

# MEDUVENT Standard

Ventilate Wherever You Go

Upgrade





# Independent Thanks to Turbine Technology



Long distances and transport times can be a logistical challenge for emergency response in remote areas. In such situations, the battery runtime of a medical device is just as critical as its oxygen supply. Especially in challenging emergency situations, it should be possible to concentrate fully on the patient without worrying about the technology.

MEDUVENT Standard allows ventilation independently of oxygen cylinders. The turbine-driven emergency ventilator requires no external gas supply and maintains ventilation for an average of 8 hours on one battery charge\*. The patient can still be supplied with supplemental oxygen at any time, with all the oxygen benefiting the patient.

Using the globally compatible oxygen inlet tube enables you to generate concentrations of 21 % to 100 %.



21 % - 100 %  
FiO<sub>2</sub>



Mix in O<sub>2</sub>  
at any time



Rapid start



Contamination  
protection



Lightweight and  
compact



Intuitive and  
ergonomic

# Your Benefits at a Glance

## More safety for patient and staff

- The built-in visual and acoustic alarm system alerts medical staff in critical situations such as high and low airway pressure, patient disconnection, high PEEP and more.
- A fixed ventilation rate and volume in combination with a pressure limit reduce the risk of hyperventilation and gastric insufflation compared to BVM ventilation.
- The hygiene filter protects patient, staff and ventilator from contamination.
- Automatic function check means always on the safe side.

## Compact, lightweight and ergonomic

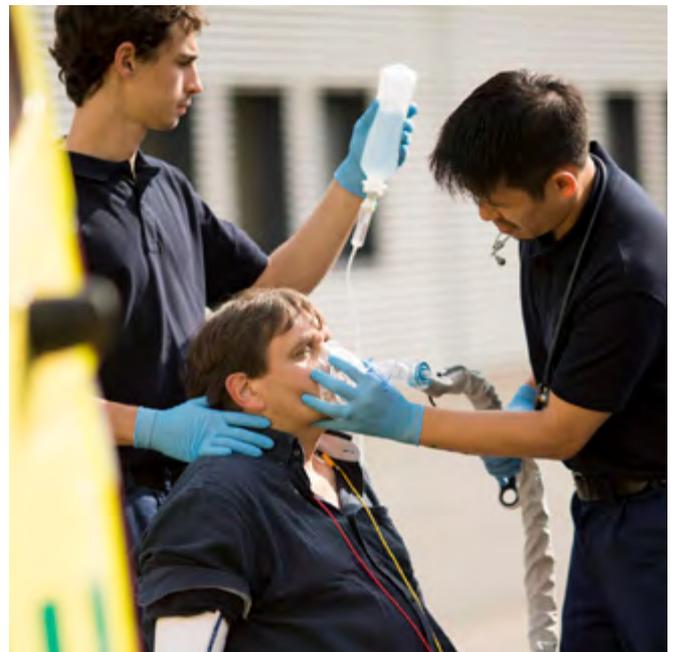
- MEDUVENT Standard weighs just 2 kg and has a volume of 3.5 l, making it one of the smallest and lightest emergency and transport ventilators in its class.
- Whether in air rescue or in ground emergency medical service – MEDUVENT Standard can also be installed in emergency vehicles with little space or requiring lightweight equipment.

## Wide variety of potential applications

- MEDUVENT Standard is perfectly suitable for use at the emergency site and in emergency vehicles of all kinds: ambulances, helicopters, airplanes etc.
- Consistent serviceability on the ground and in the air: Tested to EN 13718-1, RTCA/DO 160G and EN 60601-1-12
- Extremely rugged: Evidence from successful shock and vibration tests to MIL-STD 810 G, RTCA/DO 160G and EN 1789
- Specifically designed for use in emergency response and patient transport: Tested to EN 794-3 and ISO 10651-3

## Higher performance and efficiency

- Long operating time: Average 8 hours on one battery charge\*
- Short charging time: From 0 % to 95 % charge in just 2.5 hours
- Flexible charging options: Either via a 230 V power supply unit and charger or directly from the 12 V on-board power supply
- Software updates: Simple and convenient to perform using the SD card
- Bluetooth® connectivity prepared





## Ventilate Wherever You Go

- Thanks to the turbine drive of MEDUVENT Standard, you can ventilate the patient at an  $\text{FiO}_2$  of 21 % to 100 %.
- The oxygen supplied is for the entire benefit of the patient, as the device does not require any oxygen for operation.
- Optionally, MEDUVENT Standard can be equipped with pressure support (PS) and the enhanced ventilation mode PRVC + PS.
- Just use one of the preset emergency modes or enter the patient's height to begin ventilating safely at once, leaving you more time to focus on the patient.





**1. Ideal monitor layout**

displays all the key measurements and settings

**2. Connection for O<sub>2</sub> supply**

via O<sub>2</sub> cylinders, O<sub>2</sub> concentrators and gas supply systems

**3. Connection for measuring circuit**

enables pressure to be measured and PEEP to be controlled, as well as oxygen to be routed to the patient

**4. Accessories connection accessible from the front for MEDUtrigger**

**5. Connection for ventilation hose**

connects the device to the breathing circuit

**6. Hygiene filter**

protects the device from viral and bacterial contamination

**7. Data storage and updates**

SD memory card makes it easy to transfer device configurations and to perform software updates yourself

**8. User-friendly operation**

navigation knob for swift navigation in the menus

**9. Li-ion rechargeable battery**

with an average battery life of 8 hours\*



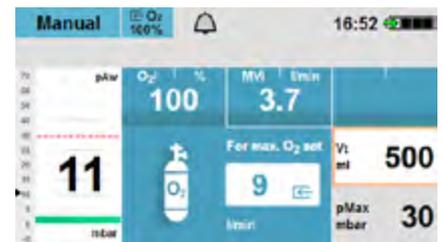


## Prepared for Anything with the Right Functions

MEDUVENT Standard provides ventilation modes for invasive and non-invasive ventilation. The intuitive menu navigation and simple selection of the right mode make it easy to use. For more information about the individual ventilation modes, go to our website at [www.WEINMANN-Emergency.de](http://www.WEINMANN-Emergency.de)

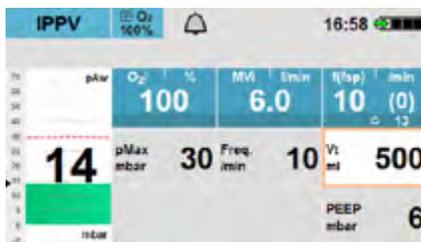
### Manual mode

Supports cardiopulmonary resuscitation, anesthesia induction or manual ventilation.



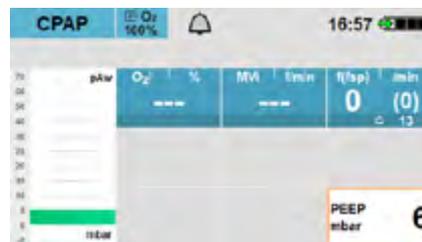
### IPPV mode

For mandatory volume-controlled ventilation of the patient at a fixed tidal volume.



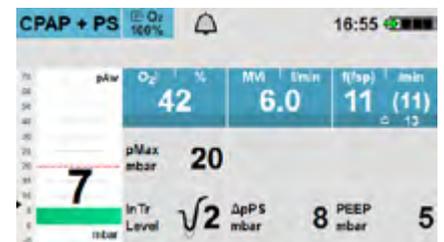
### CPAP mode

To increase the bottom pressure level during spontaneous breathing.



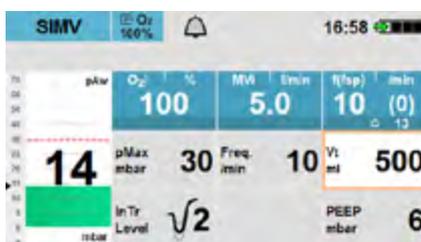
### CPAP + PS (option)

For pressure support of insufficient or exhausted spontaneous breathing.



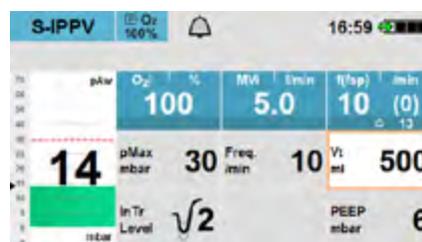
### SIMV mode (optional)

For volume-controlled ventilation at a fixed mandatory minute volume.



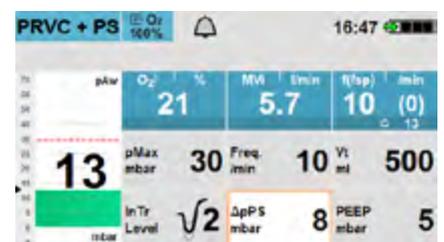
### S-IPPV mode (optional)

For volume-controlled ventilation at a variable mandatory minute volume.



### PRVC + PS (option)

Combines the advantages of pressure and volume controlled ventilation. Also includes pressure support (PS) for spontaneously breathing patients.



# Technical Data

Device dimensions	W: 206 mm x H: 137 mm x D: 130 mm
Weight	Without battery: 1.75 kg With rechargeable battery: 2.10 kg
Product class according to Directive 93/42/EEC	IIb
Operating conditions	<ul style="list-style-type: none"> <li>• Temperature range: -20 °C to + 50 °C</li> <li>• Humidity: 5 % rh to 95 % rh, no condensation</li> <li>• Air pressure: 540 hPa to 1,100 hPa</li> <li>• Altitude above MSL: Up to 5,000 m</li> </ul>
Lithium ion battery	<ul style="list-style-type: none"> <li>• Runtime: Average 8 hours (assuming adult lung parameters)</li> <li>• Charging time (0 % - 95 %): 2.5 h</li> </ul>
Display	TFT color display 4.3"
Data storage	Internal device memory and SD card
Ventilation modes	<ul style="list-style-type: none"> <li>• Mandatory/triggered: IPPV, S-IPPV, SIMV, Manual, PRVC + PS</li> <li>• Spontaneous breathing: CPAP, CPAP + PS</li> </ul>
Operating gas	Ambient air, medical oxygen (100 % O <sub>2</sub> ) or concentrator oxygen (93 % O <sub>2</sub> ) can also be supplied
Operating pressure range	0.3 bar to 6 bar
Monitoring	<ul style="list-style-type: none"> <li>• Measured values displayed: MV<sub>i</sub>, O<sub>2i</sub>, f(fsp)</li> <li>• Bar graph: Pressure with pAW</li> </ul>
Maximum outlet flow rate	150 l/min (in BTPS)
Tidal volume	50 ml to 2,000 ml
Ventilation rate	5 min <sup>-1</sup> to 40 min <sup>-1</sup>
PEEP	0 mbar to 20 mbar
Pressure limit (Pmax)	10 mbar to 65 mbar
I:E	1:2 fixed / 1:1 in Manual mode
Standards applied	<ul style="list-style-type: none"> <li>• Consistent serviceability confirmed on the ground and in the air to EN 13718-1, RTCA/DO 160G, EN 60601-1-12</li> <li>• Ruggedness confirmed by successful shock and vibration testing to MIL-STD 810 G, RTCS/DO 160G and EN 1789</li> <li>• Emergency and transport ventilator confirmed to EN 794-3 and ISO 10651-3</li> </ul>

## Always Within Reach

MEDUVENT Standard can be fitted to our LIFE-BASE portable units and thus be safely mounted on the wall or ceiling of an emergency vehicle - always within reach.



Portable system	LIFE-BASE light XS	LIFE-BASE 1 NG XS	LIFE-BASE 1 NG XL	LIFE-BASE 3 NG
Built-in charging interface	✗	✓	✓	✓
BASE-STATION mounting	✗	✓	✓	✓
Space for defibrillator	✗	✗	✓	✓
Space for O <sub>2</sub> cylinder	✗	✗	✗	✓
Matching protective and accessories bag	✗	✓	✓	✓
Matching accessories	✓	✓	✓	✓
Standards applied	✗	EN 1789, RTCA DO 160	EN 1789, RTCA DO 160	EN 1789, RTCA DO 160
Dimensions (W x H x D in mm)	218 x 244 x 125 mm	220 x 230 x 136 mm	427 x 240 x 140 mm	465 x 295 x 145 mm
Handling size** (W x H x D in mm)	260 x 280 x 280 mm	460 x 315 x 250 mm	670 x 315 x 250 mm	760 x 440 x 300 mm
Weight (in kg)	0.7 kg	Approx. 1.0 kg	2.2 kg	3.2 kg

\*\* Handling size is the space required which has to be taken into account when planning modifications. The details relate to the space required by the portable system when fully equipped, including extra space for removal and operation.

## More Consistent Mask Ventilation

MEDUtrigger enables one EMS field provider to use both hands to seal the ventilation mask while simultaneously ventilating the patient. MEDUtrigger is fixed in position between the ventilation mask and the breathing system filter. Pressing the MEDUtrigger button with the thumb manually triggers individual mechanical breaths at the set tidal volume.

Once a supraglottic airway or tracheal tube is in place, MEDUVENT Standard can be used for continuous ventilation at a fixed ventilation volume and pressure limit. This allows the EMS field provider to perform tasks other than ventilation.



# Convincing Combinations

## MEDUVENT Standard on LIFE-BASE light XS

Compact and lightest variant if no automatic charging, wall mounting or protective bag are required.  
Article no.: WM 9901



## MEDUVENT Standard on LIFE-BASE 1 NG XS incl. protective bag

Smallest and lightest system if resistance to crashing, rapid removal and accommodation of accessories are the key criteria.  
Article no.: WM 9911



## MEDUVENT Standard with O<sub>2</sub> cylinder on LIFE-BASE 3 NG incl. protective bag

Compact system if the O<sub>2</sub> cylinder is to be available in every situation.  
Article no.: WM 9938



MEDUVENT Standard with MEDUCORE Standard<sup>2</sup>  
on LIFE-BASE 1 NG XL incl. protective bag

Compact system if a ventilator with a defibrillation and monitoring unit on a portable system is required.  
Article no.: WM 9915



MEDUVENT Standard with MEDUCORE Standard<sup>2</sup>  
and O<sub>2</sub> cylinder on LIFE-BASE 3 NG incl. protective bag

Complete therapy system which leaves nothing out.  
Article no.: WM 9935



Configure your  
portable unit according  
to your needs

You will find a  
short guide on our website:  
WEINMANN-Emergency.de

Direct link

Scan with  
your cell phone  
camera or a  
QR code reader  
to access the  
website.



# Accessories and Replacement Parts

1



2



3



4



5



6



7



8



9



10



## 1. NIV premium mask, size S (Child)

- Individual article
- Set of 10
- Set of 40

WM 20717  
WM 17940  
WM 17941

## 2. NIV premium mask, size M (Adult)

- Individual article
- Set of 10
- Set of 40

WM 20718  
WM 17942  
WM 17943

## 3. NIV premium mask, size L (Large adult)

- Individual article
- Set of 10
- Set of 40

WM 20719  
WM 17944  
WM 17945

## 4. MEDUtrigger

for 2 m breathing circuit

WM 28992

## 5. Breathing system filter

WM 22162

## 6. Hygiene filter

- Individual article
- Set of 5

WM 35730  
WM 17915

## 7. Lithium-ion rechargeable battery

WM 35775

## 8. Power supply unit and charger

WM 28937

## 9. SD card

2 GB memory

WM 29791

## 10. EasyLung test lung

for the function check

WM 28625

# Breathing circuit

## Reusable breathing circuit

**Complete breathing circuit**  
without MEDUtrigger, 2 m length, reusable

WM 35850



## Disposable breathing circuit

**Breathing circuit**  
2 m length, disposable

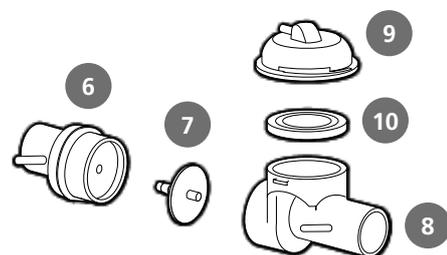
- Single article
- Set of 10
- Set of 25
- Set of 50

WM 35860  
WM 17910  
WM 17911  
WM 17912



## Reusable components to reorder

- |   |          |
|---|----------|
| <b>1. Complete breathing circuit</b><br>without MEDUtrigger, 2 m length, reusable | WM 35850 |
| <b>2. Ventilation hose</b><br>2 m length, autoclavable                            | WM 28421 |
| <b>3. Measuring circuit</b><br>2 m length   | WM 35851 |
| <b>4. Protective sleeve</b><br>2 m length   | WM 28585 |
| <b>5. Patient valve complete</b><br>comprising items 6 to 10                      | WM 35865 |
| <b>6. Holder for check valve diaphragm</b>  | WM 35813 |
| <b>7. Diaphragm for check valve</b>   | WM 28298 |
| <b>8. Main body for patient valve</b>   | WM 28476 |
| <b>9. Control cover for patient valve</b>   | WM 28472 |
| <b>10. Diaphragm for control valve</b>  | WM 28475 |



# Service Straight from the Manufacturer

## Service data: MEDUVENT Standard

Manufacturer's warranty	Various options
Safety check interval	Every 2 years
Maintenance interval	Every 4 years
COMFORT Plus service package with fixed annual fees available	✓
Automatic function check with brief summary	✓
Duration of function check	Approx. 25 seconds
Software update can be performed by operator/user	✓
User training without O <sub>2</sub> consumption (free simulation software on PC)	✓
Password-protected operator menu	✓
Rechargeable battery simple for operator/user to replace	✓
Telesupport	✓
Service reminder in device display	E.g. scheduled safety check/maintenance
Electrical Safety Check to DGUV V3 (IEC 62353)	Not necessary
Turbine check during general function check	✓

## Perform Software Updates Yourself – Your Benefits as an Operator:

- Always up-to-date with the latest software
- You decide when to update – no deadline pressure, no waiting
- Remain ready for use – no need to ship device for update
- You decide who performs the update - thanks to password-protected operator menu
- No risk – performing the update is simple and safe

## Never miss a safety check or service interval again

MEDUVENT Standard reliably helps you plan required servicing. Every device reminds you about due maintenance/safety checks in good time. At the end of the function check, the device tells the user about upcoming maintenance/safety check dates. If the recommended interval is exceeded, MEDUVENT Standard also displays a small spanner symbol on the start-up screen. MEDUVENT Standard uses these reminders to support you in your responsibility as the legal operator of the device.

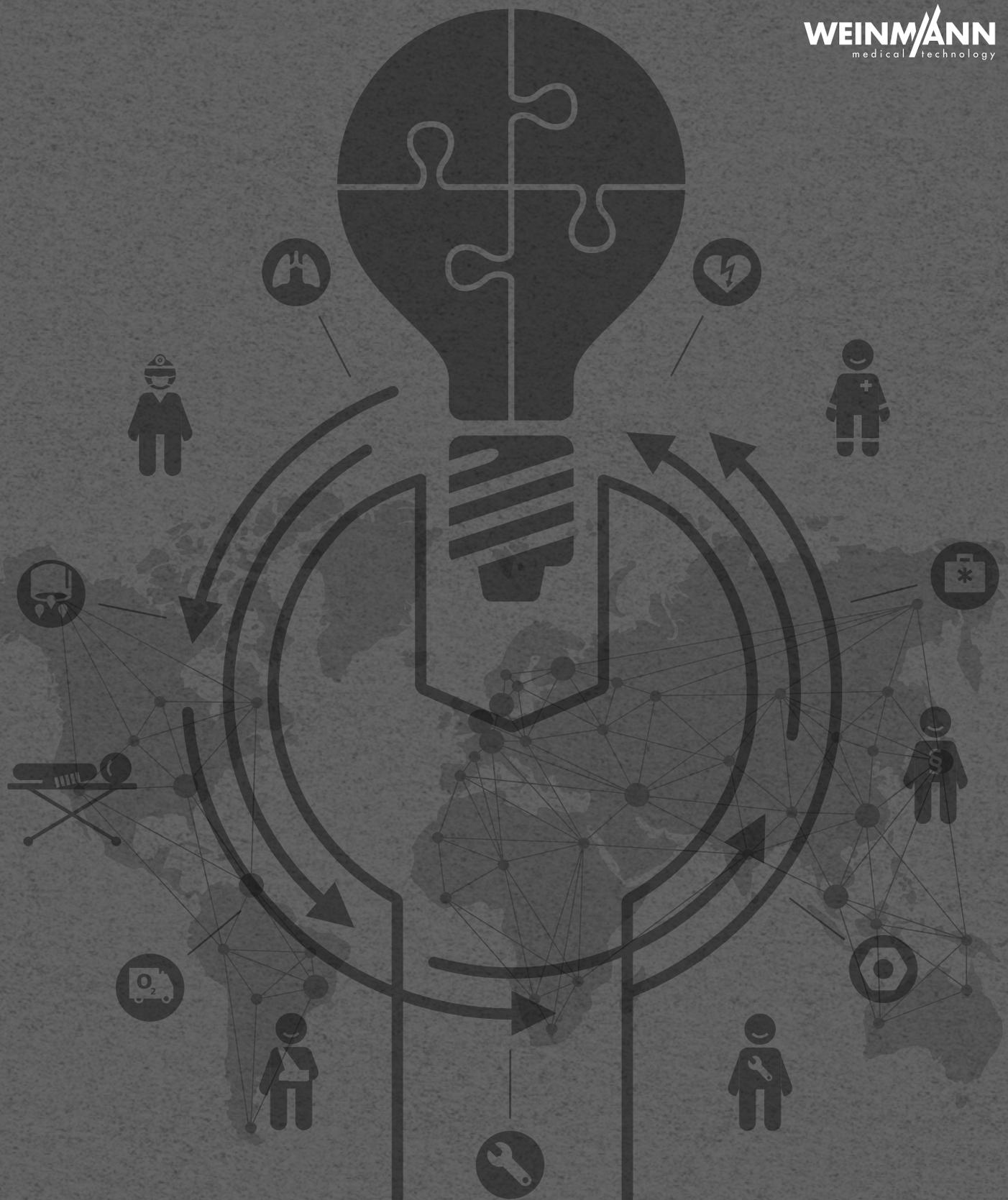
## Remote diagnosis (telesupport) in the event of a fault - safety and reliability day in, day out

With the fast, simple function check, you can always be confident that your device is fault-free and ready for use. This is possible even without connecting to an external gas source. In approx. 25 seconds, MEDUVENT Standard performs the automatic function check and gives the user a status report. Should a device malfunction ever occur, its cause may not be immediately apparent. For reporting purposes, MEDUVENT Standard lets you save the log files from the device to an SD card and e-mail them to WEINMANN Emergency. Ideally, these files alone will be sufficient to enable our service technicians to resolve the problem with you via telesupport. Should this not be the case, we will take a closer look at your device and, if necessary, you will be provided with a replacement device to cover this down time.

## Active support of your quality management and documentation processes

Important information is saved automatically and can be exported to the SD card quickly and easily. Data included:

- Up to 6,000 function checks, including many details
- Documentation sheet as evidence of software update history
- Error-free standardization: Customized device configurations can be transferred from one device to others by SD card



 Your Service Hotline:  
**+4940 88 18 96 122**  
We would be delighted to advise you!

## We Simplify Saving Lives

WEINMANN Emergency is a family-owned, internationally active medical technology company. With our mobile system solutions for emergency, transport and disaster medicine, we set standards for saving human lives. In close collaboration with professional users in emergency medical services, hospitals and military medical corps, we develop innovative medical products for ventilation and defibrillation. For more than 100 years we have offered our customers a high degree of reliability, extensive experience and quality made in Germany.

### Headquarters

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