










Technology Guide Secretion Clearance

	ELECTROMED INC	ELECTROMED INC	GENERAL PHYSIOTHERAPY INC
Website	www.smartvest.com	www.smartvest.com	www.g5.com
	 <p>The SmartVest® SQL™</p>	 <p>The SmartVest® Airway Clearance System model SV-2100</p>	 <p>TherAssist®</p>
Warranty	Lifetime	Lifetime	1 year; extended warranty available
Type/Modes of Operation	High Frequency Chest Wall Oscillation, Air-pulse generator and vest garment	High Frequency Chest Wall Oscillation, Air-pulse generator and vest garment	Continuous High Frequency Oscillation
Patient Range	Adult, pediatric, infants, neonates	Adult, pediatric, infants, neonates	Adult, pediatric
Care Settings	Home care and portable settings	Clinical care, home care, portable settings	Clinical care, home care
Dimensions (HxWxD)	14.625 in x 14 in x 6.25 in	15.75 in x 15 in x 7.25 in	44 in x 21 in x 21 in (assembled with stand)
Weight	17	23 lbs	15.75 lbs
Power Options	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz, 250 watts	90 VAC through 240 VAC, 50/60 Hz
Display Parameters	Manual, program, and ramp modes, hours of operation, information, filter due	Manual & program modes, hours of operation	Digital displays for cycles/sec range and countdown timer
Treatment Settings	3 program modes, 1 manual mode, 1 ramp mode with option to program up to 6 cycles	3 program modes plus manual mode	N/A
Frequency Range Options	5 to 20 Hz	5 to 20 Hz	10 to 60 cycles per second
Vest Information	Eight home care sizes from Child S-Small to Adult X-Large, an extender is available to add up to 14 inches to the chest circumference. Six SmartVest Wrap® sizes from Child S-Small to XX-Large. Disposable and reusable vest options made of soft fabric with Velcro®-like enclosures; Home care garment is machine-washable.	Eight home care sizes from Child S-Small to Adult X-Large, an extender is available to add up to 14 inches to the chest circumference. Six SmartVest Wrap® sizes from Child S-Small to XX-Large. Disposable and reusable vest options made of soft fabric with Velcro®-like enclosures; Home care garment is machine-washable.	N/A
Accessories	Garment; wheeled carrier and accessory bag; hose; fuse and filter kit; power cord; training video; instruction manual; international power cord; Confor foam	Garment; wheeled carrier and accessory bag; hose; fuse kit; power cord; international power cord(s); training video; instruction manual; Confor foam	Unit comes with 5 applicator accessories and packages of 50 disposable applicator covers
Additional Features and Information	Patented single hose design; soft fabric, lightweight garment; active inflate/active deflate; gentle start; quiet operation; easy-read all position display; 360° coverage; portable, rugged design; 25% smaller, 5db quieter, 25% lighter than SV-2100	Patented single-hose design; soft fabric, lightweight garment; active inflate/active deflate; gentle start; quiet operation; easy-read, all-position display; 360° Degree Coverage; Portable, rugged design	The TherAssist® has an expanded cycle per second range (10-60 cps) that more closely replicates manual procedures. The unit has 3 different mounting configurations: caster-stand mounted, table-top mounted, and wall-mounted.




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	GENERAL PHYSIOTHERAPY INC	HILL-ROM INC	HILL-ROM INC
Website	www.g5.com	www.hill-rom.com	www.thevest.com
	 <p>VibraCare®</p>	 <p>The MetaNeb® System</p>	 <p>The Vest® Airway Clearance System</p>
Warranty	1 year; extended warranty available	1 year	Limited Lifetime
Type/Modes of Operation	Continuous High Frequency Oscillation	Continuous Positive Expiratory Pressure; Continuous High Frequency Oscillation; Aerosol Delivery	Oscillation with Vest; Chest Compression
Patient Range	Adult, pediatric	Adult, pediatric	Adult and pediatric patients with chest circumference measuring sizes 19 in to 75 in
Care Settings	Clinical care, home care, portable settings	Clinical care	Acute care, home care
Dimensions (HxWxD)	3 in x 12 in x 3 in	10 in x 15 in x 4 in	9.5 in x 13 in x 9.5 in
Weight	3 lbs	4.8 lbs	17 lbs
Power Options	90 V through 240 V, 50/60 Hz	50 psi hospital-grade oxygen source	100V AC to 230V AC, 50/60 Hz
Display Parameters	N/A	Manometer reading of pressure	Program modes, system settings and messages, treatment time, CoughPause® feature reminder
Treatment Settings	N/A	CPEP: 0-30 cm H ₂ O	Normal, Ramp, and Custom options
Frequency Range Options	15 to 55 cycles per second	CHFO: High and Low frequency	5 to 20 cycles/sec
Vest Information	N/A	N/A	Home Care garments: High-tech multi-layer fabric designed with breathable 3D mesh lining and new lightweight removable bladder available in 5 colors; Velcro® fasteners and click buckles; machine wash/dry. Acute Care garments: Polyurethane-coated nylon with Velcro® fasteners
Accessories	Unit comes with 3 additional applicators and disposable applicator covers	MetaTherapy® Treatment has 4 delivery options: Mouthpiece, Mask, Tracheostomy, or In-line Ventilator. Mobile Cart Available.	Home Care: 1 wheeled bag (24 in x 12 in x 11 in) holds entire system; contour foam kit; locking air hoses; training DVD; optional remote control; Acute Care: mobile cart; training DVD; optional remote control
Additional Features and Information	Continuously variable speed range of 15 to 55 cycles per second. This combination of applicators and speeds provides for a highly versatile treatment range.	The MetaNeb® System is equipped to provide MetaTherapy Treatment, which introduces CHFO therapy immediately after lungs have been expanded through CPEP. Medicated aerosol can be delivered during CHFO through a nebulizer.	Compatible with English, Spanish, and 6 other languages; Includes CoughPause® Feature

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	MEDICAL ACOUSTICS LLC	MONAGHAN MEDICAL CORP	PERCUSSIONAIRE CORP
Website	www.lungflute.com	www.monaghanmed.com	www.percussionaire.com
	 <p>Lung Flute®</p>	 <p>Aerobika® Oscillating Positive Expiratory Pressure Therapy System</p>	 <p>IPV®-1C and IPV®-2C</p>
Warranty	1 year free of manufacturer's defect	Contact Monaghan Medical Corporation	12 mo
Type/Modes of Operation	Oscillatory Positive Expiratory Pressure with Low Frequency Acoustic Wave Technology	Oscillating Positive Expiratory Pressure Therapy System (OPEP)	High Frequency Percussive Ventilator
Patient Range	Adult, pediatric	Adult, pediatric	Adult, pediatric, infant, neonate
Care Settings	Clinical care, home care, portable settings	Clinical care, home care, portable settings	Clinical care
Dimensions (HxWxD)	14 in L x 2 in W	4.25 in x 4.5 in x 1.25 in	9.5 in x 6.7 in x 9.5 in (mounted)
Weight	<1 lb	2.7 oz	4.4 lbs
Power Options	Self-powered device	N/A	Pneumatic (O ₂ , air or blended)
Display Parameters	N/A	N/A	N/A
Treatment Settings	N/A	Can be used in any upright position; suitable for use by either high-flow or low-flow patients. Five adjustable resistance settings capable of pressures between 10 cm to 30 cm H ₂ O.	Rate and Flow
Frequency Range Options	16 to 25 Hz	10 to 30 Hz	100 to 300 breaths per min
Vest Information	N/A	N/A	N/A
Accessories	Home care patients receive replacement reeds for the device.	Mouthpiece included. Combine with the AeroEclipse® XL BAN and compressor to reduce overall therapy time which may improve patient compliance.	Nebulizer included with patient interface. Disposable and reusable patient interfaces (Phasitron® with nebulizer) available.
Additional Features and Information	Home care patients are instructed to wash with warm soap and water at least once every 2 weeks. The Lung Flute also has FDA clearance for sputum induction.	Clinical evaluation of Aerobika® in COPD patients revealed improvements in quality of life and lung function; reduced breathlessness, increased gas distribution, decreased gas trapping, improved ease to bring up sputum; 22mm fitting accommodates small volume nebulizers to reduce treatment time.	IPV® is a ventilator, optimized for airway clearance. Published, peer reviewed articles support reduced ICU time, reduced infections and improved patient parameters (higher O ₂ and lower CO ₂).

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	PERCUSSIONAIRE CORP	PHILIPS RESPIRONICS	RESPINNOVATION SAS
Website	www.percussionaire.com	www.philips.com/respironics	www.respin-usa.com
	 <p>IPV® Impulsator HC (Home Care)</p>	 <p>CoughAssist T70</p>	 <p>Respln 11 Bronchial Clearance System</p>
Warranty	12 mo	Contact Philips Respiroics	Limited Lifetime (for home care version)
Type/Modes of Operation	High Frequency Percussive Ventilator	Natural cough simulation: rapid shift from positive to negative airway pressure creates high expiratory flow	Oscillation w/ jacket, uses patented "Focused Pulse" Bronchial Clearance system
Patient Range	Adult, pediatric, infant, neonate	Adult, pediatric	Adult, pediatric
Care Settings	Home care, portable settings	Clinical care, home care, portable settings	Clinical care, home care, portable settings
Dimensions (HxWxD)	8 in x 15 in x 11 in	9.1 in x 11.5 in x 7.5 in	35 cm x 30 cm x 25 cm
Weight	15 lbs	8.4 lbs without detachable battery; 9.4 lbs with battery installed	8.5 kg
Power Options	115V (with 220V option)	AC, DC; includes optional detachable lithium ion battery that provides up to 4 treatments on a single charge	110 to 240 V
Display Parameters	N/A	Settings, system status information, real-time patient data and logs	Touch screen programming
Treatment Settings	Rate and Flow	Manual and auto. Maximum positive pressure: 70 cm H ₂ O; maximum negative pressure: -70 cm H ₂ O	3 pre-programmed treatment protocols plus clinician-programmable treatment protocols for individual patients
Frequency Range Options	100 to 300 breaths per min	CHFO High and Low frequency	0 to 20 Hz
Vest Information	N/A	N/A	Reusable and disposable vest options available in child sizes S, M, L and adult sizes XS to XXL; Vest secured by Velcro®, clips, and zipper; Made of hand-washable synthetic material that can be hand or machine washed.
Accessories	Nebulizer included with patient interface. Disposable and reusable patient interfaces (Phasitron® with nebulizer) available	Carry bag, roll stand, detachable lithium ion battery, DC power connector, oximetry kit; equipped with foot pedal for hands-free operation.	User manual; Carrying case
Additional Features and Information	IPV® is a ventilator, optimized for airway clearance. Published, peer reviewed articles support reduced ICU time, reduced infections and improved patient parameters (higher O ₂ and lower CO ₂).	Cough-Trak, a unique triggering feature with automatic sensitivity, enables the device to synchronize with the user's breathing pattern for enhanced breath delivery and more control of therapy. Monitor tidal volume, peak cough flow, and O ₂ saturation via SD card and DirectView data management system.	Jacket and wrap options; Storage of treatment history per patient and up to 10 patients per device in clinical setting.

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SMITHS MEDICAL*	SMITHS MEDICAL*	THAYER MEDICAL	VORTRAN MEDICAL
<p>www.smiths-medical.com www.carefusion.com/smithsmedical</p>  <p>acapella®</p>	<p>www.smiths-medical.com www.carefusion.com/smithsmedical</p>  <p>TheraPEP®</p>	<p>www.thayermedical.com</p>  <p>Quake® Mucus Clearance Device</p>	<p>www.vortran.com</p>  <p>PercussiveNEB and IPPB</p>
Contact Smiths Medical/ Carefusion	Contact Smiths Medical/ Carefusion	Contact Thayer Medical	Contact VORTRAN
Variable Oscillatory Positive Airway Pressure System	Variable Fixed Orifice Positive Expira- tory Pressure Device	Continuous Positive Airway Pressure; Percussive; Oscillatory Positive Expiratory Pressure	Continuous Positive Expiratory Pressure; Percussive nebulizer
Adult, pediatric	Adult, pediatric	Adult, pediatric	Adult, pediatric
Clinical care, home care, portable settings	Clinical care, home care, portable settings	Clinical care, home care, portable settings	Clinical care, home care
Approximately 7 in x 8 in diameter	Approx 4 in H; Diameter gradu- ated: 7 in, 4 in, 2.5 in	4 in x 2 in	N/A
Approximately 3 to 5 oz	Approximately 3 to 5 oz	1 oz	Approximately 200 g
N/A	N/A	N/A	Gas power source
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
5 to 15 Hz	N/A	Patient-controlled	N/A
N/A	N/A	N/A	N/A
<ul style="list-style-type: none"> • Mouthpiece • Mask • Pressure Monitoring • Nebulizer 	<ul style="list-style-type: none"> • Mouthpiece • Mask • Pressure Monitoring • Nebulizer 	N/A	Available mouthpiece option as well as the Hi-Flo 70 Compressor for home use.
<ul style="list-style-type: none"> • *Exclusively distributed by CareFusion in the acute care market • Compatible with small volume nebulizer or MDI • Variable fixed orifice PEP • Can be used in all positions • Vibratory PEP to aid in loosening secretions • acapella Choice: easy to clean 	<ul style="list-style-type: none"> • *Exclusively distributed by CareFusion in the acute care market • Compatible with small volume nebulizer or MDI • Six fixed orifice settings allow tailoring to patients' expiratory flow rate • Small/compact • Pressure indicator helps to incentivize patients 	Thayer's Quake® oscillations occur during both inspiratory and expiratory phases. Gravity and flow independent, the patient regulates rotation frequency and varies percussive pressure dif- ferentials within the lungs during both inhalation and exhalation.	Both the IPPB and PercussiveNEB are equipped with a nebulizer for drug delivery.