



ANAESTHESIA

LÖWENSTEIN MEDICAL

Homecare
Pneumology
Neonatology
ANAESTHESIA
Intensive Care Ventilation
Sleep Diagnostics
Service
Patient Support

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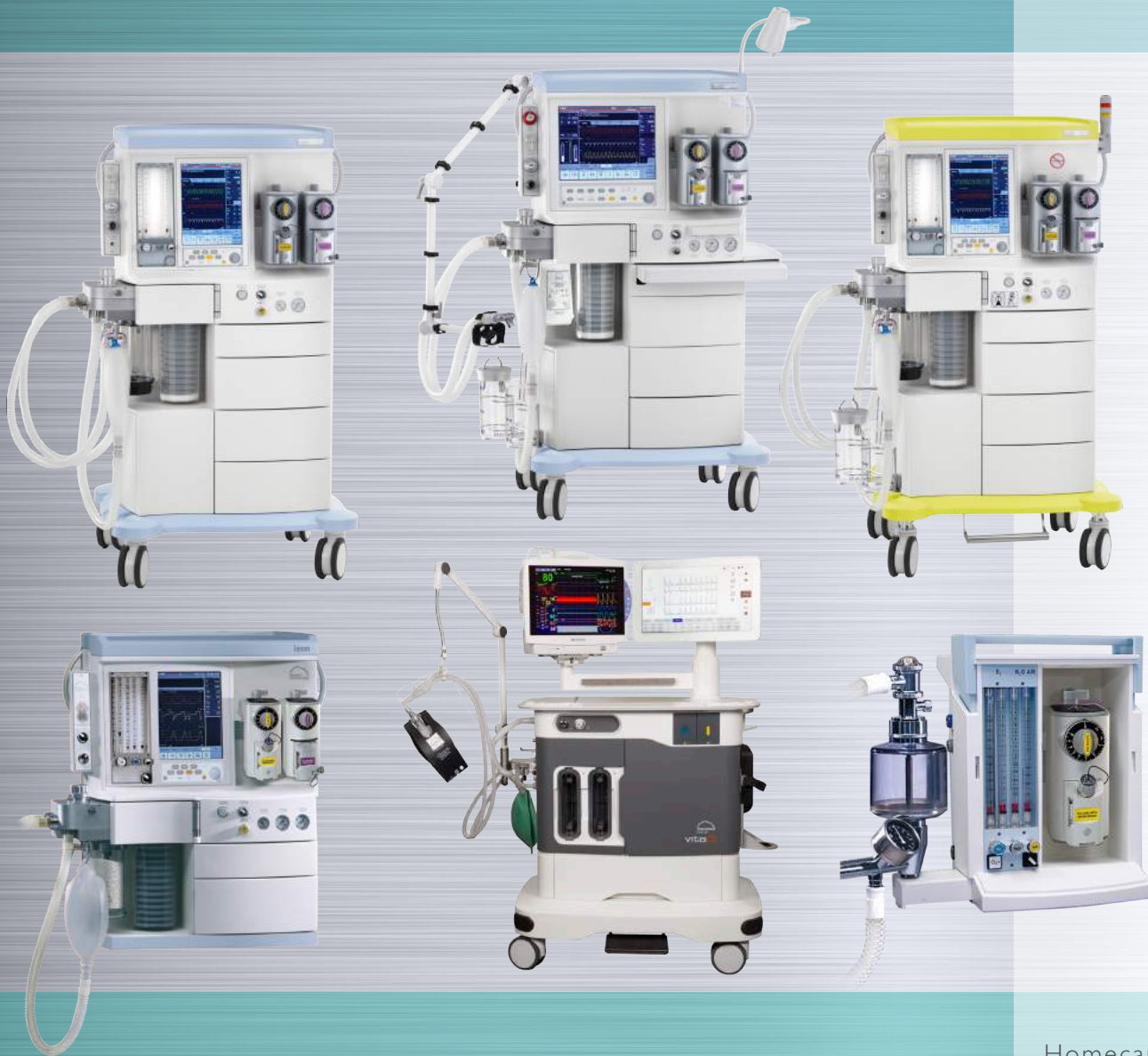
The successes of modern medicine and medical engineering are inseparably linked. In both hospital and home care situations, diagnostics and treatment concepts are commonplace to an extent considered completely unimaginable as recently as just a few decades ago.

In addition to the restoration of bodily functions, the patient's quality of life throughout the treatment is playing an increasing role in the public discussion about medical advances – and rightly so. Innovative manufacturers in the medical engineering sector have been addressing this requirement for many years, and many treatment procedures are more effective, cheaper and at the same time put the patient under less strain nowadays.

Löwenstein Medical is a manufacturer and distributor of high-quality medical devices in the fields of neonatology, anaesthesia, sleep diagnostics and respiratory therapy. We have been maintaining a leading position in most markets for some years now. As a medium-sized, family-run company, we foster long-term partnerships with some of the largest medical engineering companies in the world.

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LEON

The most modular anaesthesia workstations in their class

The advances in anaesthesia treatment are accompanied by increasing requirements on modern anaesthesia workplaces. To do justice to these new requirements, Löwenstein Medical developed in Leon an anaesthesia support which offers optimal support in routine clinical practice with its high technical performance.

Leon unites a tried-and-tested hygiene concept and ergonomic design with state-of-the-art technology and sophisticated expansion options. Among other features, Leon offers rebreathing ventilation performance up to the standard of an intensive ventilator.

The absorber can be changed during operation and there are different platform concepts available for ceiling suspension and wall installation. In addition, Leon is equipped with a 12" TFT touch screen.

Developed modularly as a real platform concept, these modern anaesthesia supports can be completely integrated in your specific work environment and tailored precisely to your internal workflows.

This customisability ensures maximum comfort and optimal support in the introduction, in surgery, in treatment and in every hospital system.

- Rebreathing ventilation performance up to the standard of an intensive ventilator
- 12" TFT colour touch screen
- Classic gas mixture via flow tubes
- Pneumatic ventilator drive
- Patient system designed for efficient reprocessing and simplest assembly
- Absorber can be changed during operation
- Ventilation technology allowing appropriate care of patients of all ages
- Ventilation modes: IMV, SIMV, PCV, Man. Spont., (optional: SPCV, PSV, HLM)
- Function for monitoring patient during regional anaesthesia (MON - mode)
- Optional gas measurement with gas identification
- Integrated bronchial aspiration
- Backup Battery up to 100 minutes

ANAESTHESIA



LEON PLUS

The most modular anesthesia workstations in their class

The advances in anaesthesia treatment are accompanied by increasing requirements on modern anaesthesia workplaces. To do justice to these new requirements, Löwenstein Medical developed in Leon plus an anaesthesia support which offers optimal support in routine clinical practice with its high technical performance.

Leon plus unite a tried-and-tested hygiene concept and ergonomic design with state-of-the-art technology and sophisticated expansion options.

Among other things, the device offers rebreathing ventilation performance up to the standard of an intensive care ventilator; precise, electronic gas blending in a wide flow range and different platform versions for ceiling suspension and wall installation. The absorber can be changed during operation.

In addition, Leon plus boasts a 15" TFT colour touch screen and is available with a gas sensor with different equipment options; the display is integrated in the screen – with and without gas identification.

- Standard equipment of Leon
- 15" TFT colour touch screen
- Precise electronic gas mixture in a wide flow range of 200 ml/min up to 18 l/min, thus usable from the open to semi-closed circuit systems
- Gas sensor available in different options and integrated into user interface with gas identification
- Optional view of 4 real-time graphs simultaneously
- Complete data management with trend display
- Pressure-supported spontaneous ventilation PSV (ASSIST)
- Ventilation modes: IMV, SIMV, optional PCV - VTG Tidalvolume Guaranty, Man. Spont., SPCV, PSV, HLM
- Fresh gas economizer
- Function for monitoring patient during regional anaesthesia (MON-Modus)
- Upgrade option: Neo mode
- Additional update option: HL-7 interface

ANAESTHESIA



LEON WALL AND LEON PLUS WALL

The two anaesthesia devices Leon and Leon plus are available as ceiling suspension and wall installation units. Leon Wall and Leon plus Wall unite a tried-and-tested hygiene concept and ergonomic design with state-of-the-art technology and sophisticated expansion options.

Among other things, both devices offer rebreathing ventilation performance up to the standard of an intensive care ventilator; Leon plus has a precise, electronic gas blending in a wide flow range of 200 ml/min to 18 l/min and Leon has a manual mixer. Both devices have different platform versions for ceiling suspension and wall installation. The absorber can be changed during operation.

In addition, Leon plus Wall boasts a 15" TFT colour screen and is available with a gas sensor with different equipment options; the display is part of the user interface – with automatic identification.

Both devices are identical to the standard devices in their construction. In this way, Löwenstein Medical offers additional application possibilities in the field of anaesthesia for structuring your workflows even more flexibly. You can assemble the workstation tailored to your individual needs on the platform base of a Leon or Leon plus. These anaesthesia workstation modules offer you top flexibility and safety now and in the future.

ANAESTHESIA



LEON MRI

The most innovative MRI anaesthesia device in its class

The Leon mri was designed specially for use in MRI environments with field strengths of up to 40 millitesla. It can thus be operated with 1.5 tesla and 3.0 tesla MRI systems. An LED visible from all sides and easily identifiable even from outside the MRI field alerts personnel to alarms and notifications in different colours depending on their priority.

- Both the range of services and the operation of the Leon mri correspond exactly to those of the already tried-and-tested Leon – with no limitations.
- A further major logistical advantage can be found in the compatibility of the compact circuit system with the Leon plus, Leon and Leon mri systems.
- The position to the MRI is monitored by an integrated magnetic field strength monitor.
- The Leon mri is equipped with a central brake to ensure it stays as positioned. This makes it possible to lock all four wheels at the same time via one foot lever.
- Upgrade option: Neo mode and VTG (Tidalvolume guaranty)
- The device can also be optionally connected up to a second screen outside of the MRI environment using a fibre-optic cable.

SINUS

Sinus' functional design never fails to impress users, be it in hospitals or private practices. In addition, the anaesthesia unit has also proven its worth on the go and in transport situations.

Sinus can be used with an ISO circuit system or semi-open anaesthesia system. Sinus can optionally also be used as a portable unit, a compact wall-mounted device or mobile unit.

ANAESTHESIA



vitaQ™

The future begins now

vitaQ™ represents a revolution in the way we approach and understand anaesthesia and ventilation today. The closed platform vitaQ™ is a world leader with its technology and allows complete control and far superior ventilation whilst providing the user with information about the patient's physiology and metabolism.

vitaQ™ is the first of its kind to comprise a completely closed system for the use of conventional volatile anaesthetics like desflurane, sevoflurane, and isoflurane. When the concentration is adjusted, excess volatile gas is absorbed by a specially developed charcoal filter.

The electronic control mechanisms (closed loop) ensure that the inspiratory and expiratory gas concentrations set by the anaesthetist are automatically maintained.

vitaQ™'s intelligent complete concept with its ultra-quiet, high-performance turbine and valveless circuit allows time constants in the range of seconds. As such, the ventilation possibilities are practically without limits. Only the exact quantity of gas which is actually required is supplied.

Xenon can now exclusively be used as an anaesthetic. The programmable Qapps™ for further optimization of the anaesthesia and ventilation workflows also open up completely new opportunities and underscore how unique vitaQ™ is.

ADVANTAGES AT A GLANCE:

- Complete control of anaesthesia and ventilation
- Target controlled quantitative anaesthesia
- Information on the patient's physiology and metabolism
- Flexible in its use – from newborns to adults
- Minimal gas consumption
- Comprehensive safety concept
- Simple and rapid hygienic reprocessing
- Xenon – anaesthetic and organ protector (optional)

RECOVERY ROOM



Recovery room

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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. 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 (DGA1 recommendation¹⁾)
- 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 O₂ cell
- Integrated drug nebuliser
- CPAP modes as Helmet CPAP, CPAP, direct High Flow CPAP and HFOT for nasal application
- Oxygen sensor without consumption for FiO₂ monitoring
- High pressure constancy
- Intelligent alarm system

RECOVERY ROOM



O₂MIX

Gas blender

The O₂mix is a state-of-the-art oxygen blender characterized by a modular design and user-friendliness combined with FiO₂ precision.

Thanks to its modular design concept, the O₂mix can be customized 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 monitor"

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LEONSORB PLUS

Disposable absorber

HIGH CO₂ ABSORPTION

Leonsorb plus displays very efficient absorption capacity in low-flow and minimal-flow anaesthesia. Test results confirm that the absorber with a volume of 1.15 kg absorbs more than 150 litres of CO₂ before experiencing a 0.5% CO₂ breakthrough. The ultimate advantages of this feature are cost savings associated with the higher absorption capacity.

The chemical composition of the Leonsorb plus soda lime ensures high CO₂ absorption. A moisture content of 15.5% prevents the soda lime from drying out during use.

PRODUCT FEATURES AND ADVANTAGES:

- Unique geometry: Effective form for CO₂ absorption
- Reduced response time leads to high absorption values
- Maximum use of the soda lime
- Low dust formation
- Cost savings thanks to high absorption capacity and large absorber volume

LEONSORB PREMIUM

Disposable absorber

HIGH CO₂ ABSORPTION

Leonsorb premium displays very efficient absorption capacity in low-flow and minimal-flow anaesthesia. Test results confirm that the absorber with a volume of 1.15 kg absorbs more than 140 litres of CO₂ before experiencing a 0.5% CO₂ breakthrough. The ultimate advantages of this feature are cost savings associated with the higher absorption capacity.

The chemical composition of the soda lime prevents the formation of compound A. The moisture generated by the reaction with CO₂ ensures that the soda lime can never dry out during use.

PRODUCT FEATURES AND ADVANTAGES:

- Unique geometry: Effective form for CO₂ absorption
- Maximum use of the soda lime
- Low dust formation
- Cost savings thanks to high absorption capacity and large absorber volume
- No formation of compound A
- Colour change lasts for longer than that of conventional soda lime

ACCESSORIES



DUOSCOPE™

The new disposable emergency laryngoscope

Löwenstein Medical presents the new disposable emergency laryngoscope DUOSCOPE™ with two blades in one. It is available in three sizes: Child/Adult, Child/Adult (large), Adult/Adult (large). Thanks to its simple and practical opening mechanism, the DUOSCOPE™ can be used directly and is immediately ready for use in emergency situations. The disposable DUOSCOPE™ is a cost-effective alternative to reusable laryngoscopes and reduces the risk of cross-contamination.

The device is made of high-quality, resilient rigid resin and can be used from both sides thanks to its double-sided lights. These guarantee 24 hours of continuous illumination. The DUOSCOPE™ can be used in preclinical and clinical situations: in emergency service vehicles, in ambulances, by the military and medical services, in airplanes, helicopters and in clinics.



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 characterized both 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 utilizing wall space to store devices and fittings.

ACCESSORIES



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 $R_a > 95$, $R_9 > 90$
- 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 $R_a > 93$
- 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 $R_a > 95$
- Luminous colour 4,000 K
- Rocker switch (I/O) on light head
- Spring-balanced joint system or flexible arm
- Low heat radiation in light
- Compatible with various fixation elements and wheeled stands



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