VBM

LT®evo

Supraglottic airway device for routine anaesthesia and emergency use

INSPIRED BY CHALLENGE

PERFECTED BY INNOVATION

WHAT DOES IT TAKE TO TURN AN IDEA INTO A PRODUCT?

In the late 1990s, our founder, Volker Bertram, recognised opportunities to improve airway management — existing methods were often invasive, complex, and not always practical in emergency situations. With a clear vision for a safer, simpler solution, our team brought a new concept to life: the Laryngeal Tube.

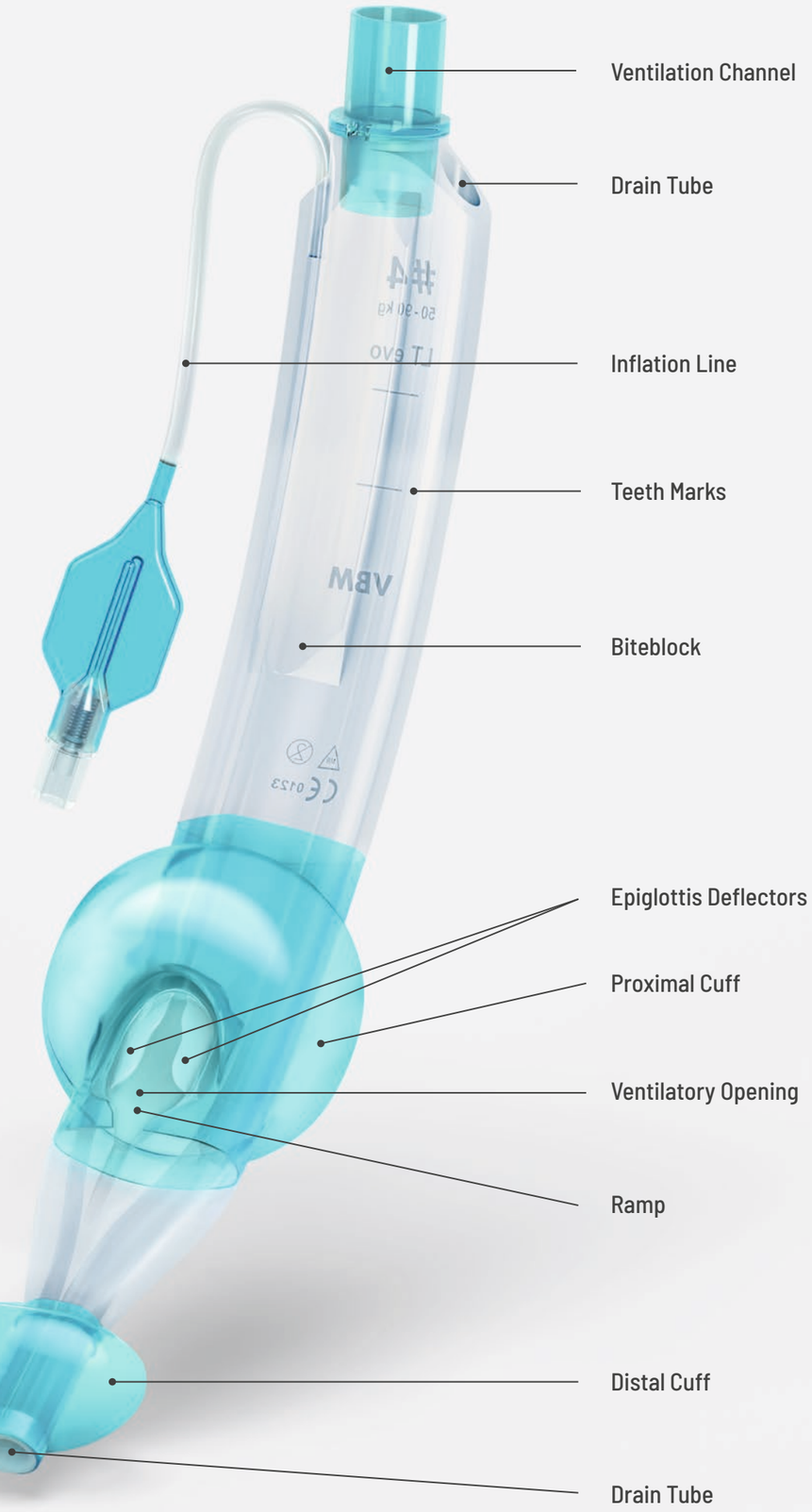
The year was 1999.

After several device versions in line with evolving medical aspirations and industrial know-how, the Laryngeal Tube had earned its place among the leading players in airway management. With over 25 years' experience, the Laryngeal Tube has been used on a growing number of patients, mainly for cardiopulmonary resuscitation.

THE BEGINNING OF THE EVOLUTION

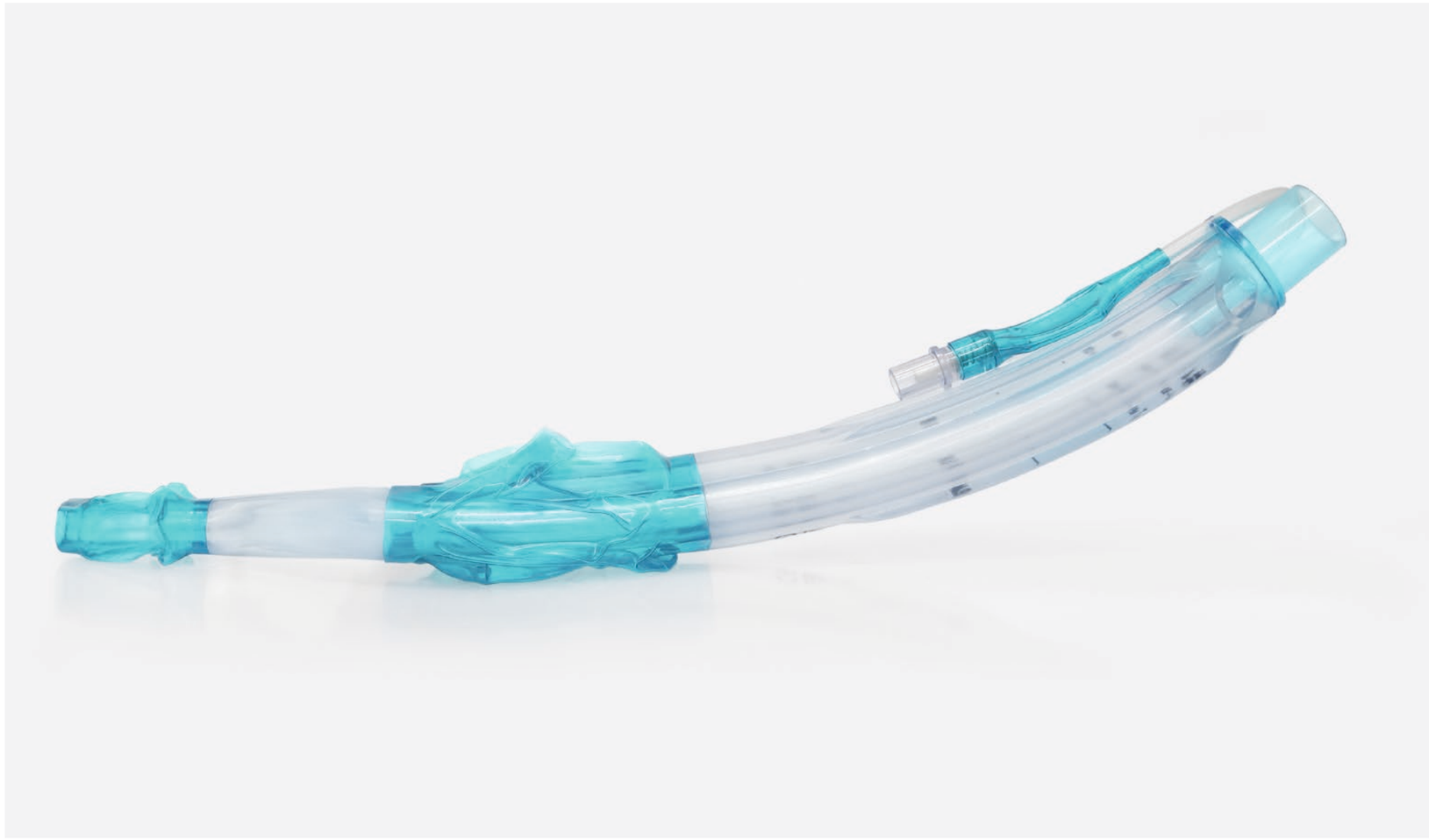
Building on the legacy of the original Laryngeal Tube, our latest innovation represents the next step in airway management – the LT®evo.

This evolution introduces a completely new production process that enhances manufacturing efficiency without compromising quality. The LT®evo features a larger ventilation channel, designed not only to improve airflow but also to allow intubation through the tube if needed. Additionally, softer, more flexible materials have been incorporated to maximise patient comfort during use. Designed to expand its role beyond emergency use, the LT®evo serves as a reliable, easy-to-insert airway device ideal for routine anaesthesia across a wide range of patients.



ANATOMICAL DESIGN

The curvature of the LT®evo fits the contours of the relaxed anatomy of the upper airway and the oval cross-section contributes to guide the device through the hypopharynx.



EASE OF INSERTION

The conical distal tip and the slim oval cross-section contribute to overcome the resistance to placement. The LT®evo follows the hard palate and enters the hypopharynx before the distal end finally rests in the oesophageal opening.

The LT®evo is suitable for a wide range of patients (minimum interdental gap 19 mm), from routine anaesthesia to emergency use.

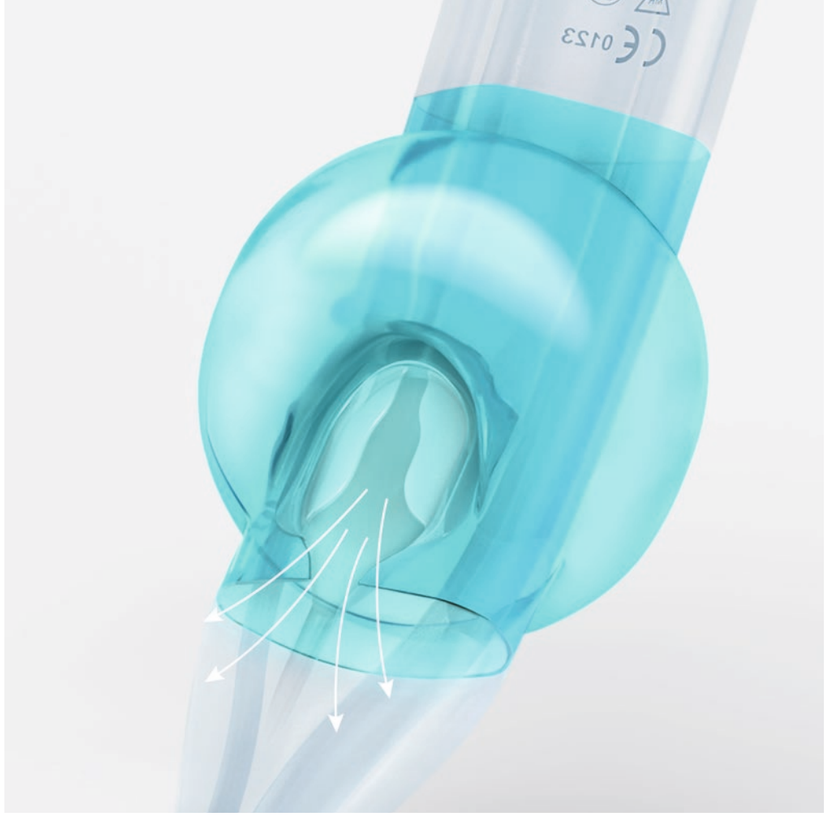
OPTIMAL SEALING MECHANISM

Efficient ventilation as well as active prevention against regurgitation and gastric insufflation are paramount to a successful airway management (1).

The two cuff design strategy of the LT®evo is unique with the proximal cuff forming a sealing above the respiratory tract and the distal cuff securing the gastrointestinal tract.

The two thin-walled cuffs with specific individual shapes are inflated at the same time to obtain an efficient oropharyngeal and oesophageal sealing at a low cuff pressure (< 60 cm H_2O).

(1) Nolan J. et. al., Advanced Life Support, 5th Ed., Resuscitation Council UK, 2006, p. 46



EFFICIENT VENTILATION

Between the two cuffs, the large ventilatory opening allows an optimal flow for gas exchange. Thanks to its excellent oropharyngeal and oesophageal sealing, the LT®evo is indicated for all supraglottic airway management.

The special epiglottis deflectors along the ventilatory opening are reducing the risk of the epiglottis folding into the ventilation channel.

POSITION

1 Large ventilatory opening to allow an optimal flow for gas exchange
2 Drain tube to confirm correct placement and to reduce the risk of aspiration
3 Two thin-walled cuffs to obtain an efficient oropharyngeal and oesophageal sealing at a low cuff pressure (< 60 cm H_2O)
4 Teeth marks as indicator for depth of insertion and for repositioning
5 Built-in biteblock to prevent damage to the device and airway obstruction during biting

TRACHEAL INTUBATION

The large ventilation channel enables the passage of a regular tracheal tube. The integrated ramp at the outer curve of the ventilatory opening is directing the tracheal tube towards the glottic inlet. It is recommended to attempt tracheal intubation with fiberoptic guidance.

GASTRIC ACCESS

Efficient protection against regurgitation relies on a large capacity of fluid channeling and evacuating together with an optimal oesophageal sealing (2). The LT®evo allows the usage of large size gastric tubes (up to 18 Fr for LT®evo #4 and #5).

The distal cuff rests in the oesophageal opening and forms an efficient sealing that serves the purposes for routine anaesthesia and emergency use. Inserting a gastric tube without resistance may be helpful to confirm correct placement of the LT®evo.

(2) Brimacombe J. R., Laryngeal Mask Anesthesia, 2nd Ed., Saunders, 2005 - Chapter 5 – Seal with the respiratory and gastrointestinal tracts.

PRODUCT SPECIFICATIONS

Size	Patient Weight	Gastric Tube Size (via Drain Tube)	Tracheal Tube Size (via Ventilation Channel)	Minimum Interdental Gap	Recommended Cuff Inflation Volume
2	10 – 25 kg	≤ 12 Fr	≤ 6.7 mm O.D. (5.0 mm I.D., uncuffed)	13 mm	30 ml
3	25 – 50 kg	≤ 16 Fr	≤ 8.7 mm O.D. (6.5 mm I.D.)	17 mm	40 ml
4	50 – 90 kg	≤ 18 Fr	≤ 10.7 mm O.D. (8.0 mm I.D.)	19 mm	45 ml
5	> 90 kg	≤ 18 Fr	≤ 10.7 mm O.D. (8.0 mm I.D.)	19 mm	50 ml

TESTIMONIALS

"Since the introduction of the Laryngeal Tube 25 years ago, I have followed and witnessed the development of this supraglottic airway device. It is particularly noteworthy that VBM has continuously refined the product and, with the LT®evo, has now optimised it for safe use in routine anaesthetic procedures. This consistent refinement is a valuable contribution to patient safety and clinical practice."

PD Dr. med. Harald Genzwuerker

Specialist in anaesthesiology, intensive care medicine, emergency medicine
Buchen/Germany
Chief emergency physician in the Neckar-Odenwald district

"I have been using the Laryngeal Tube for almost 20 years, both as an emergency physician and in the hospital for various operations involving airway management. The new LT®evo in particular is ideal for use in the operating theatre during various elective procedures for adequate airway management.
I was impressed by the excellent sealing at low cuff pressures (approx. 40 cmH_2O), its use in operations with a slight head-down position and the spontaneous breathing of patients with the LT®evo in place."

Prof. Dr. med. Christoph Wiese

Chief Physician at the Clinic for Anaesthesia and Intensive Care Medicine
Herzogin Elisabeth Hospital Foundation, Braunschweig/Germany
Medical Director of Emergency Medical Services in the Helmstedt district

"The close cooperation with VBM in the development of the new LT®evo was an enriching experience for me as an anesthesiologist and as someone who is an inventor myself.
From the beginning, the practical requirements of everyday clinical practice were taken seriously and directly integrated into the product design. Based on input from practical experience, VBM was able to develop an instrument that not only meets the highest safety standards but also makes everyday life in the operating room noticeably easier. The LT®evo combines innovative technology with practical solutions – a real step forward for patient safety and user-friendliness."

Prof. Patrick Schoettker

Head of Department of Anaesthesiology
University Hospital, Lausanne/Switzerland

"As one of the first users, I had the opportunity to test the new LT®evo in clinical practice. After just a few uses, it was clear that this was a significant improvement on the previous model. I was particularly impressed by the improved handling and optimized fit. I am very satisfied with its performance characteristics and consider the LT®evo to be a valuable addition to safe and efficient patient care."

Prof. Dr. med. Friedrich Pühringer

Medical Director and Chief Physician at the Clinic for Anaesthesia and Intensive Care Medicine
Kreiskliniken Reutlingen/Germany

ORDER INFORMATION

LT®evo / For single use, sterile

Size	Patient Weight	LT®evo With Syringe	QTY / Box	LT®evo	QTY / Box
2	10 – 25 kg	**REF 32-10-102-1**	1	**REF 32-10-002-1**	10
3	25 – 50 kg	**REF 32-10-103-1**	1	**REF 32-10-003-1**	10
4	50 – 90 kg	**REF 32-10-104-1**	1	**REF 32-10-004-1**	10
5	> 90 kg	**REF 32-10-105-1**	1	**REF 32-10-005-1**	10

LT®evo / Set consisting of #3, #4, #5 with syringe, for single use

REF	QTY / Box
32-10-209-1	1

Syringe / For LT®evo, for single use

Size	REF	QTY / Box
50 ml	**54-04-888**	10

Application video

This product is manufactured without the use of natural rubber latex, unless otherwise specified.
This product does not contain phthalates which require labelling according to CLP Regulation (EC) 1272/2008.

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