HAMILTON-C3

The compact high-end ventilator
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.

Jens Hallek
CEO Hamilton Medical AG

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 “Ventilation Autopilot” 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
- PAV 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.

“This compact all-rounder is easy to use and reliable, and has a user-friendly interface. With the INTELLiVENT-ASV option, the HAMILTON-C3 belongs to the top class of ventilators.”

Matthias Parthe, Head of ICU Training and Education
Triemli Hospital Zurich, Switzerland
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\(^1\), \(^2\)

Adaptive, lung-protective ventilation with INTELLiVENT-ASV
- Rated best among all evaluated modes in terms of capabilities relating to safety, comfort, and weaning\(^3\)
- Follows the current recommendations for lung-protective ventilation in terms of tidal volumes and driving pressure\(^4\)

Lung assessment and recruitment with the P/V Tool Pro
- Hysteresis of the pressure/volume curve can be used for assessing the recruitability of the lung at the bedside\(^5\)
- Has been shown to open the lung in the majority of patients with early ARDS\(^6\)

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\(^1\) Kirakli C. Eur Respir J. 2011 Oct;38(4):774-80
\(^2\) Chen CW. Respir Care. 2011 Jul;56(7):976-83
\(^6\) Borges JB. Am J Respir Crit Care Med. 2006 Aug 1;174(3):268-78
Adaptive Support Ventilation (ASV) adjusts respiratory rate, tidal volume, and inspiratory time 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.

Automated ventilation with INTELLiVENT-ASV continuously controls the ventilation and oxygenation of the patient. It sets the minute ventilation, PEEP, and Oxygen based on the targets set by the clinician, and on physiological input from the patient. INTELLiVENT-ASV also provides tools to promote early, automated weaning (Quick Wean).

P/V Tool Pro for lung assessment and recruitment can be used to assess lung recruitability and determine the recruitment strategy to apply. The P/V Tool Pro can also be used to perform a sustained inflation recruitment maneuver and measure the increase in lung volume.
Features and options

- State-of-the-art ventilation modes
- Integrated high flow oxygen therapy
- Integrated pneumatic and optional Aerogen nebulizer
- Pulse oximetry (SpO2 and pulse measurement)
- Mainstream (volumetric) and sidestream capnography
- Serial interface for connection to electronic patient data records and patient monitors
- On-screen help for alarm troubleshooting
- High-performance noninvasive ventilation (NIV)
- Adult, pediatric, and neonatal ventilation
- 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: college.hamilton-medical.com.

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.