



INTENSIVE CARE MEDICINE

Complete range for intensive care:

- Ventilators
- Respiratory gas humidification and high-flow therapy
- Accessories

VENTILATORS

elisa 800

elisa 800 is a perfect symbiosis of simplicity and the full therapeutic range of clinical ventilation medicine. As an innovative top-class intensive care ventilator, elisa 800 features a unique tandem sensor system that makes the device suitable for a live weight range from 300 grams to 400 kilograms. The device offers a variety of ventilation modes, manoeuvres and weaning tools. It provides special instruments for every clinical ventilation phase, such as PEEPfinder with automatic inflection point detection, transpulmonary pressure monitoring or Fastwean monitoring. The innovative user interface, combined with the system's extensive configuration options, creates a virtually personalised ventilation system for implementing the respective ventilation strategies and hospital standards.

Advantages of the elisa 800 intensive care ventilator – simply flexible:

- Intensive care ventilator for all patient groups (adults, children, premature infants)
- Selection of 18.5-inch or 21.5-inch high-resolution colour touch-screen display
- Intelligent, intuitive operation with Easy Access Bar
- Modular system as the basis for personalised ventilation
- Integrated pneumatic drug nebuliser
- Integrated mesh nebuliser
- High-flow therapy
- NIV mode
- PEEPfinder and lung recruitment
- Integrated cuff pressure monitor – Cuffscout®
- Transpulmonary pressure measurement®
- Weaning tools and indices
- Hygiene management function
- Main stream or side stream CO₂ measurement*
- Anaconda® function
- Versatile interfaces for PDMS, NO systems and monitoring equipment
- Data hub for simultaneous, multiple data export
- 2 hours of battery operation, optionally expandable up to 4 hours



* optional

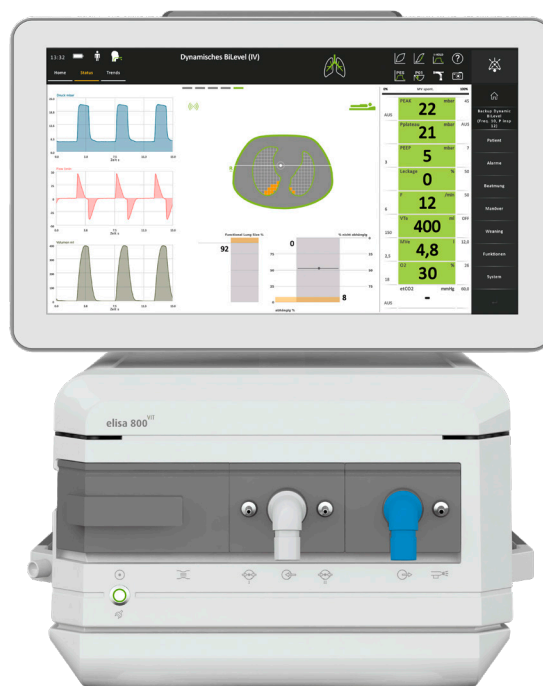
elisa 800 VIT/ elisa 600

elisa 800 VIT

elisa 800 VIT combines the versatile options of a modern intensive care ventilator in the top market segment with ventilator-integrated tomography. As the world's first ventilation system with integrated electrical impedance tomography, elisa 800 VIT enables radiation-free bedside imaging and ventilation under visual control. Ventilation effects can be continuously assessed in real time for detecting complications. The latest textile sensor technology minimises the skin injuries caused by older systems and can also be used in prone positions. The functional imaging display was specifically designed for use in everyday clinical situations and is easy to interpret.

Ventilation with elisa 800 VIT...

- standardises ventilation settings and helps detect potential side effects of ventilation therapy
- serves as the basis for monitoring inhomogeneous pulmonary situations for lung-protective ventilation
- enables simple and reproducible assessment of therapy outcomes
- permits early detection of respiratory complications
- supports the individual implementation of therapeutic prone positioning under visual control
- reduces in-hospital intensive care transfers of severely ill ventilated patients
- reduces the need for routine X-rays and CT scans



elisa 600

As a universal ventilator, elisa 600 is designed for invasive and non-invasive ventilation therapy for all clinical conditions and in all medical disciplines. The smart user interface can be individually adapted to the respective requirements and hospital standards. The innovative technology, simple operation and comprehensive modular design of the device help reduce complexity, avoid operator errors and support the user in the administration of ventilation therapy. In the balancing act between financial investment and future-oriented development opportunities, elisa 600 represents an innovative ventilation platform for present and future applications. The device architecture with its focus on hygiene and service and many versatile options leaves nothing to be desired.

- 18.5-inch touchscreen monitor and beamer port
- Intensive care ventilator for all patient groups (adults, children, premature infants)
- Broad range of different ventilation modes
- Integrated pneumatic drug nebuliser
- Integrated mesh nebuliser*
- High-flow therapy
- NIV mode
- PEEPfinder and lung recruitment
- Integrated cuff pressure monitor – Cuffscout®
- Transpulmonary pressure measurement*
- Hygiene management function
- Reanimation mode
- Weaning tools and indices
- Main stream or side stream CO₂ measurement*
- Anaconda® function*
- Versatile interfaces for PDMS, NO systems and monitoring equipment
- 2 hours of battery operation, optionally expandable up to 4 hours



* optional

VENTILATORS

elisa 500**

The compact-class device elisa 500 features top-shelf performance characteristics, while offering a full therapeutic range of clinical ventilation options in turbine-driven devices. With a peak flow of up to 300 litres per minute, the high-performance, noise-optimised turbine guarantees sufficient flow capacities for mask ventilation.

The innovative user interface of the elisa family, along with extensive configuration options and a stunning colour performance of the 15.1-inch display, create the basis for versatile application options, ranging from the weaning unit to maximum-level intensive care.

As a modern universal ventilator for invasive and non-invasive applications, even the basic version of elisa 500 features the unique tandem sensors, transpulmonary pressure measurement, CuffScout and high-flow oxygen therapy. A variety of hardware and software options are available as a modular system:

Hardware options:

- CO₂ sensor: main stream measurement
- Weaning indicator: MIP
- Additional low-pressure feed for oxygen
- Versatile interfaces for PDMS, NO systems and monitoring equipment
- Data hub for simultaneous, multiple data export
- Additional battery for another 2 hours
- Beamer port



Software options:

- Expanded ventilation mode package (ALPV®, CPR, PC-APRV)
- Mode: WOBOV®
- Mode: PAPS®
- HFOT
- Neonatal mode
- Expanded PEEPfinder® (with automatic display of inflection points & recruitability)
- Weaninganalyzer© (SAT & SBT)*
- Loop package including reference loops

* optional

** Illustrations may differ from the original.

elisa 300**

elisa 300 combines compact-class advantages with the performance characteristics of a modern universal ventilator for invasive and non-invasive ventilation therapy. With a peak flow of up to 300 litres per minute, the high-performance, noise-optimised turbine guarantees sufficient flow capacities for mask ventilation.

The innovative user interface and the comprehensive device configuration options are the basis for versatile application options in intensive care, intermediate care, emergency rooms or during in-hospital transport. The 12.1-inch display with a stunning colour performance is the key operating element to guarantee simple operation.

Numerous functions provide support with routine tasks, and the extensive software and hardware options open up versatile application options in daily clinical practice:

Hardware options:

- CO₂ interface (without sensor)
- CO₂ sensor: main stream measurement
- Weaning indicator: MIP
- Additional low-pressure feed for oxygen
- Versatile interfaces for PDMS, NO systems and monitoring equipment
- Beamer port
- Additional battery for another 2 hours



Software options:

- Expanded ventilation mode package (ALPV®, CPR, PC-APRV)
- Mode: WOBOV®
- Mode: PAPS®
- HFOT
- Neonatal mode
- PEEPfinder®
- Weaninganalyzer® (SAT & SBT)*
- Loop package including reference loops

* optional

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RESPIRATORY GAS HUMIDIFICATION

HUMIDIFIER

AIRCON

The Aircon respiratory gas humidifier successfully combines modern technology and innovative design, meeting medical needs along with economic marketplace expectations.

It produces an optimal, physiologically conditioned respiratory gas, which protects the mucous membranes of mechanically ventilated patients from drying out and prevents mucociliary clearance impairment.

- Self-explanatory icons and pictograms
- Stand-by function for necessary therapeutic interventions
- 3 function modes (IV, NIV, FREE)
- "Overboost" function for the expiratory heating wire
- Suitable for all ventilators
- Heating wire distribution cable
- Intelligent alarm management
- Automatic water level monitoring
- Event and alarm log



MR810

Heated humidifier

- Three temperature and humidity settings
- Ambient temperature sensor
- Reduces condensation in the system when breathing circuits with heating wires are used



MR850

- Optimal temperature and humidity settings for adults, children and neonates selectable with a single button
- Quick set-up with easy-to-use controls and clearly structured displays
- Hospital-based alarm system
- Modern algorithms and airflow detection optimise the humidity supply and minimise unnecessary alarms
- Automatic stand-by in case of interrupted gas flow or low water levels



charisma - high-flow CPAP solution

charisma stands for a new generation of clinical respiratory therapy devices that was developed particularly for modern challenges and enables all kinds of CPAP and high-flow therapy. Thanks to its easy operation, versatile respiratory therapy modes, integrated consumption-free oxygen gauge and adjustable alarm limits, the device can be used in acute care units such as recovery rooms, monitoring wards, physiotherapy and general wards.



Areas of use and application:

- Application in intensive care units, IMC, anaesthesia, general wards and emergency rooms
- Suitable for use with helmet ventilation, nasal CPAP and high-flow CPAP

charisma's benefits for CPAP and high-flow therapy:

- Integrated drug nebuliser
- Modes for helmet CPAP, mask use and nasal application
- Consumption-free oxygen sensor for FiO_2 monitoring
- Leakage compensation up to 200 l/min
- High pressure stability
- Intelligent alarm system

Functions:

- Helmet CPAP



- High Flow CPAP



- CPAP



- HFOT



alpha 301/302

Improved ventilation with recruitment

Respiratory therapy with intermittent positive pressure breathing (IPPB therapy) is a recognised treatment concept for obstructive pulmonary diseases. The administration of inhalation aerosols is recommended for patients with greatly reduced ventilation reserves and pronounced respiratory insufficiency. The alpha device family meets the various therapeutic needs of clinics and healthcare professionals for the treatment of COPD, asthma, respiratory insufficiency or pulmonary fibrosis.

The slow and deep inspiration supported by the respiratory therapy device leads to improved ventilation, which in turn facilitates improved gas exchange and better aerosol deposition. The adjustable expiratory resistance setting also contributes to these improvements and poorly ventilated peripheral lung segments can be much better served. That is essential for prevention because good ventilation is the best protection against infections. In addition, the IPPB therapy of obstructive pulmonary diseases can be supplemented with nebulising drugs, such as bronchospasmolytic or secretolytic agents.



- Compact device, suitable for use with children and adults
- Modern design with display
- Manual control option
- Sensitive trigger range
- Steplessly adjustable expiratory stenosis
- Controlled application of oxygen concentrations (21%, 30%, 40%, 50% O_2) for the length of the therapy session

ACCESSORIES

OXYGEN BLENDER

MAXBLEND 2

High-flow/low-flow air-oxygen blender

Maxblend 2 is an easy-to-use, low-maintenance blender with an integrated oxygen analyser. It features a variety of functions, including a backlit LCD and acrylic flow meter, intelligent alarms and an optional AC power supply. The modular flow meters can be added to the configuration. The whisper quiet operation enables bedside use without disturbing patient rest.



MAXVENTURI

High-flow air-oxygen blender

MaxVenturi was specifically developed as a high throughput interface, e.g. for air humidification systems. Using the proven Venturi principle, the device offers the option to mix ambient air with medical oxygen without the need for an air supply source.



MICROMAX

High-flow/low-flow air-oxygen blender

MicroMax offers the performance of a precise air-oxygen blend. In the high-flow variant, the total throughput range is 15-120 l/min, while the low-flow variant has a capacity of 3-20 l/min. MicroMax also includes a connection port for oxygen concentration measurement for continuous monitoring of the administered oxygen concentration with the optionally available oxygen analyser.



BLENDERBUDDY 2

Blenderbuddy 2 is a flow meter designed for use with Micromax or a different (existing) blender. It can be equipped with various oxygen analysers.



MAXBLEND LITE

In conjunction with an existing stand-alone blender, MaxBlend Lite offers the additional functionality of a backlit oxygen analyser with intelligent alarm settings and AC power supply.



ACCESSORIES

JOYCEclinic FF - the right solution for every situation

Our disposable JOYCEclinic FF mask for acute, non-invasive ventilation has become well-established in clinical practice. Rely on the proven quality of Löwenstein Medical to support your daily work.

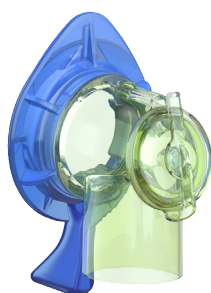
In response to the feedback of our customers, we have now optimised JOYCEclinic FF in two key areas:

The mask cushion has been made much longer and wider to quickly and reliably adjust to different contours, especially at the nasal bridge. The reinforced silicone area between the mask's cushion and body ensures a stable fit – even in case of sudden mask removal or higher pressure levels.

The 4 different, changeable elbows feature an intuitive, easy-to-use lever – to find the right mask for every situation and every device combination. The immediately recognisable quick-release cord quickly and easily disconnects the headgear, which remains snug-fitting even at high pressure levels.



JOYCEclinic FF is available in 3 sizes in the variants non-vented, non-vented with AAV (leakage 1) and vented with AAV (leakage 2).



Endoscopy adapter



Elbow



Mask body

The endoscopy adapter, available as a convenient accessory, enables bronchoscopy access without the need to interrupt the ventilation.

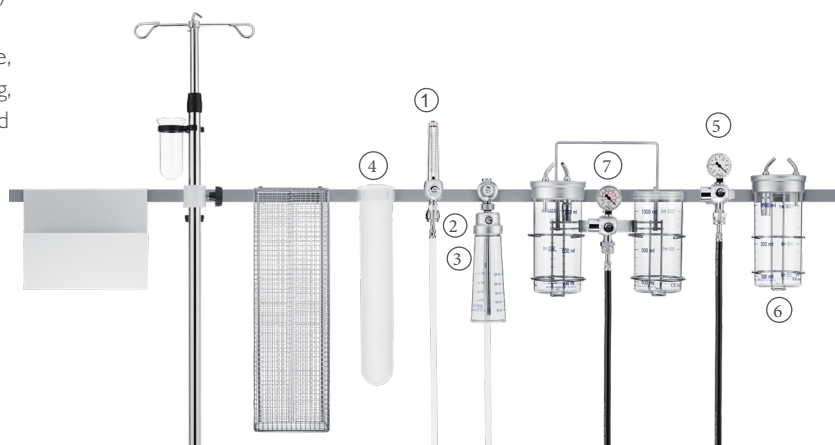
UNIFLEX rail system

The Uniflex rail system by Löwenstein Medical is an innovative, high-quality concept for all clinical application areas. The modular design of the Uniflex system enables maximum flexibility and a wide range of combination options. It is considered an indispensable standard in modern healthcare facilities, hospitals, clinics, nursing homes and medical practices.

Uniflex stands out for its full ground clearance as well as major utility, since all equipment needed for patient treatment is arranged at a convenient height and within easy reach. The wall space is optimally used for storing equipment and instruments.

Safe functionality and handling, optimal operation and use, versatile and flexible application. Humidification, suctioning, oxygen therapy, oxygen-air blender, equipment support, and much more.

1. Flow meter
- 2./3. Bubble humidifier / aerosol humidifier
4. Catheter quiver
5. Compressed air injector
6. Secretion suction receptacle
7. Bronchial suction system



ACCESSORIES

LIGHTING SYSTEMS

VISIANO 20-2

Uncompromising lighting is essential wherever there are high demands for visibility. Whether in family medicine or dermatology, ENT or gynaecology or in particularly sensitive wards such as NICUs or intensive care, VISIANO 20-2 is a true all-rounder. Thanks to its unique design, state-of-the-art lighting technology and the highest lighting quality, it provides optimal examination conditions.

- LED technology
- High illuminance 60,000 lx/0.5 m, light field diameter 210 mm
- Precise colour rendering Ra >95, R9 >90
- 4-step illuminance dimming
- Antimicrobial hygiene function in key parts of the luminaire
- Maximum action radius (360° rotation of the head)



VISIANO 10-1

VISIANO 10-1 is an LED examination light that doesn't sacrifice any professional light quality. In daily use, VISIANO 10-1 stands out for its excellent illuminance and large field of light. The sturdy flexible arm ensures reliable positioning and a long service life. The closed design prevents contamination.

- LED technology
- High illuminance 50,000 lx/0.5 m, light field diameter 180 mm
- Precise colour rendering Ra >93
- Colour temperature 4400 K
- Professional light quality thanks to unique diamond optics and premium LEDs
- Lamp head can be rotated 280° with handle
- High-quality aluminium rods and durable friction joints



HX LED

The small and sturdy examination light HX LED is ideally suited for intensive care units, patient rooms and medical practices. The light meets all important criteria for safe and precise examinations and is particularly cost-effective thanks to LED technology.

- LED technology
- 15,000 lx / 0.5 m, light field diameter 300 mm
- Precise colour rendering Ra >95
- Colour temperature 4000 K
- Rocker switch (1/0) on the luminaire head
- Spring-mounted joint system or flexible arm
- Low heat emission of light
- Designed to match various mounting elements or roll stands



ACCESSORIES

LM TEST LUNG

The Löwenstein Medical test lung, made of high-performance plastic and silicone rubber, is used for testing the ventilation function prior to the use of a ventilator. The device is calibrated to ensure that resistance and compliance values meet the various conformity specifications.

The 15-mm connection complies with ISO 5356-1 standards. The device is lightweight and compact for easy operation and storage. Airway resistors are optionally available in the sizes Rp 5, Rp 20 or Rp 50. The use of these devices simulates resistance. Pressure monitoring adaptors are also available for use with the resistance kit.



EASY LUNG™ NEONATAL

EasyLung™ Neonatal simulates the exact and sensitive ventilation situation encountered in very small premature babies, neonates or toddlers, where dosing the tidal volume requires the highest precision.

EasyLung™ Neonatal is the ideal test lung for testing neonatal ventilation devices.



- Autoclavable up to 134 degrees
- 20 ml @ PEEP = 0 mbar; $P_{insp} = 30$ mbar
- 0.7 ml/mbar @ V_t 20 ml
- 45 mm × 150 mm

COMPRESSOR SMART 50

The SMART 50 medical compressor is a source of clean and dry compressed air. It is free of oil traces and therefore optimally suited for medical ventilators. It can be used as the primary air source or as an automatic stand-by source in case of a ventilator failure. It is easy to handle when set up on a cart.

Alarms:

- Temperature
- Pressure
- Power

Display:

- Working pressure
- Operating hours
- Drying level*





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