

TULMAR
ENGINEERED FOR PROTECTION

AIR LIQUIDE STYLE TRAINING PBE

87481-001
User Manual P/N: 53049-001



Tulmar Safety Systems

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REVISION HISTORY

This revision history is to serve as a record of the changes to this manual. The record includes the revision letter, the date of the revision, the page(s) affected, and a brief description of the change.

Rev	Date	Pages Affected	Brief Description
A	2025-08-08	All	Original Release

1. EQUIPMENT OVERVIEW

1.1. Product Description

The Air Liquide style training protective breathing equipment (PBE) is designed to look and feel like the real device in order to train for emergencies. The training PBE includes a simulated circular O₂ cylinder with paddle / lever activation, simulated O₂ scrubbers, speaking diaphragm and a removable neck seal. The hood is similar in shape, colour, and weight to the OEM PBE.

This PBE is designed with durable materials in order to withstand the wear and tear it will experience during repeated use in a training environment. The actuation lever can be reset without the need for tools, and the device can be partially dismantled for easy cleaning between uses. Tulmar Safety Systems is also able to provide repairs to the textile portion of the PBE and replace parts that experience wear through repeated use.

The neck seal for this unit is available in latex free EPDM material or latex based variants.

Definition Note: The terms PBE (Protective Breathing Equipment) and Smoke hood are interchangeable. Both are used throughout this document.

1.2. Parts and Features

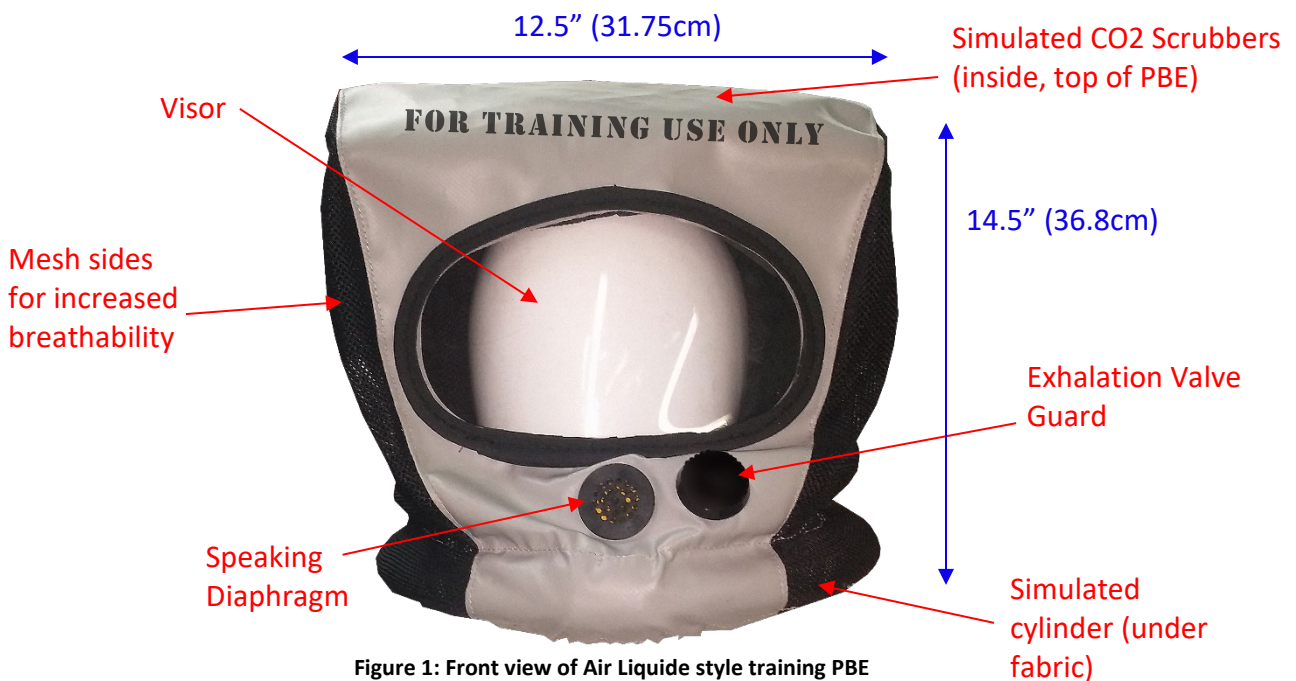


Figure 1: Front view of Air Liquide style training PBE

Dimensions: 12.5" W x 14.5" H x 12" L (36.8cm x 31.75cm x 30.5cm) / 3.35lbs (1.52kg)

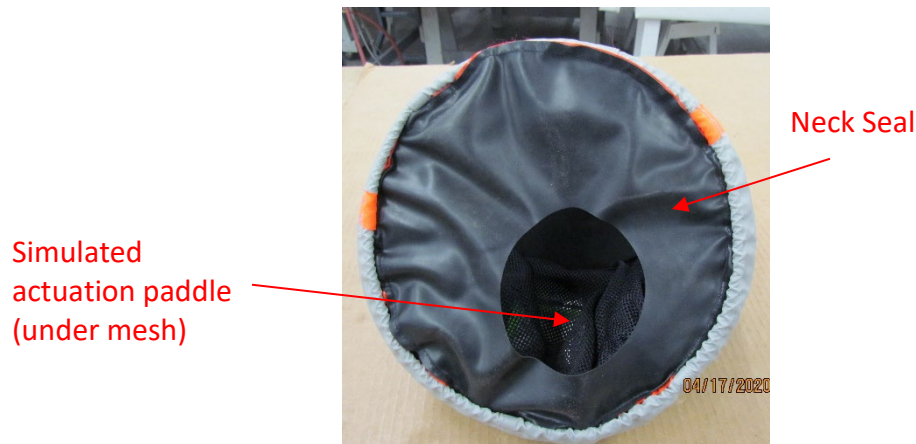


Figure 2: Bottom views of Air Liquide style training PBE

2. SAFETY PRECAUTIONS

This device is intended only for training and simulation purposes under the supervision of a trainer knowledgeable in its use and will not provide protection from smoke inhalation or toxic gases in the event of a real emergency. Do not block or cover ventilation holes during training exercises.

3. OPERATION

3.1. General Usage

1. **If this is the first time using a hood after reception:** Remove the protective film over the visor (there to protect the material during shipping).
2. To don hood, hold the hood upside down, with the visor facing you. Hold each side, with your thumbs stretching the opening of the neck seal towards the orange tabs. (Figure 3).



Figure 3: Neck seal stretched open

3. Put the hood over your head starting from back to front, adjusting in place for comfort. The actuation paddle will automatically activate by the insertion of the head in the hood. You should feel it moving as the hood is donned.
4. Once you are wearing the hood, follow your standard training procedure.
5. After your training exercise is complete, bend down and remove the device by grabbing the back of the hood and pulling forwards off your head.

Additional safety while donning

1. Tulmar recommends that if a trainee coughs or sneezes while wearing a smoke hood, that the device be sent for cleaning before it is used by any other trainee.

3.2. Disinfection

Do not use product containing a bleaching agent.

The neck seal and facial contact area in the front of the hood should be disinfected with isopropyl alcohol solution between uses in order to ensure the health of the trainees. Alcohol concentration in the solutions must be 70% or lower.

3.3. Rearming

The PBE should be rearmed in order to prepare for the next use. To re-arm the smoke hood, reach inside the hood via the neck seal hole and pull the lever back to a position where it forms a 90° angle against the fabric of the hood, pointing toward the other side of the cylinder, as seen in Figure 4 below. Note that the paddle is underneath the mesh fabric but can still easily be manipulated.



Figure 4: Rearming simulated oxygen cylinder

3.4. Repacking

The PBE should be folded in half and placed inside its individual package (see 4.1 storage section below for additional details).

4. CARE AND BASIC MAINTENANCE

4.1. Storage

The PBE should be stored in an individual package (such as reusing the clear plastic bag it is shipped within) to protect it from damage. If you did not keep the shipping container, fold the PBE and stow in a larger re-sealable plastic bag that is at least 16" by 20" (41cm by 51cm).

Ideal storage temperatures should be between 5° & 35°C.

4.2. Cleaning

4.2.1. Disassembly

1. Remove the neck seal by undoing the hook and loop ("Velcro") fastener strip used to fasten it in place. See figure 5 below.

4.2.2. Cleaning and Drying

1. If any stains, oil, or grease are present, treat the affected area with a concentrated solution of mild wash detergent and warm water to remove the stain. Follow the guidelines indicated by the manufacturer of your selected detergent to for solution mixture. Thoroughly rinse with water before cleaning the entire unit.
2. All components can be cleaned by hand with a solution of mild soap and water, rinsing thoroughly with water.
3. Allow components to air dry fully.

IMPORTANT

Do not use bleach or other strong cleaning.
This can result in damages, discoloration and expedite degradation of the product.

4.2.3. Reassembly

Once completely dry, the unit can be reassembled.

1. Insert the neck seal into the opening and fasten the hook and loop fastener strip along its perimeter. Be sure the hole in the neck seal is closest to the rear of the hood. Also ensure the neck seal is positioned with the red fabric and hook/loop strip closest to the bottom of the hood (Figure 5), with the rubber folded over. Installing the neck seal in the wrong direction will cause it to detach when attempting to don the hood. [You can click here for video instructions of how to re-install the neck seal.](#)



Figure 5: Proper orientation of neck seal

4.2.4. Repairs

More thorough cleaning and/or repairs of the PBE are handled by Tulmar Safety Systems. Please contact our customer service department for more information. See last page of this document for contact information.

5. COMPONENTS

The following table lists components available for the Air Liquide style training PBE. If you are looking to replace a part that is not listed below, please contact Tulmar Safety Systems.

Number (Figure 7)	Part No.	Description
1	87481-001	Training PBE Assembly
1a		Simulated Cylinders (included in Training PBE Assembly)
1b		Simulated Scrubbers (included in Training PBE Assembly)
2	6412-001	Non-latex neck piece
3	6412-NP	Latex neck piece (by special order only)

Table provided for reference only, information may change without notice.

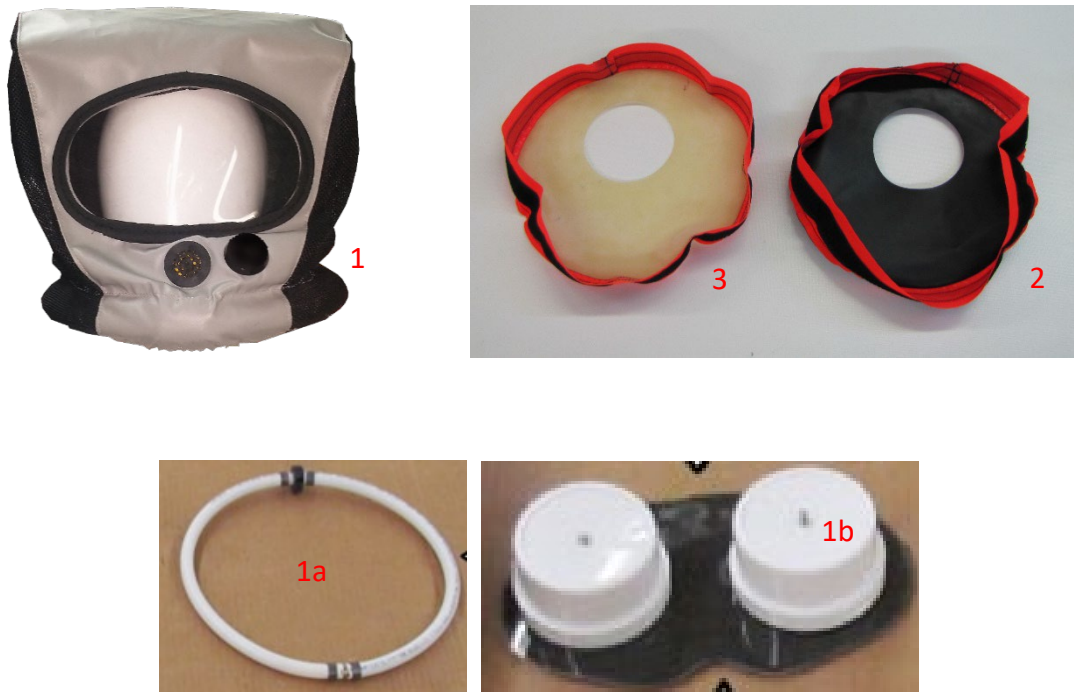


Figure 6: Numbered components

6. WARRANTY

6.1. Warranty Policy

Tulmar training PBEs are guaranteed for 90 days from the date of shipment to the customer against defects in materials or workmanship. If a product is found to be defective within the warranty period, the product will be repaired or replaced without charge for parts or labour.

Consult our complete standard warranty policy here:

<https://www.tulmar.com/download/tulmar-warranty-policy/>

6.2. Limitations

The warranty is limited to the original purchaser of a new product and is valid only if the product was purchased from Tulmar or an authorized distributor. This warranty does not cover routine maintenance or damage resulting from the failure to maintain the product in accordance with instructions provided in the User Manual. This warranty also does not cover damage during transport of the product (excluding damages due to Tulmar's packaging method), ordinary wear and tear arising from use of the product, or damage that may arise from accidental or intentional misuse or abuse, alteration or customization, or repair by unauthorized persons.

6.3. Remedy

If a defect arises within the warranty period, contact Tulmar customer service at +1 (613) 632-1282 or by email to aviation@tulmar.com with the details of the issue and a copy of the original purchase order. Product may only be returned after a Return Material Authorization (RMA) number is issued. The RMA number must be referred to on official documentation.

The cost and liability of delivering the damaged product to Tulmar or an authorized Tulmar repair facility are the responsibility of the customer. The documentation, packaging and the enclosed item must be clearly identified with the RMA number. Tulmar, at its sole discretion, will either repair or replace the product with one of functional equivalence. Repaired or replacement products will be returned to the customer's original order destination on a carrier and service of Tulmar's choice.