



LMA

# Protector Airway with Cuff Pilot Technology

Revolutionising Airway Access



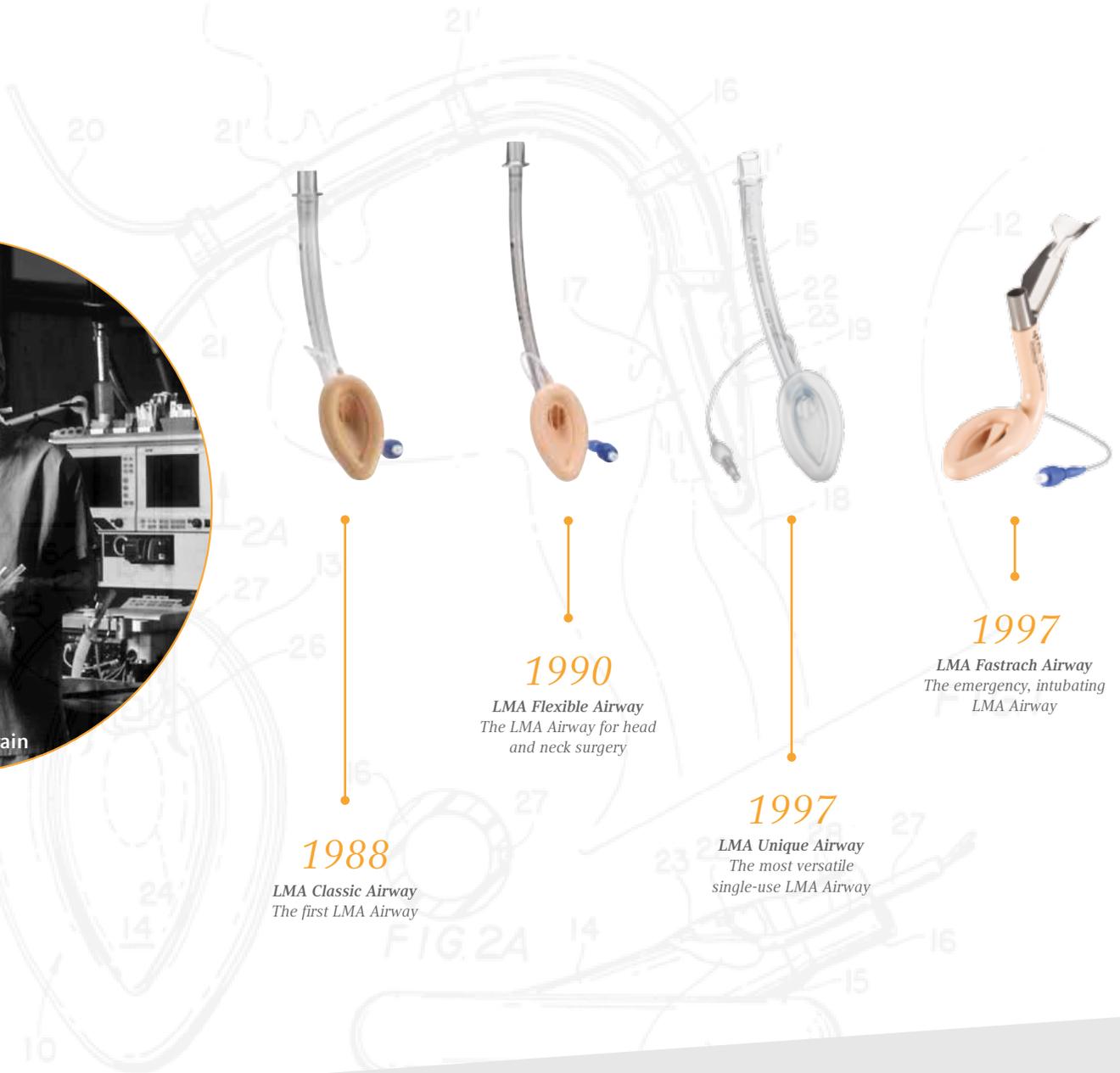
# Our Past Inspiring Our Future

In 1988 the practice of anesthesia was revolutionised by Dr. Archie Brain with the development of the first LMA Airway. Today, the LMA Product Line from Teleflex has a rich history of innovation supported by millions of global uses and thousands of clinical studies. Teleflex is continuing this legacy, driving the innovation of technologies designed to improve patient outcomes and procedural efficiencies.

5,282,464



Dr. Archie Brain



**1988**  
*LMA Classic Airway*  
The first LMA Airway

**1990**  
*LMA Flexible Airway*  
The LMA Airway for head and neck surgery

**1997**  
*LMA Unique Airway*  
The most versatile single-use LMA Airway

**1997**  
*LMA Fastrach Airway*  
The emergency, intubating LMA Airway

“The LMA, a simple but brilliant idea, has made the life of the anesthetist much easier, and the life of our patients for whom we care that much safer”

Van Zundert TCRV, Brimacombe JR, Ferson DZ, Bacon DR, Wilkinson DJ. Archie Brain: celebrating 30 years of development in laryngeal mask airways. *Anaesthesia*. 2012;67(12):1375-1385.

**3,000**  
published  
references

**300**  
million patient  
uses

**3** Every  
seconds  
an LMA Airway is  
used somewhere  
in the world



**2000**

**LMA ProSeal Airway**  
The original, reusable  
second-generation LMA Airway



**2005**

**LMA Supreme Airway**  
The innovative, advanced,  
safe second-generation LMA  
Airway



**2015**

**LMA Unique (Silicone Cuff) Airway**  
Responding with silicone



**2015**

**LMA Protector Airway**  
The most advanced  
LMA Airway

There are clear benefits of using an LMA Airway vs. an ETT which include:<sup>1</sup>

- Improved hemodynamic stability at induction and during emergence
- Minimal increase in intraocular pressure following insertion
- Reduced anesthetic requirements for airway tolerance
- Lower frequency of coughing during emergence
- Improved oxygen saturation during emergence
- Lower incidence of sore throats in adults
- Increased speed and ease of placement by inexperienced personnel
- Increased speed of placement by anesthesiologists
- Using an endotracheal tube in place of an LMA Airway has been shown to result in increased drug cost and higher overall costs depending on the length of the case<sup>2</sup>

# Revolutionising Airway Access

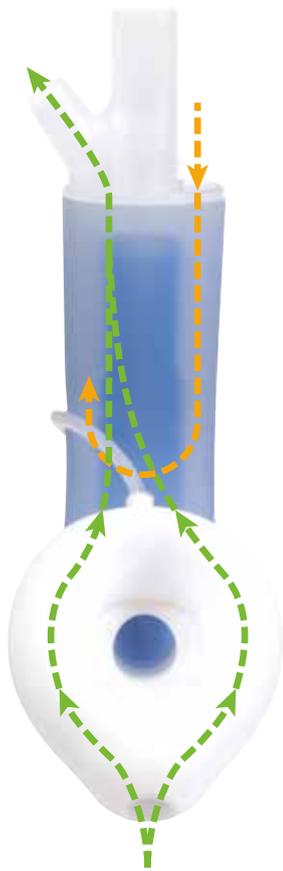
## LMA Protector Airway With Cuff Pilot Technology

The LMA Protector Airway ushers in a new era in the evolution of airway management and is the most advanced, single-use, second-generation supraglottic airway device available from Teleflex. Its combination of innovative capabilities are designed to help clinicians reduce the risk of airway-related complications and improve patient outcomes.



### Silicone cuff with First Seal and Second Seal Technology

The soft, silicone, elongated inflatable cuff is designed to conform to the contours of the hypopharynx and achieve an oropharyngeal seal (First Seal Technology) equivalent to the LMA ProSeal Airway (>30 cm H<sub>2</sub>O). The oesophageal seal (Second Seal Technology) secures the distal tip at the upper oesophageal sphincter and is designed to minimise gastric insufflation and facilitate gastric access.



### Dual gastric access

Effective gastric access is considered to be important in advanced uses where gastric content is unknown and/or there is an increased risk of regurgitation. The LMA Protector Airway features a proprietary dual gastric drainage channel and suction ports, combined with a high capacity gastric chamber, allowing for suction and decompression of the stomach via a gastric tube, while providing exit channels for gastric contents in the event of regurgitation.

Phthalate free

**Second Seal Technology**  
(facilitates oesophageal seal)

**First Seal Technology**  
(facilitates oropharyngeal seal)



### Silicone design with dynamic curve

The multipurpose, single-use laryngeal mask features a 100% silicone airway tube and cuff, with a dynamic curve that conforms to contours of the anatomy, allowing for rapid insertion and a secure fit in both routine and unexpected difficult airway situations.



### Ability to intubate

The airway tube allows for effective, direct intubation with endotracheal tubes up to 7.5 mm.



MR safe\*

### Cuff Pilot Technology

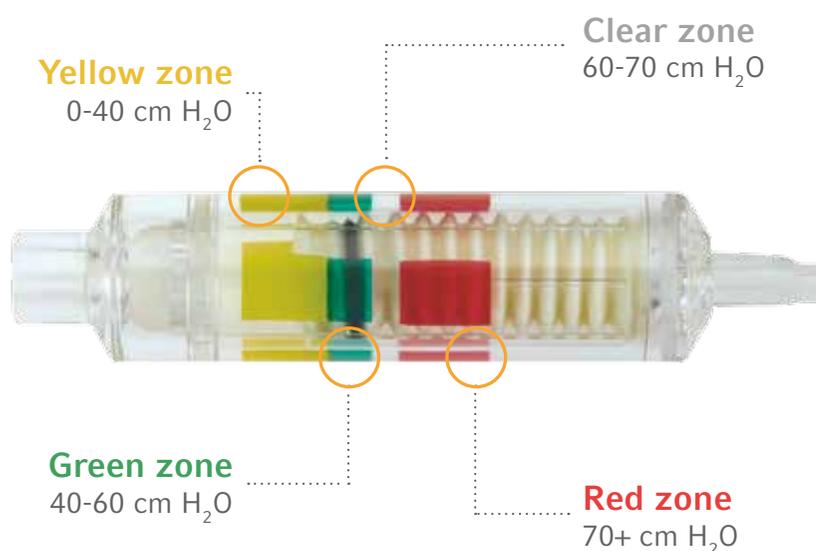
Integrated cuff pressure monitoring.

\* LMA Protector Airway with Cuff Pilot only

# Cuff Pilot Technology

## Integrated cuff pressure monitoring

The LMA Protector Airway is configured with Cuff Pilot Technology, the world's first integrated cuff pressure indicator for single-use airway management devices. This enables clinicians to ensure that the inserted cuff is correctly inflated, allows them to monitor pressure levels at a glance and adjust appropriately. Incorrectly inflated cuffs can have an adverse effect on patient safety.<sup>3</sup>



Studies show that clinicians are needlessly overinflating the cuffs of laryngeal mask airways, impairing their function and giving half of patients sore throats. In some reports, 70% of laryngeal mask airways were overinflated and, in one, a staggering 97%. It has been shown repeatedly that injecting the maximum recommended volume of air results in cuff pressures approximately twice the maximum recommended and even as high as 200 cm H<sub>2</sub>O. Multiple studies in tracheal tubes and laryngeal mask airways have shown that clinicians, regardless of experience and seniority, are poor at judging cuff pressures manually.<sup>3</sup>

“The painful truth is that we clinicians are needlessly overinflating LMA cuffs, impairing their function and giving half of our patients sore throats”

Bick E, Bailes I, Patel A, Brain AI. Fewer sore throats and a better seal: why routine manometry for laryngeal mask airways must become the standard of care. *Anaesthesia*. 2014;69(12):1304-1308.

#### References:

1. Brimacombe J. The advantages of the LMA over the tracheal tube or facemask: a meta-analysis. *Can J Anaesth.* 1995;42(11):1017-1023.
2. Macario A, Chang PC, Stempel DB, Brock-Utne JG. A cost analysis of the laryngeal mask airway for elective surgery in adult outpatients. *Anesthesiol.* 1995;83(2):250-257.
3. Bick E, Bailes I, Patel A, Brain AI. Fewer sore throats and a better seal: why routine manometry for laryngeal mask airways must become the standard of care. *Anaesthesia.* 2014;69(12):1304-1308.

Teleflex is a global provider of medical technologies designed to improve the health and quality of people's lives. We apply purpose driven innovation – a relentless pursuit of identifying unmet clinical needs – to benefit patients and health-care providers. Our portfolio is diverse, with solutions in the fields of vascular and interventional access, surgical, anesthesia, cardiac care, urology, emergency medicine and respiratory care. Teleflex employees worldwide are united in the understanding that what we do every day makes a difference. For more information, please visit [teleflex.com](http://teleflex.com).

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#### Corporate Office

Phone +1 610 225 6800, 550 E. Swedesford Road, Suite 400, Wayne, PA 19087, USA

#### Regional Offices

**United States:** Phone +1 919 544 8000, Toll Free 866 246 6990, [cs@teleflex.com](mailto:cs@teleflex.com), 3015 Carrington Mill Boulevard, Morrisville, NC 27560, USA

**Latin America:** Phone +1 919 433 4999, [la.cs@teleflex.com](mailto:la.cs@teleflex.com), 3015 Carrington Mill Boulevard, Morrisville, NC 27560, USA

**International:** Phone +353 (0)9 06 46 08 00, [orders.intl@teleflex.com](mailto:orders.intl@teleflex.com), Teleflex Medical Europe Ltd., IDA Business and Technology Park, Dublin Road, Athlone, Co Westmeath, Ireland

**Australia/New Zealand** 1300 360 226

**Austria** +43 (0)1 402 47 72

**Belgium** +32 (0)2 333 24 60

**Canada** +1 (0)800 387 9699

**China (Shanghai)** +86 (0)21 6163 0965

**China (Beijing)** +86 (0)10 6418 5699

**Czech Republic** +420 (0)495 759 111

**France** +33 (0)5 62 18 79 40

**Germany** +49 (0)7151 406 0

**Greece** +30 210 67 77 717

**India** +91 (0)44 2836 5040

**Italy** +39 0362 58 911

**Japan** +81 (0)3 6632 3600

**Korea** +82 2 536 7550

**Mexico** +52 55 5002 3500

**Netherlands** +31 (0)88 00 215 00

**Portugal** +351 22 541 90 85

**Singapore (SEA non-direct sales countries)** +65 6439 3000

**Slovak Republic** +421 (0)3377 254 28

**South Africa** +27 (0)11 807 4887

**Spain** +34 918 300 451

**Switzerland** +41 (0)31 818 40 90

**United Kingdom** +44 (0)1494 53 27 61

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