

Frequently Asked Questions

Vented or non-vented masks?

One frequent question asked of IVUN and on the vent users' listservs is about which type of mask to use with which ventilator in order to avoid triggering alarms. Vented masks are needed with CPAP units and bilevel devices; non-vented masks are needed with volume/pressure ventilators. A recent question below was answered by three respiratory therapists.

Q. I've been using a ventilator since birth due to CCHS (chronic central hypoventilation syndrome). Recently I switched from using trach positive pressure to using noninvasive ventilation via a vented nasal pillows mask (Swift® II, ResMed). In order for this mask to work with the LTV®950, I have to seal the exhalation ports on the mask with tape. I use the volume mode on my LTV, and if the nasal mask is not sealed, an alarm is triggered. How can I use the nasal mask without sealing the ports? Would pressure support mode be the way to do it?

A. The vents on a mask need to be kept plugged when used with a volume or pressure support ventilator. Most noninvasive interfaces were designed for use with bilevel or CPAP units which do not have an exhalation valve and need the exhalation ports on the mask to avoid possible carbon dioxide (CO₂) buildup.

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A. Volume ventilators such as the LTV®950 are designed to function with a closed circuit. A valve on the ventilator opens during inhalation and closes during exhalation. Therefore, if there is a leak in the system, such as with a vented mask, the valve will not close, exhalation will not end, and an alarm will trigger. It makes no difference whether the vent is in volume or pressure support mode.

There are a limited number of masks that are manufactured without vents, such as a version of ResMed's Ultra Mirage® nasal mask.

The exhalation ports on some masks, such as ResMed's Swift® LT (see page 8) and Fisher & Paykel's Opus® II, easily can be obstructed with tape. However, it is difficult to obstruct exhalation ports on some masks. One creative RT has used a silicone sealant called Marine Tex to plug the exhalation ports on certain masks.

Masks designed for CPAP (Continuous Positive Airway Pressure) and bilevel units that function with a continuous flow of air need vents, because the units do not have exhalation valves built in as the valves are on a volume ventilator. There are many vented masks available.

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A. Vented masks cannot be used with volume-cycled ventilators, such as the LTV®950. Vented masks are specifically designed to be used with bilevel units. Only non-vented masks or vented masks with the vent sealed will work because the ventilator will detect the air leak and will alarm. The use of any type of nasal mask may also present a problem due to oral air leak that will also cause the ventilator to alarm. Ventilator alarming is often a problem when using volume-cycled ventilators for non-



Ultra Mirage® II by ResMed:
Non-vented



Opus® II by Fisher & Paykel:
Vented

invasive ventilation applications. It is not impossible to limit the problem but may take some time adjusting the system to get past the problem.

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Pneumobelt?

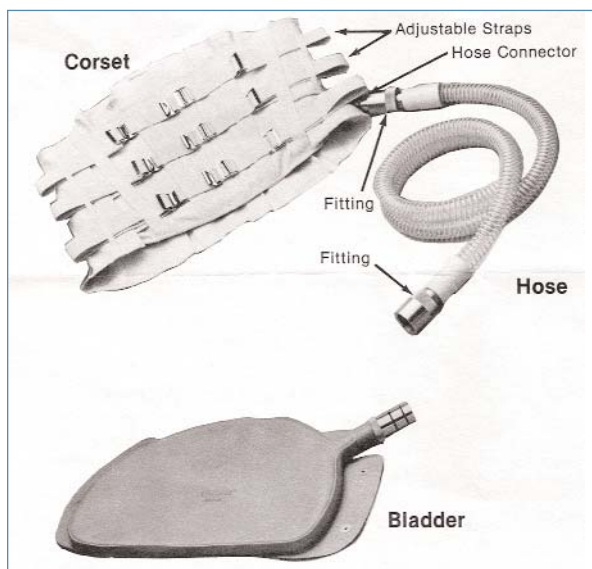
Q. I would like to buy a pneumobelt. I understand that Respiroics Inc. manufactures and sells them, but when I call customer service, I'm told they do not make them.

A. Now Philips Respiroics, the company does indeed make the pneumobelt, aka the exsufflation belt. They do not sell directly to the general public. Your physician must give you a prescription for the exsufflation belt, which you can then give to a durable medical equipment provider, such as your home health care agency.

Here are the part numbers and sizes:

Exsufflation Belt, with Bladder and Corset:

11010 - Large
11020 - Medium
11030 - Small



IVUN's Ventilatory Equipment Exchange

Q. I have several pieces of older equipment (e.g., Thompson Bantam respirator, Model B, Monaghan 515 IPPB, last used November 2005) to donate. Will IVUN accept this donation?

A. IVUN has established an online Ventilatory Equipment Exchange. People who want to donate older, no longer used ventilatory equipment and aids can list them on the IVUN website (www.ventusers.org/net/ventexch.html). People who need older equipment can view what is available and make arrangements for the equipment exchange and/or submit their equipment needs. One thing IVUN has learned over the years is to advise people to be sure they own the equipment before they donate it.

Send an email to info@ventusers.org. Include your name, city, state, email and your ventilatory equipment offer or need. IVUN publishes only your first name, city, state/province, country (if outside USA), and email address, unless you specify otherwise. ▲