



**MEDICAL
TREST**






**MEDICAL
TREST**



**UVENT-S
From ICU Ventilator
To Respiratory Critical Care Station**

Solutions that support patients
and assist clinicians

medical.trest@gmail.com

 +37062812800

 [medical.trest](https://www.instagram.com/medical.trest)



UVENT-S ICU Ventilators – turbine based and compressed air models:



Medical Trest

**Safety first – PATIENT
SAFETY FIRST!**



- High safety standards compliance
- Precision monitoring system with advanced monitoring of breathing mechanics and vital signs
- System for automatic assessment of parameters and recommendations
- Respiratory comfort and asynchrony prevention system
- Intelligent ventilation modes
- Lungs and airways status assessment with optimal respiratory support selection
- Solutions for comfortable weaning from mechanical ventilation
- Peak Inspiratory Flow rate up to 250 l/min
- Clear, clinicians-friendly, guiding user-interface

UVENT-S is designed with a focus on patient safety, comfort, and reliability

It's a Next Gen Respiratory Stations



Expert class ventilators for all age categories

- All ventilation modes are included in the basic configuration
- Including adaptive modes and Intelligent
- For ICU, CCU, PACU & OT, transportation and any point-of-care
- Built-in turbine or compressed gas-driven pneumatics
- Built-in SpO2 monitoring: Masimo SET®
- Built-in CO2 monitoring: side- or mainstream
- Volumetric capnometry
- Intelligent inspiratory and expiratory triggering system
- Patient-friendly smart triggering system
- Unlimited lifetime oxygen sensor, calibration-free
- Advanced networking capabilities for HIS integration

UVENT-A-S

Expert class ICU ventilator with
compressed gas-driven pneumatics



- Long-life microcontroller driven precise pneumatic system
- Active electromagnetic PEEP-valve
- Optional compact compressor mounted on the same trolley for compressed air backup
- Automatic compensation of inlet pressure in the case of a pressure drop in the supply line of one of the gases
- Double proportional inspiratory valve for precise control during low and high flow demand



UVENT-T-S

Expert-class turbine based ventilator

UVENT-T-S – an expert class respiratory station with a built-in turbine for operating with any available oxygen source (low or high pressure). For all patients' ages.

- For ICU, CCU, PACU, OT, and transportation
- High flow performance and low noise built-in turbine
- UniScreen™ visualisation technology
- Operating with any available oxygen source, low or high pressure)
- Wide range of mounting option



UVENT-M-S

Expert-class respiratory support during transportation and at any point-of-care

UVENT M-S – is a compact, turbine-based ICU ventilator intended for prolonged or short-term respiratory support in a hospital or during. For all patients' ages.

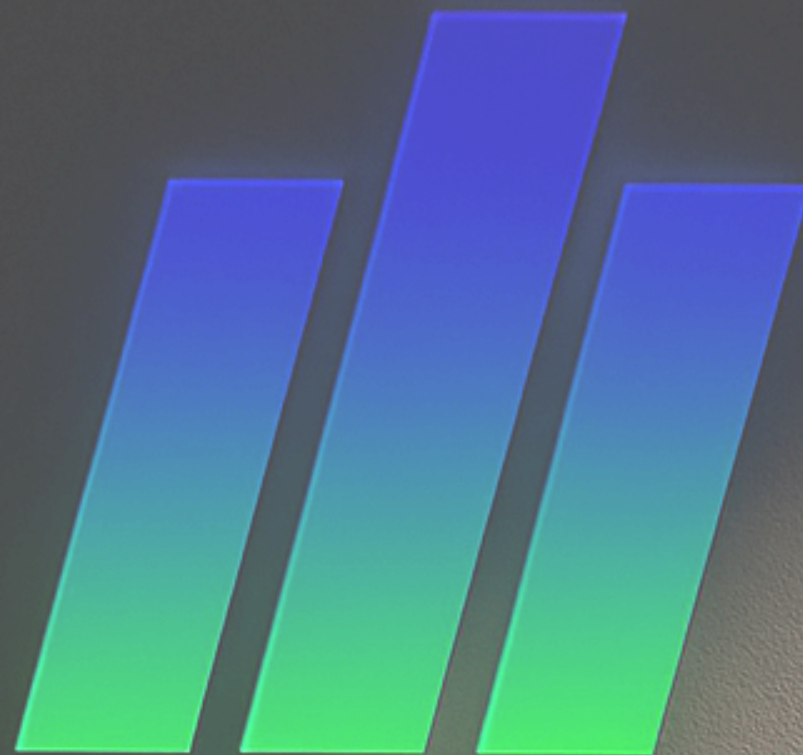
- Compatible for respiratory support of the patient during transport and in case of emergencies
- Respiratory support without external compressed air supply
- Compact size, lightweight with expert ventilation features
- High performance low noise turbine
- Durable aluminum casing with handle
- Built in battery up to 4 hours of ventilation
- Mounting for ambulance and medical rail



MEDICAL TREST

UVENT-S

Key features



**MEDICAL
TREST**

UVENT-S VENTILATORS

Compact size, expert class full featured ventilator



- All ventilation modes available, no optional modes
- No chargeable maneuvers or tools
- SpO2 and CO2 channels are included in basic set
- Paux/Pes included
- Intelligent modes AdVent and ProVent
- Weaning procedures
- Software update available at no extra cost

UVENT-S VENTILATION MODES

VC — Volume Controlled Ventilation (Assist and Control ventilation)

PC — Pressure Controlled Ventilation (Assist and Control ventilation)

PCVT — Pressure Controlled Volume Targeted(Assured/Guarantee) Ventilation

TCPL — Time Cycled Pressure Limited Ventilation

VC-SIMV — Volume Controlled Synchronized Intermittent Mandatory Ventilation

PC-SIMV — Pressure Controlled Synchronized Intermittent Mandatory Ventilation

PCVT-SIMV — Pressure Controlled Volume Targeted Synchronized Intermittent Mandatory Ventilation

PC-PS — Combined Pressure Controlled and Pressure Support Ventilation

VC-VS — Combined Volume Controlled and Volume Support Ventilation

PCVT-VS — Combined Volume Guarantee and Volume Support Ventilation

BIPPV — Biphasic Positive Airway Pressure Ventilation

APRV — Biphasic Airway Pressure Release Ventilation

CPAP/PS — Continuous Positive Airway Pressure with Pressure support ventilation

HFOT — High Flow Oxygen Therapy ventilation

nIPPV — nasal Intermittent Positive Pressure Ventilation

VS — Volume Support Ventilation

AdVent /Provent – intelligent ventilation with automated adaptive algorithms



UVENT-S VENTILATORS

High performance pneumatic system



- Flow performance — up to 250 l/min
- Peak pressure (P_{peak}) — 100 cmH₂O
- NIV ventilation and leak compensation
- Lifetime warranty for turbine blowe



UVENT-S VENTILATORS

Ultrasonic oxygen sensor

- Unlimited lifetime O₂ sensor
- No calibration required
- Zero maintenance cost
- Stable and accurate O₂ monitoring



UVENT-S VENTILATORS



Autonomy of operation

- Built-in backup battery
- Li-ion battery type
- Automatic charging and backup changeover
- Up to 4 hours of ventilation



UVENT-S VENTILATORS

Safety system

- Automatic testing of internal systems, sensors, and breathing circuit performance
- Multi-level audio-visual alarm system
- Alarms are triggered by exceeding set limits
- Leak and occlusion alarms
- Technical alarms



**MEDICAL
TREST**



UVENT-S NIV INTERFACE SELECTION

HFOT - High Flow Oxygen Therapy

Intended for patients in early stage of
respiratory
failure

- Flow rate up to 80L/min
- Single limb circuit without proximal flow sensor
- Oxygen concentration adjustment by SpO₂ monitoring feedback with MasimoSET
- Compatible with high-flow O₂ cannulas



UTAS

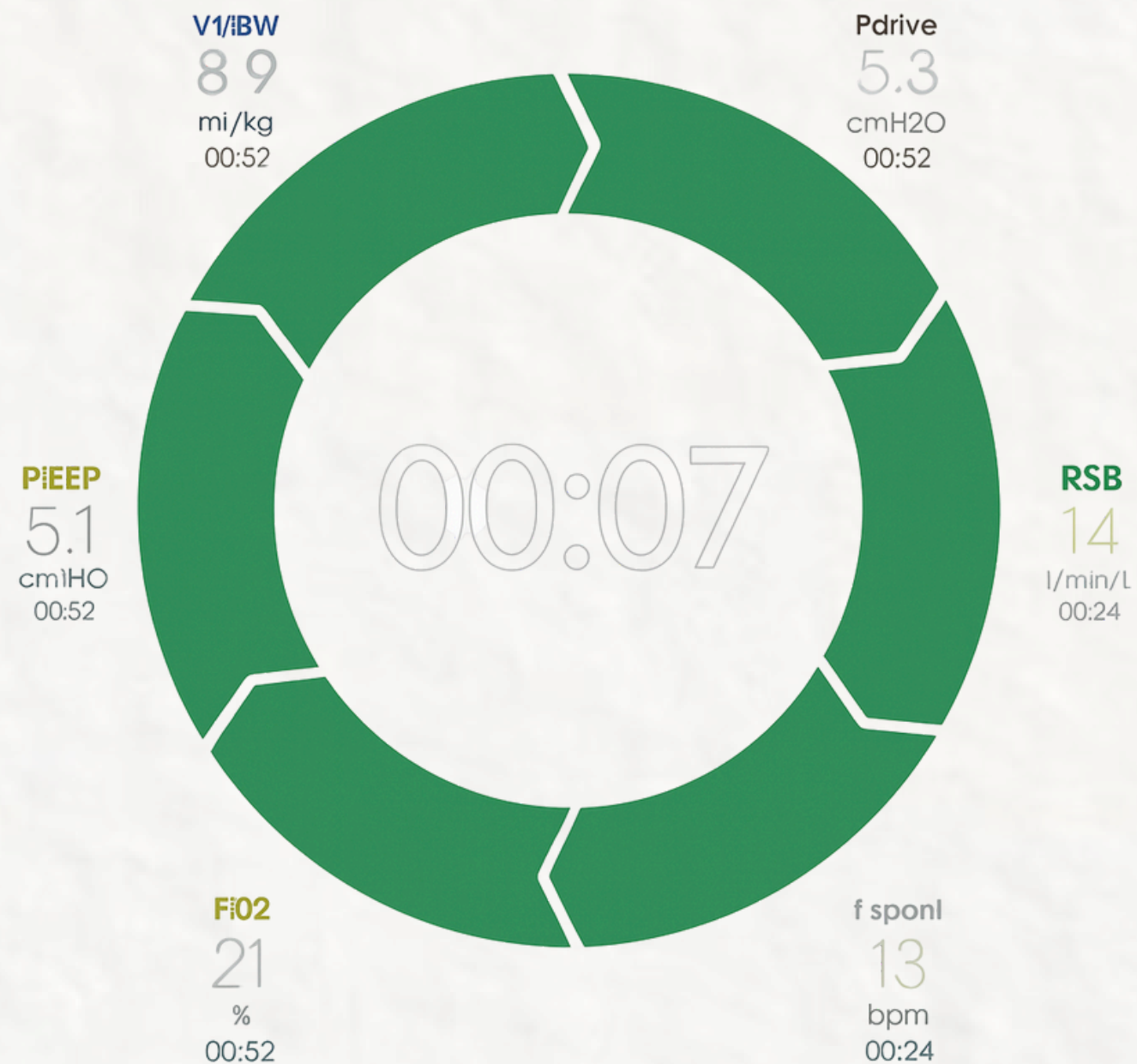
UVENT-S VENTILATION MODES

Special settings for HELMET non-invasive ventilation



- Intended for patients moderate respiratory failure
- Special mode has adjustable CO₂ wash out base flow and maximal synchronization with the patient's respiratory effort
 - The helmet eliminates mechanical pressure on face skin, thereby reducing patient discomfort and improving device tolerance without the risk of skin necrosis*
 - The helmet allows a patient to speak with clinicians during treatment, to drink or even eat through a special port

SBT STATUS



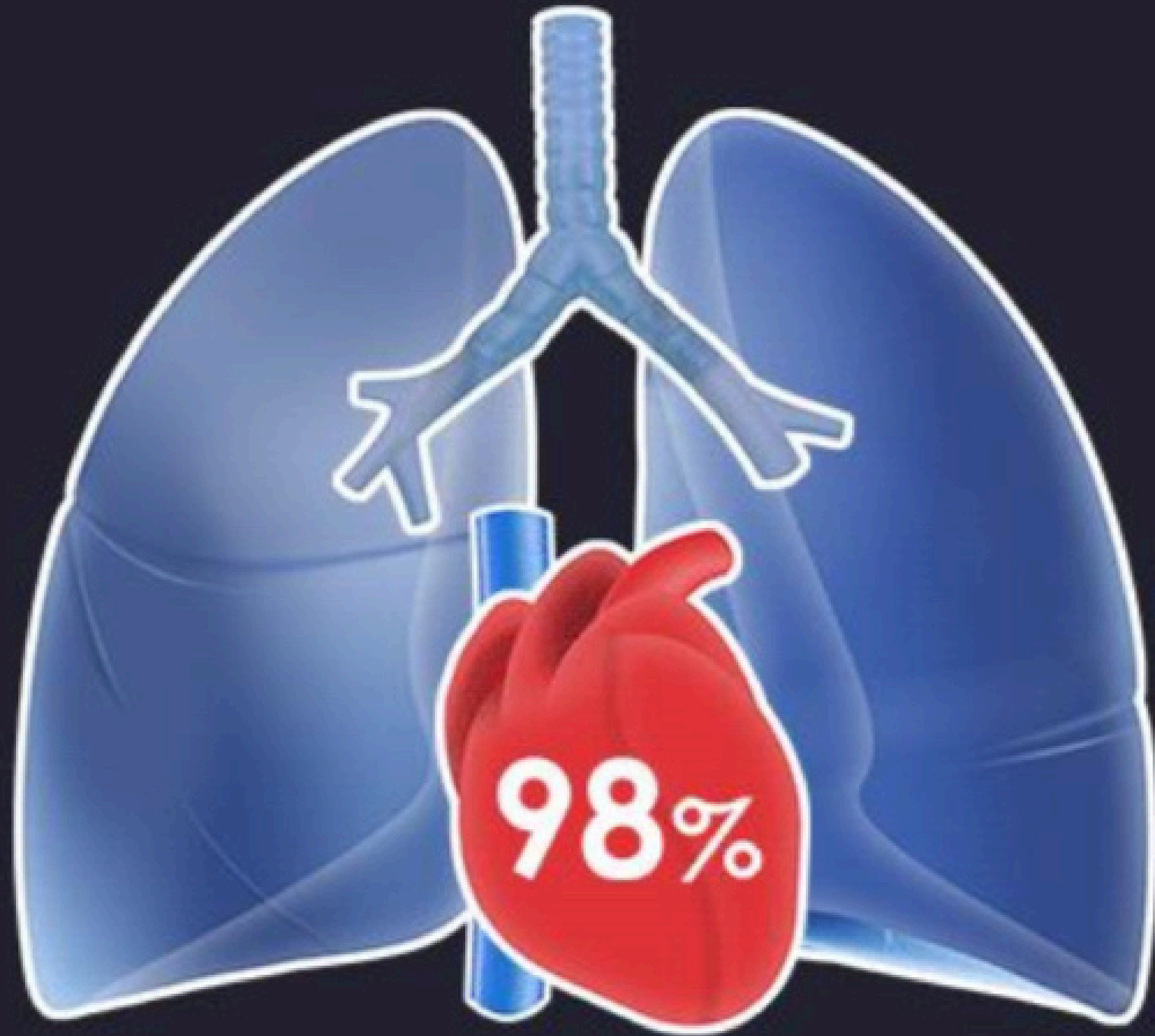
IN PROGRESS



UVENT-S Weaning tool

Spontaneous Breathing Trial

- Special maneuver for extubation readiness evaluation
- SBT widget weaning status
- Individual time counter for each SBT criteria
- SBT history records for each patient
- Automated SBT in AdVent and ProVent modes



UVENT-S LUNG MONITOR

Animated Lung & Heart Icon

- Animated synchronized with breath cycle & pulse
- Colour indication of Compliance level
- Colour indication of Inspiratory resistance
- Spontaneous effort indication
- Moderate and severe changes indication IBW linked
- Numerical parameters visualizatio



UVENT-S AUTO2 FUNCTION

Automated closed loop
oxygen management
system AutoO2



- Closed loop FiO₂ adjustment based on SpO₂ readings
- Available with Masimo SET® only
- Selectable target range of SpO₂
- Indication if automated changes impossible
- Trends of SpO₂ and FiO₂ settings for better evaluation



UVENT-S VENTILATION MODES

Special mode for CPR Ventilation

Intended for use during CPR in adult patients only

- Big numbers visualization mode:
- Chest compression rate
- CPR total time
- Compressions amplitude
- Airway pressure
- Average CO₂
- SpO₂

UVENT-S VENTILATION MODES





Intubation support ventilation

- Designed to improve preparation of the patient to intubation procedure
- Preoxygenation mode with flow or spontaneous ventilation, with automatic detection of the intubation process and the transition to mandatory mode

UVENT-S VENTILATORS

Patient-ventilator synchrony Smart triggering system



- Smart triggering system takes into account conditions of the patient's respiratory effort and a possible leaks/artefacts
- Inspiratory and expiratory synchronization by flow and pressure
- Expiration will be either triggered by set ETS value or individually adapted AutoETS
- Pressure support cycle starts when the patient triggers a breath, and the ventilator delivers inspiratory flow required to achieve inspiratory pressure
- Calculation of the optimal respiratory rate with AdVent / ProVent modes with given the expiratory time constant

UVENT-S VENTILATORS

Adaptive flow support system



- With volume-controlled modes an additional adaptive flow can be started during inspiration - flow on demand.
- In case of patient's respiratory effort during inspiration period the ventilator switches to pressure support to support the patient's spontaneous breath.
- Also, using his own respiratory effort during inspiration patient can obtain higher inspiratory flow and tidal volume than the preset values

UVENT-S VENTILATORS

AutoETS Option



- AutoETS option allows ventilation to avoid early or late switching to exhalation.
- Automatic selection of the exhalation trigger sensitivity by the effort assessment method of the final phase of spontaneous inspiration and the initial phase of exhalation

UVENT-S VENTILATORS

Leak compensation

The ventilator measures real inspiratory and expiratory volume and to determine leak volume for each breaths

- Leak compensation for volume- and pressure-controlled modes by auto adjust and self-learning algorithms
- Inspiratory trigger and termination of inspiration criteria for pressure support modes adapts automatically

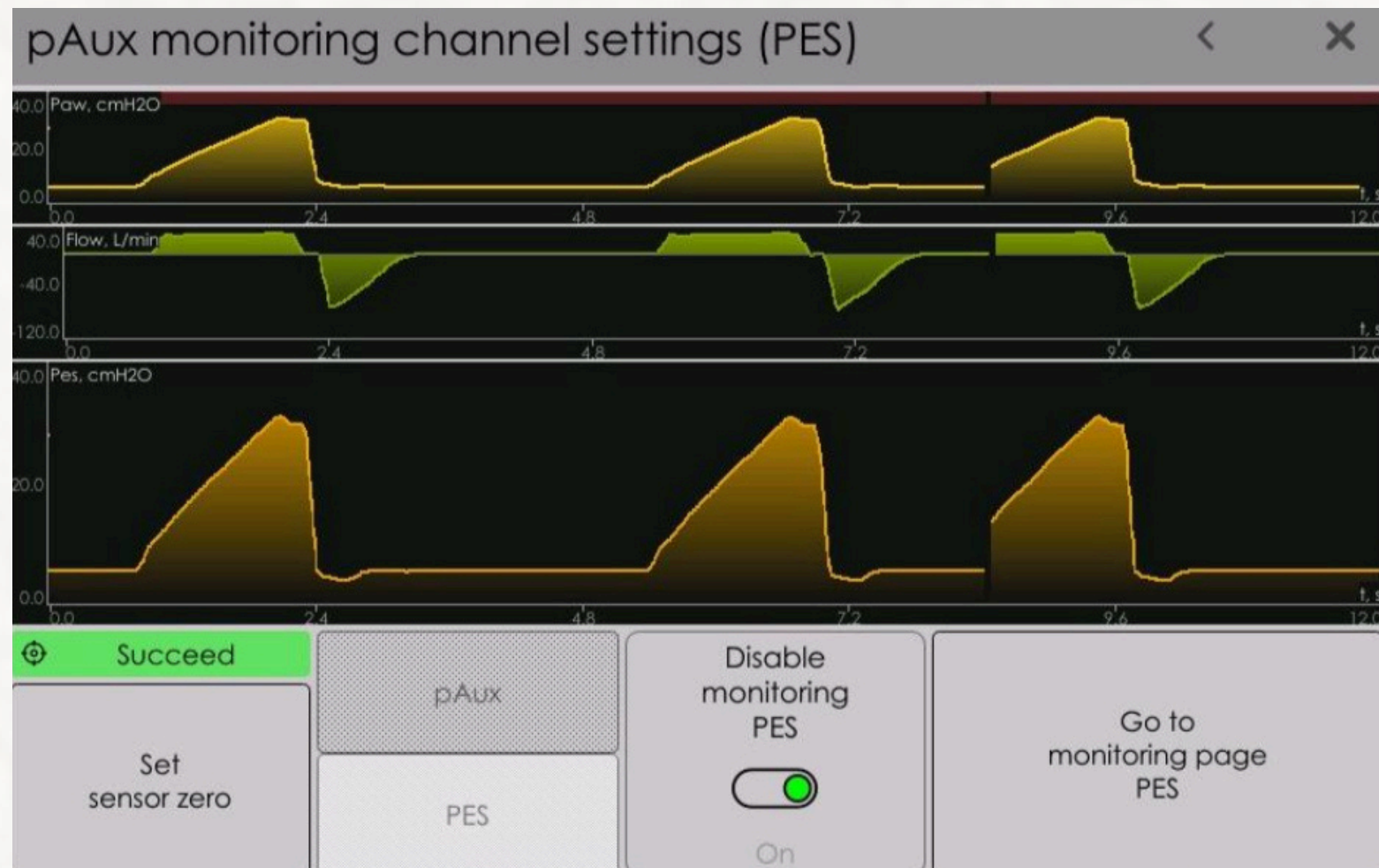


UVENT-S VENTILATORS

Additional pressure monitoring channel

Integrated Paux/Pes Channel

- The Paux/Pes channel brings additional pressure monitoring possibilities.
- Depends on the connected pressure source: the endotracheal tube cuff pressure or the esophageal balloon catheter pressure





UVENT-S VENTILATORS

UniScreen™

Extended visualization & monitoring

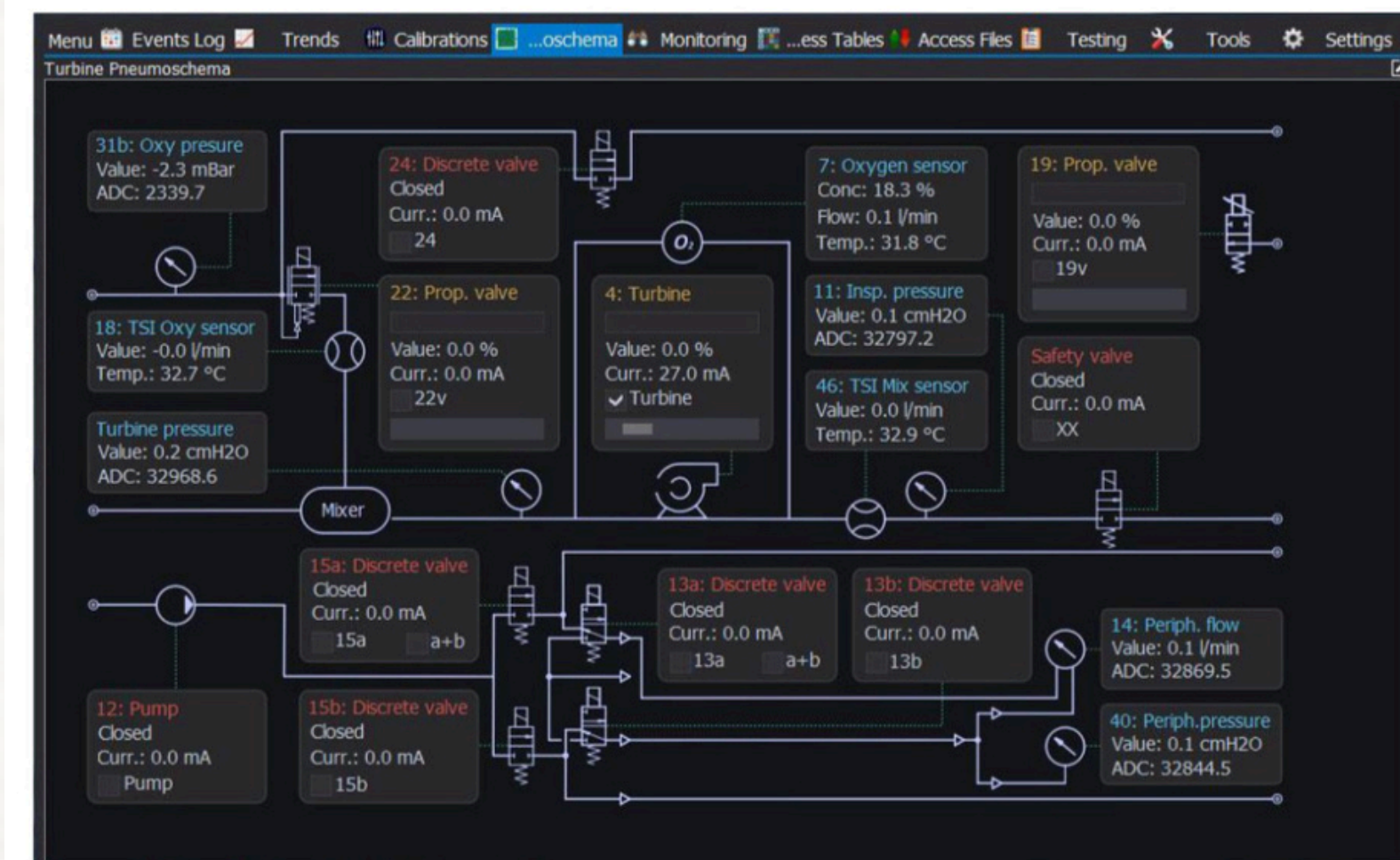
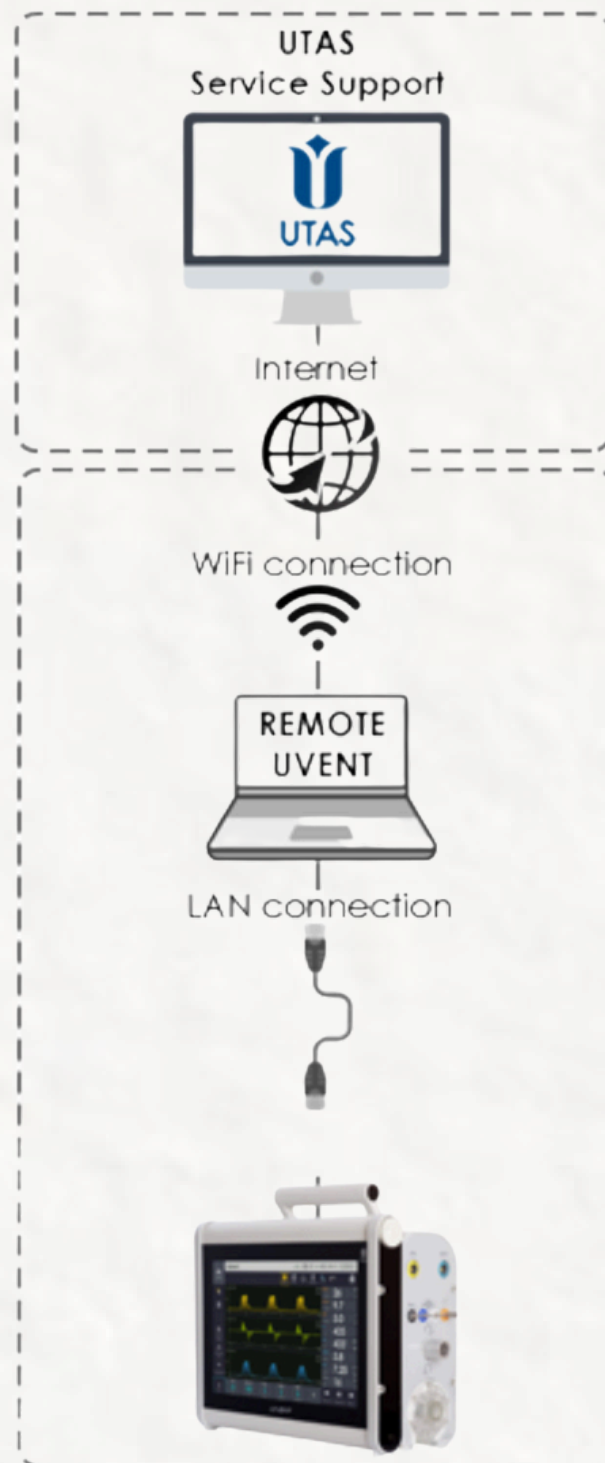
Extended visualization technology provides demonstration of the patient's data on two high-contrast color displays at the same time. There is no need to choose data visualization priority — focus on the patient.

- Additional HDMI display — Full HD 22"
- Doesn't duplicate information, but expands visualization to both screens.
- Data layout customization for optimal positioning and grouping.
- Observe specialized data and control parameters on the main unit

UVENT-S REMOTE SERVICE

REMOTE UVENT — UTAS innovative technology to provide efficient support and timely service.

Remote diagnostics, adjustment, and software update by our engineers remotely from any location simply through the Internet.

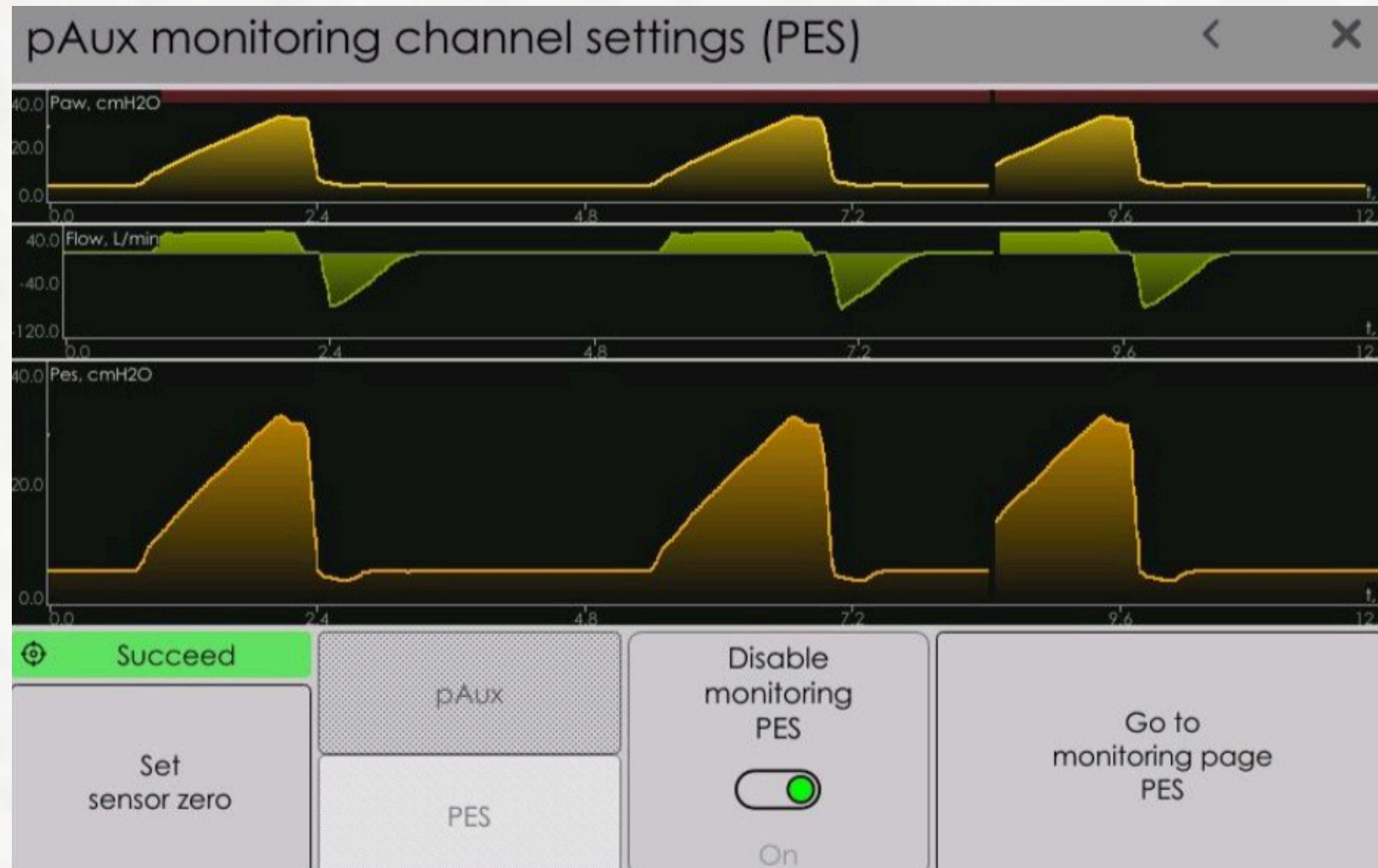


UVENT-S VENTILATORS

Additional pressure monitoring channel

Integrated Paux/Pes Channel

- The Paux/Pes channel brings additional pressure monitoring possibilities.
- Depends on the connected pressure source: the endotracheal tube cuff pressure or the esophageal balloon catheter pressure





**MEDICAL
TREST**

