



HAMILTON-C1

Intelligent Ventilation for long term acute care

The HAMILTON-C1 is a versatile and feature-rich* ventilator in a compact size. It is designed to combine flexibility, ease of use, and maximum mobility with high performance. This makes it an ideal companion for your long term ventilated patients at the bedside and during intrahospital transport.

- ✓ Small and lightweight
- ✓ All state-of-the-art ventilation modes, including ASV®, noninvasive ventilation, and integrated high flow oxygen therapy
- ✓ High-performance turbine with peak flows of up to 260 l/min
- ✓ Speak Valve option

*Not all features are available in all markets

HAMILTON
MEDICAL

Versatile and specific to LTAC needs

The HAMILTON-C1 is a versatile mechanical ventilator that offers solutions specific to the needs of patients requiring long term respiratory support.



Speak Valve

- ✓ The optional Speak Valve feature enables the use of conventional speaking valves, such as the Passy Muir PMV 007, in pressure-controlled modes (PCV+, SPONT, PSIMV+)
- ✓ It gives tracheostomized patients a voice and allows them to swallow even while receiving respiratory support from the ventilator
- ✓ Monitoring, triggering, and alarm management have been adjusted accordingly



High flow oxygen therapy

- ✓ With the HAMILTON-C1, you can switch between invasive or noninvasive ventilation and high flow oxygen therapy using the same device and breathing circuit
- ✓ A range of dedicated consumables is available, including nasal cannulas, tracheostomy interfaces, and single or double limb breathing circuit sets
- ✓ The HAMILTON-C1 is compatible with active humidification (HAMILTON-H900), which can be controlled directly from the ventilator
- ✓ It offers constant flow rates, which can be adjusted in intervals of 0.5 liters for flows of up to 12 l/min and 1 liter for flows higher than 12 l/min
- ✓ Drugs can be administered using the integrated pneumatic or the optional Aerogen nebulizer

Integrated tools and modes to support weaning

The HAMILTON-C1 offers integrated tools to help you implement the recommendations of the American Thoracic Society and the American College of Chest Physicians for liberating critically ill adult patients from mechanical ventilation^{1,2,3}.

Vent Status

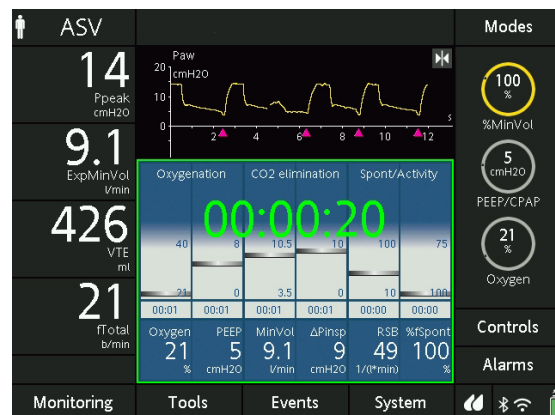
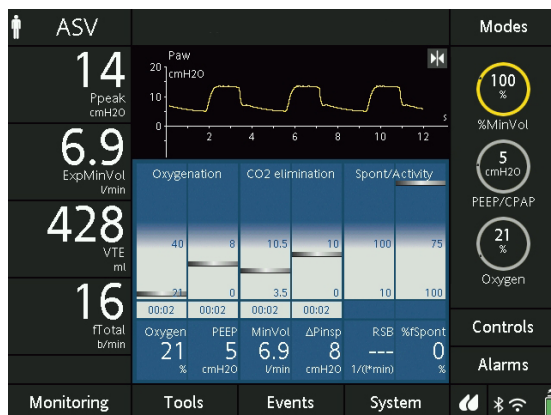
The Vent Status panel shows you the readiness-to-wean criteria and indicates when an SBT may be considered. It displays six parameters related to the patient's oxygenation, CO₂ elimination, and spontaneous activity. When all values are in the intended zone, the Vent Status panel is framed in green and displays a timer, indicating that spontaneous breathing trials may be considered. You can define the weaning zone ranges according to the weaning protocol of your institution.

Adaptive Support Ventilation® (ASV) mode

ASV is an intelligent ventilation mode that continuously adjusts respiratory rate, tidal volume, and inspiratory pressure depending on the patient's lung mechanics and effort. ASV employs a lung-protective strategy and encourages the patient to breathe spontaneously within the rules of this strategy.

In ASV mode, the ventilator transitions from pressure-control to pressure-support mode when the patient triggers a breath, and gradually decreases pressure support. ASV is also suitable for spontaneous breathing trials (SBTs), which are among the most commonly used techniques to facilitate weaning from mechanical ventilation. Clinical studies show that ASV shortens the duration of weaning without increasing the number of interventions by the clinician^{4,5,6,7,8}.

1 Schmidt GA, Girard TD, Kress JP, Morris PE, Ouellette DR, Alhazzani W, et al. Am J Respir Crit Care Med 2017;195(1):115-119 | 2 Girard TD, Alhazzani W, Kress JP, Ouellette DR, Schmidt GA, Truitt JD, et al. Am J Respir Crit Care Med 2017;195(1):120-133 | 3 Ouellette DR, Patel S, Girard TD, Morris PE, Schmidt GA, Truitt JD, et al. Chest 2017;151(1):166-180 | 4 Campbell RS, Branson RD, Johannigman JA. Respir Care Clin N Am. 2001 Sep;7(3):425-40 | 5 Celli P, Privato E, Ianni S, Babetto C, D'Arena C, Guglielmo N, Maldarelli F, Pagliarunga G, Rossi M, Berloco PB, Ruberto F, Pugliese F. Transplant Proc. 2014 Aug 20 [Epub ahead of print] | 6 Kirakli C, Naz I, Ediboglu O, Tatar D, Budak A, Tellioglu E. Chest. 2015 Jun;147(6):1503-9. | 7 Kirakli C, Ozdemir I, Ucar ZZ, Cimen P, Kepil S, Ozkan SA. Eur Respir J. 2011 Oct;38(4):774-80 | 8 Tam MK, Wong WT, Gomersall CD, Tian Q, Ng SK, Leung CC, Underwood MJ. J Crit Care. 2016 Jun;33:163-8



The all-in-one solution

The HAMILTON-C1 can eliminate the need to use multiple ventilators for patients needing long term respiratory support. You can use this compact ventilator:

For a range of ventilation therapies

- ✓ Different modes and therapies in one device (state-of-the-art and advanced ventilation modes, including ASV, noninvasive ventilation, and high flow oxygen therapy)

For intrahospital transport

- ✓ Portable, thanks to the small and lightweight design, making it suitable for mobilization
- ✓ Integrated high-capacity battery, allowing you to ventilate your patients without an external power source

For extensive patient monitoring

- ✓ Dynamic Lung: real-time visualization of the lungs showing tidal volume, respiratory system compliance and resistance
- ✓ Vent Status panel: visual representation of readiness to wean criteria
- ✓ Display of up to three waveforms at the same time
- ✓ Trends for up to 72 hours
- ✓ Mainstream or sidestream capnography
- ✓ Pulse oximetry



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We use the HAMILTON-C1 in our long term acute care population. ASV decreases the time needed to wean. And the mobility of the ventilator allows us to get our patients out of bed and started down the rehab path sooner.

Heather Kelley, RRT, Manager Respiratory Care Department
Houston Methodist St. Catherine Hospital, Houston (TX), USA

For efficiency and patient safety

- ✓ ASV, which applies lung-protective ventilation breath-by-breath, 24 hours a day, from intubation to extubation
- ✓ Automatic leak and trigger compensation
- ✓ Active humidification with automatic adjustment of humidifier settings according to the mode selected
- ✓ Integrated pneumatic nebulizer
- ✓ Aerogen nebulizer
- ✓ Speak Valve option that generates an alarm if the airway is blocked by the inflated cuff*

For ease of use

- ✓ Independent from compressed air due to the high-performance turbine
- ✓ One device for all applications, using the same breathing circuit
- ✓ User interface designed to be intuitive
- ✓ PDMS/EHR or Nurse call function
- ✓ 360°-visible alarm lamp
- ✓ Control of the HAMILTON-H900 humidifier directly from the ventilator user interface, increasing visibility and comfort for the clinician
- ✓ Wireless connectivity with the Hamilton Connect Module
- ✓ Comfortable reviewing of waveforms and parameters with the Hamilton Connect App for smartphones
- ✓ Free e-learning platform to help users develop a better understanding of the ventilator

*Always use a deflated cuff or a fenestrated tracheostomy tube when using a speak valve



Digital solutions for respiratory care

We aim to support our customers and provide value for them throughout the entire ventilation workflow. The new Hamilton Connect Module and the associated Hamilton Connect App are the first steps in realizing this vision. They offer a simple solution to facilitate and streamline your daily ventilation workflow.

Hamilton Connect Module

The Hamilton Connect Module integrated in the ventilator provides the HAMILTON-C1 with the capability of secure communication with patient data management systems, monitoring systems, and the Hamilton Connect App.

Hamilton Connect App

Hamilton Connect App connects your mobile device to your Hamilton Medical ventilator and allows you to access selected ventilation data.



For more information: www.hamilton-medical.com/LTACH



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The Hamilton Connect App is not intended to replace the real-time display of data on the ventilator. DO NOT USE the app to supplement or replace any part of the hospital's device monitoring. Specifications are subject to change without notice. Some features are options. Not all features are available in all markets. INTELLIVENT-ASV is not available in the US. For all proprietary trademarks and third-party trademarks used by Hamilton Medical AG see www.hamilton-medical.com/trademarks. ©2021 Hamilton Medical AG. All rights reserved.