



# Personalized ventilation meets high mobility

Servo-air® – Intuitive. Powerful. Customizable.





CO<sub>2</sub>

Caution  
Do not disconnect  
this cable from the  
ventilator while the  
patient is breathing.



# Experience the Servo that moves with you

For more than 50 years, Servo ventilators have been refined and perfected with tools for personalizing your treatments.<sup>1</sup> Like our other Servo ventilators, Servo-air® is a critical-care ventilator that optimizes patient-ventilator interaction for better comfort and performance. The difference is that Servo-air is a turbine-driven ventilator with up to 4 hours of battery time, making it easy to move around the hospital without requiring wall gas or power outlets. Versatile and nimble, intuitive and powerful, it frees you up to perform.



## Key benefits of Servo-air®

Intuitive	Powerful	Customizable
<ul style="list-style-type: none"><li>• Clear and easy-to-use interface<sup>1</sup></li><li>• On-screen, context-based guidance with built-in instructions</li><li>• Embedded workflows promote safety and consistent protocols</li><li>• Interchangeable expiratory cassettes</li><li>• Servo Compass® for easy monitoring of lung-protective strategies<sup>1</sup></li></ul>	<ul style="list-style-type: none"><li>• Powerful, quiet Servo turbine technology<sup>1</sup></li><li>• Adjustable air flow</li><li>• Invasive / non-invasive</li><li>• 50,000 hour turbine lifetime, or ten years</li><li>• High Flow therapy</li></ul>	<ul style="list-style-type: none"><li>• Adjustable screen</li><li>• Place on bedside cart, mount to pendant or move independently</li><li>• CO<sub>2</sub> monitoring option</li><li>• Automode® interactive ventilation</li><li>• From pediatric to adult patients</li><li>• Built-in Aerogen® nebulizer</li></ul>
Mobile	Cost-efficient	
<ul style="list-style-type: none"><li>• Wall gas independent</li><li>• No need for compressed air</li><li>• Two hot-swappable batteries (2h backup per battery)</li><li>• ICU, intermediate care or intra hospital transportation</li><li>• Ergonomic, easy-to-grip handles</li><li>• 360-degree wheel rotation</li></ul>	<ul style="list-style-type: none"><li>• Few parts that require cleaning</li><li>• High-quality components assure long lifetime and low maintenance</li><li>• Reduced need for different ventilators</li><li>• High Flow therapy option reduces need for stand-alone system</li><li>• Reduced time and training costs thanks to on-screen support<sup>1</sup></li><li>• Interchangeable components with Servo-u</li></ul>	

# Intuitive means easy to use

Ventilation can be complicated. But the ventilator doesn't have to be. Servo-air® is a case in point. Simple to learn, easy to use and get started with, it has many software and design features that instinctively meet your needs.

## **Clear and easy interface**

Servo ventilators often get high marks for the clean ergonomic design and easy-to-use user interfaces<sup>1</sup>. Form follows function. Details matter. Screens are bright, colorful and intuitive, highlighting just the key data you need, when you need it. Servo-air is no exception.

## **On-screen context-based guidance**

The context-based guidance supports you throughout pre-use check, initial parameter setting and the entire treatment. This can help shorten the learning curve and reduce time to therapy<sup>1</sup>.

## **Embedded therapeutic workflows**

Easy to access and understand, our embedded therapeutic workflows support you at all stages of the process. Not only does this help simplify your work, it promotes a safe and consistent flow of ventilation.

## **Rated highly by professionals**

The Servo-air shares user interface commonalities with our top-end Servo-u critical-care ventilator. In a study, the Servo-u rated the highest compared to other evaluated ventilators with 6.8 out of 7 (98%) for usability<sup>2</sup>. We continue to build on this outstanding usability heritage in Servo-air.

**"It's like having a text-book in the machine."**

Clinician during usability testing<sup>1</sup>





# Powerful means reliable, non-stop performance



With Servo-air, you always get ICU level performance, even during intrahospital transport. Interruptions are avoided thanks to a powerful and quiet turbine-driven design<sup>1</sup> that ensures sustained flow and high performance. With four hours of battery backup power, you can always stay up and running.





### **Powerful turbine technology**

A key factor behind the uninterrupted flow is our turbine technology, which is designed to be powerful yet gentle and quiet. The high-performing Servo-air turbine is capable of generating adequate air pressure and flow to support a wide range of patients, from pediatrics to adults. Like all Servo ventilators, it automatically adjusts the pressure and flow to compensate for the presence of any potential circuit leakage. Turbine lifetime is guaranteed to 50,000 hours, or ten years.

### **No need to switch devices**

Servo-air can be used for both non-invasive and invasive ventilation without changing the breathing circuit, only the patient interface. Transition your patients from invasive ventilation to non-invasive ventilation, to High Flow therapy using the same device and the same patient circuit. Stabilize, treat, and recover patients using one device.

# Customizable means supporting personalized ventilation

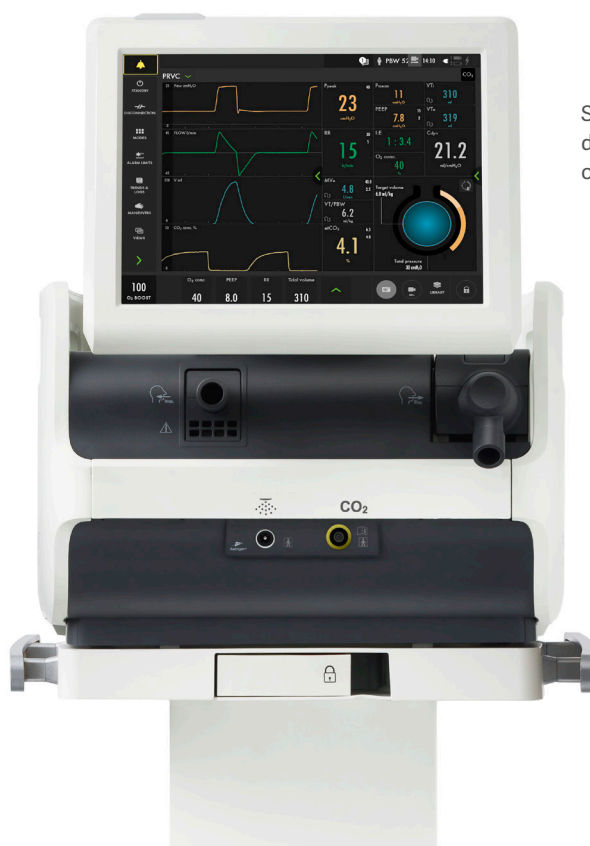
Every patient comes with unique challenges. Naturally, you want to personalize the ventilation treatment, but also adapt the ventilator to suit your own working preferences. Servo-air® helps you do both, with a range of tools for personalized lung protection and weaning.

## Adjustable screen

To start with, the Servo-air comes with an adjustable screen that folds up for protection during transport. You can angle it to suit your height or lighting conditions and also set your preferred viewing modes. Leave it on the cart bedside or lift it off; use it for either invasive or non-invasive modes. You decide. Then choose the personalization tools you need.

## Servo Compass® intuitive monitoring

Servo Compass® makes it easy to see when the total- or driving pressure or tidal volume per predicted body weight (VT/PBW) are off pre-defined target and intervention is needed.<sup>1</sup> Staff are then provided with a notification that further adjustments are required. This enables you to monitor and assess your lung-protective strategy with every breath.



Servo Compass® clearly visualizes when driving pressure or tidal volume per kilogram of predicted bodyweight are off target.<sup>1</sup>



### Accurate mainstream CO<sub>2</sub> monitoring

To measure carbon dioxide levels in real time during expiration (capnography), Servo-air comes with an integrated CO<sub>2</sub> monitoring option. It may help you to improve the ventilation quality and efficiency for your patients. In other words, yet another tool on Servo-air to help you personalize your treatments.



### Goal-directed ventilation with smooth transitions

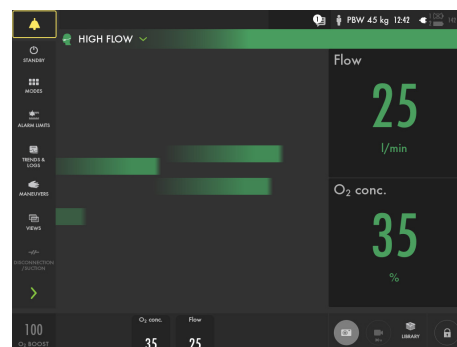
Servo-air is designed to let you personalize the ventilation therapy for each patient. The VT/PBW helps you set and monitor lung-protective ventilation for each patient, supporting more individualized care. Automode® switches between controlled and supported ventilation depending on patient effort, providing smoother patient transition to spontaneous breathing with less staff intervention.



Servo-air can be used for non-invasive and invasive ventilation without changing the breathing circuit, only the patient interface.

### High Flow therapy option

Servo-air also has an option for High Flow therapy, which can be used in both invasive or non-invasive ventilation. When switching to this mode, our intuitive on-screen workflows guide<sup>1</sup> the implementation to help secure continuous ventilation support. Our integrated Aerogen® nebulizer technology can also be used during High Flow therapy.







# Mobility gives you added flexibility

Your patients' needs for respiratory support can change by the day or even the minute. Depending on the situation, you might need to quickly move them from the ICU to another location within the hospital. In the process, you want to avoid anything that might interrupt the ventilation. That is why Servo-air® is designed to move with you.

## ICU-quality ventilation

With its powerful turbine technology, Servo-air lets you administer ICU-quality ventilatory support – independent of wall gases, compressed air or external power supplies. If more oxygen is required, it can be connected via a cylinder without switching devices. All to ensure uninterrupted flow and ease of use.

## Two hot-swappable batteries

The ventilator comes with a power cord and up to two hot swappable backup batteries that are easy to exchange, even during intra-hospital transport (one battery included in base unit). Their remaining power is displayed in minutes instead of the typical percent to give you a more accurate estimate.

## Adapt it to your setting

Servo-air mounting solutions are designed to support a wide range of hospital workflows. Whether you prefer a pendant-mounted solution or want to place it on a cart for bedside use, it moves easily with you.

## Quality lies in the details

Every detail on the Servo-air is designed to make your work a little easier. For example, swivel casters enable smooth, 360-degree wheel rotation under load, with firm locking on all wheels. And ergonomic handles are sculpted to fit your grip and allow for comfortable lifting.









# Taking the stress out of ownership

– optimizing uptime, efficiency and service

## **Your flexible, cost-efficient ICU backup**

We know what a difference lowering the lifecycle operational cost of equipment can make for you. Servo-air® is a strong option to work alongside other Servo ventilators offering more advanced lung-protective and weaning tools. It provides a wall gas independent solution with a similar look, feel and serviceability to complement and expand your therapy options.

## **Non-invasive ventilation**

As one might expect of a flexible, critical-care Servo ventilator with high mobility, the Servo-air is capable of providing non-invasive ventilation therapy (NIV). This eliminates the need for a separate NIV ventilator.

## **Keeping costs down**

Servo-air helps facilitate high staff efficiency with its intuitive interface, which might result in less training time¹.

When switching over to our High Flow therapy mode, there is no need for another device. You can also use the same tubing sets as for conventional ventilation. Turbine lifetime is validated to 50,000 hours, or 10 years.

## **Less maintenance, more uptime**

The Servo-air has few parts to clean, is built for simplified maintenance and is based on top-quality components from the Servo family. These help ensure a long product lifetime with maximum uptime.

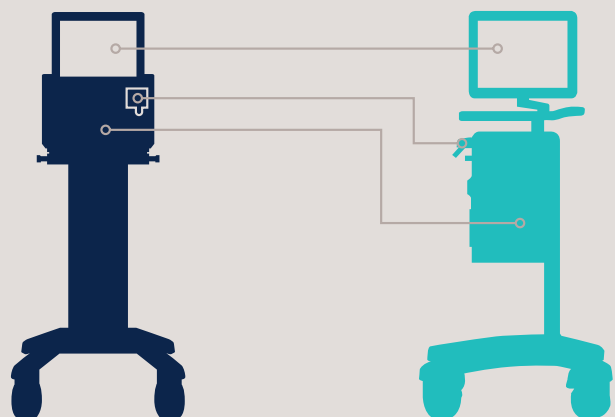
## **At your service**

Our qualified service team is always on hand to support you with your Servo-air ventilator. Should something need urgent attention, depending on your service agreement, our certified field service representatives will be there to deliver original parts, maximizing the lifespan of your equipment.

## **Similar look, feel and serviceability across your ventilation fleet**

The Servo-air and the advanced Servo-u® have similar user-friendly interfaces. They also share many components, have the same interchangeable patient cassettes and come with the same easy-access service structure.

Ultimately, our aim is to keep you up and running at all times and bring you peace of mind.



# Technical specifications

## Servo-air ventilator specifications

Patient type	Adult, pediatric
Ventilator type	Turbine driven Wall gas independent ventilator

## Invasive ventilation

Tidal volume	100–2000 ml, adult 20–400 ml, pediatric
Inspiratory flow	≤240 l/min
Maximum airway pressure	100 cmH <sub>2</sub> O
Respiratory rate	4–100 breaths/min, adult 4–150 breaths/min, pediatric
PEEP	0–50 cm H <sub>2</sub> O
Trigger	Flow and pressure

## Non-invasive ventilation

Pressure support	0–60 cmH <sub>2</sub> O
PEEP	2–20 cmH <sub>2</sub> O
Max leakage compensation, adult	Inspiratory ≤240 l/min* Expiratory ≤65 l/min
Max leakage compensation, pediatric	Inspiratory ≤240 l/min* Expiratory ≤25 l/min

\*≤180 l/min with 100% O<sub>2</sub> concentration

## Therapies and tools

	High Flow therapy
	Servo Compass®
	CO <sub>2</sub> Analyzer

## Ventilation modes

Available modes	VC
Not all modes are available in the standard configuration. Please contact your local Getinge representative for information on standard and optional modes.	PC
	PRVC
	PS/CPAP
	VS
	SIMV (VC) + PS
	SIMV (PC) + PS
	SIMV (PRVC) + PS
	Automode®
	Bi-Vent/APRV
	NIV PC
	NIV PS

## Other functionality

Nebulizer	Aerogen, integrated
O <sub>2</sub> boost, adjustable	+0–79 %, ≤1 min
Data displayed	Parameters, 3 waveforms, 3 loops, respiratory mechanics, trended data, settings, logs, alarm limits, system information
Trend	72 hours
Recordings	Screen shots, 30 s video

## Miscellaneous information

Screen	12" TFT color touchscreen
Battery	Lithium-ion, 2 h standard, 4 h optional, hot-swappable
External device interfaces	2 x RS232, USB, remote alarm, Ethernet
H x W x D	275 mm x 375 mm x 350 mm
Weight	17 kg





Ergonomic handles

Context-based  
guidance

Adjustable screen

High-flow and high-  
pressure capacity

One-piece  
interchangeable  
expiratory cassette

Independent of  
compressed air

Quiet turbine

Hot-swappable  
batteries



Easy mobility

## References

1. Data on file Maquet Critical Care AB
2. Morita PP, Weinstein PB, Flewwelling CJ, Bañez CA, Chiu TA, Iannuzzi M, Patel AH, Shier AP, Cafazzo JA. The usability of ventilators: a comparative evaluation of use safety and user experience. Critical Care201620:263.



Getinge is a global provider of innovative solutions for operating rooms, intensive care units, sterilization departments and for life science companies and institutions. Based on our firsthand experience and close partnerships with clinical experts, healthcare professionals and medtech specialists, we are improving the everyday life for people, today and tomorrow.

This document is intended to provide information to an international audience outside of the US. Servo-air may be pending regulatory approvals to be marketed in your country. Contact your Getinge representative for more information.

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