



# INTENSIVE CARE VENTILATION

## LÖWENSTEIN MEDICAL

Homecare  
Pneumology  
Neonatology  
Anaesthesia  
INTENSIVE CARE VENTILATION  
Sleep Diagnostics  
Service  
Patient Support

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## INTENSIVE CARE VENTILATION

# VENTILATION



## Intensive Care Ventilation

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# INTENSIVE CARE VENTILATION



## ELISA 600

elisa 600 is an innovative standard breathing respirator for invasive and non-invasive artificial respiration in the case of all clinical conditions for patients weighing 2 kg and more.

A variety of hardware and software options allow for individual configuration to be made according to the requirements at hand, as well as providing for an artificial respiration platform that is assured a good future.

elisa 600 enables entry to the premium class of modern respirators with the highest quality of ventilation and extensive measurements. In the balance between financial investment and possible future developments the elisa600 is the innovative ventilation platform for now and in the future.

- Mesh nebuliser\*
- Cuffscout®\*
- Chest monitoring package\*
- CO<sub>2</sub> package\*

\* optional



## ELISA 800

elisa 800 is used in intensive care and well-suited for NIV, weaning indication, dynamic BiLevel, tube compensation, nebulisers, weaning analysers and PEEPfinder.

Advantages of the elisa 800 intensive care ventilator - Simply flexible

- Powerful hardware
- Modular software concept
- Expandable ventilation architecture
- Versatile interfaces
- Versatile option boxes
- Intelligent cable management
- Intelligent acoustic alarm system
- State-of-the-art power management
- Light sensor for day-night adjustment
- Integrated ventilation protocol



## ELISA 800VIT

VIT – Ventilator Integrated Tomography is the world's first fully integrated EIT system in an intensive care ventilator. The non-invasive pulmonary monitoring of the elisa 800VIT visualises for the first time ventilation-related complications and allows for direct therapy by the intensive care ventilator. As a result, ventilation becomes transparent as well as directly controllable.

- Reduces intra-hospital transports of critically ill ventilated patients
- Optimises ventilation settings and allows for adjusting them under visual control
- Helps identify and reduce ventilation related complications
- Allows for managing prone positioning therapy with pulmonary monitoring to optimise ventilation
- Identifies and prevents pulmonary collapse associated with the respiratory cycle

# HUMIDIFIER



## Active conditioning of respiratory gas

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# HUMIDIFIER



## AIRCON

### Heated Humidifier

The Aircon respiratory gas humidifier combines state-of-the-art technology with innovative design to produce a successful unit. The result is optimally physiologically conditioned respiratory gas, which protects the mucous membranes of the patient connected to the ventilator from drying out and prevents mucociliary clearance impairment.

- Three different modes for simple adaption as NIV ventilation and specific free adjustment of temperature level
- Automatic refilling
- Automatic optical observation of fill level via sensor
- User Interface for better displaying and best usability
- LCD colour display

## MR810

### Heated Humidifier

- Three temperature and humidity settings for patient comfort
- Integrated heater wire adapter
- Ambient temperature sensor
- Reduces circuit condensation when used with heated wire circuits

## MR850

### Heated Humidifier

Employing two selectable humidification modes, the humidifier sets the correct temperature and optimal humidity level automatically. The moisture sensor alerts staff reliably when water levels get too low.

- Humidifier with flow and temperature regulation
- For use with 7-day chamber MR 290
- With inspiratory heating and expiratory water trap or inspiratory and expiratory heating
- Alarm management via pictogram



# CPAP / IPPB



## CPAP / IPPB therapy

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# CPAP / IPPB



## CHARISMA

### High-flow CPAP device

Charisma represents a new generation of devices in clinical respiratory therapy developed especially for today's challenges and allowing all forms of CPAP therapy for adult and pediatrics, up from 3 kg bodyweight. Simple operation, different respiratory therapy modes, integrated oxygen measurement without consumption, and adjustable alarm limits make it suitable for use in acute care, physiotherapy, and on general wards.

- Perioperative treatment of patients with obstructive sleep apnoea ( DGAI recommendation!)
- Compact design without bellows reservoir
- High Flow CPAP up to 140 l/min
- Automatic regulation of patient flow
- Gas dosing via proportional valve
- Integrated oxygen/compressed air blender
- Optionally integrated paramagnetic O<sub>2</sub> cell
- Integrated drug nebuliser
- CPAP modes as Helmet CPAP, CPAP, direct High Flow CPAP and HFOT for nasal application
- Oxygen sensor without consumption for FiO<sub>2</sub> monitoring
- High pressure constancy
- Intelligent alarm system

## ALPHA 301/302

### IPPB therapy with the alpha 301/302

The alpha 301 (for connection to gas supply systems with compressed air and oxygen) / alpha 302 (for connection to gas supply systems with oxygen) positive pressure inhalation device allows you to perform tailored respiratory therapy. Use of the alpha 301 / 302 leads to improved gas exchange in the alveoli and thus better ventilation and supply of oxygen to the lungs. This is enabled by long, deep inhalation, which keeps the lungs inflated. There is also the option of nebulising drugs during the inhalation.

In the inspiration phase, the device works with a positive, final expiratory pressure which can be set and maintained, thus ensuring deep, regular ventilation of the lungs.

- Compact device suitable for children and adults
- For improved oxygenation and ventilation of the lungs
- Modern design with display
- Manual control option
- Sensitive trigger range for comfortable therapy
- Infinitely adjustable expiratory stenosis
- Controlled application of oxygen concentrations (21%, 30%, 40%, 50% O<sub>2</sub>) for the duration of the therapy



# NEBULISATION / GAS BLENDER



## Nebulisation / Gas blender

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# NEBULISATION / GAS BLENDER



## O<sub>2</sub>MIX

### Gas blender

The O<sub>2</sub>mix is state-of-the-art oxygen blender and characterised by its modular design and user-friendliness combined with high FiO<sub>2</sub> precision.

Thanks to its modular design concept, the O<sub>2</sub>mix can be customised to suit all individual requirements and freely configured:

- as a basic model with one or two flow meter(s);
- with an oxygen monitor for monitoring of the patient oxygenation;
- or as a “stand-alone O<sub>2</sub> monitor”

# ACCESSORIES



## Ventilation accessories

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# ACCESSORIES



## JOYCECLINIC FF

Increased patient safety thanks to optimal cuff pressure

With our new single-patient-use mask for acute, non-invasive ventilation, you'll recognise the familiar Löwenstein Medical quality. However, despite cost pressure in the hospital, you won't have to make any compromises. At the same time, the JOYCEclinic FF also allows rapid, simple adjustment of the mask and a secure, comfortable fit – even at pressures of up to 50 hPa. With the help of four different, interchangeable elbows, you can always find the right mask for every situation and device combination.

The headband fits stably even in high-pressure applications and can be disconnected quickly and without any complications with an immediately identifiable ripcord.

JOYCEclinic FF is available in three sizes in the versions non-vented, non-vented with AAV (leakage 1) and vented with AAV (leakage 2). The endoscopy adapter available as a practical accessory enables bronchoscopy without the need to interrupt the ventilation.



## COMPRESSOR SMART 50

The Smart 50 is a medical air compressor. The intended use is the wide range of Ventilators on ICU, Neonatology and Anaesthesia, as a backup for Medical Gas supplies, or as an independent Air supply. Medical compressor EKOM SMART 50 is the source of clean, dry compressed air free from oil traces for medical ventilators. It can be used as a primary source of air or an automatic stand-by source for the case of a failure of the central source in the medical establishment. When using it with a mobile rack, an easy handling is provided.

Alarms:

- Temperature
- Pressure
- Power

Indications:

- Outlet pressure
- Operating hours
- Drying\*

\* optional

# ACCESSORIES



## LM TEST LUNG

### Test Lung

Constructed from high performance plastic and silicone rubber, the Löwenstein Medical Test Lung is used for testing ventilator function before the ventilator is applied.

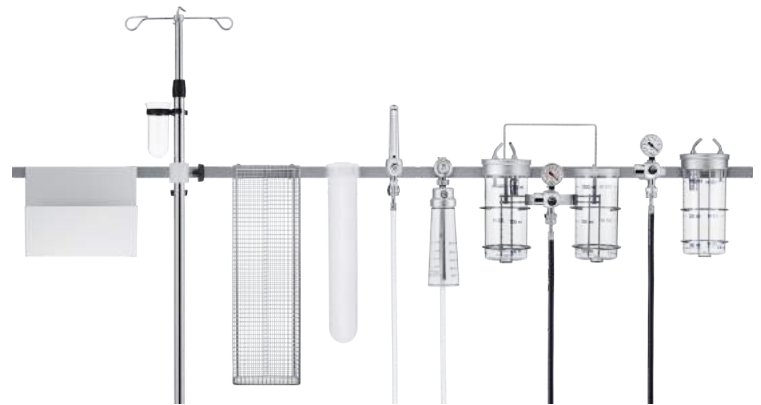
The units are calibrated, which makes certain that the resistance and compliance meet various confirmation specifications.

ISO-5356-1 standards are met by the 15 mm. connector.

This device is simple, lightweight and compact. It is easily used and stored.

Airway resistors are optionally offered in sizes Rp 5, Rp 20 or Rp 50. When used, these devices simulate resistance.

Pressure monitoring ports are also available for use with the resistor kit.



## UNIFLEX

### Rail system

The Uniflex rail system from Löwenstein Medical is an innovative and high-quality concept for all clinical application fields. The modular construction of the Uniflex system allows optimal flexibility and a wide variety of combination possibilities, which is seen as an indispensable standard in modern, healthcare-oriented facilities, hospitals, clinics, curative medical facilities, and doctors' offices.

Uniflex is characterised by its complete lack of contact with the ground and its great handling, as all the devices required to treat the patient are arranged at the perfect height for their purpose and in a clearly set out fashion. The perfect means of utilising wall space to store devices and fittings.

The close customer relations, high quality and encouragement of our employees' expertise form the foundations for our philosophy. We always have our sights on our goal: ultimate customer satisfaction for customised, holistic system solutions.

# LIGHTING SYSTEMS



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## Lighting systems



# LIGHTING SYSTEMS



## VISIANO 20-2

### Examination light

Wherever it is necessary to have the highest standards of vision, uncompromising lighting is essential. Be it in a GP's or dermatologist's office, in ENT or gynaecology, or in particularly sensitive areas such as neonatal and intensive care units. The VISIANO 20-2 is a true all-rounder. With its unique design, state-of-the-art lighting technology, and premium light quality, it ensures optimal examination conditions.

- LED technology
- High light intensity 60,000 lx / 0.5 m, light field 210 mm
- Precise colour rendering Ra > 95, R9 > 90
- Light intensity can be dimmed (4 levels)
- Antimicrobial hygiene function on important light components
- Maximum range of application (head can be rotated 360°)

## VISIANO 10-1

### Examination light

The VISIANO 10-1 is an LED examination light which makes no compromises whatsoever on professional light quality. In daily use, the VISIANO 10-1 impresses with its outstanding light intensity and large light field. The robust flexible arm ensures secure positioning and durability. The closed design protects against dirt ingress.

- LED technology
- High light intensity 50,000 lx / 0.5 m, light field diameter 180 mm
- Precise colour rendering Ra > 93
- Colour temperature 4,400 K
- Professional light quality thanks to unique diamond optics and premium LEDs
- Light head can be rotated 280° with handle
- High-quality aluminium arm system and durable friction joints

## HX LED

### Examination light

The small and robust HX LED examination light is aesthetically appealing and perfect for intensive care units, patients' rooms, and doctors' offices. The light satisfies all the important criteria on safe, precise examination and is particularly cost-effective thanks to its LED technology.

- LED technology
- 15,000 lx / 0.5 m, light field 300 mm
- Precise colour rendering Ra > 95
- Luminous colour 4,000 K
- Rocker switch (I/O) on light head
- Spring-balanced joint system or flexible arm
- Low heat radiation in light
- Minimal maintenance costs thanks to LED technology
- Compatible with various fixation elements and wheeled stands



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