



HAMILTON-C3

The compact high-end ventilator

HAMILTON
MEDICAL



We live for ventilation technology

We live for ventilation technology. Technology that helps caregivers improve the lives of their critically ill patients. We believe that innovation is essential to meet the demands of critical care. To us, innovation is about realizing visionary new ideas and continuously improving existing products, always maintaining the focus on safe, individualized ventilation, as well as ease of use.

We learn from our customers and from multi-disciplinary experts. And we invest in long-term research and development. We develop Intelligent Ventilation solutions: devices and consumables for the ventilation of all critically ill patients – from neonates to adults.

A handwritten signature in blue ink that reads "Jens Hallek". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Jens Hallek
CEO
Hamilton Medical AG

A handwritten signature in blue ink that reads "Bob Hamilton". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Bob Hamilton
CEO
Hamilton Medical, Inc.

Meet the HAMILTON-C3

The HAMILTON-C3 ventilator is a modular high-end ventilation solution for all patient groups. Offering a number of unique features, the HAMILTON-C3 is one of the first ventilators featuring "the bedside assistant" INTELLiVENT®-ASV®. The HAMILTON-C3's compact design and independence from compressed air allow maximum mobility throughout the hospital.

- ✓ Automated control of the patient's ventilation and oxygenation with INTELLiVENT-ASV
- ✓ P/V Tool® Pro: Protective Ventilation Tool for lung assessment and recruitment
- ✓ High flow oxygen therapy
- ✓ High-performance NIV ventilation
- ✓ Compact and independent from compressed air
- ✓ Adult, pediatric, and neonatal ventilation



Slender, flexible, convenient

For intrahospital transport

The high-performance turbine enables the HAMILTON-C3 mechanical ventilator to be completely independent from compressed air, and its integrated high-capacity battery allows you to ventilate your patients during intrahospital transport without the need for an external power source. The compact design of the HAMILTON-C3 mechanical ventilator makes handling much easier. The HAMILTON-C3 can be attached to a trolley with ease.





Ease of use

In close cooperation with users and ventilation experts, our engineers have designed a user interface that is particularly intuitive. Switching between the HAMILTON-C3 and all other Hamilton Medical ventilators is easy, because they are all operated according to the same principles.

The Ventilation Cockpit on the HAMILTON-C3 consolidates the monitoring data and displays it as intuitive graphics. These provide a quick overview of the patient's current ventilation status and provide a reliable basis for therapy decisions.

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The HAMILTON-C3 ventilators were selected for our NICU because they give us all of the modes that we need, the price met our budget needs, and we liked the ease of use, the battery life of the ventilator, and the ability to use them for transport to and from procedures.

Robert Lopez, Director of Respiratory Care
University Medical Center, Lubbock (TX), USA



The Ventilation Cockpit

1 Main monitoring parameters

All of the main monitoring parameters and alarm limits at a glance. The large characters allow you to see them even from a distance.

2 Dynamic Lung

One quick look shows you tidal volume, lung compliance, patient triggering, and resistance in real-time. The lungs expand and contract in synchrony with the actual breaths.

3 Vent Status

The Vent Status panel displays six parameters related to the patient's dependence on the ventilator. When all values are in the weaning zone, the panel is framed in green, indicating that spontaneous breathing trials or extubation can be considered.

4 Direct access to main controls

Access and adjust the most important controls for the current mode directly on the main display.



Individualized, lung-protective ventilation

The features available on the HAMILTON-C3 help you to individualize your patient's ventilation and to implement a lung-protective ventilation strategy.

Adaptive, lung-protective ventilation with ASV

- ✓ Supports the earliest possible spontaneous breathing by the patient^{1, 2}
- ✓ Shortens the ventilation time in various patient groups^{1, 2}

Your bedside assistant INTELLiVENT-ASV

- ✓ Requires fewer manual adjustments than conventional ventilation, consequently reducing the workload for the healthcare team³
- ✓ Follows the latest recommendations for lung-protective ventilation in terms of tidal volumes, driving pressure, and mechanical power^{4, 5, 6}

Lung assessment and recruitment with the PV Tool Pro

- ✓ Hysteresis of the pressure/volume curve can be used for assessing the recruitability of the lung at the bedside⁷
- ✓ May reduce the need for assessing recruitability with a CT scan, when using the PV loop in early on-set ARDS⁸

¹ Kirakli C. *Eur Respir J.* 2011 Oct;38(4):774-80

² Chen CW. *Respir Care.* 2011 Jul;56(7):976-83

³ Bialais, E., et al., *Minerva Anesthesiol.* 2016. 82(6): p. 657-68

⁴ Arnal JM. *Intensive Care Med Exp* 2016, 4(Suppl 1):A602

⁵ Arnal, J.-M., M. Saoli, and A. Garnero, *Heart & Lung: The Journal of Cardiopulmonary and Acute Care.* 2019 Nov

⁶ Buiteman-Kruizinga LA. *Crit Care Explor.* 2021 Feb 15;3(2):e0335

⁷ Demory D. *Intensive Care Med.* 2008 Nov;34(11):2019-25

⁸ Chiumello D. *Crit Care Med.* 2020 Oct;48(10):1494-1502



Adaptive Support Ventilation (ASV)

adjusts respiratory rate, tidal volume, and inspiratory pressure continuously, depending on the patient's lung mechanics and effort. ASV adapts ventilation breath-by-breath, 24 hours a day, and from intubation to extubation.



INTELLiVENT-ASV, your bedside assistant

is an advanced ventilation mode based on ASV. The clinician defines the clinical goal for PetCO₂ and SpO₂. INTELLiVENT-ASV then adjusts CO₂ elimination and oxygenation, and keeps the patient within the predefined ranges. Quick Wean supports the clinician in weaning patients from mechanical ventilation.



P/V Tool Pro for lung assessment and recruitment

helps you assess recruitability and set PEEP based on respiratory mechanics. It also provides a repeatable method for quickly performing recruitment maneuvers.

Features and options



State-of-the-art ventilation modes



Serial interface for connection to PDMS or patient monitors



Integrated high flow oxygen therapy



On-screen help for alarm troubleshooting



Integrated pneumatic and optional Aerogen nebulizer



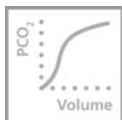
High-performance noninvasive ventilation (NIV)



Pulse oximetry (SpO₂ and pulse measurement)



Adult, pediatric, and neonatal ventilation



Mainstream (volumetric) and sidestream capnography



High-performance turbine

From the ventilation specialist

E-learning

Hamilton Medical College provides free and open e-learning on mechanical ventilation and ventilators.

Join at: www.hamilton-medical.com/elearning.

Universal ventilator consumables

Our accessories and consumables are specially developed for the highest possible patient safety and ease of use. Choose between reusable and disposable parts according to your institutional policies.

Peripheral devices

Our ventilation portfolio includes an active humidifier, the HAMILTON-H900, as well as the automatic cuff pressure controller, IntelliCuff. Both devices may be used with all kinds of mechanical ventilators.





More information and free simulation software:
www.hamilton-C3.com



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