



### Clinical Excellence

Paediatric and hi-acuity patients  
Highly accurate volume delivery and responsive trigger  
Advanced monitoring capabilities providing detailed insight into the quality of ventilation



### Versatility

Designed for Hospital, Home and Mobile use  
Adaptable to patients needs and prescriber preferences  
Easy to use thanks to intuitive user interface



### Low Cost Of Ownership

Robust design  
Cost-efficient service  
Integrated monitoring capabilities  
Short learning time

# vivo

From Hospital to Home

by Breas

Dr. Kurt Wollinsky  
**INTERVIEW**



www.vivo60.com

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## BREAS

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## Meeting the challenge

CARL VAN LOEY ← INTERVIEW



Mikael Tiedje: THE ALGORITHM OF LIFE

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“It’s been an amazing journey”



A spirit of  
**INSPIRATION**

Breas has been one of the pioneers in homecare ventilation and sleep therapy for over 20 years and the founding spirit is still just as strong. CEO *Nicke Svanvik* describes what drives the company.

**B**reas has been motivated by the desire to improve patients’ lives and help clinicians since 1991, when the company started up in Gothenburg. From humble beginnings, it has grown into a significant player in bi-level and home mechanical ventilation across Europe.

“It’s been an amazing journey,” Nicke says. “Today we are recognized as one of the leaders when it comes to versatile innovation and industrial design for the homecare market. Our brand is based on the same values we started up with – quality, a focus on patients and customers, and a commitment to innovation.”

With the move into GE Healthcare, he says, Breas came of age. “GE enabled us to mature as a global medical device com-

pany, for example strengthening our design control procedures to ensure compliance with global regulatory requirements”.

Breas is strong in Europe, but is also well positioned to grow in selected homecare markets worldwide. Breas already has a significant presence in Japan and recently Vivo 50 was cleared for sales in the US.

Nicke sees ventilation as an area where the company can make a vital difference. “Everything we do is about bringing patients from the hospital to the home,” he says. “We have special competence in combining advanced clinical treatment modes, mobility and monitoring in order to bring true value to patients and customers. And now we have a product range

that offers even greater possibilities.” To make our vision a reality, Breas works closely with customers. Many years of collaboration have built up a natural source of design input that influences all the company’s activities – from R&D to marketing, customer support and service. “When you visit our site in Molnlycke, Sweden, you can feel the spirit and the passion for listening to our customers,” Nicke says.

He adds that Breas is never content to stand still. “We’re always looking to combine present customer requirements with innovations that will enable the products of the future. Vivo 60 will enable chronically ill or disabled children to live a fuller life. Few things create a greater sense of purpose than that.”

**OUR RANGE OF PRODUCTS**



**iSleep 20/20+/20i**

The Breas range of sleep devices includes a basic CPAP, a CPAP with pressure reduction at exhalation, and an auto-CPAP. Common for all devices is their user-friendly interface, design and robustness.



**iSleep 22/25**

iSleep 22 and 25 are bi-level devices with different levels of functionality. They are an excellent choice for more severe OSA patients or OHS patients. The user interface has the same intuitive menu structure as the other devices in the range.



**Vivo 30**

Vivo 30 can be used to treat various hypoventilation conditions. It provides non-invasive ventilation to patients over 30 kg with spontaneous breathing. The Vivo range is appreciated for its intuitive user interface and Scandinavian design.



**Vivo 40**

Vivo 40 bi-level ventilator is equipped with adult and paediatric modes, internal battery and target volume. It can be used for invasive and non-invasive ventilation in patients from 10 kg and up. Vivo 30 and 40 were upgraded in 2013, further enhancing functionality and giving an attractive new look.



**Vivo 50**

Vivo 50 is an advanced life-support ventilator for patients of 10 kg and above. It provides a wide range of modes, settings and alarms to ensure effective and comfortable ventilation. Integrated monitoring options, combined with alarms and PC software, provides extensive monitoring capabilities for better insight into the quality of ventilation. Vivo 50 can be used in the hospital, at home or on the move thanks to its 12-hour autonomy (using the click-on battery) and a wide range of accessories.



**Vivo 60**

Vivo 60 provides clinical excellence, versatility and low cost of ownership. Intended for patients from 5 kg, it takes ventilation treatment to a new level while maintaining the intuitive user interface and other appreciated features of the Breas range.

# VIVO 60



Is a life-support ventilator intended for paediatric and adult patients requiring highly secure and reliable ventilation in the hospital or at home. Vivo 60 offers clinical excellence, versatility and a low cost of ownership

### Clinical excellence

To treat patients under some of the most challenging circumstances, care givers require security and clinical excellence. Vivo 60 is developed to meet these demands by offering:

- Intended use for paediatric (from 5 kg) and adult ventilator-dependent patients.
- Effective and comfortable ventilation thanks to highly accurate volume delivery and responsive trigger.
- Improved insight in the quality of ventilation using the advanced monitoring capabilities. These include integrated SpO<sub>2</sub>, CO<sub>2</sub> and FiO<sub>2</sub> monitoring, numeric values and Pressure, Flow and Volume wave forms on display, comprehensive alarms and PC software.

### Versatility

Versatility is a requirement equally important to patients, care givers and homecare providers. Vivo 60 provides multiple benefits to make it a truly versatile ventilator.

- Designed for Hospital, Home and Mobile use, thanks to its attractive Scandinavian design, low noise level, 12-hour autonomy (with click-on battery) and wide range of accessories.

- An extensive set of modes and settings, three profiles, the choice of single and dual limb circuits with leakage or exhalation valve and invasive and non-invasive use, make Vivo 60 highly adaptable to patient needs and prescriber preferences.
- A highly intuitive User Interface, which is easy to use, easy to learn and helps reduce the risk of mistakes.

### Low cost of ownership

Demands for cost-effective treatment and service are continuously increasing. Therefore, Vivo 60 has been developed to offer an attractive cost of ownership to hospitals and homecare providers.

- Robust design and durable accessories.
- A modular technical design for quick and cost-efficient service. There are synergies with Vivo 50 regarding spare parts and technical training.
- The integrated monitoring capabilities reduce the need for external monitoring equipment.



The exhalation valve is a key component in Vivo 60. It can be inserted easily into the ventilator. The dedicated paediatric exhalation valve assures that volumes can be measured accurately down to 50 ml.

## Vivo 60 Technical Specifications

### Settings/Performance

<b>Ventilation Modes</b>	<ul style="list-style-type: none"> <li>• PSV</li> <li>• PCV</li> <li>• PCV(A)</li> <li>• VCV</li> </ul>	<ul style="list-style-type: none"> <li>• PSV(TgV)</li> <li>• PCV(TgV)</li> <li>• PCV(A+TgV)</li> <li>• VCV(A)</li> </ul>	<ul style="list-style-type: none"> <li>• SIMV PCV</li> <li>• SIMV VCV</li> <li>• CPAP</li> </ul>
<b>Patient Modes</b>	<ul style="list-style-type: none"> <li>• Adult</li> <li>• Paediatric</li> </ul>		
<b>Device Modes</b>	<ul style="list-style-type: none"> <li>• Home</li> <li>• Clinical</li> </ul>		
<b>SIMV</b>	4 to 60 bpm		
<b>Inspiratory Pressure</b>	4 to 60 cm H <sub>2</sub> O		
<b>PEEP</b>	0 cm H <sub>2</sub> O to 30 cm H <sub>2</sub> O for Adult / 20 cm H <sub>2</sub> O Paediatric Inspiratory Pressure - 2 cm H <sub>2</sub> O or Min Insp Pressure -2 H <sub>2</sub> O		
<b>Breath Rate (PCV, VCV)</b>	4 to 60 bpm		
<b>Inspiratory Time</b>	0.3 to 5 s		
<b>Backup Inspiratory Time</b>	0.3 to 5 s (PSV)		
<b>Rise Time</b>	1 to 9 (PSV & PCV) 50 - 90 %, Off (VCV)		
<b>Inspiratory Trigger</b>	1 to 9 (PSV, PCV & VCV), Off (PCV & VCV)		
<b>Expiratory Trigger</b>	1 to 9 (PSV)		
<b>Minimum Inspiratory Time</b>	Off, 0.3 to 3 s		
<b>Maximum Inspiratory Time</b>	0.3 to 3 s, Off		
<b>Backup Rate (PSV)</b>	4 to 60 bpm		
<b>Target Volume</b>	50 to 2500 ml		
<b>Tidal Volume</b>	50 to 2500 ml		
<b>Flow Pattern</b>	Square, decelerating		
<b>Sigh function</b>	On/Off, rate (every 50-100-150-200-250 breaths), sigh% (125, 150, 175, 200%)		

### Power Supplies

<b>Mains supply</b>	100 to 240 V AC	<b>Monitoring</b>	
<b>External battery</b>	24 V DC	<b>Displayed data</b>	Ppeak, PEEP, Pmean, Leakage, MVe/MVi, Vte/Vti, FiO <sub>2</sub> , % in TgV, Total Rate, Spont Rate, % Spont, SpO <sub>2</sub> , Pulse Rate, EtCO <sub>2</sub> , InspCO <sub>2</sub>
<b>Click-on battery</b>	8 hours	<b>Waveforms</b>	Pressure, Flow, Volume and CO <sub>2</sub>
<b>Internal battery</b>	4 hours	<b>Trends over 1, 6, 24 and 48h</b>	Ppeak, PEEP, Total Rate, Spont Rate, Vt, Leakage, SpO <sub>2</sub> , EtCO <sub>2</sub>

### Main Alarms

High Pressure, Low Pressure, High PEEP, Low PEEP, High Vte/Vti, Low Vte/Vti, High MVe/MVi, Low MVe/MVi, High Breath Rate, Low Breath Rate, Apnea, Disconnection, Rebreathing, 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, Low Last Power Source.	<b>Dimensions</b>	
	<b>W x H x D</b>	343 x 125 x 264 mm (343 x 125 x 285 mm with click-on battery)
	<b>Weight</b>	5.2 kg
	<b>Noise level</b> (at 10 cmH <sub>2</sub> O constant pressure)	Less than 30 dB(A)