# The Vest™

Advanced Airway Clearance System - Model 105



# Advanced Airway Clearance Therapy

Breathe a little easier



Many people with chronic respiratory conditions struggle each day to adequately remove secretions from their lungs.

This can be due to the volume or thickness of secretions, muscle weakness leading to an ineffective cough or even the reliance on others to assist with airway clearance. Retained secretions may lead to increased rates of respiratory infection, hospitalisation and reduced lung function.

In order to assist you in improving mucus clearance Hill-Rom® developed The Vest Airway Clearance System to deliver High Frequency Chest Wall Oscillation (HFCWO).



# How does The Vest Airway Clearance System work?

The air-pulse generator rapidly inflates and deflates the vest, gently compressing and releasing the chest wall up to 20 times per second. This process creates 'mini-coughs' that dislodge mucus from the bronchial walls, increase mobilisation, and move it along toward central airways. The action also works to thin thick secretions, making them easier to clear. Once the mucus has moved from the smaller to larger airways, it can be easily removed by coughing or suctioning.

## High frequency chest wall oscillation

The Vest Airway Clearance System has been proven to benefit patients in the removal of retained secretions due to both acute and chronic respiratory conditions.

### Treatments are easy

Most users even in acute care facilities manage therapy with little or no assistance and without the need for special positioning techniques. Each time The Vest is used you can be assured it will deliver a consistent level of therapy to your patients with a typical session lasting 15 - 20 minutes. Treatment with The Vest can be combined with other airway clearance techniques such as Active Cycle of Breathing and Autogenic Drainage.



### Simple, flexible programming

Normal mode Ramp mode Program mode

#### Air Pulse Generator

- Simple to use
- 5th generation technology from the innovator of HFCWO therapy
- Eases the patient into therapy to maximise comfort
- Reduced pressure in the inflatable vest when paused to aid deep breathing
- Multiple programming options increase prescription flexibility
- Display text available in most languages

#### Reusable vest garment

- Simple, wipe down cleaning reduces lost treatment time versus washing
- Wide size range including toddler and bariatric sizes
- Comfort maximised by eliminating hoses within the inflatable vest

#### **Accessories**



### Wheeled Carrying Case

- Small, light weight, bag-on-wheels design
- One-bag system minimises checked baggage issues when patient is travelling
- Designed to fit in most airline overhead storage compartments

## Air Hoses

- Simple, press-and-twist action secures connections, and requires minimal dexterity
- Non-locking air hoses reduce the risk of accidentally pulling the device off surface



# The Vest Airway Clearance System Model 105 Advantages



## Effective in a variety of diseases and conditions

# The Vest has proven to be especially suitable for people with the following issues:

- Lack of success with current airway clearance techniques
- Lack of strength or ability to perform active treatment
- Poor compliance with other airway clearance methods
- Where constant fatigue is a major problem
- Reliance on others to assist with mucus clearance

#### Wide range of applications

In more than 500 diseases and conditions leading to respiratory complications in adults and children, The Vest has been prescribed to assist with effective airway clearance.

## Diseases and conditions The Vest Airway Clearance System has been prescribed for include:

**Secretion retention** associated with impaired ventilation and/or gas exchange

- Atelectasis, Pulmonary Infiltrates
- Acute Lung Injury (ALI) or Pneumonia
- Acute Respiratory Failure (ARF)
- Aspiration Lung Injury
- Pulmonary Insufficiency following Trauma
- Mechanical Ventilation or Surgery
- Acute Respiratory Distress Syndrome (ARDS)

Ineffective cough or secretion clearance due to immobility, deconditioning or muscle weakness

- Obesity
- Cardiac Failure
- Cerebral Palsy
- Motor Neuron Disease
- Quadriplegia and/or Quadriparesis
- Muscular Dystrophies and other myopathies
- Dyspnea or other respiratory abnormalities

Airway clearance dysfunction resulting in impaired ventilation and/or gas exchange

- Emphysema
- Asthma
- Chronic Bronchitis
- Bronchiectasis
- Cystic Fibrosis
- Chronic Obstructive Pulmonary Disease (COPD)



# Garment Specifications

Product	Size	Product code	Description
Reusable chest vest small	71-89 cm / 28"-35"	P300230000	Therapy Vest: Reuseable Chest Vest (Blue Vest with Hook & Loop Closures) Single, frontal bladder concentrates therapy at the thorax
Reusable chest vest medium	91-117 cm / 36″-46″	P300231000	
Reusable chest vest large	119-155 cm / 47"-61"	P300232000	
Reusable chest vest extra large	157-170 cm / 62"-67"	P300233000	





# **Technical Specifications**

Air Pulse generator	
Weight	8 kg (17 lbs)
Height	24 cm (9.5")
Width	33 cm (13")
Depth	24 cm (9.5")
Inflatable vest material	
Chest vest	Polyvinylchloride coated polyester with polyurethane-coated nylon
Full Vest	polyurethane-coated nylon
Mains Dayyar Dagyiromants	
Mains Power Requirements	
Electrical requirements	100 V AC to 230 V AC, 50 Hz to 60 Hz, 3.4 A at 100 V AC, 2.0 A at 230 V AC

Fuse requirement	2 each, 4 A, 5 x 20 mm			
Environmental conditions for transport and storage				
Temperature	-40 °C - 70 °C / -40 °F - 158 °F			
Relative humidity	95 % non-condensing			
Atmospheric pressure	500 hPa to 1060 hPa			
Environmental conditions for use				
Temperature	10 °C - 34 °C / 50 °F - 93 °F (ambient temperature)			
Relative humidity	30 % - 75 % non-condensing			
Atmospheric pressure	700 hPa to 1060 hPa			

## **Product Identification**

• Product number P105(XX)

• Description: The Vest System Air Pulse Generator Model 105

## Assessories

Air Hose Durable	P200495000
• Remote control (flat style)	P300617000
• Remote control (bulb style)	P142232
• Contour Foam Kit - 5 pack	P300177005
Wheeled carrying case	P145686



Hill-Rom is a leading global medical technology company with more than 6,500 employees in over 100 countries. We partner with health care providers by focusing on patient care solutions that improve clinical and economic outcomes in five core areas: Advancing Mobility, Wound Care and Prevention, Clinical Workflow, Surgical Safety and Efficiency, and Respiratory Health. Hill-Rom people, programs, and product brands work towards one mission: Every day, around the world, we enhance outcomes for our patients and their caregivers.



Hill-Rom is committed to the concept that mobilising people early and supporting their independence, improves life - in the hospital and at home.

This document is destined solely for use by healthcare professionals. Medical devices shown in this brochure are intended for use with patients in departments of healthcare establishments.



These medical devices bear the CE mark and comply with all applicable regulations. Hill-Rom recommends you carefully read the detailed instructions for safe and proper use included in the documents accompanying the medical devices. The personnel of the healthcare establishments are responsible for the proper use and maintenance of these medical devices.

Medical beds manufacturer:

Hill-Rom SAS - B.P. 14 - Z.I du Talhouët - 56330 Pluvigner – France (also European Representative) Völker GmbH - Wullener Feld 79 - 58454 Witten - Germany Hill-Rom Holdings, Inc. - 1069 State Route 46 East - Batesville, IN 47006 - USA Lifts manufacturer: Liko AB - Nedre vägen 100 - 975 92 Luleå – Sweden

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