Part #114419-001

# **Product Manual:**

Model #1240E Hazardous Location Centrifugal Blower





#### **T.A. Pelsue Company**

2500 South Tejon Street Englewood, Colorado, USA 80110 Tel. 800-525-8460 or 303-936-7432 Fax. 303-934-5581

Internet: www.pelsue.com Email: sales@pelsue.com



Since our inception in 1963 – the T.A. Pelsue Company has designed and manufactured high quality equipment to improve the personnel efficiency and working conditions in various underground, confined, and outdoor areas.

Founded by T. Allen Pelsue, the company has established a continuing reputation for excellence in the production of fine products for a broad spectrum of industry throughout the world.

Now, in our second generation of family direction, continued commitment to innovation and quality makes Pelsue a leading source of equipment for many types of confined spaces. We specialize in safety, retrieval, fall arrest, ventilation, cable placing, splicing, and maintenance nationally and abroad. With more than 70,000 square feet of facilities available, Pelsue continues the dedication that has made us pre-eminent in this field.

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# T.A. Pelsue Company Quality Policy

OUR GOAL IS THE PURSUIT OF NEVER-ENDING IMPROVEMENT IN PRODUCT QUALITY AND BUSINESS SYSTEMS.

METHODS TO BE EMPLOYED IN ATTAINING THIS GOAL WILL INCLUDE NEW PRODUCT QUALITY PLANNING, EMPLOYEE TRAINING, AND UTILIZATION OF EMPLOYEE INVOLVEMENT GROUPS TO SOLVE PROBLEMS.

IN AN INCREASINGLY COMPETITIVE MARKETPLACE, ENSURING CUSTOMER SATISFACTION IS ONE OF THE DIFFERENTIATORS THAT SETS YOU APART FROM THE PACK AND YIELDS A COMPETITIVE ADVANTAGE.

THEREFORE, WE WILL SUPPORT TOTAL CUSTOMER SATISFACTION BY IMPLEMENTING THE **ISO 9001 QUALITY SYSTEM** AND PROVIDING THE NECESSARY ATMOSPHERE AND TRAINING TO NURTURE THIS CONCEPT THROUGHOUT OUR ORGANIZATION.

WE WILL MAKE EVERY BUSINESS DECISION AS THOUGH THE QUALITY OF THE PART OR SERVICE PROVIDED WAS DESTINED FOR OUR OWN OR OUR FAMILY'S USE. WE WILL ALWAYS THINK QUALITY FIRST.

EVERY T.A. PELSUE COMPANY EMPLOYEE IS EXPECTED TO COMMIT TO THIS PHILOSOPHY IN THE PERFORMANCE OF HIS OR HER DAILY TASKS.

#### **QUALITY FIRST!**

T.A. PELSUE COMPANY SENIOR MANAGEMENT TEAM

#### PELSUE PORTABLE PRODUCT WARRANTY

- Pelsue products are designed and engineered to perform as stated in published specifications. Quality materials and workmanship are used in the manufacture of this product. With regular maintenance and proper care, Pelsue equipment provides many trouble free hours of operation.
- The T.A. Pelsue Company warrants to the buyer that material furnished will conform to specifications and will be free from defects in material and workmanship from the date of shipment to the original buyer, for the period listed by product description on the reverse side of this warranty statement.
- In the event of failure of any components of a Pelsue product within the warranty period, service must be preapproved by the T.A. Pelsue Company and service must be performed by the T.A. Pelsue Company Parts and
  Service Department in Englewood Colorado, or at the option of T.A. Pelsue Company, service may be performed
  at any designated service center, which may include any authorized service center for the component manufacture.
- Damage or failure due to misuse, mishandling, or unauthorized modifications will not be covered by this warranty.
  Unless otherwise agreed, the T.A. Pelsue Company shall repair or replace the defective components within (30)
  calendar days of notice of failure. T.A. Pelsue Company's obligation hereunder, shall be limited to the repair or
  replacement of the product or component as set forth above, and shall not include any liability whatsoever for
  damages caused by such failure, including but not limited to consequential or incidental damages flowing from
  use or lack of use of product.
- Any replacement, repair, modification, installation or other service performed by the T.A. Pelsue Company shall be warranted by the remainder of the unexpired period of the warranty, or for a period of (90) calendar days, whichever is longer.
- All materials or parts returned for credit or warranty shall be returned only with prior approval, and will be subject
  to factory inspection before credit is allowed. Parts claimed defective will be replaced upon request and will be
  invoiced as purchased, subject to credit when the parts claimed to be defective have been received and examined by the factory.
- This warranty is expressly in lieu of all other warranties expressed or implied, including any warranties of merchantability or warranties of fitness for any particular use and all other obligations or liabilities in connection with the sale of this equipment.

Product Description	Warranty Coverage*
• Blowers	1 year
Heaters	1 year
Blower Hoses/Ducts	3 months
Pel-Cans and Caddys	1 year
Hose Adapters	1 year
Manhole Shields & Manhole Guards	1 year
Pel-Brite Work Lights	6 months
Planks and Plank Supports	6 months
Duct Rodders and Accessories	6 months
Submersible Pumps	6 months
Discharge and Suction Hoses for Pumps	3 months
Wheel Chocks	1 year

<sup>\*</sup>From date of shipment to original buyer.

T.A. Pelsue Company, 2500 South Tejon Street, Englewood, Colorado 80110, 800-525-8460

## 2.0 - Introduction & Product Information

Congratulations on your choice of a **Pelsue Model #1240E Centrifugal Blower** to compliment your confined space ventilation operation. This equipment has been designed and manufactured to exceed confined space requirements and regulations in order to meet the needs of the discriminating operator for efficiency and safety during confined space entry operations.

Safe, efficient and trouble-free operation and maintenance of the system requires that anyone who will be operating, maintaining, or inspecting the equipment, read, understand and follow all the operation, safety, maintenance, and inspection instructions contained within this manual. This manual covers the Pelsue Model #1240E Centrifugal Blower. Use the Table of Contents as a guide to find specific information.

Keep this manual available for future reference if required, and as a tool in the training of new operators.



This product is a part of a system for confined space ventilation operations. The user must read, understand and follow the instructions contained in this manual before using this equipment. Failure to follow these instructions could result in serious injury or death.

#### 2.1 - Serial Number

#### **Product Serial Number**

Always give your dealer the serial number of your Pelsue confined space ventilator product when ordering parts or requesting service or other information.

The serial number & rating decal is permanently embossed with a serial number. The serial number & rating decal will be located at the top of the housing of the centrifugal blower as shown in *Fig. 2a*. The serial number & rating decal will appear as shown in *Fig. 2b*. A space has been provided below for the recording of the serial number for future reference.

MODEL: #1240E

Serial Number :

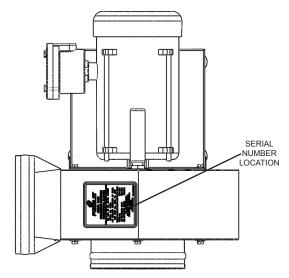


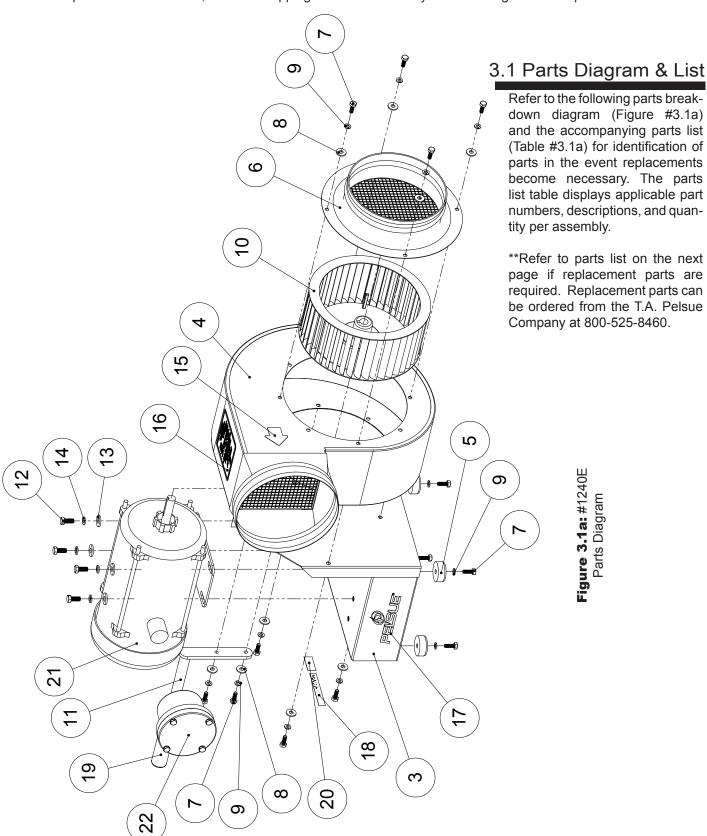
Figure 2a: Serial Number Location



Figure 2b: #1240E Serial Number Decal

## 3.0 - Configuration & Assembly

Upon initial receipt of the #1240E Centrifugal Blower, inspect the packaging for any evidence that the product may have been damaged in shipment. While unpacking the product, inspect all of the components for damage. If damage to any of the components is discovered, Alert the shipping carrier immediately of the damage to the shipment.



ITEM NUMBER	PART NUMBER	DESCRIPTION	QUANTITY
3	102439-001	BASE WELDMENT - BLOWER, FOR NEMA 56-FRAME MOTOR	1
4	102420-002	HOUSING WELDMENT - BLOWER	1
5	100188-002	FOOT - RUBBER, 1-1/2" OD	4
9	113489-001	WELDMENT - SUCTION ADAPTER	1
7	101427-002	SCREW - CAP, HEX HD, 1/4-20 UNC X 3/4", PLATED	13
8	100050-009	WASHER - FLAT, 1/4 IN, TYPE A, W, PLATED	6
6	100121-009	WASHER - LOCK, 1/4 IN, HELICAL SPG, PLATED	13
10	112183-001	WHEEL - BLOWER, ALUMINUM, STYLE FC	1
11	102440-001	HANDLE - 1240 SERIES BLOWERS	1
12	100157-007	SCREW - HEX HD, 5/16-18 UNC X 3/4, PLATED	4
13	100050-010	WASHER - FLAT, 5/16" TYPEA, W, PLATED	4
14	100121-010	WASHER - LOCK, 5/16", HELICAL SPRING, PLATED	4
15	111837-001	DECAL - DIRECTIONAL ARROW, BLACK	2
16	112185-001	DECAL - 1240E, SERIAL #, ELECT RATING, CFM RATING	1
17	111566-001	DECAL - "PELSUE" WITH "P" LOGO	2
18	114657-001	DECAL - "ATT.; A CONNECTING DEVICE APPROVED"	1
19	114564-001	GRIP - BICYCLE, BLACK FOAM	1
20	900306-001	DECAL - "INSPECTED BY - DATE"	1
21	112184-001	MOTOR - ELECT, HAZARDOUS LOC, 120VAC, 60HZ, 1 SPEED	1
22	112181-100	CONDUIT BOX - EXPLOSION PROOF	1

**Table 3.1a:** #1240E Parts List

## 4.0 - Safety

The following section will address the safety precautions which must be adhered to when working with Pelsue confined Space Ventilation equipment such as the #1240E Centrifugal Blower. Any user must familiarize themselves with the information in this section before utilizing the equipment.

#### **SIGNAL WORDS:**

Note the use of the signal words **DANGER**, **WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guidelines:

- **DANGER-** Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations or for hidden or unseen hazards.
- **WARNING-** Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury and includes obvious and hidden hazards. It may also be used to alert against unsafe practices.
- **CAUTION-** Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

You are responsible for the safe operation of your Pelsue #1240E Centrifugal Blower. You must ensure that anyone who will operate or work around the equipment be familiar with confined space ventilation procedures. This manual will take you step-by-step through the workings and capabilities of the #1240E Centrifugal Blower and alert you to good safety and operating practices while using the system.

Remember, you are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that everyone operating in or around a confined space is familiar with the procedures recommended and follows safety precautions. Remember, most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- The most important safety device on this equipment is a safe operator. It is the operator's responsibility to read and understand all safety and operating instructions in the manual and to follow these. Most accidents can be avoided.
- A person must understand the operation of this equipment and be trained in it's usage before operating the equipment. An untrained operator exposes himself and others to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Think SAFETY! Work SAFELY!

## 4.1 - Safety Alert Symbol

#### SAFETY ALERT SYMBOL

This Safety Alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!** 

The Safety Alert symbol identifies important safety messages on your Pelsue Confined Space Product and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instruction in the safety message.

Why is this symbol important to you?

3 BIG Reasons: Accidents Disable and Kill.

**Accidents Cost You Money.** 

Accidents Can Be Avoided.



#### **Safety Precautions:**

It is necessary to follow these safety precautions, each time, prior to using the product.

Safety Precautions are not limited to, but should include at least the following items;

- **1.** Do not use the blower for anything other than its intended use.
- **2.** Do not wear loose clothing that can become entangled in operating machinery. Do not operate the blower without inlet or outlet screen guards in place.
- **3.** Do not place fingers or any other object through inlet or outlet screens.
- **4.** Always operate the blower from a properly wired and GFCI (Ground Fault Circuit Interrupter) protected power source.
- **5.** Never handle energized power cords with wet hands.
- **6.** Never let extension cords or plug connection lay in water. Locate the blower so that it cannot fall into water inadvertently.
- **7.** Never use cords with frayed, cut, or brittle insulation. Check the cord for sound connections to the ground fault interrupter receptacle.
- **8.** When operating the ventilator within an explosive environment, extreme care must be taken to ensure the proper installation of the ventilator unit. Differing locations and atmospheric conditions will necessitate specific precautions with regards to the wiring of the ventilator unit. As delivered from *Pelsue*, the Model #1240E is not a completely wired "plug-in" type ventilator. The Model #1240E must be hard wired properly to result in a completely "explosion-proof" installation according to confined space conditions and local requirements.
- **9.** Ensure that toxic fumes are not blown into a confined space.
- **10.** Unattended use of equipment is not recommended.



#### ! DANGER!! DANGER!

Verify that the ventilator unit is properly wired for operation in an explosive atmosphere prior to energizing the unit. Serious injury and/or death will result from improper wiring practices.



- **! WARNING!** In some applications, it may be necessary to ground the blower hose to the blower housing in order to eliminate the potential for a spark caused by static electricity. Please consult your local authorities and follow all applicable codes.
- **! CAUTION!** Be sure that the blower is disconnected from the power source before performing any maintenance or repair work on the blower.
- **! CAUTION!** Check all power cords for cuts, frayed ends, or brittle insulation. See parts list for replacement part numbers.
- **! CAUTION!** The user must ensure that the blower is located where it cannot fall into water inadvertently and the extension cords or plug connections do not lay in water.

## 5.0 - Product Operation

The following section will address the capabilities and the general operation of the Pelsue #1240E Centrifugal Blower. The instructions contained within this section should be adhered to each and every time the product is used. Any person tasked with installing or operating this piece of equipment should be familiar with these procedures.

## 5.1 - Product Description & Capabilities

The Pelsue #1240E Centrifugal Blower is built with a rugged steel housing and internal steel and/or aluminum components. The Pelsue #1240E Centrifugal Blower is specifically designed for use in hazardous location confined space applications. All specifications, instructions, and procedures provided within this manual or upon Pelsue Specification Documents are based upon and only valid for usage with Pelsue accessories. The T.A. Pelsue Company can not verify equipment safety and/or compliance when utilized with anything other than Pelsue approved confined space accessories.

## Centrifugal Blower - #1240E

#### **General Specifications**

Weight - 50 LBS.
 Height - 17-1/2"
 Width - 17-3/4"
 Length - 20-3/8"

## Model Specifications & Performance #1240E

Voltage 120VAC, 60Hz
 H.P. 3/4 (.56kW)
 Free Air 1277 CFM
 One 90° Bend 1024 CFM
 Two 90° Bends 880 CFM

#### Features:

- Low Maintenance
- Specifically designed to provide a completely portable source of fresh air
- Explosion Proof Motor

#### **Materials & Construction**

- Main Structure: Steel
- Hardware Plated Steel

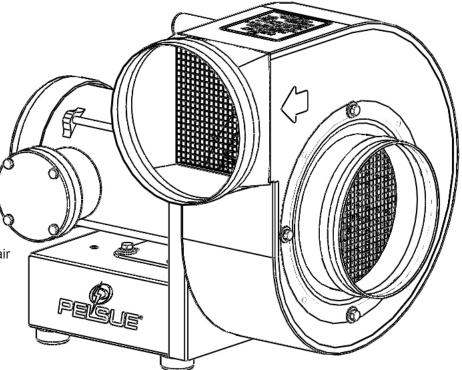


Figure #5.1a: #1240E Centrifugal Blower

#### **Additional Requirements & Notes**

- The #1240E Centrifugal Blower's power supply is designed to be user-wired. This is intended to make the end user aware that appropriate electrical fittings dictated by the location parameters must be used.
- The #1240E Centrifugal Blower is a single speed blower.

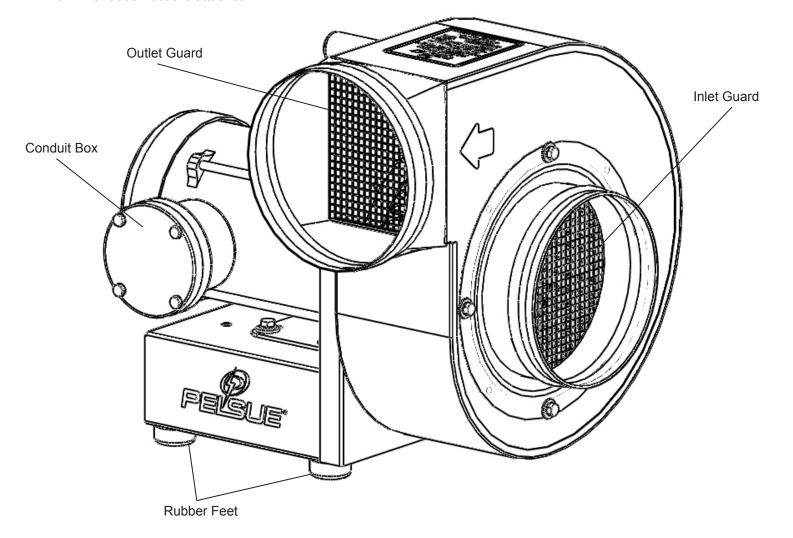
Prior to Operation, the #1240E Centrifugal Blower should be configured and prepared according to the following guidelines.

#### 1. Pre-Operation Inspection:

It is necessary to perform a visual inspection, each time, prior to using the product. If deficiencies are found, remove the product from service and contact the T.A. Pelsue regarding repair. The following checklist coupled with *Figure #5.2a* should be used as a guide to determine whether the equipment is in good operating condition prior to usage. Equipment that is not in good condition can endanger the safety of the entrant and attendant during use.

The Pre-Operation Visual Inspection is not limited to, but must include the following items;

- **a.** Check the blower inlet and outlet guard screens for obstructions.
- **b.** Remove any objects around the immediate area that could be sucked into the blower.
- **c.** The blower is correctly wired for the hazardous atmosphere to be encountered.
- **d.** The rubber feet are attached.



**Figure #5.2a:** #1240E Centrifugal Blower Pre-Operation Inspection Points

## 5.2 - Start-Up & Operating Procedures (continued)

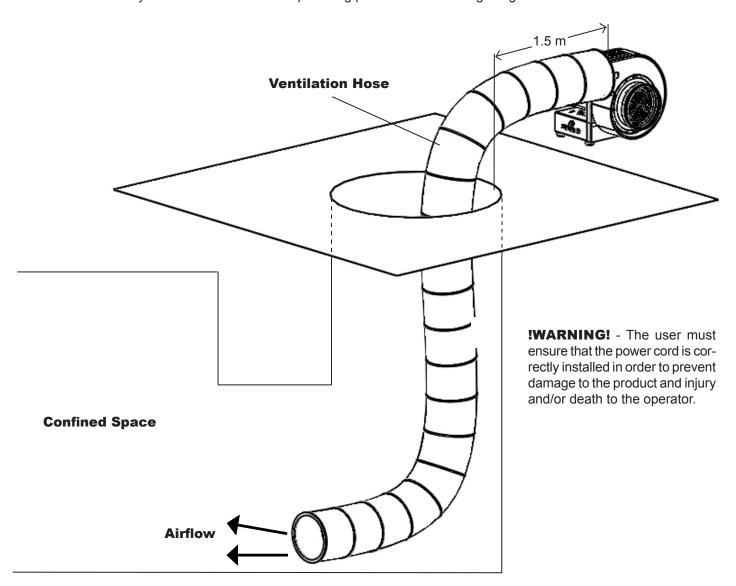
#### 2. Setup of 1240E Centrifugal Blower:

Choose a location where installation will provide suitable proximity to the work area yet minimize obstructions during use and in the event a rescue is necessary. Once a location is chosen;

- **a.** Blower should be placed 1.5 meters upwind where possible, from the confined space, and have its inlet pointed into the wind. This will reduce the chance of contamination being blown into the confined space. (Refer to Fig. #5.2b)
- **b.** Ensure wiring connection is secured and adequate and rated for the hazardous atmosphere to be encountered.
- **c.** Extend and place the blower hose as required.

#### **Important Notes:**

- During confined space entry operations, it should not be assumed that the ventilator will maintain the air inside the confined space at a safe condition. When the ventilator is in use, the air inside the confined space should be monitored continuously for the presence of poisonous gases and/or toxic fumes.
- Continuously ensure that the blower is providing positive airflow during usage.



**Figure #5.2b:** Centrifugal Blower Setup in Confined Space

