LÖWENSTEIN
medical

LENA

Reliable at high pressure too.

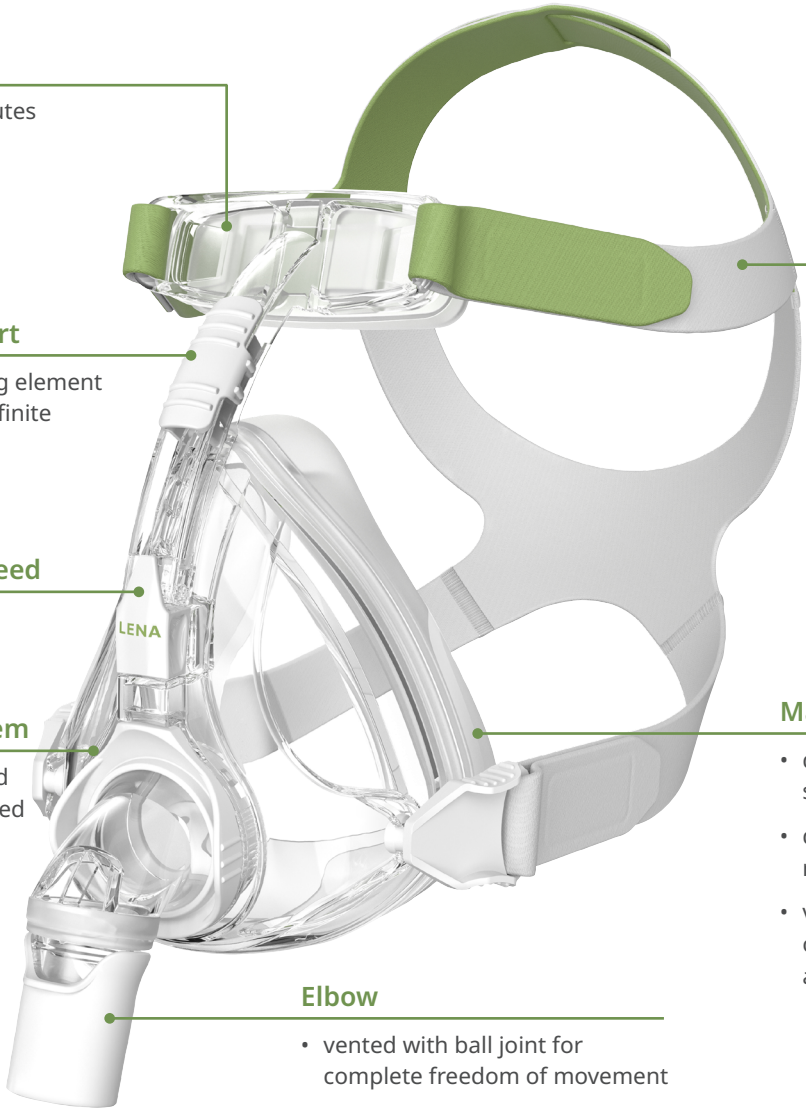
With people in mind

LENA

Different needs. One mask.

Most people breathe in and out without having to think about it. Patients with respiratory insufficiency or sleep-related respiratory disorders need help with breathing. The full-face mask LENA from Löwenstein has been developed specially for ventilation. The primary focus is on a comfortable mask fit, particularly when high pressures are applied or when the pressure difference between inspiration and exhalation is considerable.

- Pressure remains stable
- 35 mbar – Large pressure range
- Ventilation
- in hospital
- at home
- 24h – Day and night
- disinfectable and sterilizable



Forehead cushion

- broad surface distributes pressure evenly

Forehead support

- easy-to-use sliding element permits almost infinite adjustment

Connection for O_2 feed

- no adapter required

Exhalation system

- quiet and diffused flow for unimpaired wearing comfort

Headgear

- withstands high pressures and big pressure differences
- color coding helps with correct mask assembly
- rounded edges leave no marks on skin

Mask cushion

- double lip for a perfect seal all round
- design with anatomically rounded, soft edges
- varied structure on the surface ensures a good, lasting fit

Elbow

- vented with ball joint for complete freedom of movement
- non-vented for valve circuit ventilation

Three factors are essential for an optimum mask fit at high therapy pressures.

The mask cushion stands out with its double lip. The therapy pressure creates an air cushion that provides a perfect seal without causing any pressure points. The shape mirrors the anatomy and is based on two aspects:
Our patient face database that has been growing for many years and the market feedback that is constantly collected and evaluated.

The second important factor concerns the connection between mask cushion and mask body. On the one hand, the connection must be stable during the therapy – both at constantly high pressures and with high pressure differences during inspiration and exhalation with BiLevel therapy.

On the other hand, the connection must be easy to disassemble so that it can be cleaned simply and effectively. An apparent paradox that LENA resolves effectively.

The headgear completes the essential triad. The headgear material is strong enough to ensure that the mask does not leak or become unstable at high pressure differences. An individually adjustable forehead support including forehead cushion gives LENA extra grip.

Spare parts/accessories

LENA headgear

Standard: LMT 26435
XL: WM 25338

LENA mask cushion

Size S: LMT 26602
Size M: LMT 26603
Size L: LMT 26604

LENA ripcord

LMT 26464

Endoscopy adapter NV

LMT 15968

NV elbow set

LMT 15970

LENA elbow set

LMT 15969

Further information about our therapy solutions, accessories and mask systems is available at **loewensteinmedical.com**

Technical specifications

	LENA	LENA NV
Product class to (EU) Medical Device Regulation 2017/745	II a	II a
Dimensions (H x W x D) • Size S • Size M • Size L	 155 x 100 x 95 mm 165 x 100 x 95 mm 175 x 100 x 100 mm	 155 x 100 x 105 mm 165 x 100 x 105 mm 175 x 100 x 110 mm
Weight • Size S • Size M • Size L	 137 g 141 g 150 g	 135 g 139 g 148 g
Dead space • Size S • Size M • Size L	 246 ml 288 ml 326 ml	 252 ml 270 ml 321 ml
Therapy pressure	4 hPa – 35 hPa	4 hPa – 35 hPa
Tapered tube connection to EN ISO 5356-1	Ø 22 mm (male)	Ø 22 mm (female)
Temperature range • Operation • Storage	 +5 °C to +40 °C -20 °C to +70 °C	 +5 °C to +40 °C -20 °C to +70 °C

	LENA	LENA NV
Flow resistance • at 50 l/min • at 100 l/min	 0.32 hPa 0.68 hPa	 0.04 hPa 0.14 hPa
Flow resistance, anti-asphyxia valve • Inspiration at 50 l/min • Exhalation at 50 l/min	 0.6 hPa 0.8 hPa	 - -
Switching pressure, anti-asphyxia valve • Open: • Close:	 ≤ 1.0 hPa < 4.0 hPa	 - -
Quoted two-figure noise emission value to ISO 4871: • Sound pressure level: • Sound power level: • Uncertainty factor:	 12 dB(A) 20 dB(A) 3 dB(A)	 - - -
Service life	5 years	5 years
Useful life	up to 12 months [1]	up to 12 months [1]
Standards applied	EN ISO 17510: 2020	EN ISO 17510: 2020

[1] Materials used to manufacture masks will age if exposed to aggressive detergents, for example. In individual cases, it may therefore be necessary to replace mask parts sooner.

Reprocessing

Material of mask parts	Chemical disinfection	Thermal disinfection	Sterilization	Cycle	Hand wash	Dishwasher
Plastic	•	•	–	30	daily	weekly
Silicone	•	•	•	30	daily	weekly
Textile	–	–	–	–	weekly	–

Details of reprocessing can be found in the "Information on hygiene treatment" brochure on our homepage.

Device name	Size	Article no.
LENA	S	LMT 26460
LENA	M	LMT 26470
LENA	L	LMT 26480
LENA NV	S	LMT 26960
LENA NV	M	LMT 26970
LENA NV	L	LMT 26980

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Made in Germany

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With people in mind

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