

# COMPRESSOR AND SMALL VOLUME NEBULIZER

## ***Purpose***

The purpose of a compressor is to convert liquid breathing medication into small particles so that they can be inhaled. Compressors provide a flow of compressed air to a small volume nebulizer that creates the fine medication mist for breathing treatments. Your compressor and small volume nebulizer are being supplied to you in conjunction with the prescription obtained from your physician. Always read and abide by all manufacturers' operating instructions.

## ***Types***

Compressors come in two basic types: stationary and portable. Stationary compressors are strictly electrical devices while portable units can be operated while plugged into an electrical outlet or by battery power. Stationary models are the most commonly used compressor in the home. Compressors are electrical devices that create a fixed flow of air that powers the small volume nebulizer.

Small volume nebulizers are devices that hold a small amount of medication and convert it into a fine mist for inhaling. By inhaling medication directly into the lungs, the medication can more quickly act on lung tissue, which means a faster response time. Small volume nebulizers come in disposable and reusable types. The disposable small volume nebulizer is most commonly used in the home care setting.

## ***Use***

The most important part of using a medication nebulizer is to understand the treatment plan prescribed by your physician. Do not deviate from the medication treatment plan without first contacting your physician and then contacting your compressor supplier.

Your compressor should be placed on a flat, sturdy surface and plugged into a grounded electrical outlet. Never leave the compressor unattended when it is plugged into an outlet. Your compressor has air intake filters that cover the air intake openings and these areas should not be blocked. Stationary compressors are household products and should not be used while outdoors.

Before using the compressor ensure that the small volume nebulizer is clean and that your hands have been recently washed. Connect the nebulizer tubing to the nebulizer and to the air outlet connector. Place your medication into the medication cup and reassemble the unit. If you are using a mouthpiece, place the t-piece on top of the medication cup and attach the mouthpiece and corrugated reservoir. Place the mouthpiece between your teeth. Turn on the compressor. With your mouth closed, inhale deeply and slowly through your mouth as the mist begins to flow, then exhale slowly through the mouthpiece. Continue until medication is gone.

If you are using an aerosol mask, place the medication cup cap directly into the aerosol mask inlet connection. Put on the mask. Turn on the compressor. Inhale deeply and slowly through your mouth as the mist begins to flow, then exhale slowly through your mouth.

Turn the unit off when finished and unplug the compressor immediately after use.

## ***Cleaning***

Follow the below cleaning instructions **after each use** of your nebulizer:

1. Make sure the compressor power switch is turned off and the unit is unplugged.
2. Wash your hands with disinfecting soap.
3. Disconnect the connection tubing from the small volume nebulizer air inlet connector. There is no need to wash the nebulizer tubing.
4. Disassemble the small volume nebulizer and the mouth piece or aerosol mask.
5. Wash all items in hot water with dishwashing solution, including the aerosol mask.
6. Rinse under hot tap water for at least 30 seconds to remove soap residue.
7. Place upside down on a clean paper towel and allow to air dry.
8. Once the unit is dry, place into a *new* re-sealable plastic bag.

## ***Disinfecting***

Follow the below instructions for disinfecting the nebulizer **once a day**:

1. Make sure the compressor power switch is turned off and the unit is unplugged.
2. Wash your hands with disinfecting soap.
3. Disconnect the connection tubing from the small volume nebulizer air inlet connector. There is no need to wash the nebulizer tubing.
4. Disassemble the small volume nebulizer and the mouth piece or aerosol mask.
5. Wash all items in hot water with dishwashing solution, including the aerosol mask.
6. Rinse under hot tap water for at least 30 seconds to remove soap residue.
7. Using a clean container or bowl, soak the nebulizer parts in a medical bacterial-germicidal disinfectant available through your nebulizer provider for 30 minutes.
8. With clean hands, remove items from the disinfecting solution.
9. Rinse under hot tap water for at least 30 seconds.
10. Place upside down on a clean paper towel and allow to air dry.
11. Once all pieces are dry, reassemble and place into a *new* re-sealable plastic bag.

To prevent possible risk of infection from contaminated cleaning solutions, always prepare fresh disinfecting solution for each cleaning cycle and discard solution after each use.

## **Safety**

The safe use of a compressor and small volume nebulizer requires it to be used as instructed, which includes the following safety precautions:

- Ensure that nebulizer tubing is routed and secured so that it does not become entangled and/or damaged.
- Ensure that air intake areas are kept free from obstruction.
- Never use any electrically-powered device while bathing or around water.
- Never add, remove, or disable any feature, part, or function of your compressor or small volume nebulizer.
- Never allow any untrained person or child to touch or manipulate your compressor or small volume nebulizer.
- Never use your compressor without the air cleaning filter in place.
- Do not try to fix, repair, or lubricate the compressor.
- Do not use an extension cord when connecting the compressor.
- Do not under any circumstances, cut or remove the round grounding plug from the power cord plug.
- Do not use any three (3) prong to two (2) prong electrical adapters.

In order to ensure care and provide operator safety, make sure you follow these safety guidelines:

- Use nightlights to increase vision around areas of use.
- Wipe up any water or slippery floor spills.
- Remove tripping hazards (loose floorboards, uneven floors, throw rugs, extension cords, clutter, etc.)
- Install grab bars, use bath mats with suction cups, and use an elevated toilet seat to prevent falls.

## **Maintenance**

Keep your compressor and connection tubing clean and dust-free by wiping down with a wet cloth. Never use anything but a damp cloth to keep your equipment clean. Only qualified repair technicians should diagnose, perform maintenance, or repair any part of your compressor. Call your compressor provider if your compressor or small volume nebulizer is not functioning properly.

Each compressor has a filter located on the exterior of the unit. This filter needs to be kept clean. On some models the filter is reusable and on others it is disposable. The reusable filters should be removed from the compressor and cleaned with a vacuum cleaner or washed in warm soapy water, rinsed thoroughly, and dried before replacing. Disposable filters are discarded when dirty and replaced with a manufacturer-approved clean filter. Never clean or reuse a disposable filter.