

nCPAP optimized for transport

nCPAP - Automatic adaptation, fewer interventions

Patient interventions during transport are not always possible. The HAMILTON-T1's nCPAP mode is designed in such a way that you only need to set the desired CPAP pressure. The flow is subsequently adjusted automatically based on the patient condition and variation in leakage, which prevents unintended peak pressures and guarantees highly efficient leak compensation. Flow adjustment occurs with a minimum of delay due to the highly sensitive, proximal pressure measurement.

Free breathing in each ventilation phase

In addition to the standard nCPAP mode, the HAMILTON-T1 also features the biphasic nCPAP-PC (pressure controlled) mode. This mode allows you to set two pressure levels as well as the rate and inspiratory time. The flow is also adjusted as needed in this mode. The modern pneumatic concept of the HAMILTON-T1 additionally enables the patient to breathe freely at any time on both pressure levels.



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The leak compensation function in the HAMILTON-T1 is outstanding and superior to normal intensive care ventilators. The synchronization of the patient is very good at all times, even if the leak is extensive.

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HAMILTON-T1

Intelligent transport ventilation for neonates

The HAMILTON-T1 is an intelligent transport ventilator that provides ventilation therapy for your smallest and most fragile patients during transport. Thanks to its unique properties, the HAMILTON-T1 performs during transport like a fully featured NICU ventilator at the bedside:

- ✓ Conventional and modern ventilation modes for neonates
- ✓ Noninvasive ventilation and integrated high flow oxygen therapy*
- ✓ Tidal volumes as low as 2 ml
- ✓ Optimal synchronization using proximal flow sensor
- ✓ Independence from gas cylinders or compressors due to the integrated high-performance turbine
- ✓ More than 9 hours of battery operating time without battery replacement

* Optional, not available in all markets

Optimized performance for neonates

Tidal volumes as low as 2 ml

With the neonatal option, the HAMILTON-T1 provides tidal volumes as low as 2 ml for effective, safe, and lung-protective ventilation even for the smallest patients.¹⁾ The proximal flow sensor specifically developed for neonates precisely measures the pressure, volume, and flow directly at the infant's airway opening, ensuring the required trigger sensitivity. This provides improved synchronization and less work of breathing.

Adaptive synchronization, even with uncuffed tubes

Leaks are one of the issues encountered in the ventilation of neonates as a result of using uncuffed tubes. The IntelliTrig leak compensation function automatically adjusts the inspiratory and expiratory trigger sensitivity to leaks. This enables adaptive synchronization with the neonate's breathing pattern.

Neonatal expiratory valve

To meet the stringent requirements with respect to the pressure accuracy at minimum volumes, Hamilton Medical has developed a special expiratory valve for neonatal ventilation. This valve can compensate for even the most minute pressure differences and enables the neonate to breathe spontaneously in each phase of a controlled breath cycle.

Integrated high flow oxygen therapy

The HAMILTON-T1 provides an optional high flow oxygen therapy mode*. With this enhancement, the HAMILTON-T1 gives you a variety of therapy options in one device, including invasive and noninvasive ventilation, and high flow oxygen therapy. In just a few steps, you can change the interface and use the same device and breathing circuit to accommodate your patient's needs.



*Optional - not available in all markets
1) Volume-targeted versus pressure-limited ventilation in the neonate (Review), 2011 Morley CJ

Unlimited mobility

Approved 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 anywhere within or outside of the hospital, on the ground, at sea and in the air.



Independent of compressed air

The integrated high-performance turbine enables the HAMILTON-T1 to operate independently of compressed air. This reduces weight and saves space, since you need neither gas cylinders nor a compressor. This allows even noninvasively ventilated patients to be transported successfully across greater distances.



More than 9 hours of battery operating time

A 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 additional hot-swappable batteries.



Lightweight, compact and sturdy

The compact design and light weight of the HAMILTON-T1 facilitate ventilator handling. The water-resistant housing offers impact protection and a shock-resistant, anti-reflective display. This makes the HAMILTON-T1 a sturdy and reliable companion.

