

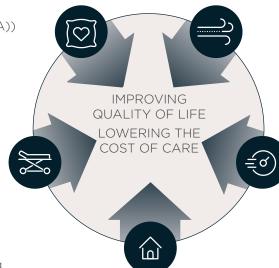
The Vivo 45LS life support ventilator maximizes patient mobility and breathing comfort. It features a built-in humidifier with heated wire circuit plus a comprehensive set of modes that includes **Auto-EPAP\*** and **High Flow Nasal Therapy\*** plus SpO<sub>2</sub>, EtCO<sub>2</sub>, FiO<sub>2</sub> and PtcCO<sub>2</sub> monitoring.

#### PATIENT COMFORT

- Whisper Quiet operation (< 30 dB(A))
- eSync's patented patient breath trigger minimizes uncomfortable auto-triggers caused by leaks
- Vivo Auto-EPAP works without oscillations, maneuvers, test breaths or test pulses. Works with PSV, PCV and PCV(A) with and without TgV

## MAY HELP REDUCE READMISSIONS

- Remote connectivity to EveryWare
- Early interventions from monitoring of SpO<sub>2</sub>, FiO<sub>2</sub>, EtCO<sub>2</sub> and PtcCO<sub>2</sub>
- eSync promotes patient compliance



## GETTING PATIENTS HOME

- High Flow Nasal Therapy
- 3 easy-to-use profiles adapt to patient activities
- Support of leak, MPV and active exhalation valve circuits

## IMPROVED CLINICAL WORKFLOW

- Built-in Humidifier for NIV with heated wire circuit saves space and expense
- Easy for clinicians and patients to use
- iButton for instant help
- AHI calculation
- Independent Clinician and Patient language selections

#### MOBILITY

- Ultra-small and Lightweight
- Up to 24 hour + Battery Life

<sup>\*</sup> Modification in accordance with FDA's guidance, Enforcement Policy for Ventilators and Accessories and Other Respiratory Devices During the Coronavirus Disease 2019 (COVID-19) Public Health Emergency.

# Breas Vivo 45LS Technical Specifications

Settings / Performance	
Ventilation Modes	PSV, PSV(TgV), PSV(AE), PSV(TgV+AE), PCV, PCV(TgV), PCV(A), PCV(A+TgV), PCV(A+AE),
	PCV(A+TgV+AE), PCV-SIMV, PCV-MPV, VCV, VCV(A), VCV-SIMV, VCV-MPV, CPAP, HFNT
Patient Modes	Adult, Pediatric
Device Modes	Home, Clinical
Profiles	3 settable profiles
Inspiratory Pressure	4 to 50 cmH <sub>2</sub> O, max PS of 30 cmH <sub>2</sub> O above PEEP (Pediatric)
PEEP	2 to 20 cmH <sub>2</sub> O, IPAP -2 cmH <sub>2</sub> O or Min IPAP -2 cmH <sub>2</sub> O
Auto-EPAP (Expiratory Positive Airway Pressure)	2 to 20 cmH <sub>2</sub> O
Breath Rate/Backup Rate	4 - 40 bpm (Adult), 6 - 60 bpm (Pediatric)
Inspiratory Time/Backup Insp. Time	0.3 to 5 s (Adult), 0.3 to 2 s (Pediatric)
Rise Time	1 to 9 (PSV & PCV), 50 to 90%, Off (VCV)
Inspiratory Trigger	1 to 9 (PSV & PCV, VCV), Off (PCV, VCV)
Expiratory Trigger	1 to 9
Minimum Inspiratory Time	Off, 0.3 to 3 s (Adult), Off, 0.3 to 2 s (Pediatric)
Maximum Inspiratory Time	0.3 to 5 s, Off (Adult), 0.3 to 2 s, Off (Pediatric)
Tidal/Target Volume	Off, 300 - 2000 ml (Adult), Off, 50 - 400 ml (Pediatric)
High Flow Nasal Therapy	4 - 60 lpm
Monitoring	
Displayed data	Ppeak, PEEP, Pmean, Leakage, MV, Vt, FiO <sub>2</sub> , % in TgV, Total Rate, Spont Rate, % Spont, SpO <sub>2</sub> , Pulse Rate, I:E, Inspiratory Time, Rise Time, EtCO <sub>2</sub> , InspCO <sub>2</sub> , PtcCO <sub>2</sub> , Flow, AHI
Waveforms	Pressure, flow, volume, EtCO <sub>2</sub> , leakage
Trends over 1, 6, 24, 48 h and 10 days on device screen	SpO <sub>2</sub> , Ppeak, PEEP, Total Rate, Spontaneous Rate, Leakage, Vte, EtCO <sub>2</sub> , Flow
Power Supplies	
Mains supply	100 to 240 V AC
External DC	19 V ± 6 V
Click-in battery	5.5 hours
Internal battery	2 hours
External Xpac Li-ion battery pack	18 hours
Main alarms Alarms	High Pressure, Low Pressure, High PEEP, Low PEEP, High Vti, Low Vti, High MVi, Low MVi, High Vte, Low Vte, High MVe, Low MVe, High Breath Rate, Low Breath Rate, Apnea, Disconnection, Rebreathing, Obstruction, High FiO <sub>2</sub> , Low FiO <sub>2</sub> , High SpO <sub>2</sub> , Low SpO <sub>2</sub> , High EtCO <sub>2</sub> , Low EtCO <sub>2</sub> , High InspCO <sub>2</sub> , High Pulse Rate, Low Pulse Rate, PtcCO <sub>2</sub> , Power Fail, High Patient Air Temp, Low Patient Air Temp, Low Last Power Source, Crit. Low Last Power Source, Lost Mains Power, Exhalation Valve Control Error, SpO <sub>2</sub> Disconnection, SpO <sub>2</sub> Signal Lost, Poor SpO <sub>2</sub> Signal, CO <sub>2</sub> Disconnection, CO <sub>2</sub> Accuracy, Check CO <sub>2</sub> Adapter, CO <sub>2</sub> Sensor, FiO <sub>2</sub> Disconnection, HFNT Circuit Disconnected, HFNT Circuit Blocked
Dimensions	
WxHxD	8.50" x 6.26" x 5.98" (216 x 159 x 152 mm)
Weight	5.3 lb (2.4 kg)
Noise level (at 10 cmH <sub>2</sub> O constant pressure)	Less than 30 dB(A)
Connectivity and Software	
Connectivity	Ethernet, USB and iLink (plug-in)
Treatment follow up	EveryWare Cloud solution by Breas, PCSW
Plug-and-Play accessories	SpO <sub>2</sub> , PtcCO <sub>2</sub> , EtCO <sub>2</sub> , FiO <sub>2</sub> , Nurse Call, Remote Alarm, Remote Start/Stop
Other	
Humidification	Integrable water chamber
Circuits	Disposable leakage circuits with/without heated wires, disposable exhalation valve circuits, disposable MPV circuits

Intended use: The Vivo 45LS ventilator (with or without the SpO $_2$  and CO $_2$  sensors) is intended to provide continuous or intermittent ventilatory support for the care of individuals who require mechanical ventilation. Specifically, the ventilator is applicable for pediatric through adult patients weighing more than 5 kg (11 lbs.), however, the mouthpiece ventilation modes are for adult patients only. The Vivo 45LS with the SpO $_2$  sensor is intended to measure functional oxygen saturation of arterial hemoglobin ( $8\text{SpO}_2$ ) and pulse rate. The Vivo 45LS with the CO $_2$  sensor is intended to measure CO $_2$  in the inspiratory and expiratory gas. The device is intended to be used in home, institution, hospitals and portable applications such as wheelchairs and gurneys. It may be used for both invasive and non-invasive ventilation. The Vivo 45LS is not intended to be used as an emergency transport or critical care ventilator.

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