

A fully featured ventilator created especially for armed forces

Interview with Silvan Schibler, Product Manager for the HAMILTON-T1, a ventilator created especially for armed forces



Silvan Schibler, Product Manager for the HAMILTON-T1 ventilator at Hamilton Medical AG, Switzerland

In his new role as Product Manager at Hamilton Medical, Silvan Schibler can draw on some 18 years of experience in emergency medical services. For much of his career, Schibler has worked in ground-based civilian emergency services and also served as a Helicopter Emergency Medical Services Technical Crew Member (HEMS) on the Alpine Air Ambulance's rescue helicopter, Lions 1. In addition, he served as an emergency medical technician with KFOR SWISSCOY (Swiss Army contingent) in two peacekeeping missions in Kosovo, where he gained valuable insights into emergency medicine in a military setting. Schibler is also licensed as a professional helicopter pilot.

At the start of 2023, Silvan Schibler embarked on a new phase in his career as the Product Manager for the HAMILTON-T1 ventilator at Hamilton Medical. EMMS spoke with Silvan Schibler about what prompted the transition and what sets the HAMILTON-T1 apart.

You can look back on a very interesting and exciting career in the field of emergency medicine, and are familiar with both civilian and military settings. Why did you decide to make the transition to the industry?

Emergency services is a fantastic profession, but in my view, it's very challenging to age gracefully in this line of work. It's both psychologically and physically demanding, which makes it difficult to keep performing at peak levels.

After 18 years in emergency services, I'd become completely used to unusual situations. They had become routine and I wanted to break away from that. Even though a job in emergency services can never really become mundane because of its unpredictable nature, I was ready for a new challenge. I wanted to step outside of my comfort zone and find a new perspective.

Not only that, I wanted to broaden my horizons too. After so many years in emergency services, one becomes a specialist in the very

narrow field of emergency medicine. While it encompasses everything from obstetrics to resuscitation across all patient spectrums, I was only a small part of the entire medical landscape. I wanted to give myself more options for the future by taking on new responsibilities outside the domain of emergency medicine.

Why did you choose Hamilton Medical?

Hamilton Medical is a highly regarded tech company with an excellent product portfolio. It has strong innovation capabilities and some very exciting projects. It's a company that doesn't stand still and is open to change – it's always ready to explore new product areas and markets.

I was also looking for an international company with employees from different countries, where I could have contact with customers and colleagues from all over the world - that was extremely important to me.

In your role as Product Manager, you're responsible for the HAMILTON-T1 ventilator. Could you tell us what distinguishes this device from others, especially for use in military emergency medicine?

There are many different features that set the HAMILTON-T1 apart. The HAMILTON-T1 is the first device to combine the functionality of a fully featured intensive care unit ventilator with the compactness and ruggedness needed for tough conditions. This means you can offer your patients high-end ventilation support even in challenging environments, whether it's during patient transport in a helicopter, an airplane, or an ambulance, or for stationary care on a hospital ship, in a field hospital, or at a battalion aid station. Basically, in all those places where the armed forces operate.

The HAMILTON-T1 is extremely robust. The water-resistant housing offers impact protection and the anti-reflective display is shock-resistant as well. You can use it at altitudes of up to 25,000 ft*, in temperatures ranging from -15°C up to +50°C* and humidity levels from 5% right up to 95%.



HEMS Technical Crew Member on the Alpine Air Ambulance's rescue helicopter, Lions 1



At work as a paramedic

One integrated and one hot-swappable battery give you a total battery operating time of up to 8 hours, which means the HAMILTON-T1 can be operated independently from the power grid. What's more, the integrated high-performance turbine and the low-pressure oxygen inlet mean it is completely independent from high-pressure oxygen as well. This reduces weight and saves space, and lets you use the HAMILTON-T1 with oxygen concentrators.

Two features that are particularly useful for the military environment are the night vision option that reduces light emissions during night flights, and the optional adapter for attaching a standard NATO NBC filter canister.

What are the advantages of the HAMILTON-T1 in terms of ventilating patients?

You can provide all kinds of ventilation at a very high level. This includes invasive and noninvasive ventilation, as well as high flow oxygen therapy.

On this point, I should make special mention of our intelligent ventilation modes ASV® und INTELLiVENT®-ASV®**.

These two modes adapt ventilation breath-by-breath, and continuously adjust the respiratory rate, tidal volume, and inspiratory pressure depending on the patient's lung mechanics and effort. In an emergency situation or during evacuation of severely injured patients, these two modes act like a bedside assistant and can help take some of the pressure off the medical crews.

What can military rescue units expect in general from Hamilton Medical?

We are very customer-oriented and take our customers' feedback seriously. My central role as a Product Manager is to be the voice of the customer within the company. If our customers have any concerns or needs, we have multiple points of contact, including Technical Support, Sales, or myself as the Product Manager. Whether it's a device-specific issue, technical assistance, or training needs, our customers can expect to receive the best-possible support.

The HAMILTON-T1 is field-upgradable so you always have 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.

We have a free e-Learning platform for prospective and existing customers, where we provide in-depth training for various levels of difficulty, from basic through to highly challenging advanced e-Learning modules. A certificate is awarded if you complete the module successfully. We can also hold customized training sessions at the customer's location on request.

This year, we introduced the VenTrainer App, which represents a very handy new form of training. It simulates all our turbine-driven ventilators in 3D, with a fully functional user interface, real-time monitoring values, and a realistic physiologic patient model that has adjustable conditions for ARDS and normal lungs.



During a peacekeeping mission in Kosovo with KFOR SWISSCOY (source for all images: Hamilton Medical AG)

You probably know of the Combat Medical Care Conference. It's an international symposium on tactical casualty care in military and police operations, designed for tactical medical personnel, rescue specialists, nurses, and physicians. How would you rate this event in terms of professional exchange on-site and the participation in such symposiums in general?

The most recent conference was very exciting. We were able to expand our network and talk very closely to the customers. We had a lot of interesting conversations, where we learned more about their needs and were able to get valuable feedback about our devices. The event was also incredibly useful for identifying certain trends and gaining insights into the future of military tactical medicine.

Thank you for the interview!

* Does not apply to pediatric and neonatal patients

** Not available in all markets