

2009 VENTILATOR BUYERS GUIDE

Compiled by Frank Visco

Airon Corp.

129 W. Hibiscus Blvd., Ste. S
Melbourne, FL 32901
(321) 821-9433; (888) 448-1238
Fax: (321) 821-9443

Email: info@pneuton.com
Website: www.pneuton.com;
www.macs-cpap.com

Product line: Ventilators
Company description: Airon manufactures respiratory products for hospitals, MRI, air transport, and EMS. Products include pneumatic ventilators with CPAP and face mask CPAP systems.

Bio-Med Devices Inc.

61 Soundview Rd.
Guilford, CT 06437
(203) 458-0202; (800) 224-6633
Fax: (203) 458-0440

Email: custserv@biomeddevices.com
Website: www.biomeddevices.com
Product line: CrossVent ventilators, MRI-compatible ventilators, air/O₂ blenders
Company description: Bio-Med Devices designs and manufactures a line of compact ventilators, MRI-compatible ventilators, and a complete line of ventilator accessories to meet the needs of patients of all sizes.

Bunnell Inc.

436 Lawndale Dr.
Salt Lake City, UT 84115
(801) 467-0800; (800) 800-4358
Fax: (801) 467-0867

Email: info@bunl.com
Website: www.bunl.com
Product line: High-frequency infant ventilators
Company description: The Life Pulse uses jet pulse technology to deliver a uniquely effective therapy for infants and children. Celebrating 20 years of clinical use.

Cardinal Health (formerly VIASYS Healthcare)

22745 Savi Ranch Pkwy.
Yorba Linda, CA 92887
(714) 283-1830; (800) 520-4368
Fax: (714) 283-8493

Email: marketing.rc@cardinalhealth.com
Website: www.viasyshealthcare.com
Product line: AVEA, EnVe, 3100A, 3100B, VELA
Company description: VIASYS Healthcare, now an integral part of Cardinal Health, offers capital and disposable respiratory products, specializing in solutions for invasive and noninvasive ventilation, pulmonary diagnostics, sleep therapy, oxygen therapy, and medication delivery.

Cardinal Health Respiratory Care

17400 Medina Rd., Ste. 100
Minneapolis, MN 55447
(763) 398-8300; (866) 752-1438
Fax: (763) 398-8400

Email: viasyhealthcare.com
Website: www.viasyhealthcare.com/ltv
Product line: LTV Series of ventilators
Company description: Cardinal Health Respiratory Care delivers clinically differentiated products and services designed to improve the productivity and safety of health care globally with LTV Series ventilators.

Covidien

6135 Gunbarrel Ave.
Boulder, CO 80301
(303) 305-2300; (800) 635-5267

Website: www.covidien.com
Product line: Broad range of products serving patients in acute, alternate, and home care settings.
Company description: Covidien offers Puritan Bennett™ products, serving patients from hospital to home.

Draeger Medical Inc.

3135 Quarry Rd.
Telford, PA 18969
(215) 721-5400; (800) 437-2437
Fax: (215) 723-5935

Email: info.usa@draeger.com
Website: www.draeger.com
Product line: Ventilation devices, anesthesia devices, monitoring and IT solutions
Company description: Dräger provides medical and safety technology. The Dräger Medical division offers products, services, and integrated system solutions.

eVent Medical

81 Columbia, Ste. 101
Aliso Viejo, CA 92656
(949) 360-8368; (888) 454-VENT
Fax: (949) 360-1924

Email: sales@event-medical.com
Website: www.event-medical.com
Product line: Inspiration® Infant and Inspiration® LS ventilators
Company description: eVent Medical provides high-performance, patented, Swiss-designed Inspiration® ventilators worldwide, enabling clinicians to provide respiratory care and treatments.

GE Healthcare

3030 Ohmeda Dr.
Madison, WI 53718
(608) 221-1551; (800) 345-2700
Fax: (608) 223-2476

Website: www.gehealthcare.com/respiratorycare

Product line: Engström Carestation® critical care ventilator, Aptaér™ heliox delivery system

Company description: GE Healthcare provides respiratory care solutions designed to help deliver tailored therapy and the information needed to make quick and confident decisions.

Hamilton Medical Inc.

4990 Energy Way
Reno, NV 89502
(775) 858-3200; (800) 426-6331
Fax: (775) 856-5621

Email: annette.dusek@hamiltonmedical.net
Website: www.hamilton-medical.com
Product line: Raphael XTC, Raphael Color, Galileo, G5
Company description: Hamilton Medical is a solution-oriented company with a vision that is patient-focused and passionate about providing products associated with the concept of Intelligent Ventilation.

Impact Instrumentation Inc.

27 Fairfield Place
West Caldwell, NJ 07006
(973) 882-1212; (800) 969-0750
Fax: (973) 882-4993

Email: sales@impactii.com
Website: www.impactii.com
Product line: Portable ventilators and aspirators
Company description: Impact Instrumentation manufactures the Uni-Vent® Eagle™ Model 754 portable volume ventilating system, Uni-Vent® Model 750 portable volume ventilator, Uni-Vent® Model 73X MCI ventilator, and portable, mobile, and on-board aspirators.

MAQUET Inc.

1140 Rt. 22 E.
Bridgewater, NJ 08807
(908) 947-2300; (888) MAQUET3
Fax: (908) 947-2301

Email: info@maquet-inc.com
Website: www.maquet.com/us
Product line: SERVO-i, SERVO-s
Company description: SERVO-i's flexibility allows use with all patient types in the NICU, PICU and adult ICU.

Newport Medical Instruments Inc.

1620 Sunflower Ave.
Costa Mesa, CA 92626
(714) 427-5811; (800) 451-3111
Fax: (714) 427-0489

Email: info@ventilators.com
Website: www.ventilators.com
Product line: Ventilators — Newport

HT50, Newport e360, and Newport e500
Company description: Newport Medical designs and manufactures ventilators for reliability, ease of use, and cost-effectiveness; designed to meet your needs for emergency, ICU, home care, or extended care.

Ohio Medical Corp.

1111 Lakeside Dr.
Gurnee, IL 60031
(847) 855-0500; (800) 448-0770
Fax: (847) 855-6300

Email: info@ohiomedical.com
Website: www.ohiomedical.com
Product line: Suction and oxygen therapy products
Company description: Ohio Medical has been supplying medical suction regulators, air/oxygen flowmeters, portable suction equipment, and medical air/vacuum pumping systems since 1958.

Philips Healthcare

2271 Cosmos Ct.
Carlsbad, CA 92011
(760) 918-7300; (800) 345-6443
Fax: (760) 918-7435

Email: josh.potratz@philips.com
Website: www.philips.com/respironics
Product line: Respironics Esprit, BiPAP Vision, BiPAP Focus
Company description: Royal Philips Electronics of the Netherlands delivers products, services, and solutions in health care, lighting, and consumer lifestyle, through the brand promise of "sense and simplicity."

Philips Respironics

1010 Murry Ridge Ln.
Murrysville, PA 15668
(724) 387-5200; (800) 345-6443
Fax: (724) 387-5010

Website: www.philips.com/respironics
Company description: Philips Respironics develops, manufactures, and distributes products and programs that serve the global sleep and respiratory markets.

VORTRAN Medical Technology 1 Inc.

21 Golden Land Ct. #100
Sacramento, CA 95834
(916) 648-8460; (800) 434-4034
Fax: (916) 648-9751

Email: jmccarthy@vortran.com
Website: www.vortran.com
Product line: Critical care, airway clearance, IPPB, transport, hospital, MRI, and home use
Company description: VORTRAN Medical Technology manufactures advanced Pulmonary Modulation Technology™, offering a unique line of low-cost, single-patient, automatic respiratory products.

SEE THESE
COMPANIES'
ADVERTISEMENTS
IN THIS ISSUE:



COVIDIEN

Drägermedical

A Dräger and Siemens Company

HAMILTON
MEDICAL

MAQUET

2009 VENTILATOR BUYERS GUIDE

Company	Airon Corp.		Bunnell Inc.	Cardinal Health (formerly VIASYS Healthcare)			Cardinal Health Respiratory Care			Covidien	Dräger Medical Inc.	
Product name	pNeuton model A	pNeuton model S	Life Pulse - Model 203	3100A	3100B	AVEA	VELA	LTV® 950	LTV® 1150	LTV® 1200	Puritan Bennett 840™	Babylog 8000 plus
Patient range	Adult, pediatric	Adult, pediatric	Pediatric, neonatal	Pediatric, neonatal	Adult, pediatric	Adult, pediatric, neonatal	Adult, pediatric	Patients 5 kg to adult	Patients 5 kg to adult	Patients 5 kg to adult	Adult, pediatric, neonatal	Neonatal
Patient setting	Acute, transport, emergency	Transport, emergency	Acute	Acute	Acute	Acute	Acute, post-acute, transport, NIV	Post-acute, long-term care, home, transport for home	Post-acute, long-term care, home, transport for home	Acute, transport, emergency	Acute	Acute
Dimensions (H x L x W) in inches	5 x 10 x 7	4 x 8 x 6	14 x 19 x 14	53.8 x 11.4 x 18.6	53.8 x 11.4 x 18.6	Ventilator: 10.5 x 16 x 17; UIM: 13.8 x 2.5 x 16.3	12 x 14.5 x 13	13.5 x 10.5 x 3.25	13.5 x 10.5 x 3.25	13.5 x 10.5 x 3.25	59 x 21 x 19	
Weight	6.5 lb.	6 lb.	48 lb.	143 lb.	143 lb.	80 lb. (with compressor)	38 lb.	13.4 lb.	14.5 lb.	14.5 lb.	156.5 lb.	
Cost/warranty	One year	One year	One year	\$28,500/one year	\$31,350/one year	Two year standard	\$13,995-\$17,995/two years. Five years or 40,000 hr. on turbine.				Two years standard	
Battery back-up at standard power	n/a	n/a	n/a	n/a	n/a	Int: one hour; Ext: four hours	Int: six hours	One hour	One hour	One hour	30 min	
Available Modes:												
Volume ventilation, assist control	X	X				X	X	X	X	X	X	X
Volume ventilation, SIMV	X	X				X	X	X	X	X	X	X
Volume ventilation, SIMV + PSV						X	X	X	X	X	X	
Pressure ventilation, assist control	X	X				X	X	X	X	X	X	X
Pressure ventilation, SIMV	X	X				X	X	X	X	X	X	X
Pressure ventilation, SIMV + PSV						X	X	X	X	X	X	X
Pressure support ventilation						X	X	X	X	X	X	X
Noninvasive ventilation	X	X					X	X	X	X	X	X
Spontaneous ventilation	X	X				X	X	X	X	X	X	X
Apnea backup ventilation						X	X	X	X	X	X	
Airway pressure release ventilation						X	X				Optional	
Adaptive support ventilation							Optional					
Pressure ventilation with volume guarantee (dual control)							X				Optional	X
Manual breath							X	X	X	X	X	X
Other modes	CPAP	CPAP	Standard HFJV	Standard HFOV	Standard HFOV	Time-cycled pressure limited; nasal CPAP; pressure-regulated volume control; non-invasive ventilation with leak compensation		Pressure control; CPAP		Pressure control; spontaneous breathing trial	Optional: PAV+, bilevel, volume support	
Other Controls:												
Breath types			HFJV	Mandatory HFO	Mandatory HFO	Mandatory; spontaneous; supported	Volume, pressure, PRVC, Vsync, machine volume	VC, PC, PS, and spont	VC, PC, PS, and spont	VC, PC, PS, and spont		Pressure/volume
Breath rate (bpm)	3 to > 28	2 to > 28	240 to 660	3 to 15 Hz	3 to 15 Hz	Ped/neo: 1 to 150; adult: 1 to 120	2 to 80	0 to 80	0 to 80	0 to 80	1 to 150	0 to 150
Tidal volume/target tidal volume (mL)	360 to 1500	360 to 1500				Ped: 25 to 500; neo: 2 to 300; adult: 100 to 2500	50 to 2000	50 to 2000	50 to 2000	50 to 2000	5 to 2500	2 cc
Inspiratory time (sec)	0.6 to 2.5	0.6 to 2.5	0.020 to 0.034			Ped/adult: 0.2 to 5; neo: 0.15 to 3	0.3 to 10.0	0.3 to 9.9	0.3 to 9.9	0.3 to 9.9	0.2 to 8.0	0.1 to 2
Peak inspiratory flow (Lpm)						Ped: 1 to 75; neo: 0.4 to 30; adult: 3 to 150	10 to 140; 10 to 180 (spon)	10 to 100	10 to 100	10 to 100	1 to 150	1 to 30
Inspiratory pressure (cm H ₂ O)	15 to 75	10 to 75	8 to 50	5 to > 90	5 to > 90	Ped/adult: 0 to 90; neo: 0 to 80	1 to 100	0 to 120	0 to 120	0 to 120	5 to 90	10 to 80
PEEP/intermittent PEEP (cm H ₂ O)	0 to 20	0 to 20		mPAW: 3 to 45	mPAW: 3 to 55	0 to 50	0 to 35	0 to 99	0 to 99	0 to 99	0 to 45	0 to 25
Pressure control (cm H ₂ O)	15 to 75	10 to 75				Ped/adult: 0 to 90; neo: 0 to 80	1 to 100	1 to 99	1 to 99	1 to 99	5 to 90	10 to 80
Pressure support (cm H ₂ O)						Ped/adult: 0 to 90; neo: 0 to 80	Off, 1 to 60	1 to 60	1 to 60	1 to 60	0 to 70	10 to 80
Rise time for inspiratory pressures (sec)						Not specified	NA	Variable	Variable	Variable	1 percent to 100 percent	
Trigger sensitivity (flow - Lpm; pressure - cm H ₂ O)						Flow: 0.1 to 20; Pressure: 0.1 to 20	Flow: 1 to 20; Pressure: -5 (preset)	Off, 1 to 9 Lpm	Off, 1 to 9 Lpm	Off, 1 to 9 Lpm	Flow: 0.1 to 20; Pressure: 0.1 to 20 below PEEP	Flow/volume
O ₂ concentration	65 percent or 100 percent	65 percent or 100 percent	21 percent to 100 percent	21 percent to 100 percent	21 percent to 100 percent	21 percent to 100 percent	21 percent to 100 percent			21 percent to 100 percent	21 percent to 100 percent	21 percent to 100 percent
Display:												
Waveforms/loops				Piston displacement	Piston displacement	Waveforms: Paw, Flow, Vt, Pes, Ptr, Ptp, PInsp, FInsp, Fexp, and analog (two channels); loops: t-Flow, Paw-Vt, Pes-Vt, Ptr-Vt, PInsp-Vt, and Ptp-Vt	Pressure, flow, and volume waveforms; pressure/volume and flow/volume loop		With LTM: real-time pressure flow, volume curves real-time or with historical reference loop for overlay comparison	Real-time pressure flow, volume curves real-time or with historical reference loop for overlay comparison	Pressure-time, flow-time, volume-time, flow-volume, pressure-volume	Pressure-time, flow-time, volume-time scalars, pressure-volume loop, flow-volume loop via Advantec screen
Trending						24-hour trend display of all settings and monitored values	24-hour trending of 16 parameters	Yes	24-hour trend data	24-hour trend data		Advantec screen
Event log						Yes	Yes	Yes	Historical event log	Historical event log	Storage and display of previous 80 alarms	Advantec screen
Extended features:	MRI compatible	MRI compatible	Nitric oxide application			Automatic tube compensation, capnography, nebulizer, integrated bicore technology, integrated heliox delivery (compensated for density), remote diagnostics	Nebulizer	LED	LED with optional LTM graphics monitor		Automatic tube compensation	Integrated Y-piece, compliance, resistance, C20/C

Company	Draeger Medical Inc.				GE Healthcare		Hamilton Medical Inc.			Impact Instrumentation Inc.				
Product name	Carina	Evita XL	Oxylog 3000	Savina	Engström Carestation® critical care		G5	Galileo	Raphael Color/Raphael XTC	Uni-Vent® Eagle Model 754	Uni-Vent® EMV	Uni-Vent® EMV Plus	Uni-Vent® Model 73X MCI	
Patient range	Adult, pediatric	Universal	Adult, pediatric	Adult, pediatric	Adult, pediatric, neonatal		Adult, pediatric, neonatal	Adult, pediatric, neonatal	Adult, pediatric	Adult, pediatric	Adult, pediatric	Adult, pediatric, infant	Adult, pediatric	
Patient setting	Acute, post-acute	Acute	Transport, emergency	Acute, post-acute	Acute, post-acute		Acute, post-acute	Acute, post-acute	Acute, post-acute	Acute, post-acute, home, transport, emergency	Acute, transport, emergency	Acute, post-acute, transport, emergency	Acute, post-acute, home, transport, emergency	
Dimensions (H x L x W) in inches	7 x 11 x 15	21 x 12 x 18	11 x 7 x 7	15x 15.6 x 14	56.8 x 14 x 15 (including cart)		17.3 x 17.7 x 19.7	60.6 x 24.4 x 17.3	Raphael Color: 35 x 53 x 23; Raphael XTC: 33 x 53 x 42	4.5 x 8.87 x 11.5	12.5 x 7.5 x 4.5	12.75 x 4.5 x 7.5	4.5 x 8.87 x 11.5	
Weight	12.3 lb.	64 lb.	12 lb.	53 lb.	145 lb. (with cart)		126 lb. (with trolley)	105 lb. (with trolley)	Raphael Color: 37 lb.; Raphael XTC: 40 lb.	13 lb.	9.4 lb	9.4 lb	11 lb.	
Cost/warranty							One year materials and workmanship	One year materials and workmanship	One year materials and workmanship	\$8995/One year	One year	One year	\$2195/Limited one year	
Battery back-up at standard power	One hour	Three hours	Four hours	One hour	Built-in: 120 min typical, 30 min minimum		One hour minimum	One hour minimum	One hour typical; 30 min minimum; two hours maximum	Three hours with compressor; nine to 12 hours with source gases	Yes	10 hours	Six hours with compressor; 12 hours with oxygen	
Available Modes:														
Volume ventilation, assist control		X	X	X	X	X	X	X		X	X	X	X	
Volume ventilation, SIMV	X	X	X	X	X	X	X	X		X		X		
Volume ventilation, SIMV + PSV		X	X	X	X	X	X	X				X		
Pressure ventilation, assist control	X	X	X	X	X	X	X	X	X			X		
Pressure ventilation, SIMV		X	X	X	X	X	X	X	X			X		
Pressure ventilation, SIMV + PSV		X	X	X	X	X	X	X	X			X		
Noninvasive ventilation	X	X	X	X	X	X	X	X	X					
Spontaneous ventilation	X	X	X	Optional	Optional	X	X	X	X			X		
Apnea backup ventilation	X	X	X	X	X	X	X	X	X	X	X	X		
Airway pressure release ventilation		X			X	X	X	X	X					
Adaptive support ventilation						X	X	X						
Pressure ventilation with volume guarantee (dual control)	X	X			X	X	X	X						
Manual breath	X	X		X	X	X	X	X	X	X	X	X		
Other modes		ILV, SmartCare/PS	100 percent F _{IO2}	Autoflow option	Standard : bilevel and CPAP-PSV; Optional: SIMV-PCVG, bilevel-VG		DUOPAP	DUOPAP	DUOPAP	Pressure limited, square wave, CPAP				
Other Controls:														
Breath types	Pressure/volume	Pressure/volume	Pressure/volume	Pressure/volume			Pressure, volume	Pressure, volume	Pressure- or volume-targeted	Volume	A/C	Volume, pressure	Volume	
Breath rate (bpm)	5 to 50	0 to 150	2 to 60	2 to 80	1 to 150		0 to 999	0 to 999	1 to 80	1 to 150	6 to 30	0 to 60	Adjustable: 10, 12, 14, 16, 18, 20	
Tidal volume/target tidal volume (mL)	100 to 2000	3 to 2000	50 to 2000 BTPS	50 to 2000	Adult/ped: 0.25 to 15; neo: 0.1 to 10		2 to 2000	10 to 2000, 2 mL press modes	50 to 2000	0 to 3000	300 to 1200	50 to 1500	300 to 1000	
Inspiratory time (sec)	0.3 to 8	0.1 to 10	0.2 to 10	0.2 to 10	Adult/ped: 0.25 to 15; neo: 0.1 to 10		0.1 to 10	0.1 to 10	0.1 to 9.6, 30s in APRV	0.1 to 3	1 to 2.5	0.3 to 3	Variable; based on rate and tidal volume	
Peak inspiratory flow (Lpm)		6 to 120	100	0 to 180	Max: 200		1 to 180	1 to 180	1 to 180	0 to 60	100	> 100 Lpm at 40 cm H ₂ O	30 continuous flow	
Inspiratory pressure (cm H ₂ O)	5 to 50	0 to 95	3 to 55	0 to 99	1 to 98		Adult: 5 to 100; infant: 5 to 50	Adult: 5 to 100; infant: 5 to 50	5 to 50	15 to 100	10 to 80	0 to 80	15 to 80	
PEEP/intermittent PEEP (cm H ₂ O)	3 to 20	0 to 50	0 to 20	0 to 35	Off, 1 to 50		Adult: 0 to 50; infant: 0 to 25	Adult: 0 to 50; infant: 0 to 25	0 to 35	0 to 20 cm internally generated	5	0 to 25		
Pressure control (cm H ₂ O)	5 to 40	0 to 95	3 to 55	0 to 99	0 to 60		Adult: 5 to 100; infant: 3 to 50	Adult: 5 to 100; infant: 5 to 50	5 to 50	May be pressure-limited 10 cm H ₂ O below set high pressure		0 to 80		
Pressure support (cm H ₂ O)	2 to 40	0 to 95	3 to 55	0 to 35	0 to 60		Ped/adult: 0 to 100; infant: 0 to 50	Ped/adult: 0 to 100; infant: 0 to 50	0 to 50			0 to 40		
Rise time for inspiratory pressures (sec)	0.1 to 2	0 to 2			0 to 500 msec.		25 to 200 msec.	25 to 200 msec.	50 to 200 msec.			Fixed		
Trigger sensitivity (flow - Lpm; pressure - cm H ₂ O)	Normal, sensitive, off	0.3 to 15	3 to 15	1 to 15	Flow: 0.2 to 9; Pressure: -0.25 to -10		Flow: 0.5 to 15 (adult/ped), 0.1 to 5 (infant); Pressure: 0.5 to 10 (adult/ped), 0.1 to 5 (infant)	Flow: 0.5 to 15 (adult/ped), 0.5 to 5 (infant); Pressure: 0.5 to 10 (adult/ped), 0.5 to 5 (infant)	Flow: 1.0 to 10 (adult/ped)	Default: 1.5 to 2; Adjustable: 1 to 6 cm H ₂ O	-2 cm H ₂ O	-6 to -0.5 cm H ₂ O	-2 cm H ₂ O	
O ₂ concentration	21 percent to 100 percent	21 percent to 100 percent	40 percent to 100 percent	21 percent to 100 percent	21 percent to 100 percent		21 percent to 100 percent	21 percent to 100 percent	21 percent to 100 percent	21 percent to 100 percent	21 percent, 50 percent, or 100 percent	21 percent to 100 percent	21 percent or 100 percent	
Display:														
Waveforms/loops	Pressure-time, flow-time	Pressure-time, flow-time, volume-time scalars, capnogram, flow-volume loop, pressure-volume loop, recruitment trends	Pressure-time, flow-time	Pressure-time, flow-time, optional expansion with Advantec screen	Waveforms: pressure, flow, volume, O ₂ , CO ₂ , and auxiliary pressure; Loops: P-flow, spirometry, P/V, F/V (SpiroDynamics and FRC)		Volume, flow, pressure, and pressure auxiliary; any combination of these four waveforms	Volume, flow, pressure, and pressure auxiliary; any combination of these four waveforms	Volume, flow, pressure				SpO ₂ pleth waveform	
Trending	Numeric table	24 hours		Advantec screen option	All set and measured parameters		26 monitored parameters are automatically trended for up to 24 hours	26-plus monitored parameters are automatically trended for up to 24 hours	19 monitored parameters are automatically trended for up to 24 hours					
Event log	Service log	1000 events	Service mode	Advantec screen option	Alarm, error, event, and FRC logs and alarm history		External log captures up to 1000 events; internal log captures 5000 events	External log captures up to 1000 events; internal log captures 5000 events, CF card screen capture	Log captures up to 1000 events					
Extended features:	RS-232 Port, External Battery Option	Automatic tube compensation, lung protection package, capnography, nebulizer, SmartCare/PS, remote access, SW 7.0	BTPS compensation for air transport	Nebulizer, low-pressure O ₂ source adapter	Automatic tube compensation, capnography, nebulizer, SpiroDynamics®, FRC INview®, integrated patient monitoring, integrated Aerogen administration, numerous Aeroneb Pro, data connectivity: PO.1, auto PEEP, inspiratory/expiratory hold, RSBi display		Automatic tube compensation, capnography, nebulizer, heliox administration, numerous "Intelligent" features	Automatic tube compensation, nebulizer, ASV closed loop ventilation system	Automatic tube compensation, nebulizer, ASV closed loop ventilation system		Built-in pulse oximeter	SpO ₂ and heart rate monitors and alrms, Smart-Help™, daylight visible displays, rapid charger, altitude compensation		

Company	Impact Instrumentation Inc.	MAQUET Inc.	Newport Medical Instruments Inc.			Philips			Philips Respirationics			VORTRAN Medical Technology 1 Inc.	
Product name	Uni-Vent® Model 750	Servo-i	Newport e360	Newport e500	Newport HT50	BiPAP® Focus™	BiPAP® Vision®	Respirationics Espirit® critical care	BiPAP AVAPS	BiPAP S/T	VARTM Models RT & RC	VAR-Plus Model PCM	
Patient range	Adult, pediatric	Adult, pediatric, neonatal	Infant/pediatric, adult	Infant/pediatric, adult	Infant/pediatric, adult	Adult > 30 kg	Adult > 30 kg	Adult, pediatric, neonatal	Adult, pediatric	Adult, pediatric	40 kg and above	10 kg and above	
Patient setting	Acute, post-acute, transport, emergency	Acute, post-acute, transport, MRI	Acute, post-acute, intra-hospital transport	Acute, post-acute	Home, transport, emergency, post-acute	Acute, post-acute, LTACH, ER	Acute, post-acute, LTACH, ER	Short- and long-term acute, in-house emergency, transport	Home, post-acute	Home, post-acute	EMS, acute, post-acute, transport	EMS, acute, post-acute, transport	
Dimensions (H x L x W) in inches	4.87 x 9.25 x 11.5		12.1 x 13.9 x 13.9	62.5 x 26 x 20.5	10 x 8 x 11	14 x 11.4 x 5.5	16 x 14.38 x 10.63	16 x 14 x 24	9.75 x 6.6 x 4.4	9.75 x 6.6 x 4.4	9 x 4 x 3	9 x 4 x 3	
Weight	10 lb.		38 lb.	81 lb. (with cart)	15 lb.	10 lb.	34 lb.	66 lb.	4.2 lb.	4.2 lb.	100 grams	100 grams	
Cost/warranty	\$5395/Limited one year	One year	Two years	One year	Two years	One year standard	One year standard, two year with customer set up	Standard two-year warranty	Two years	Two years	\$41 to \$76/one year from date of purchase	\$41 to \$76/one year from date of purchase	
Battery back-up at standard power	Nine to 13 hours	One hour	Yes	Yes	Yes	45 min. at standard setting	n/a	30 min.	External battery pack	External battery pack	50 PSI - oxygen, blended oxygen, or compressed air	50 PSI - oxygen, blended oxygen, or compressed air	
Available Modes:													
Volume ventilation, assist control	X	X	X	X	X			X					
Volume ventilation, SIMV	X	X	X	X	X			X					
Volume ventilation, SIMV + PSV		X	X	X	X			X					
Pressure ventilation, assist control		X	X	X	X	X	X	X			X	X	
Pressure ventilation, SIMV		X	X	X	X			X			X	X	
Pressure ventilation, SIMV + PSV		X	X	X	X			X			X	X	
Pressure support ventilation		X	X	X	X	X	X	X	X	X	X	X	
Noninvasive ventilation		X	X	X	X	X	X	X	X	X	X	X	
Spontaneous ventilation		X	X	X	X	X	X	X	X	X	X	X	
Apnea backup ventilation		X	X	X	X			X	X	X	X	X	
Airway pressure release ventilation		X	X	X									
Adaptive support ventilation		X											
Pressure ventilation with volume guarantee (dual control)		X	X	X					X				
Manual breath	X	X	X	X	X			X					
Other modes			Noninvasive for all breath types, VTPC, VTFS, biphasic pressure release ventilation	Volume target press, VTPC, VTFS, biphasic pressure release ventilation		PAV available outside the U.S.	PAV available outside the U.S.	Optional speaking mode					
Other Controls:													
Breath types	Volume		Modes indicated above	Modes indicated above	PS, PC, VC	Spont, timed	Spont, timed	Volume control, pressure control, noninvasive	Spont, assisted, mandatory	Spont, assisted, mandatory			
Breath rate (bpm)	1 to 150		Ped: 1 to 120; adult: 1 to 80	Ped: 1 to 120; adult: 1 to 80	0 to 99	1 to 30	4 to 40	1 to 80	0 to 30	0 to 30			
Tidal volume/target tidal volume (mL)	0 to 3000		Ped: 20 to 1000; adult: 100 to 3000	Ped: 20 to 1000; adult: 100 to 3000	0.1 to 2.2	n/a	n/a	50 to 2500	200 to 1600	n/a			
Inspiratory time (seconds)	0.1 to 3		Ped: 0.1 to 3; adult: 0.1 to 5	Ped: 0.1 to 3; adult: 0.1 to 5	0.1 to 3.0	0.5 to 3	0.5 to 3	0.1 to 9.9	0.5 to 3	0.5 to 3			
Peak inspiratory flow (Lpm)	0 to 100		Ped: 1 to 100; adult: 1 to 180	Ped: 1 to 100; adult: 1 to 180	6 to 100	140	240	3 to 140 compliance compensated (actual to 200)					
Inspiratory pressure (cm H ₂ O)	15 to 100				0 to 100	4 to 30	4 to 40	5 to 100 (relative to PEEP)	4 to 30	4 to 30			
PEEP/intermittent PEEP (cm H ₂ O)	PEEP compensated; uses external PEEP valve		Ped: 0 to 30; adult: 0 to 45	Ped: 0 to 30; adult: 0 to 45	0 to 30	4 to 25	4 to 20	0 to 35	4 to 25	4 to 25	Intrinsic	Intrinsic	
Pressure control (cm H ₂ O)			Ped: 0 to 70 cm; adult: 0 to 80	Ped: 0 to 70; adult: 0 to 80	5 to 60	n/a		5 to 100	n/a	n/a			
Pressure support (cm H ₂ O)			Ped: 0 to 50; adult: 0 to 60	Ped: 0 to 50; adult: 0 to 60	0 to 60	1 to 26	1 to 36	5 to 100	n/a	n/a			
Rise time for inspiratory pressures (sec)			1 to 19	1 to 19	Automatic	0.1 to 0.6	0.05 to 0.4	0.1 to 0.9	AutoTrak	AutoTrak			
Trigger sensitivity (flow - Lpm; pressure - cm H ₂ O)	Adjustable -2 to -8		Pressure: 0 to 5; Flow: 0.1 to 2 (ped); 0.6 to 2 (adult)	Pressure: 0 to 5; Flow: 0.1 to 2 (ped); 0.6 to 2 (adult)	0 to 9.9	AutoTrak	AutoTrak	Flow: 0.5 to 20; pressure: -20 to -0.1	AutoTrak	AutoTrak			
O ₂ concentration	100 percent, uses external blender		21 percent to 100 percent	21 percent to 100 percent	21 percent to 100 percent	Up to 15 L/min, bleed in	21 percent to 100 percent	21 percent to 100 percent	Bleed in	Bleed in			
Display:													
Waveforms/loops			Waveforms: pressure-time, volume-time, flow-time; Loops: volume-pressure, flow-volume	Waveforms: pressure-time, volume-time, flow-time; Loops: volume-pressure, flow-volume, multi-waves (all displayed on one screen)			Pressure, flow, volume	Waveforms: flow, volume, pressure; Loops: flow-volume, pressure-volume					
Trending			24-hour trending for VTE, percent var/time, RR total/time, MVE/time, VTE/time, Ppeak/time, PEEP/time, RSBI/time, Pmean/time	24-hour trending for VTE, VE, ftot, VTE percent variance, Ppeak, Pmean, Pbase, f/VT (RSBI)				32 parameters from two to 72 hours					
Event log			Records 1000 events, alarms, and settings in color code.	600 most recent alarm violations and ventilator settings				Technical event and alarm event log available	Encore Pro reporting	Encore Pro reporting			
Extended features:			Leak compensation (automatic or manual), adjustable expiratory threshold, emergency intake valve, pulmonary mechanics, rapid shallow breathing index, altitude compensation 0 to 4000 m	Automatic tube compensation, noninvasive for all breath types, leak compensation (automatic or manual), rapid shallow breathing index, adjustable expiratory threshold, altitude compensation, pulmonary mechanics	Portable gas generator with variable flow delivery, leak compensated PEEP, volume monitoring and alarms; internal battery up to 10 hours on standard settings; charge from any outside power, AC 110 to 240 volts, DC 12 to 30 volts; simple user interface with controls			Nebulizer, AutoTrak, FlowTrak, BabyTrak, compressed air supply not required			MRI/CT safe	MRI/CT safe	