



HAMILTON-C6

The next generation of intelligent ICU ventilators

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".

Jens Hallek
CEO
Hamilton Medical AG

A handwritten signature in blue ink that reads "Bob Hamilton".

Bob Hamilton
CEO
Hamilton Medical, Inc.

Meet the HAMILTON-C6

The HAMILTON-C6 represents a new generation of high-end ventilators. The combination of modularity, ease of use, mobility, and advanced features allows you to individualize your patient's ventilation therapy:

- ✓ State-of-the-art ventilation modes for adult, pediatric, and neonatal patients
- ✓ Adaptive, lung-protective ventilation modes ASV[®] and INTELLiVENT[®]-ASV
- ✓ IntelliSync+ real-time patient synchronization
- ✓ High-performance noninvasive ventilation
- ✓ High flow oxygen therapy
- ✓ P/V Tool[®] Pro for lung assessment and recruitment
- ✓ Transpulmonary pressure measurement
- ✓ Integrated IntelliCuff[®] pressure controller
- ✓ Remote access to humidifier controls and status



Slender, flexible, convenient

Flexible device configuration

The HAMILTON-C6 adapts to your individual user environment. Mount it on a trolley, with the interaction panel on top or in front, or use the shelf-mounted version with the interaction panel on the side or mounted on the pendant system.

For intrahospital transport

Thanks to the slender frame, an integrated O2 cylinder carrier, and the high-performance turbine, the HAMILTON-C6 can stay at your patient's side for intrahospital transports.

Ergonomic maneuverability

With a compact footprint and high-quality trolley wheels the HAMILTON-C6 is designed for easy handling and maneuverability.





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-C6 and all other Hamilton Medical ventilators is easy because they are all operated according to the same principles.

The Ventilation Cockpit on the HAMILTON-C6 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.

“

The Hamilton operating platform actually made my job as an educator and a clinical specialist a lot easier. Because once we learn one platform it transfers over to all of the other platforms. To the MRI ventilators, to the transport ventilators, to the neonatal side, in the EC and ICU, it all transfers over.

Craig Jolly, Adult Clinical Education Coordinator
University Medical Center, Lubbock (TX), USA



The Ventilation Cockpit

1 Main monitoring parameters

All of the main monitoring parameters 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, resistance in real-time, cuff pressure, and pulse. 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 ventilator dependence. 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

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

Synchronization based on waveform analysis with IntelliSync+

- ✓ Waveform analysis is a reliable, accurate, and reproducible method for assessing patient-ventilator interaction⁹
- ✓ In terms of cycling, IntelliSync+ performs at least as well as ETS optimized by clinicians¹⁰

Automatic cuff pressure control with IntelliCuff

- ✓ Continuous cuff pressure control can decrease microaspiration and VAP^{11, 12}

Transpulmonary pressure measurement

- ✓ PEEP set based on transpulmonary pressure can improve compliance and oxygenation in ARDS patients¹³
- ✓ Transpulmonary pressure measurement can avoid the use of ECMO in the most severe patients¹⁴

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

⁹ Mojoli F. *Intensive Care Med Exp* 2016, 4(Suppl 1):A1168

¹⁰ Mojoli F. *Intensive Care Med Exp* 2016, 4(Suppl 1):A1164

¹¹ Lorente L. *Critical Care*. 2014;18(2):R77

¹² Nseir S. *American Journal of Respiratory and Critical Care Medicine*. 2011;184(9):1041-1047

¹³ Talmor D. *N Engl J Med*. 2008 Nov 13;359(20):2095-104

¹⁴ Grasso S. *Intensive Care Med*. 2012 Mar;38(3):395-403



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.



IntelliSync+ keeps an eye on patient-ventilator synchrony

by continuously analyzing waveform shapes hundreds of times per second. This allows IntelliSync+ to detect patient efforts and cycling immediately, and initiate inspiration and expiration in real time. IntelliSync+ applies to invasive and noninvasive ventilation, regardless of the ventilation mode.



IntelliCuff pressure controller

continuously measures and automatically maintains the user-set cuff pressure of an endotracheal or tracheostomy tube in real time.



Transpulmonary pressure measurement

allows optimization of PEEP, tidal volume, and inspiratory pressure. Use it in combination with the P/V Tool Pro to assess lung recruitability more precisely and perform recruitment maneuvers.

Features and options



State-of-the-art ventilation modes



Adult, pediatric, and neonatal ventilation



Integrated high flow oxygen therapy



High-performance turbine with lifelong warranty



Integrated pneumatic and optional Aerogen nebulizer



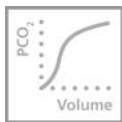
Integrated control for IntelliCuff pressure controller



Pulse oximetry (SpO₂ and pulse measurement)



Remote access to HAMILTON-H900 controls and status



Mainstream (volumetric) and sidestream capnography



Serial interface for connection to PDMS or patient monitors



Continuous monitoring of driving pressure



On-screen help for alarm troubleshooting

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-C6.com



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