



# HAMILTON-C6

The next generation of intelligent ICU ventilators



**HAMILTON**  
**MEDICAL**  
Intelligent Ventilation since 1983



## We live for ventilation technology

We live for ventilation 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 keeping patient safety and ease of use in focus.

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, reading "Jens Hallek".

Jens Hallek  
President

A handwritten signature in black ink, reading "Bob Hamilton".

Bob Hamilton  
Member of the board



## 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
- ✓ Integrated HAMILTON-H900 humidifier control



## 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. They give a quick overview of the patient's current ventilation status and provide a reliable basis for therapy decisions.

The 17-inch, high-resolution monitor with capacitive touch screen was designed for smooth and fast operation.

“

In my experience the Dynamic Lung is very helpful, because not everybody can always understand the numbers, especially inexperienced therapists. They cannot always understand the data, but they can understand the picture.

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

The features available on the HAMILTON-C6 help you 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<sup>1,2</sup>
- ✓ Shortens the ventilation time in various patient groups<sup>1,2</sup>

### Adaptive, lung-protective ventilation with INTELLiVENT-ASV

- ✓ Rated best among all evaluated modes in terms of capabilities relating to safety, comfort, and weaning<sup>3</sup>
- ✓ Follows the current recommendations for lung-protective ventilation in terms of tidal volumes and driving pressure<sup>4</sup>

### 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<sup>5</sup>
- ✓ Has been shown to open the lung in the majority of patients with early ARDS<sup>6</sup>

### Synchronization based on waveform analysis with IntelliSync+

- ✓ Waveform analysis is a reliable, accurate, and reproducible method for assessing patient-ventilator interaction<sup>7</sup>
- ✓ In terms of cycling, IntelliSync+ performs at least as well as ETS optimized by clinicians<sup>8</sup>

### Automatic cuff pressure control with IntelliCuff

- ✓ Continuous cuff pressure control can decrease microaspiration and VAP<sup>9,10</sup>

### Transpulmonary pressure measurement

- ✓ PEEP set based on transpulmonary pressure can improve compliance and oxygenation in ARDS patients<sup>11</sup>
- ✓ Transpulmonary pressure measurement can avoid the use of ECMO in the most severe patients<sup>12</sup>

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### Adaptive Support Ventilation (ASV)

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



### 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

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 cuff 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 P/V Tool Pro to assess lung recruitability more precisely and perform recruitment maneuvers.

## Features and options



State-of-the-art ventilation modes



High-performance turbine  
with lifelong warranty



High flow oxygen therapy



Integrated control for IntelliCuff  
pressure controller



Integrated pneumatic nebulizer,  
optional Aerogen® nebulizer



Integrated control for  
HAMILTON-H900 humidifier



Pulse oximetry  
(SpO<sub>2</sub> and pulse measurement)



Serial interface for connection to  
electronic patient data records, and  
patient monitors



Mainstream (volumetric) and  
sidestream capnography



On-screen help for alarm  
troubleshooting



Continuous monitoring of driving  
pressure

## 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](http://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.





More information and free software simulation:  
[www.hamilton-C6.com](http://www.hamilton-C6.com)



**HAMILTON**  
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Intelligent Ventilation since 1983

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