



HAMILTON-C1

Noninvasive ventilation for every environment

The HAMILTON-C1 is your ideal solution for noninvasive ventilation of all patient groups in emergency wards, recovery rooms, as well as in intensive care units. When intubation is required, the HAMILTON-C1 provides all of the features of an ICU ventilator. In addition, the HAMILTON-C1 is easy to handle due to its small size, touch screen, the integrated turbine, and the built-in oxygen monitoring. By providing a variety of monitoring options, clinicians are always informed about the patient's status.

- For adults, pediatrics, and neonates
- Noninvasive and invasive ventilation
- Small and lightweight
- Built-in oxygen monitoring
- SpO₂ monitoring
- Variety of monitoring options



High-performance noninvasive ventilation

Intelligent leak compensation with IntelliTrig

The IntelliTrig function automatically adjusts the inspiratory and expiratory trigger sensitivity to potential leaks and ensures optimal synchronization with the patient's breathing pattern. This is achieved both with invasively and noninvasively ventilated patients. Due to a high peak-flow rate of up to 260 l/min and the IntelliTrig function, the HAMILTON-C1 can compensate inspiratory leaks with 85 l/min and expiratory leaks with 30 l/min.

With adjustable inspiratory and expiratory trigger parameters, you can further tailor ventilation to the individual needs of the patient. For example, with COPD patients, you can adjust the expiratory trigger sensitivity to shorten or prolong inspiration and expiration to better match the patient's natural timing.

Various noninvasive modes for adults and neonates

The NIV mode delivers spontaneous breaths and operator-initiated manual or mandatory breaths. The patient's spontaneous breathing efforts can be supported with the set pressure support. When pressure support is set to zero, the ventilator functions like a conventional CPAP system. In the NIV-ST (spontaneous/timed noninvasive ventilation) mode, the ventilator immediately delivers a spontaneous breath if the patient triggers during the breath interval. If the patient does not trigger an inspiration during the breath interval, the ventilator initiates a mandatory breath.

For the smallest patients, the HAMILTON-C1 is equipped with two nCPAP modes, nCPAP and nCPAP-PC. The nCPAP mode is designed in such a way that you only set the desired CPAP pressure. The flow is subsequently adjusted automatically based on the patient's condition and potential leaks. The nCPAP-PC mode delivers, in addition to the set CPAP, intermittent, time-cycled, and pressure-controlled breaths. This results in a biphasic breathing pattern.



All-in-one solution for every need

One for all

The HAMILTON-C1 provides a tidal volume range of 20 – 2000 ml, or optionally 2 – 300 ml for neonates. This allows for the effective, safe, and lung-protective ventilation of all patient groups, from neonates to adults.

Full-featured ICU ventilator

According to a study from the Massachusetts General Hospital, situations often change significantly and noninvasive ventilation is no longer sufficient to support the patient. 36% of noninvasively ventilated patients need to be intubated.¹ With the HAMILTON-C1, you are prepared for such challenges. As the device is equipped with all standard ventilation modes including the intelligent mode Adaptive Support Ventilation (ASV), it fulfills the requirements of a complete ICU ventilator. When intubation is required, you can continue ventilation in just a few steps using the same ventilator and the same breathing circuit and flow sensor.

Small and compact for maximum mobility

The integrated high-performance turbine enables the HAMILTON-C1 to be completely independent from compressed air. This reduces weight and saves space as you need neither gas cylinders nor a compressor. With its compact design, small size, and a weight of 4.9 kg / 10.8 lb, the HAMILTON-C1 is easy to handle during intrahospital transports.

¹ Schettino G, Altobelli N, Kacmarek RM. Crit Care Med. 2008 Feb;36(2):441-7



User friendly high-tech companion



Product overview

- 1 360°-visible alarm lamp
- 2 Ventilation Cockpit
- 3 Push & turn control knob
- 4 Fold away handle
- 5 Patient interfaces & ports
- 6 Power supply and connectors



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