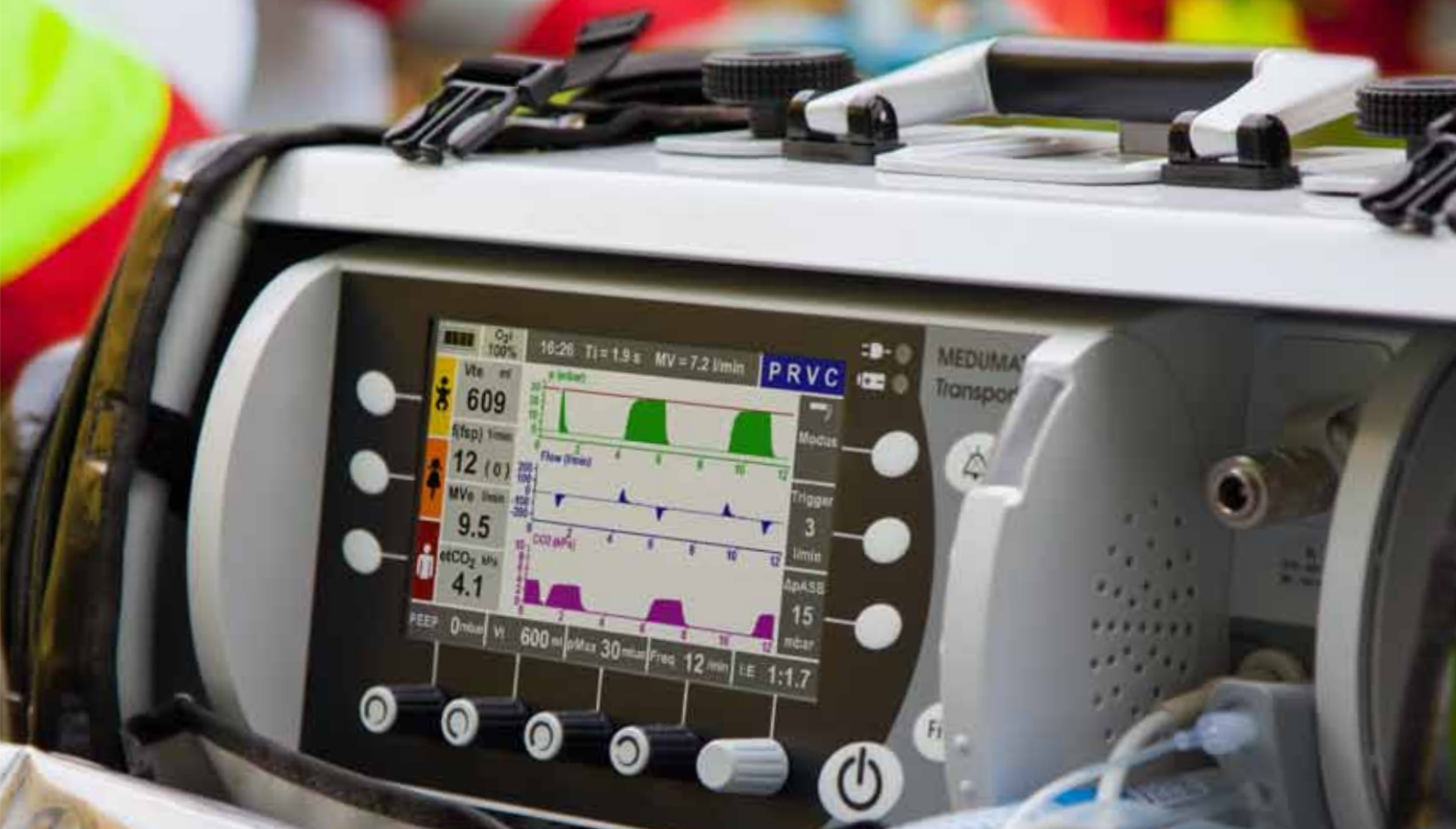


emergency



MEDUMAT Transport

High-End Ventilation in Any Situation



MEDUMAT Transport

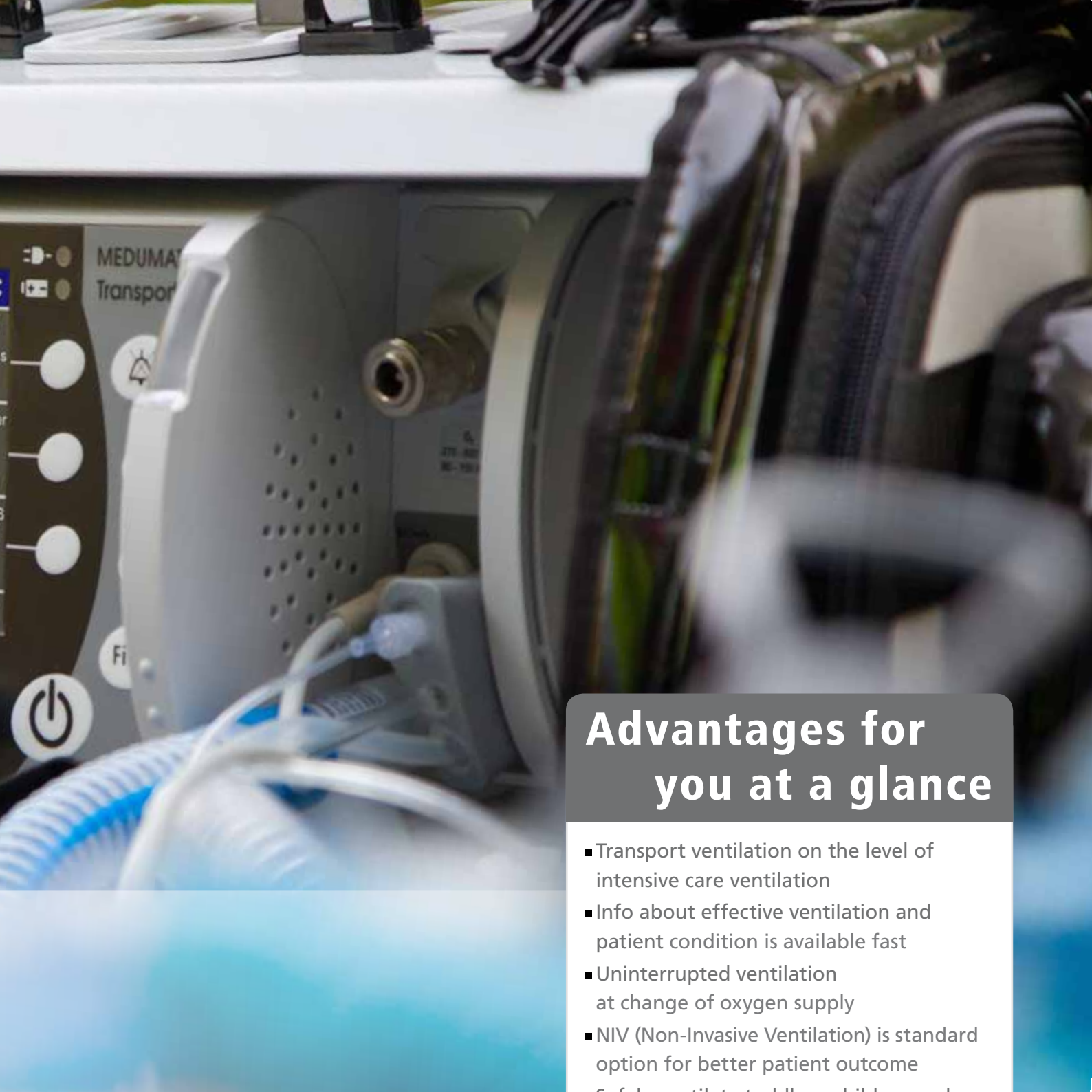
High-End Ventilation in Any Situation

MEDUMAT Transport was developed for the ventilation of patients in emergency situations and during intensive care transport. We worked in close cooperation with our customers and partners to ensure the best possible ventilation for every use.

In pre-hospital care or secondary transport, these days MEDUMAT Transport is put to work around the world. Day or night, on the street, in water and in the air, rescue personnel and health care professionals can rely on MEDUMAT Transport for state-of-the-art transport ventilation.

State-of-the-Art

MEDUMAT Transport combines modern ventilation modes used in intensive care with the simplicity and toughness of pre-hospital emergency medicine. This device gives you the best possible solution to all kinds of ventilation challenges – from the scene of an emergency to the hospital and for intra-hospital transfers and inter-hospital transport.



Advantages for you at a glance

- Transport ventilation on the level of intensive care ventilation
- Info about effective ventilation and patient condition is available fast
- Uninterrupted ventilation at change of oxygen supply
- NIV (Non-Invasive Ventilation) is standard option for better patient outcome
- Safely ventilate toddlers, children and adults with appropriate patient hose systems
- Clear warnings when patient condition is critical
- Great flexibility ensured by mobility options
- Ideal power management with removable battery system
- Highly economical, thanks to non-consumable oxygen sensor

Safe to use and easy to learn

MEDUMAT Transport offers safe and simple use of its extensive range of differentiated ventilation modes and options. The innovative patient group-specific settings simplify ventilation therapy for the user.

The emergency mode with one-touch activation guarantees safe usage for users who do not routinely administer acute care ventilation.



For Pros From Pros: **MEDUMAT Transport**

MEDUMAT Transport is used for pre-hospital care and secondary transport of emergency and intensive care patients. Thanks to a range of ventilation modes – pressure-controlled and volume-controlled – MEDUMAT Transport offers you a great deal of flexibility. NIV (Non-Invasive Ventilation) can be activated in all modes.

PRVC combines the benefits of pressure-controlled ventilation with the simplicity of volume-controlled ventilation.

MEDUMAT Transport also supports you with extensive ventilation monitoring options.

The right ventilation in any situation

- High-end ventilation with differentiated ventilation modes:
 - ▣ BiLevel ▣ PCV ▣ CPAP + ASB ▣ PRVC
 - ▣ IPPV ▣ S-IPPV ▣ SIMV
- Emergency mode can be activated immediately in any situation
- NIV optionally available in all ventilation modes
- Oxygen concentration can be set in levels between 40 and 100%



User-friendly operation

- Intuitive user navigation
- Emergency mode for proper ventilation right away: The press of a button calls up the pre-settings for toddler, child or adult patient
- All essential connections are accessible from front of device
- Two pressurized gas connections
- Simple change of battery and varied charging options
- User can switch from single use to multiple use patient hose systems in lengths of two or three meters or with reduced dead space
- Software-supported function check

Sophisticated monitoring

- Parallel presentation of up to three monitoring curves: airway pressure, flow and capnography plus display of additional monitoring parameters
- Expiratory monitoring close to patient, with precise BiCheck flow sensor system (flow and volume measurement)
- Capnography in simple and reliable side-stream processing (optionally available with MEDUMAT Transport with CO₂ measurement)
- Ideal presentation of all values in large color display



Simple and fast change of battery



Large, easy-to-read alarm lights



Unmistakable connections for ventilation hose system



All connections accessible from front of device

Background information

NIV: NIV (Non-Invasive Ventilation) for best possible patient outcome

Pressure-controlled ventilation

BiLevel: Time-controlled switch between two pressure levels (like BIPAP, Biphasic Positive Airway Pressure)

PCV: Pressure Controlled Ventilation

CPAP + ASB: Continuous Positive Airway Pressure + Assisted Spontaneous Breathing

PRVC: Pressure Regulated Volume Controlled

Ventilation

IPPV: Intermittent Positive Pressure Ventilation

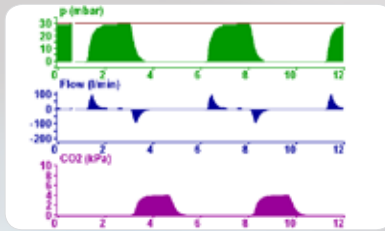
CPPV: Continuous Positive Pressure Ventilation (with pre-set PEEP)

S-IPPV: Synchronized Intermittent Positive Pressure Ventilation

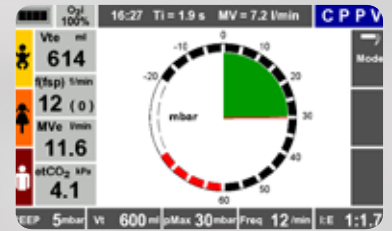
SIMV: Synchronized Intermittent Mandatory Ventilation



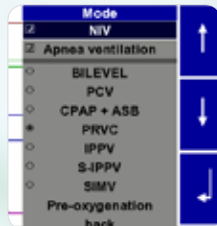
Perfect Presentation of Meaningful Parameters



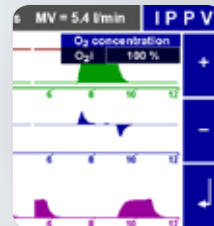
Parallel display of up to three curves



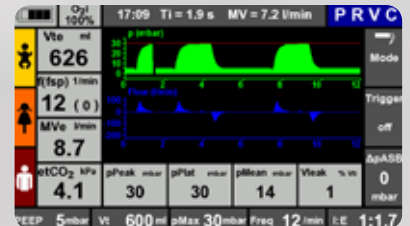
Innovative emergency mode



Diverse differentiated ventilation modes



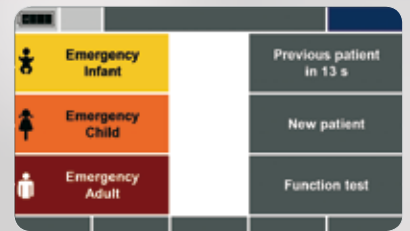
O₂ concentration 40 – 100%



Night colors can be activated



Simple, automated functional check



Intuitively understood start screen for immediate use

In the large color display on MEDUMAT Transport you have a summary of all the data you need to make decisions about patient treatment.

Because you can always keep an eye on the ventilation parameters, you can react quickly and more effectively manage critical situations.

MEDUMAT Transport gives you the parallel display of up to three parameter curves. You can activate the night colors to make all data visible under any lighting conditions.

With this special setting, the illumination in the device display does not hinder the sight of pilots and team members in an air rescue, for instance.



Continuous Use – From Emergency S

MEDUMAT Transport and LIFE-BASE

MEDUMAT Transport and the portable system LIFE-BASE are perfectly coordinated. Their combination yields a wide variety of uses for the robust and highly-developed ventilation technology, from emergency rescue and intensive

care transport to trauma room and intra-hospital transfer. Of course MEDUMAT Transport on the LIFE-BASE system is also equipped for fastening to the patient's bedrails.

MEDUMAT Transport comes on three different LIFE-BASE portable systems



LIFE-BASE 4 NG



LIFE-BASE 1 NG



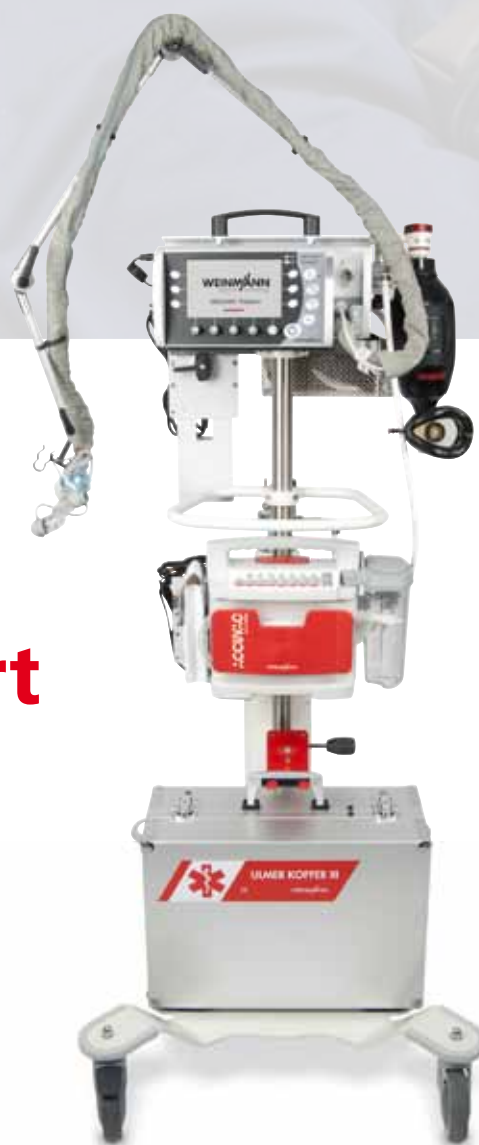
LIFE-BASE light



ite to Hospital

MEDUMAT Transport and **MEDUcart**

For hospital use the MEDUMAT Transport can be ideally accommodated on our MEDUcart bedside stand. Besides MEDUMAT Transport, MEDUcart also holds all the other devices for ventilation and oxygen supply





The Right Hose System for Every Sit

With MEDUMAT Transport you can safely ventilate adults, children and toddlers. We offer you the right patient hose-system for every situation.

Patient hose-system with reduced dead space for ventilation of children and adults:

- reduced dead space volume to 13 ml
- available with or without CO₂ measurement
- simple 2-m disposable system – all measurement-tubes are pre-connected, ready for immediate use
- intelligent clips – for fast and simple integration of the BiCheck connection line.

All patient hose-systems at a glance



2-meter disposable patient hose-system, complete, with reduced dead space volumen, with connection to BiCheck flow sensor, suitable for pediatrics
WM 28215



uation



2-meter disposable patient hose-system with CO₂ measurement, complete, with connection to BiCheck flow sensor
WM 28435



2-meter reusable patient hose-system with CO₂ measurement, complete, with connection to BiCheck flow sensor
WM 28425



The Right Hose System – Why It Is So Important

Background information

So that you're ready to handle any situation, you should give some thought to the patient hose systems when you acquire your transport ventilator. We offer you a complete and well-thought out portfolio that prepares you for all potential uses.

Reduced dead space volume for ventilation of adults and children

Physiological dead space is defined as parts of the respiratory system (nose, pharynx, trachea, bronchi and bronchioles) which are not involved in gas exchange. When the

dead space is large, a small quantity of respiratory gas gets to the patient. In ventilated patients the dead space can be affected by:

- access to airways (e.g., tube, mask, tracheal cannula)
- breathing system filter and elbow piece
- patient hose system

Dead space during invasive ventilation

The dead space volume of the standard patient hose system is considerably higher for small children than for adults. This greater mechanical dead space has a significant effect on the removal of CO₂.

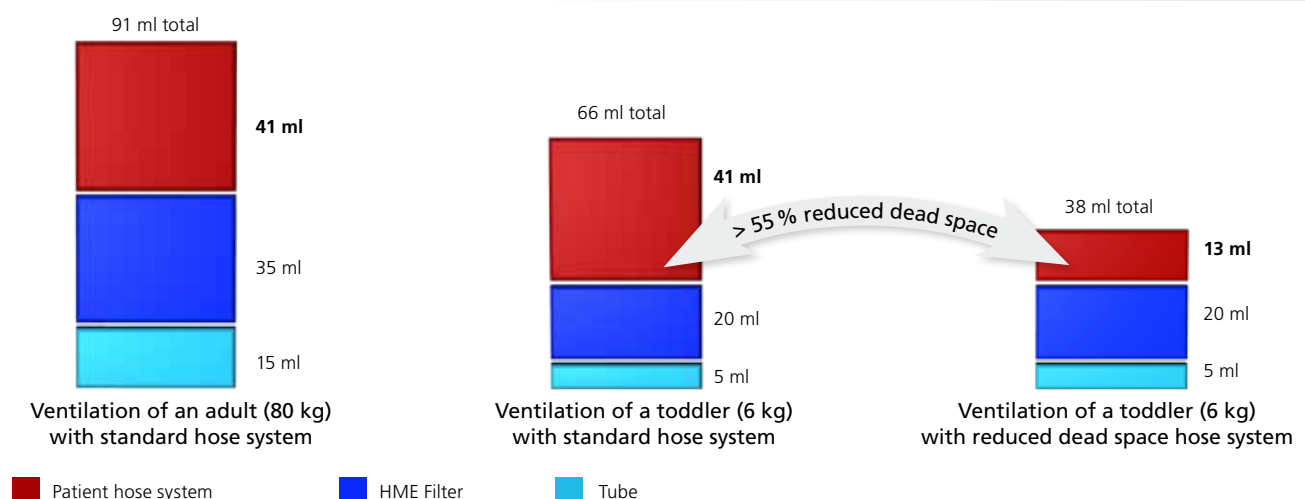
In the new patient hose system for MEDUMAT Transport we have reduced the dead space by at least 55% to provide conditions for ideal ventilation of small children too.

"... that dead space reduction gentle ventilation and to reduce lung damage ..."

* Nolte S.; Klin Padiatr. 1992 Sep-Oct; 204(5):368-72

* Presumes ventilation with standard hose system.

Dead space volumes



The choice is yours: disposable or reusable system

We offer systems that you can simply recondition and reuse. Because the trend is toward disposable systems for hygienic and logistical reasons, we also provide high-performance disposable hose systems.

The right hose length for every situation

To ensure safe and reliable ventilation of your patients anywhere in the hospital, we offer hoses in practical lengths of two or three meters. Depending on the transport situation, you have the choice of just the right length. The advantage is uninterrupted treatment with a single device. For use in computer tomography, for example, you can provide continuous ventilation to the patient.



Patient hose-system with BiCheck flow sensor near patient

Flow sensor close to patient for effective monitoring

The patient hose-systems for MEDUMAT Transport are equipped with an additional flow sensor which is situated close to the patient to ensure meaningful monitoring and ideal reaction to the patient's respiratory efforts. The benefits include:

- exact measurement of expiratory volume
- ideal position of flow sensor
- fast trigger response, thanks to hot-wire method
- permits side-stream capnography by means of Luer lock connection

Intubation check made with side-stream capnography*

Continuous monitoring of carbon dioxide in exhaled air delivers other benefits:

- reliable check of proper intubation
- clinical pictures detectable in curves
- suitable for toddlers because side-stream capnography, unlike mainstream capnography, does not create additional dead space
- reduced warm-up time compared to mainstream capnography
- no calibration required
- straightforward, tough, economical, with broad temperature range

* MEDUMAT Transport with CO₂ measurement

















Clever Rechargeable Battery

Many Ch

The removal battery in the MEDUMAT Transport can be quickly and easily replaced. Each area of application has its own charging options:

Charging options for MEDUMAT Transport

<p>Component to be charged</p>	 <p>MEDUMAT Transport on LIFE-BASE 4 NG WM 9600 and WM 9605</p>	 <p>MEDUMAT Transport on LIFE-BASE 1 NG WM 9625 and WM 9620</p>	 <p>MEDUMAT Transport on LIFE-BASE light WM 28340 and WM 28350</p>
<p>Power supply voltage: 12 Volt</p>	 <p>WM 8195</p>  <p>WM 9107</p>	 <p>WM 8214</p>  <p>WM 9107</p>  <p>WM 9640</p>	 <p>WM 28356</p>
<p>Power supply voltage: 100 - 240 Volt</p>	 <p>WM 8237</p>  <p>WM 9117</p>	 <p>WM 9117</p>  <p>WM 9655</p> <p>each with mit WM 28305</p>	 <p>WM 28305</p>

Routine charging

Via interfaces on the versatile LIFE-BASE portable system, MEDUMAT Transport is ideally designed for use in emergency medical services.



Ceiling mounting for LIFE-BASE 1 NG with charger interface, WM 9660








BASE-STATION Mini II with offset charger interface, WM 8214



Wall mounting BASE STATION 3 NG with charger interface for LIFE-BASE 4 NG, WM 8195

Battery Management and Charging Options

 <p>MEDUMAT Transport single devices WM 28300 and WM 28400</p>	 <p>Akkupack PLUS WM 28385</p>
 <p>WM 28356</p>	<p>no direct charge via 12-V vehicle's electrical system</p>
 <p>WM 28305</p>	 <p>WM 28305</p>

services and hospitals.

 <p>12-volt power cord for direct charging, WM 28356</p>

Technical data MEDUMAT Transport		CE 0197	<small>Certified Quality Management System Meeting EC Directive 93/42/EEC www.weinmann.com/CE0197</small>
Mode of operation	Time- and trigger-operated, pressure-controlled or volume-controlled		
Ventilation modes	<ul style="list-style-type: none"> ■ Emergency ventilation, toddler (IPPV pre-configured) ■ Emergency ventilation, child (IPPV pre-configured) ■ Emergency ventilation, adult (IPPV pre-configured) 		
Differentiated ventilation modes	BiLevel, PCV, CPAP + ASB, PRVC, IPPV, S-IPPV, SIMV NIV (can be activated in all ventilation modes)		
Battery type	Li-Ion		
Operating life	at least 4.5 h		
Charge from 0 to 100%	about 4 hrs. in stand-by mode		
Stand-by period	about 14 days		
Tidal volume (Vt)	50 to 2000 ml		
Frequency	0 to 60 min ⁻¹		
ΔpASB	0 to 30 mbar		
pInsp	3 to 60 mbar		
PEEP	0 to 30 mbar		
I:E	59:1 to 1:59		
Max. flow	150 l/min		
Flow trigger	1 to 15 l/min		
O ₂ mix (FiO ₂)	40 to 100 %		
O ₂ measurement	non-consumable O ₂ sensor		
CO ₂ measurement	0 °C to +50 °C		
Monitoring	<ul style="list-style-type: none"> ■ Expiratory volume and flow measurement with hot-wire method (BiCheck) ■ Airway pressure ■ Capnography (optional) in side-stream processing as per EN 21647 		
Preoxygenation/ Oxygen inhalation	Can be selected in levels of: 5, 10, 15, 20 and 25 l/min		
Dimensions (W x H x D in mm)	345 x 163 x 149		
Weight	about 4.4 kg/4.6 kg (with CO ₂ Option)		
Operation	<ul style="list-style-type: none"> ■ Temperature -18 °C to +50 °C ■ Humidity 15 % to 95 % (no condensation) ■ Air pressure 54 kPa to 110 kPa 		
Gas supply	2.7 to 6 bar, ideal at 4.5 bar with 145 l/min		
Gas type	medical-grade oxygen		
Power supply	<ul style="list-style-type: none"> ■ Removable battery, charged externally or internally ■ Device power: 12 to 15 volt DC ■ Voltage for external power unit 100-240 V AC, 50/60 Hz 		
Product class as per directive 93/42/EEC	IIb		
Most important standards used	ISO 10651-3, EN 794-3, EN 1789, RTCA-DO 160 E, EN 60601-1		
Alarm system	as per EN 60601-1-8		
Patient hose-system	Disposable and reusable, 2 and 3 m, system switch by user		
Transport and mounting systems for	<ul style="list-style-type: none"> ■ Ambulances ■ Intensive care transport vehicles ■ Rescue helicopter ■ Intensive care transfer aircraft ■ Hospital carts ■ Gurneys and hospital beds ■ Standard hospital rails ■ Permanent wall mounting 		

Weinmann medical technology

Simply professional

You can rely on Weinmann. We set the standards for mobile solutions in patient ventilation. Our 130 years of experience and close association with professional users in emergency medical services, armies/public authorities and hospitals have led to the development of intelligent and perfectly coordinated technologies. In conjunction with the professionals in emergency, transport and disaster medicine, we pursue our shared goal of saving human lives.

**Would you like to know more?
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