

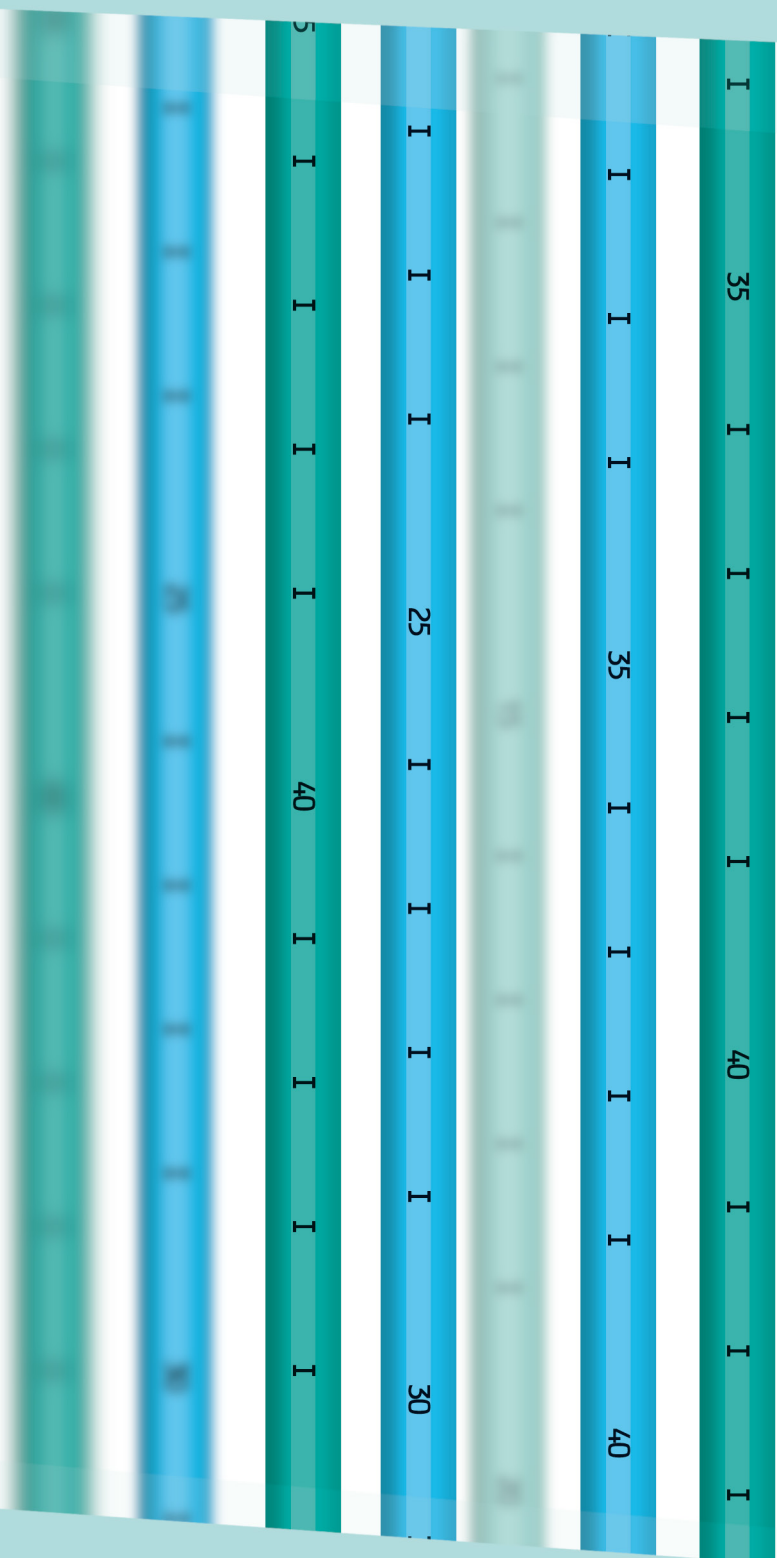
Products you can trust



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SUMI introducers and guides

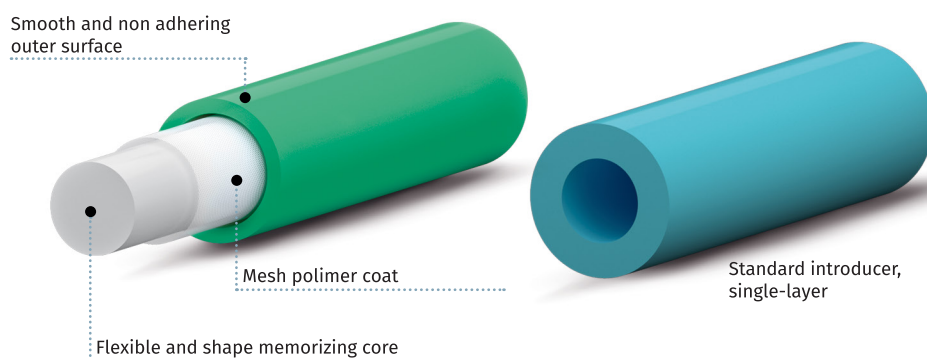
Your support
in airway
management



Tracheal tube introducer - type „bougie”

Fast and efficient intubation is very important to maintain patent airway.

Tracheal tube introducers are one of the most important tools facilitating intubation during routine or difficult intubation. For over 40 years it remains one of the most popular devices used in case of difficult airway.



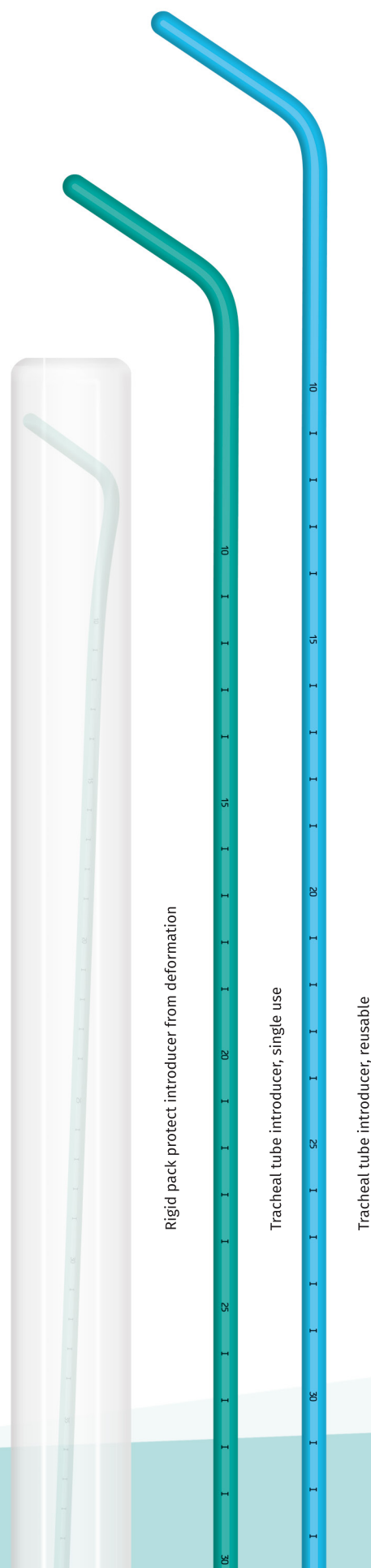
SUMI introducers (single use and reusable) are exceptional thanks to its multilayer construction. Introducer core is made of a flexible, shape memorising material. It is covered by net and overlaid with smooth and non-adhering outer surface. Special construction ensures smooth insertion and removal, as the introducer is flexible and returns to its shape. Angled, atraumatic tip facilitates insertion between vocal cords.

Studies comparing intubation using a flexible introducer (bougie type) with tracheal tube with stylet suggest that, non-experienced doctors put much smaller forces on the patient oral structures during intubation when using introducer. This may result in a smaller incident rate. [1]

Failed intubation happens in 1 out of 2000 routine intubations, 1 in 300 cases in obstetrics and 1 in 50-100 cases in Emergency and ICU. [2]

Studies suggest that, commonly used single use introducers (single-layer extruded tube) are characterized by increased complications rate when compared with original „bougie” (multi-layer product with flexible core and smooth outer surface). [3]

Reusable introducer is sold as a sterile, ready to use product. It is the only such product that may be sterilized using EO or low temperature plasma. It can be used up to 5 times. Rigid tube cover ensures proper shape during resterilization, transport and storage. Each product is equipped with resterilization passport.

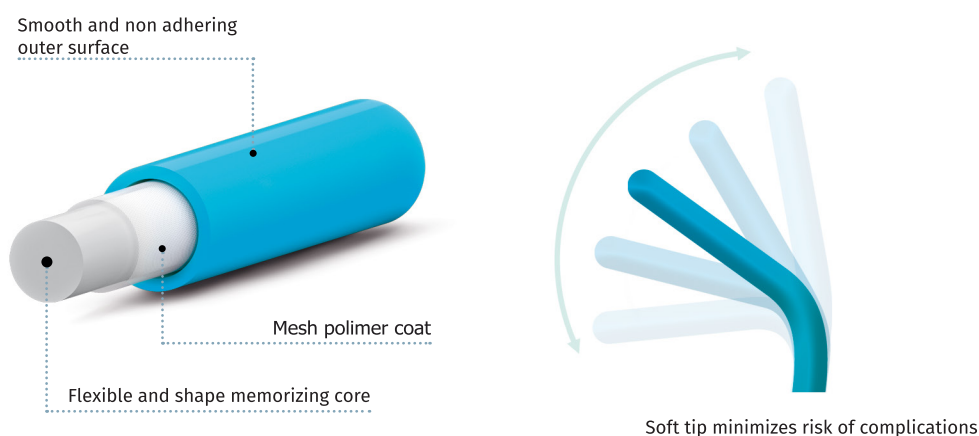


Tracheal tube introducer with soft tip

Use of bougie type introducers, as with any other medical device, is associated with possible complications like pharyngeal [4] or tracheal [5] wall perforation or iatrogenic bronchial rupture [6]. Complications may result from searching for „clicks” on tracheal rings or insertion till resistance (when introducer reaches Carina). [3]

To face these problems, SUMI developed a line of introducers with soft tip.

It is a standard SUMI introducer, type bougie with all its advantages (layered introducer, rigid holder) and additionally with soft tip made out of a different polymer. It minimizes risk of damage to trachea and risk of bleeding caused by introducer.



Introducer tip is made out of a very soft polymer which prevents tissue irritation. Properly angled tip facilitates introduction between vocal cords. At the same time, use of layered construction ensures flexibility and shape memory optimizing insertion.

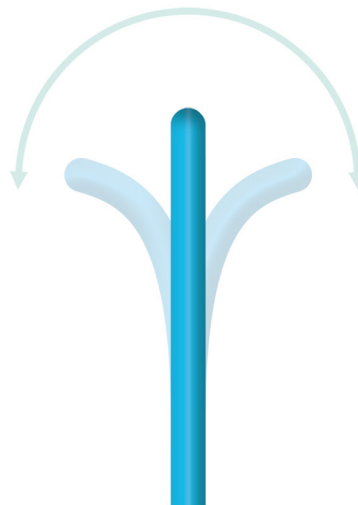
Soft tip of the introducer is visible in X-ray, to ensure improved safety and positioning confirmation.

Tracheal tube introducer with soft tip is offered as single use, only. It is packed in rigid pack to protect it from deformation.

Tracheal tube introducer for infants

SUMI tracheal tube introducers and guides for infants remain one of the few products designated for intubation with tracheal tube size 2,0mm. SUMI offers introducers with outer diameter of 1,6mm and 2,0 mm. Flexible tip of the introducer minimizes risk of trachea irritation, bronchi perforation and subsequent complications.

Unique material of the introducer for infants ensures its exceptional flexibility. Its walls have exceptional smoothness what facilitates insertion and withdrawal of a tracheal tube.



Soft tip of the tracheal tube introducer for infants can be shaped to adapt it to the patient anatomy. It facilitates fast and successful intubation. It is the only such product available on the market.

Tracheal tube introducers for infants are available in single use version, only. Each product is packed inside a rigid pack, protecting it from deformation.

Soft and flexible tip with adjustable angle

Tracheal tube introducers for infants have tip made out of a different material. It is very soft and flexible, what minimizes the risk of perforation of tracheal and bronchial wall.

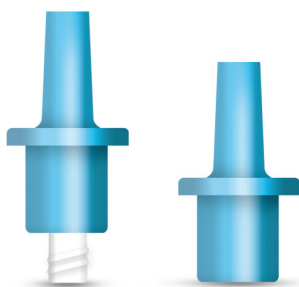
Tracheal tube guide with ventilation lumen with soft tip

SUMI offers tracheal tube guides and introducers with channel for patient oxygenation. By using these introducers it is possible to administer oxygen during the intubation process. This gives anesthesiologist additional seconds to secure breath. It may also be used for short term oxygenation.

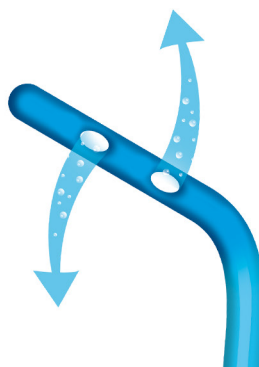
As was mentioned, studies suggest that commonly used single use introducers (one layer of extruded material) are characterized by increased rate of complications. [3] Among others it is pharyngeal wall perforation [4], tracheal wall perforation [5] or iatrogenic bronchial rupture [6]. In order to minimize the risk of complications, SUMI developed introducers with ventilation lumen and soft tip.

Tracheal tube guides are offered in single use version, only.

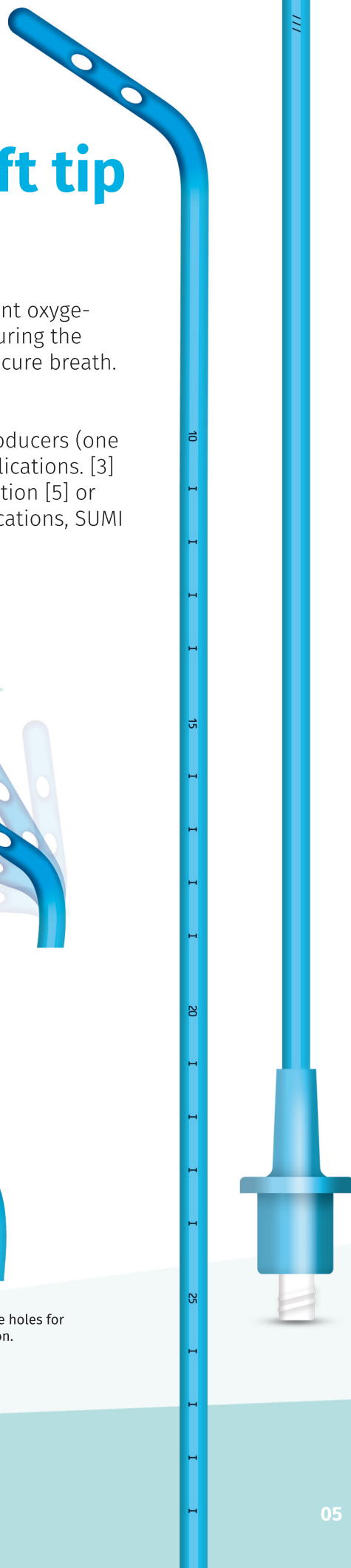
Application of soft tip reduces risk of complications caused by tip damaging soft tissues, therefore increasing safety of use. Tip is angled in the same way as in standard „bougie“ type introducers, so that it is as easy as possible to introduce into trachea. Soft tip is visible in X-ray, what provides visualization of correct placement.



Each tracheal tube guide is delivered with:
- 15 mm connector
- 15 mm connector with Luer-Lock to supply oxygen. Connector is removable and tight after assembly.



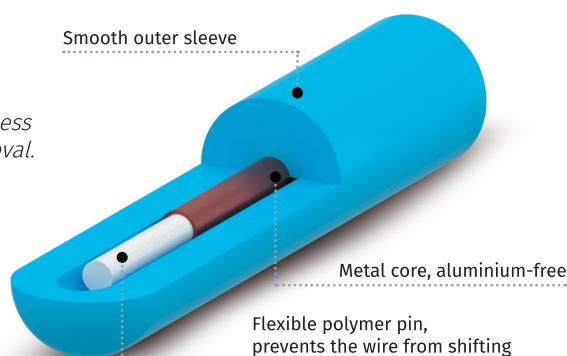
Tube guide has 4 side holes for oxygen administration.



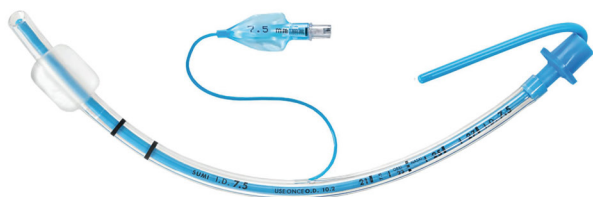
Tracheal intubation stylet

Tracheal intubation stylet is one of the most commonly used intubation aids. By shaping the stylet to adopt to patient anatomy it is possible to facilitate tracheal intubation.

Special material of outer sleeve ensures smoothness and reduces resistance during insertion and removal. Distal tip is very soft and flexible. It bends to minimize the tracheal damage.



A common problem encountered with tracheal intubation stylets is breaking of aluminium wire core whenever the stylet is overly bended or re-shaped. Metal core of SUMI tracheal intubation stylets is aluminium free. Thanks to this, it is possible to freely shape the stylets without the risk of core breakage. It maintains desired shape very well facilitating successful intubation.



SUMI offers also tracheal tubes with pre-inserted stylets of appropriate size and length.

It is a ready to use product that saves time, money and space.

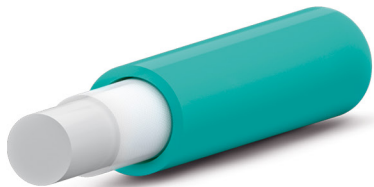
Tracheal tube guides

Majority of intubations brings along the need for reintubation or tube exchange. Before such procedures it is necessary to take into account possible risks. Even if initial intubation went successfully on the first attempt, complications could have developed during mechanical ventilation. Some of the indicators of possibly increasing risk of reintubation and extubation are: reduced functional residual capacity, increased work of breathing, increased dead space, swelling in or around the airway, a previously difficult airway, or an airway where accessibility is challenged. [7] In such situations it is recommended to utilize tube exchange catheters.

Tracheal tube guide (also called exchange catheter) provides way for a tracheal tube over which it is replaced. SUMI offers two types of tracheal tube guides.

Tracheal tube guides

Standard



3-layer construction provides optimum flexibility and shape memory. Very smooth, anti-adhesing surface minimizes resistance during tube insertion and removal.



Smooth atraumatic tip minimizes risk of tracheal damage.

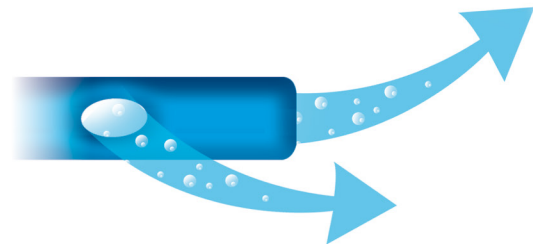


Each introducer is packed inside a rigid pack protecting it from deformation.



Clearly visible graduation marks

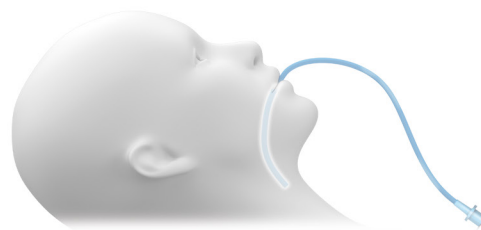
With ventilation lumen and soft tip



Guide (catheter) with ventilation lumen is made out of 2 different materials. It has a very smooth surface and provides possibility to oxygenate patient through 15 mm connector or Luer-lock.



Distal tip is made out of soft and flexible material that minimizes risk tracheal and bronchial wall perforation.



Guide is ended with open tip and 2 side holes.



Clearly visible graduation marks

SUMI intubation aids - overview

	Ref.no - ø/length [mm]	Tracheal tube size [mm]																
		2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	8,5	9,0	9,5	10,0
Tracheal tube introducer single use/ reusable	09-3617/09-3627 - 3,3/600					●	●	●	●									
	09-3717/09-3727 - 3,3/700					●	●	●	●									
	09-3817/09-3827 - 3,3/800					●	●	●	●									
	09-3117/09-3127 - 3,3/1000					●	●	●	●									
Tracheal tube introducer with soft tip	09-3657 - 3,3/600					●	●	●	●									
	09-3757 - 3,3/700					●	●	●	●									
	09-3857 - 3,3/800					●	●	●	●									
	09-3157 - 3,0/1000					●	●	●	●									
	09-5657 - 5,0/600									●	●	●	●	●	●	●	●	●
	09-5757 - 5,0/700									●	●	●	●	●	●	●	●	●
	09-5857 - 5,0/800									●	●	●	●	●	●	●	●	●
	09-5157 - 5,0/1000									●	●	●	●	●	●	●	●	●
Tube introducer for infants	09-1610 - 1,6/600	●	●	●														
	09-2010 - 2,0/600		●	●	●	●												
Tube guide with ventilation lumen and soft tip	09-3937 - 3,3/830					●	●	●	●	●								
	09-5937 - 5,0/830									●	●	●	●					
	09-6937 - 6,0/830											●	●	●	●	●	●	●
Tracheal intubation stylet	09-1923/1,9/230	●	●	●														
	09-2023/2,0/230				●	●	●											
	09-2223/2,2/230				●	●	●											
	09-3034/3,0/340					●	●	●										
	09-4034/4,0/340								●	●	●	●						
	09-4060/4,0/600								●	●	●	●						
	09-5037/5,0/370									●	●	●	●	●	●	●	●	●
	09-5060/5,0/600									●	●	●	●	●	●	●	●	●
		Tracheal tube size [mm]																
Tracheal tube guide	Ref.no - ø/length [mm]	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	8,5	9,0	9,5	10,0
standard single use/ reusable	09-3610/3,3/600					●	●	●	●									
	09-3810/3,3/800					●	●	●	●									
	09-3110/3,3/1000					●	●	●	●									
	09-5810/5,0/800									●	●	●	●	●	●	●	●	●
	09-5110/5,0/1000									●	●	●	●	●	●	●	●	●
with ventilation lumen	09-2610 - 2,6/600			●	●	●	●	●	●	●								
	09-3910 - 3,3/830					●	●	●	●	●								
	09-5910 - 5,0/830									●	●	●	●	●	●	●	●	●
	09-6910 - 6,0/830											●	●	●	●	●	●	●

Literature:

- [1]. Ono, Y., Shinohara, K., Shimada, J. et al. Lower maximum forces on oral structures when using gum-elastic bougie than when using endotracheal tube and stylet during both direct and indirect laryngoscopy by novices: a crossover study using a high-fidelity simulator. *BMC Emerg Med* 20, 34 (2020).
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