



# HAMILTON-T1

## Intelligent transport ventilation for armed forces

The HAMILTON-T1 combines for the first time the functionality of a fully featured intensive care unit ventilator with the compactness and ruggedness required for tough conditions. This helps you provide your patients with the optimal ventilation support during transport, even in challenging environments.

- ✓ Performance of a fully featured ICU ventilator
- ✓ For use in helicopters, airplanes, ambulances, hospital ships, combat support hospitals, and battalion aid stations
- ✓ Advanced ventilation modes, including automated ventilation using ASV®
- ✓ Noninvasive ventilation and integrated high flow oxygen therapy\*
- ✓ Independence from compressed air
- ✓ Over 9 hours of battery operating time

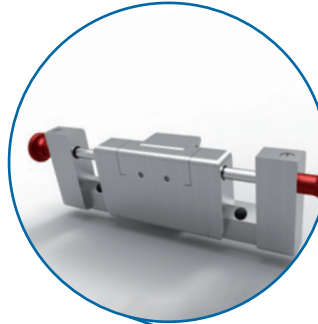
\* Optional - not available in all markets



# A reliable companion in the field

## Adapts to your needs

Various system integration options allow you to tailor the HAMILTON-T1 to your needs and infrastructure.



## Independent from compressed air and high-pressure oxygen

The integrated high-performance turbine and the low-pressure oxygen inlet enable the HAMILTON-T1 to be completely independent from compressed air or high-pressure oxygen. This reduces weight, saves space, and enables you to use the HAMILTON-T1 with oxygen concentrators.

## More than 9 hours of battery operating time

Battery operating time of more than 9 hours is provided by one integrated and one hot-swappable battery. The battery operating time can be extended as required with the use of additional hot-swappable batteries.



# Optimized for armed forces



## Quick startup settings according to protocol

To comply with military standard operating procedures and clinical practice guidelines, standardized ventilator modes and settings can be stored in up to three quick startup settings. This function facilitates standardized ventilator care and simplifies ventilator management for non-expert medical personnel, and may therefore improve patient safety.



## Compatible with night vision goggles

Thanks to the night vision option, the HAMILTON-T1 can be used with night vision devices without significantly affecting the pilot's visibility.



## Usable with NBC filter

You can optionally order the HAMILTON-T1 with an NBC filter adapter. It provides a NATO standard thread, which is compliant with EN 148-1. With the adapter installed, you can attach a standard NBC filter canister.



## Flexible mounting options

The HAMILTON-T1 offers a wide range of different mounting options for hospital beds, poles, rails, and ceilings.



# For demanding environments

## Lightweight, compact and sturdy

The compact, lightweight design of the HAMILTON-T1 helps to promote easy handling of the ventilator. The water-resistant housing offers impact protection and a shock-resistant, anti-reflective display, making the HAMILTON-T1 a rugged and reliable companion.

## Use in the toughest conditions

The HAMILTON-T1 was designed to withstand demanding environmental conditions. It can operate in temperatures between  $-15^{\circ}\text{C}$  and  $+50^{\circ}\text{C}$ , tolerates humidity levels from 5% to 95%, can be used at altitudes of up to 25,000 ft, and withstands splashing water or pouring rain (IP24 ingress protection).

## For all types of transport

The HAMILTON-T1 meets the transport standards EN 794-3 and ISO 10651-3 for emergency and transport ventilators, EN 1789 for ambulances, and EN 13718-1 as well as RTCA/DO-160G for aircraft. It reliably accompanies your patients to any destination either within or outside of the hospital, on the ground, at sea, and in the air.



The HAMILTON-T1 can be used for altitudes of up to 25,000 ft (7,620 m).



The HAMILTON-T1 can operate in temperatures between  $5^{\circ}\text{F}$  ( $-15^{\circ}\text{C}$ ) and  $122^{\circ}\text{F}$  ( $+50^{\circ}\text{C}$ ).

# Easy to handle, simple to use

## Enhanced patient comfort and safety

The HAMILTON-T1 features the intelligent ventilation mode ASV (Adaptive Support Ventilation). ASV monitors the patient's lung mechanics and activity on a breath-by-breath basis and automatically adjusts ventilation, from intubation to extubation. Since 1998, ASV has been well established in intensive care units as a mode applicable for up to 98% of ICU patients, and has been shown to improve patient/ventilator synchrony.<sup>1), 2)</sup>

## Intuitive operation

The intuitive user interface of the HAMILTON-T1 allows easy operation and direct access to important settings. Even inexperienced medical personnel can quickly learn how to operate the ventilator.

## Optimal use of human resources

The HAMILTON-T1, together with ASV, can reduce the time needed to configure standard settings and alarm management while maintaining ventilation quality.<sup>1), 3)</sup> This frees up time for other aspects of patient care. Thanks to the ease of operation and the free e-learning offerings from Hamilton Medical, the demand for education and training is also reduced.



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ASV has been very successfully used in clinical practice. Our crews who use ASV on a daily basis are very excited and report that the ventilator can be almost completely relied upon to do the job and the patient can be set up without rushing.

Dr. Olivier Seiler, Deputy Medical Director until 2014  
Rega Air Ambulance, Zurich, Switzerland

2 Sulzer CF. Anesthesiology. 2001 Dec;95(6):1339-45. 3 Peter AH. Anesth Analg. 2003 Dec;97(6):1743-50.

1 Iotti GA. Intensive Care Med. 2010 Aug;36(8):1371-9.

# To make your life easier



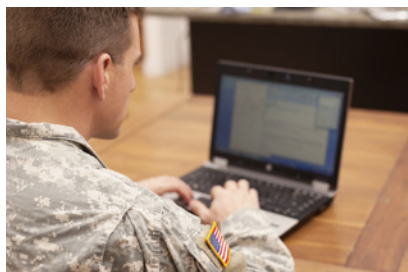
## Convenient transport and storage solutions

The standardized transport and storage case for the HAMILTON-T1 is light in weight, but robust and watertight to protect the ventilator even in harsh environments.



## Easy procurement

The HAMILTON-T1 has been recognized by NATO countries as a standardized material item of supply (NATO Stock Number: 6515-33-211-4889). In the United States, the HAMILTON-T1 can also be ordered through the ECAT catalog.



## Advanced online user training

E-learning is an ideal solution for training a large number of users independent of time and place. Hamilton Medical's free e-learning platform offers a HAMILTON-T1-specific module with the option to get certified. All you need is internet access and a computer or tablet PC.



## Flexible maintenance and support

The HAMILTON-T1 is field-upgradable to offer access to the latest ventilation technology and product enhancements even in remote locations. In safety critical areas, your technical staff can be trained to complete maintenance and repairs themselves.