulting explosion, personal injury and property damage.

13) There are several methods for ventilating a confined work space. The exact method and equipment selected are dependent upon the following factors:

- a) The size of the confined work space
- b) The types of gases to be removed or exhausted
- c) The source of makeup air

Regulations usually require the testing of a confined work space for harmful gas contamination prior to entry. Always assume that a confined work space is contaminated. Do not enter any confined work space until it has been proven safe for work personnel. Contact your local Federal and State OSHA office for additional information.

14) The blower is designed to remove harmful gases from a confined work space by attaching a duct to the fan inlet. However, since this evacuation configuration also creates a suction force, a duct used for this purpose must be reinforced to prevent its collapse. Use of a non-reinforced duct will lead to property damage, personal injury or even death. Always properly secure a duct to the Blower with the provided tension straps or other, suitable means.

15) Know how the controls operate. Know how to stop the Blower quickly in an emergency.

OPERATION

1) Give complete and undivided attention to the job at hand. Do not chew gum, smoke and/or use smokeless tobacco while utilizing the Blower. Do not attempt to eat and/or drink while utilizing the Blower. Determine that eyeglasses and/or hearing aid devices are properly secured. Use of the Blower is strenuous and causes fatigue. Help prevent the cause of an accident. Plan to take work breaks as required to help insure mental and physical alertness.

2) The Blower utilizes an external wiring harness comprising of AWG 12-2 wire. Connecting devices include 50 ampere rated battery clamps and NEMA 2-20P cord cap. It is designed to operate ONLY from a 12 volt nominal DC, power source. Do not modify the cord cap to a NEMA assembly of another design and/or rating. Do not operate the Blower with other than a 12 volt nominal, power source.

3) Certain jobsite locations are classified as being hazardous because the atmosphere does or may contain gas, vapor or dust in explosive quantities. The National Electric Code divides these locations into Classes and Groups according to the type of explosive agent which maybe present. For specific information, consult the National Electric Code, Section 500. The electric motor and blower wheel/fan housing are not designed for operation in an explosive and/or flammable atmosphere of any Class or Group. Operation of the Blower in an explosive or flammable atmosphere will result in property damage, personal injury or even death.

4) Place the Blower on secure footing to prevent it from shifting while in use. Such movement can cause injury to the operator(s) or damage to the Blower itself.

5) Do not operate the Blower without the inlet screen properly secured and in place. Never replace the screen with other than factory supplied, replacement units. The screen grid must comply with current OSHA regulations regarding protective enclosures to prevent personal injury to the operator(s). Determine that the structural integrity of the screen will allow it to serve its protective function. Keep the screen free from obstructions and gathered debris to allow maximum air flow delivery.

6) The normal operation of the Blower is with a duct secured to its outlet. Operating the Blower without a duct secured to its outlet requires additional attention to personal safety and the potential for damage to personal property. Keep all body parts, loose clothing and foreign objects clear of the rotating fan if the Blower is operated without a duct secured to its outlet. Do not stand directly in front of and/or face the Blower outlet. Personal injury can result from being struck by debris thrown from the Blower wheel at a relatively high velocity.

7) The Blower is designed for operation in jobsite areas that are reasonably dry, clean and provide for a continuous, dynamic source of air for cooling the motor. If you have any questions about proper operating environments, contact the Factory BEFORE utilizing the Blower.

MAINTENANCE, REPAIR AND STORAGE

1) Always stop the motor and disconnect the Blower from the power source to prevent an accidental starting

before performing any service/maintenance work. An accidental starting can result in property damage, personal injury or even death.

2) Use only genuine, approved replacement parts for maintenance and repair. Use of parts manufactured by others can result in property damage and/or personal injury.

3) Follow the SERVICE instructions as outlined in the appropriate section of the Operator's Manual.

4) Always properly maintain the Blower. Frequently check all fasteners and individual parts. Built in safety features are effective only if they are maintained in good working condition. Keep the Blower clean and properly serviced. Heavy accumulations of dust and dirt will result in overheating and premature failure of the Blower motor. Clean the motor surfaces periodically, preferably with a vacuum cleaner. Replace any questionable part or assembly with a genuine, approved, replacement part. Do not attempt any maintenance or repair work not described in the Operator's Manual. Have such work performed at your dealer's servicing shop.

Assembly

MODEL EP8AC PORTABLE AIR VENTILATION BLOWER

Open the shipping carton immediately upon receipt. Visually inspect the contents of the carton for freight damage and/or missing parts. If shipping damage is evident, contact the delivering carrier to arrange for an inspection of the damage by their claims representative. If missing parts are detected, notify your dealer who will assist you in obtaining them.

Included in the shipment should be the following:

1 each, Blower, with power cable

1) Check all fasteners for security. Consult a fastener torque chart for the proper torque value if any fastener is found to require retorquing. Visually inspect for loose or damaged parts. Determine that all controls work freely, all safety devices are operative and that information decals are readable. It is essential that the Blower and all related accessories are in good mechanical condition before you attempt to use them.

2) Check all wiring for security. If the wiring appears not to be properly connected, contact the Customer Service Department for assistance BEFORE utilizing the Blower. There is no charge for this service.

3) The Models EP8AC Blower is shipped from the factory with an external wiring harness comprising of AWG 18-3 wire and a NEMA 5-15P cord cap. It is designed to be operated from only a 115 volt nominal (AC) power source.

OPERATE THE MODEL EP8AC PORTABLE AIR VENTILATION BLOWER FROM A 115 VOLT NOMINAL, ALTERNATING CURRENT, POWER SOURCE. FAILURE TO OPERATE THE BLOWER FROM A PROPER POWER SOURCE CAN RESULT IN PROPERTY LOSS, PERSONAL INJURY, OR EVEN DEATH.

Determine that all electrical installations and wiring meet applicable Federal, State and local codes and regulations.

Operation

At the time of manufacture, the Blower is not Underwriter's Laboratory® (UL®) listed. Components utilized in the manufacture of the Blower may feature the applicable UL® and CSA® component recognition or listing.

FLOW RATES FOR MODEL EP8AC PORTABLE AIR VENTILATION BLOWER

FREE AIR	953 CFM (26.7 CMM)
ONE 90° BEND	591.7 CFM (16.6 CMM)
TWO 90° BENDS	473.5 CFM (13.3 CMM)

Flow rates for the Model EP8AC Blower were calibrated by the Colorado Engineering Experiment Station, Inc. The Blower was tested per AT&T standard EL2723/PL2709 in a chamber built in accordance with AMCA standard 210-67. The test was performed with a single, 8 inch (203 mm) diameter x 15 feet (4.5 m) flexible, reinforced duct connected to the Blower outlet. The published flow rates are intended to serve only as a reference. Manufacturing tolerances and specific operating parameters will affect the overall flow rate(s) for each particular Blower.

The air flow rate decreases as the length of the flexible, reinforced duct increases for both exhaust and suction job applications. Measured flow rates (with the use of ducts) will increase with the use of a flexible, reinforced duct less than 15 feet (4.5 m) in length and decrease with the use of a flexible, reinforced duct greater than 15 feet (4.5 m) in length. Flow rates will also vary with the specific ducts manufactured and/or supplied by different sources.

CONNECTING THE BLOWER TO THE POWER SOURCE

BEFORE utilizing the Blower, read the Operator's Manual and view the Safety and Operational Information Video Tape supplied with each unit. If, after reading the Operator's Manual and viewing the Safety and Operational Information Video Tape, there are any questions regarding the proper operation of the Blower, contact the dealer or the Customer Service Department for assistance.

BEFORE utilization. There is no charge for this service.

Operation of the Blower requires it to be properly connected to the power source. There is no separate ON/OFF switch or fuse system provided.

1) Position the Blower upwind from the work location and with the air inlet facing into the relative wind to maximize the air flow. FIGURE 1.

2) The voltage, frequency and phase of the power supply should be consistent with the motor nameplate rating. The motor will operate satisfactory on voltages within 10% of the nameplate value or frequency within 5 per cent. The combined variation must not exceed 10 per cent. The Blower is designed to operate from a grounded, 115 volt nominal AC, 60 Hz, single phase power source. Operation from other type power sources can result in property damage and personal injury.

3) Refer to the chart below for the proper sized AWG wire number for extension cord use with the Blower.

COPPER WIRE SIZE MINIMUM AWG NUMBER FOR 1/4 HP, 115 VOLTS NOMINAL AC, 60 Hz

0-25 ft (0-7.6 m)	14 AWG
50 ft (15 m)	12 AWG
100 ft (30 m)	10 AWG
150 ft (46 m)	8 AWG
200 ft (60 m)	6 AWG

For in between lengths, utilize the next largest wire gauge. For specific information, refer to the National Electric Code Tables, Article 400.

4) The Blower power cord is to be connected only to a grounded NEMA 5-15R receptacle.

OPERATING THE BLOWER ON THE JOB SITE

THE BLOWER IS DESIGNED FOR PORTABLE, AIR VENTILATION PURPOSES ONLY. THE BLOWER IS NOT DESIGNED FOR TRANSPORTING LIQUID, SEMI-SOLID OR SOLID MATERIAL(S). THE ELECTRIC MOTOR AND BLOWER WHEEL/FAN HOUSING ARE NOT DESIGNED FOR OPERATION IN AN EXPLOSIVE OR FLAMMABLE ATMOSPHERE. OPERATION OF THE BLOWER IN AN EXPLOSIVE OR FLAMMABLE ATMOSPHERE WILL RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR EVEN DEATH.

1) For normal exhaust (air blowing) operations, connect the duct to the Blower outlet. The duct can be one of two types:

a) Collapsible, non reinforced type duct

b) Collapsible, flexible, reinforced type duct

2 The Model EP8AC Portable Air Ventilation Blower is not intended to be utilized for normal suction (air evacuation) operation without the addition of an inlet adaptor. Contact the Customer Service Department for additional information.

For both normal exhaust and suction operations, follow the air flow direction arrow marked on the duct (if so equipped) to insure maximum air flow delivery. Secure the duct to the Blower with the clamping strap. Tighten securely.

FOR BOTH EXHAUST AND SUCTION OPERATIONS, THE MINIMUM SAFE DUCT DIAMETER IS 8 INCHES (203 mm). FOR BOTH EXHAUST AND SUCTION OPERATIONS, THE MAXIMUM COMBINED SAFE DUCT LENGTH IS 25 FEET (7.6 m).

3) The FD810 (10 ft. length), FD815 (15 ft. length) and FD825 (25 ft length) are factory supplied ducts for use with the Blower. All are of the collapsible, flexible, reinforced type.

side wall, with the ventilating air being directed at an end wall. FIGURE 2 and FIGURE 3. This arrangement will provide for more even air distribution and will more effectively eliminate air spaces in corners where harmful gases may accumulate.

BEFORE UTILIZING THE BLOWER, CHECK ALL APPLICABLE FEDERAL, STATE, INDUSTRY AND LOCAL REGULATIONS REGARDING THE USE OF FLAME RESISTANT AND/OR SELF EXTINGUISHING DUCT MATERIALS FOR THE INTENDED JOB APPLICATION. IT IS THE RESPONSIBILITY OF THE OWNER(S) AND/OR OPERATOR(S) TO DETERMINE THAT THE DUCT MATERIAL IN USE FOR THE JOB APPLICATION MEETS ALL APPLICABLE FIRE CODE AND OSHA REQUIREMENTS.

4) The Blower must never be utilized by itself for portable, air ventilation purposes. Personnel and property safety can only be assured after making thorough gas detection tests combined with Blower ventilation and continual retesting. Because air may not flow in and out of a confined work space freely due to design considerations, the atmosphere inside can be very different from the outside. Deadly gases may be trapped inside, particularly if the space is used to store or process chemical or organic substances that decompose. There may not be adequate oxygen inside the confined work space to support life, or the atmosphere could be so oxygen rich that it is likely to increase the chance of an explosion if an ignition source is present.

FIGURE 2

ALWAYS ASSUME THAT A MANHOLE OR CONFINED WORK SPACE IS CONTAMINATED UNTIL IT HAS BEEN PROVEN THAT IT IS SAFE FOR WORK PERSONNEL. NEVER ENTER A MANHOLE OR CONFINED WORK SPACE, EVEN FOR A MOMENT, UNTIL IT HAS BEEN THOROUGHLY TESTED WITH APPROPRIATE GAS DETECTION EQUIPMENT AND THEN VENTILATED FOR AT LEAST A MINIMUM OF 5 MINUTES WITH THE BLOWER OPERATING AT MAXIMUM SPEED.

FIGURE 3

6) Prior to entering the manhole or confined work space, suspend the sampling hose from the top rail of the manhole guard (or confined space opening) with the connector end hanging down into the work space. Attach the tester to the sampling hose and purge by aspirating air through the tester for several seconds. Adjust the needle to zero and detach the sampling hose. Then, aspirate the ambient air into the tester and note the indication on the meter.

7) Make periodic tests while working and always after taking any work break. Harmful gases can accumulate in areas not previously found before, which necessitates a continual testing program.

5) Purge the Blower hose at street level for at least one minute before placing it into the manhole or confined work space. The most effective positioning of the outlet end of the Blower hose is on a cable rack or another supporting structure midway up a

8) Utilize appropriate testing equipment and procedures: test, ventilate, test and continue to ventilate. Retest at least every 2 hours. Where local conditions, procedures and policies apply, a more vigorous testing procedure should be utilized with the operation of the Blower. Contact your local Federal and State OSHA offices for more specific and current information regarding procedures, policies and requirements. Such information is regularly subject to change and revision.

The final working procedure for any job application involving the use of the Blower must be individually determined after careful analysis of all factors and/or conditions present. The nearest OSHA office is a valuable source for applicable information regarding the safe operation of the Blower.

STOPPING THE BLOWER

1) Stopping the Blower is accomplished by removing the power cord from the power source.

Do not disconnect the NEMA 5-15P cord plug from the NEMA 5-15R receptacle by pulling on the power cord. Such action can result in property damage and/or personal injury. Grasp the plug firmly in hand and remove from the receptacle.

Service

ALWAYS STOP THE MOTOR AND DISCONNECT THE POWER SOURCE TO PREVENT THE ACCIDENTAL STARTING AND OR THE POSSIBILITY OF RECEIVING AN ELECTRICAL SHOCK BEFORE WORKING ON THE BLOWER, AN ACCIDENTAL STARTING AND/OR SHOCK CAN RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR EVEN DEATH.

BLOWER HOUSING MAINTENANCE

Do not operate the Blower with a large accumulation of dirt and other debris within the blower housing assembly. Such a collection of foreign material can

affect air flow delivery performance and should be removed periodically.

REMOVING THE FAN FROM THE MOTOR SHAFT

Tools required:

- 1 each, 3/8 inch wrench
- 1 each, 1/8 inch Allen wrench
- 1 each, 3 mm Allen wrench

1) Utilizing the 1/8 inch Allen wrench and 3/8 inch wrench, remove the front screen assembly.

2) Loosen the set screw with the 3 mm Allen wrench and remove the fan from the motor shaft. Clean as required with the safety solvent.

Observe all applicable safety precautions for the solvent.

3) Clean the surfaces of the Blower with the safety solvent.

4) Reinstall the fan on the motor driveshaft while aligning the setscrew with the flat spot provided on the motor shaft. Position the fan as close to the vanes as possible without the fan blades coming in direct contact with the vanes or interior wall. Tighten the set screw until the fan is snug on the shaft. Rotate the fan to determine that it is not in contact with the vanes and/or interior wall. Tighten the set screw until the fan is secure to the shaft.

5) Reinstall the front screen assembly.

DETERMINE THAT THE STRUCTURAL INTEGRITY OF THE INLET SCREEN WILL ALLOW IT TO SERVE ITS PROTECTIVE FUNCTION. DO NOT REINSTALL A DAMAGED AND/OR DEFECTIVE SCREEN. DO NOT OPERATE THE BLOWER WITHOUT THE INLET SCREEN PROPERLY SECURED AND IN PLACE.

6) The blower wheel is factory balanced at the time of manufacture and should not require rebalancing under normal usage. Proper balance is essential to minimize wheel vibration and maximize air flow delivery.

DO NOT PAINT OR ALTER THE BLOWER WHEEL CONFIGURATION IN ANY MANNER. THE RESULT WILL BE AN UNBALANCED WHEEL CONDITION. AN UNBALANCED WHEEL CAN RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

ELECTRIC MOTOR MAINTENANCE

The electric motor is capable of operating for many years with a reasonably small amount of maintenance. Before attempting to service the motor, disconnect the Blower from the power source. Clean the motor surfaces periodically, preferably with a safety solvent. Heavy accumulations of dirt and lint will result in overheating and premature failure of the motor.

The electric motor is equipped with long life bearings and under normal service and ambient temperatures, should not require relubrication for many years. If you feel that the motor requires relubrication, contact the Customer Service Department for specific information.

DUCT MAINTENANCE

Ducts are manufactured from various material types and by a variety of processes. A woven material is usually covered with a synthetic material and reinforced with a wire helix for additional strength and service life. With use, the inside of the duct will become covered with an oil/dirt film that can create additional friction between the moving air and the duct. The result can be lower air flow rates. For maximum Blower performance, the duct should be periodically inspected and cleaned as necessary with mild soap and water.

Troubleshooting

ELECTRIC MOTOR FAILS TO OPERATE

Inoperative power source. Check power source.

Improper cord cap connection to power source. Inspect connection.

Wiring harness lead to motor loose or disconnected. Inspect connections and reconnect.

BLOWER LACKS AIR FLOW DELIVERY

Motor worn. Replace motor.

Motor overheating. Inspect motor surfaces. See SERVICE section.

Motor requires relubrication. See SERVICE section.

Improper electrical power. Check power source for proper voltage and amperage. See BLOWER OPERATION section.

Inlet screen blocked with debris. See SERVICE section.

Blower wheel and/or housing filled with debris. See SERVICE section.

Damaged duct restricts air flow delivery. Repair or replace duct as required.

Storage

Proper procedure for long term storage of the Blower will protect it against the effects of corrosion and damage. If the Blower is not to be operated for a period of 30 days or more, proceed to store as follows:

1) Clean all accumulated dirt and grease from the Blower utilizing a safety solvent.

Observe all applicable safety precautions for the solvent.

2) Follow the procedure as outlined in the material provided by the electric motor manufacturer detailing long term storage of the motor.

3) Check all visible parts for wear, breakage or damage. Order any part required to make the necessary repair. This will avoid a needless delay when operating the Blower at next use.

4) Store the Blower inside. If the Blower must be stored outside, protect it with a suitable covering.

Specifications

MOTOR

TYPE

1/4 HP, capacitor start, 115 volts nominal AC, 60 Hz, single phase

FULL LOAD
AMPERAGE

2.5 Amperes

BLOWER

TYPE

Axial

OUTLET
SIZE

8 inches (203 mm)
nominal diameter

MAXIMUM COMBINED
SAFE DUCT LENGTH

25 ft (7.6 m)

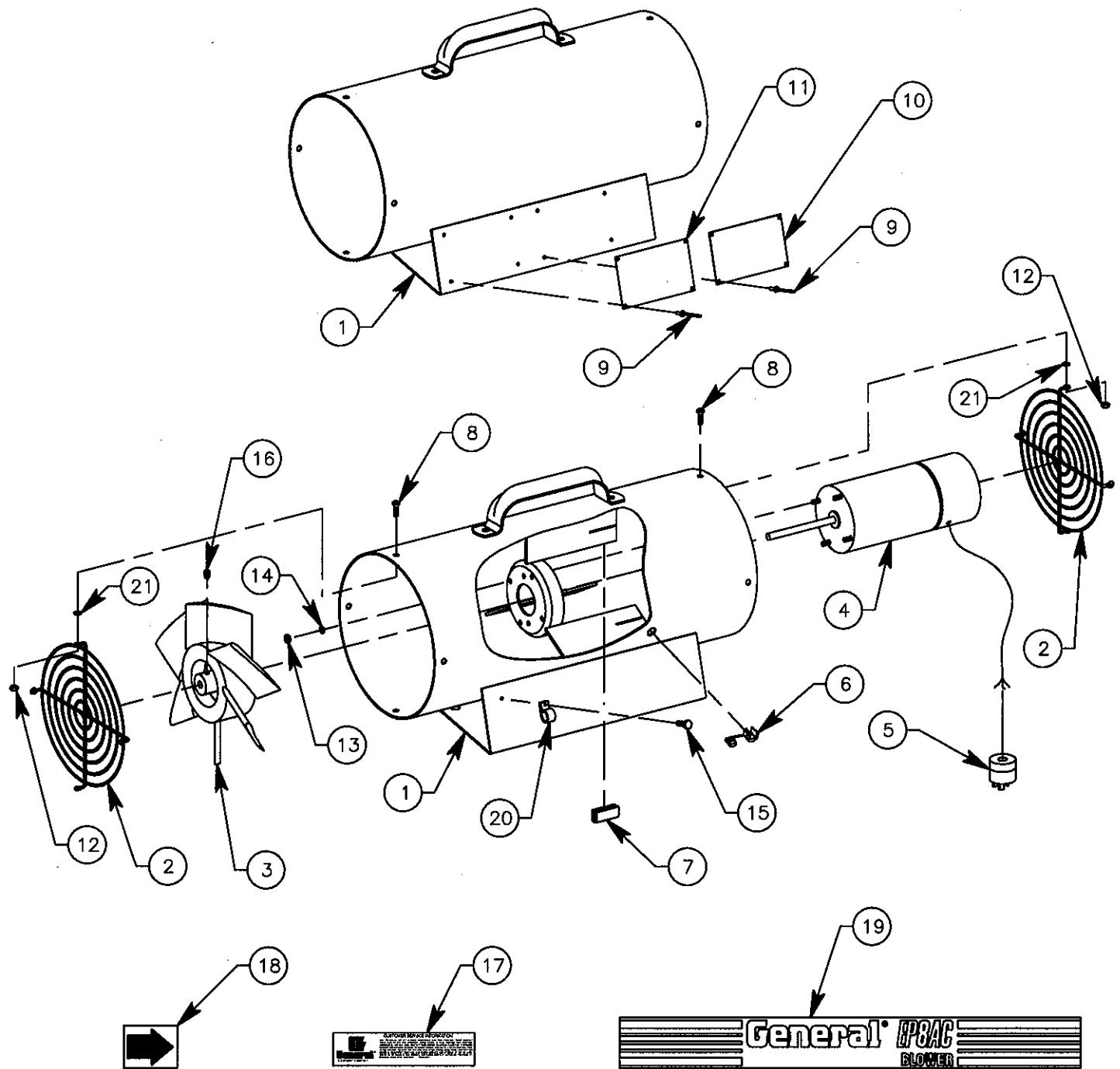
MINIMUM SAFE DUCT
DIAMETER

8 in (305 mm) nominal
diameter

EP8AC Series

Portable Ventilating Blower

(Straight Tube Style Housing)



EP8AC Series

Portable Ventilating Blower

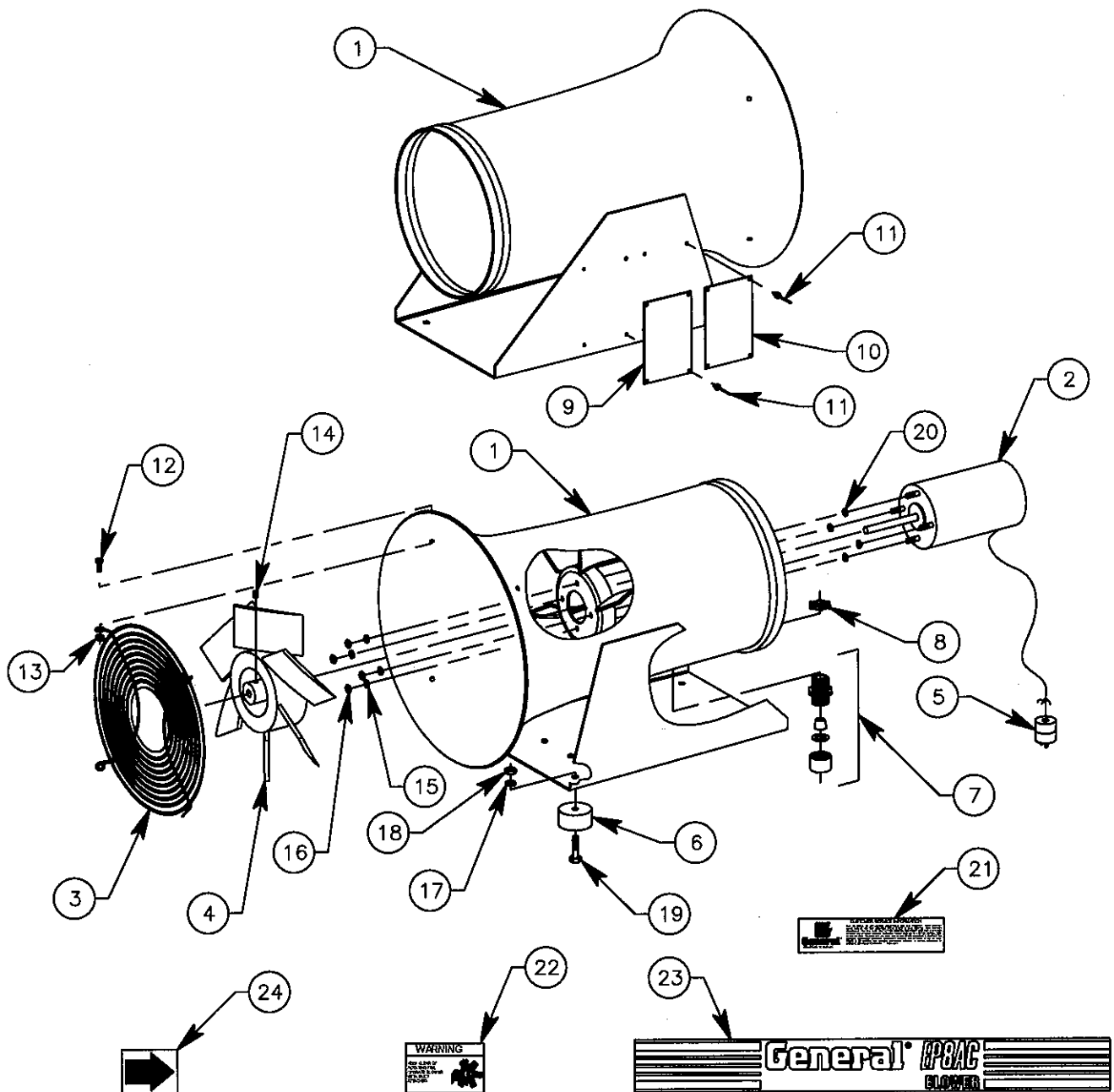
[Straight Tube Style Housing]

REFERENCE NUMBER	PART NUMBER	DESCRIPTION	QUANTITY
1	EP8AC-0011	Housing, Blower	1
2	GP8-0044	Screen	2
3	EP8AC-0021	Fan, 8"	1
4	JF1H095	Motor, Electric, 115V AC	1
5	5266-C HUBBEL	Plug, Male	1
6	EP8AC-0040	Strain Relief, Wire	1
7	EP8AC-0030	Support, Motor	4
8	60030500	Socket Head Cap Screw, #10-24 x 5/8", Plated	8
9	45020200	Rivet, Pop, (1/8" x 1/4")	8
10	EP8-5020	Plate, Danger	1
11	EP8AC-5031	Plate, Name/Air Flow	1
12	53030000	Nut, Hex, Nylock, #10-24, Plated	8
13	18030001	Nut, Hex, #10-32, Plated	4
14	58030000	Washer, Lock, External Tooth, #10, Plated	4
15	48030400	Screw, Machine, Self-tapping, Hex Head, #10-24 x 1/2", Plated	1
16	30060910	Screw, Set (Metric)	1
17	SG24-5072	Decal, Assistance	1
18	EP8AC-5020	Decal, Air Flow	1
19	EP8AC-5010	Decal, General	1
20	COV-0411	Clamp, Plated	1
21	17030000	Washer, Flat, #10, Plated	8

EP8AC Series

Portable Ventilating Blower

(Bell Shaped Style Housing)



EP8AC Series

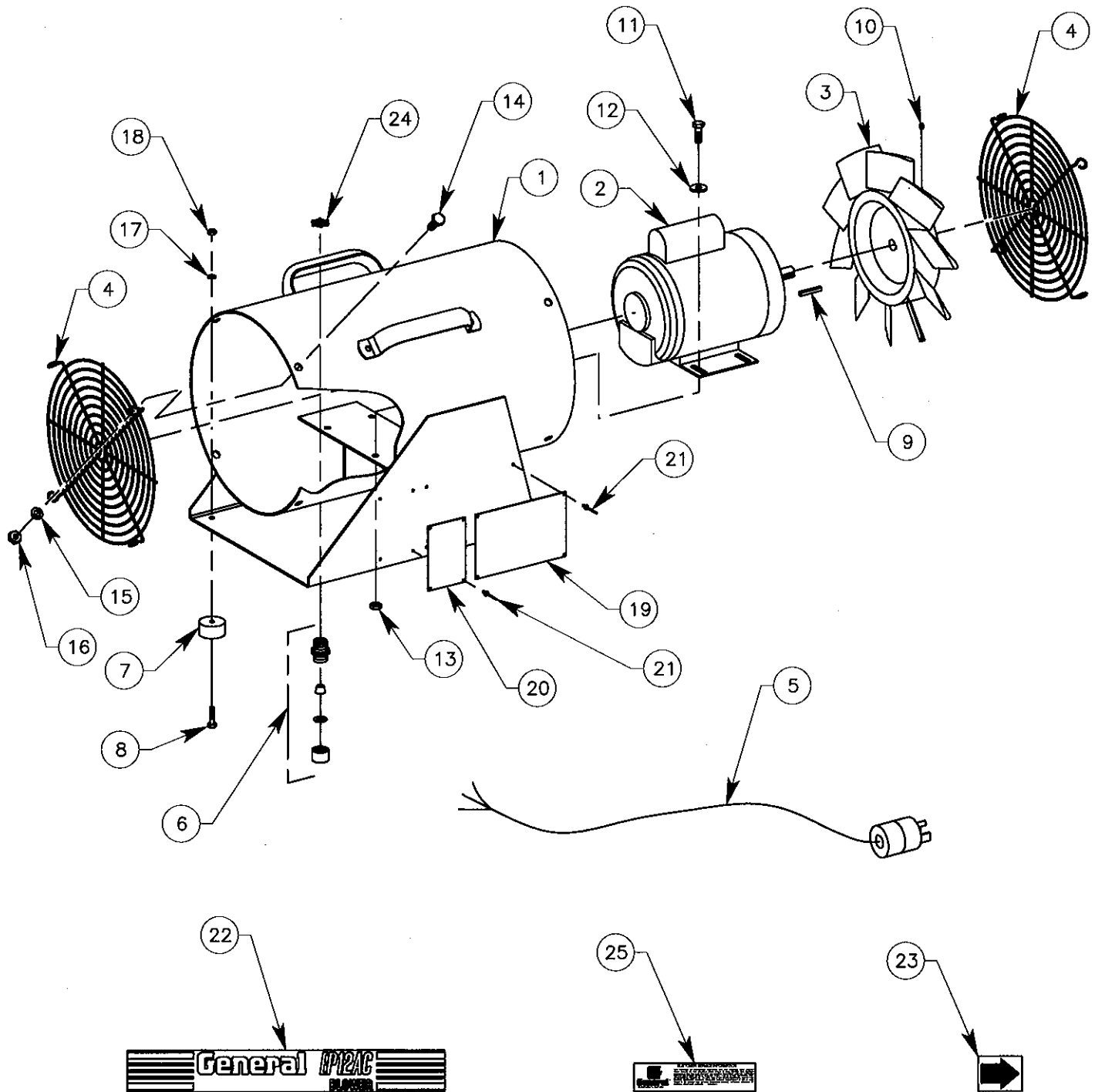
Portable Ventilating Blower

[Bell Shaped Style Housing]

REFERENCE NUMBER	PART NUMBER	DESCRIPTION	QUANTITY
1	EP8DC-0010	Housing, Blower	1
2	JF1H095	Motor, Electric, 115V AC	1
3	EP8DC-0030	Screen	1
4	EP8AC-0020	Fan, Blower	1
5	5266-C HUBBEL	Plug, Male	1
6	EP8-0140	Mount, Rubber	4
7	CG-3150	Fitting, Complete	1
8	801	Nut, Bulkhead (Included With Reference Number 7)	1
9	EP8-5020	Plate, Danger	1
10	EP8AC-5030	Plate, Name/Air Flow	1
11	45020200	Rivet, Pop, (1/8" x 1/4")	8
12	55030400	Screw, Cap, Button Head, #10-24 x 1/2", Plated	4
13	53030000	Nut, Hex, Nylock, #10-24, Plated	4
14	30060910	Screw, Set, (Metric)	1
15	58030000	Washer, Lock, External Tooth, #10, Plated	4
16	18030001	Nut, Hex, #10-32, Plated	4
17	16040000	Washer, Lock, 1/4", Plated	4
18	18040000	Nut, Hex, 1/4-20 UNC, Plated	4
19	15040700	Screw, Cap, 1/4-20 x 7/8", Plated	4
20	17030000	Washer, Flat, #10, Plated	4
21	SG24-5072	Decal, Assistance	1
22	EP8DC-5030	Decal, Fan Warning	1
23	EP8AC-5010	Decal, General	1
24	EP8AC-5020	Decal, Air Flow	1

EP12AC Series

Portable Ventilating Blower



EP12AC Series

Portable Ventilating Blower

REFERENCE NUMBER	PART NUMBER	DESCRIPTION	QUANTITY
1	EP12AC-0100	Housing, Blower	1
2	EP12AC-0030	Motor, Electric, 115V AC, 3/4 HP	1
3	EP12AC-0020	Fan, 12"	1
4	EP12AC-0040	Screen, Blower	2
5	EP8-0051	Cord, W/Plug	1
6	CG-3150	Fitting, Complete	1
7	EP8-0140	Mount, Rubber	4
8	15040700	Screw, Cap, 1/4-20 UNC x 7/8", Plated	4
9	63031200	Key, Square, (3/16" x 3/16" x 1-1/2")	1
10	30060910	Screw, Set (Metric)	1
11	15050700	Screw, Cap, 5/16-18 UNC x 7/8", Plated	4
12	17040000	Washer, Flat, 1/4", Plated	4
13	53050000	Nut, Hex, Nylock, 5/16-18 UNC, Plated	4
14	15060800	Screw, Cap, 3/8-16 UNC x 1", Plated	8
15	16060000	Washer, Lock, 3/8", Plated	8
16	53060000	Nut, Hex, Nylock, 3/8-16 UNC, Plated	8
17	16040000	Washer, Lock, 1/4", Plated	4
18	18040000	Nut, Hex, 1/4-20 UNC, Plated	4
19	EP8-5020	Plate, Danger	1
20	EP12AC-5030	Plate, Flow Rate	1
21	45020200	Rivet, Pop (1/8" x 1/4")	8
22	EP12AC-5010	Decal, General	2
23	EP8AC-5020	Decal, Airflow	1
24	801	Nut, Bulkhead (Included With Reference Number 6)	1
25	SG24-5072	Decal, Assistance	1