

Jet Laryngoscopes

*Modern
jet ventilation*

*in a shared
airway*

CARL REINER ■
Breathing Engineering

Surgical instruments since 1912

Originally founded in 1912 as a family-owned manufacturer of surgical instruments Carl Reiner GmbH has known a long tradition in the development and manufacturing of cutting-edge surgical instruments. Especially during the early 20th century, which saw great advances in ENT medicine in Europe (and in Vienna in particular), Carl Reiner GmbH was at the forefront of new developments.



*First 'Kleinsasser' laryngoscope
by Carl Reiner GmbH*

It was no coincidence, therefore, that professor of otolaryngology Oskar Kleinsasser (1929 – 2001), a great pioneer in the development of microlaryngoscopy in the early 1960s, would turn to Carl Reiner GmbH for the first prototypes of the Kleinsasser laryngoscopes. Still today these laryngoscopes bear his name and are widely used.

It wasn't until the late 1980s that Carl Reiner GmbH would gradually shift its focus towards jet ventilation via jet endoscopes. The close cooperation with clinicians had demonstrated that there was a real need for a ventilation solution designed to cater to the specific needs of upper airway surgery.

The first jet endoscopes were created in 1989 and incorporated both ventilation and monitoring channels into a conventional endoscope for shared-airway surgery.

This unique innovation allows for simultaneous administration of jet ventilation at two different frequencies, while monitoring airway pressures (PIP, PEEP, MAP) and gas concentrations (FiO₂, EtCO₂) within the open airway.



*First Jet Tracheoscope
by Carl Reiner GmbH*

In 2006 the EasyConnect™ system was introduced, now making it easier and safer to connect the jet tubing to the jet endoscope.

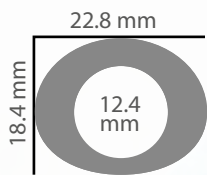
The EasyConnect™ system guarantees that the two ventilation lines and the two monitoring lines cannot be inadvertently interchanged. Thus reducing any potential risk of misuse and improving patient safety. Its well-designed connectors provide a plug-and-play solution for optimal handling in a stressful and time-sensitive environment.



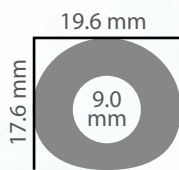
*EasyConnect™ for non-interchangeable
jet & monitoring lines*

Paediatric Jet Laryngoscopes

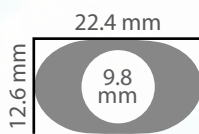
Inner diameter in mm (proximal and distal):



Size KA



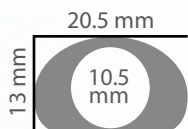
Size KC



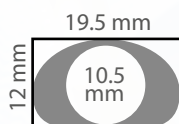
Size KE

- CTNS-360-K41 Jet Laryngoscope for children, **size KA**
Small, length 14 cm
- CTNS-370-K41 Jet Laryngoscope for infants, **size KC**
Small, length 13 cm
- CTNS-380-K41 Jet Laryngoscope for neonates & infants, **size KE**
Small, length 13 cm

Inner diameter in mm (proximal and distal):



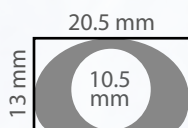
8590 K



8590 L

- CTNS-3-8590 K Jet Laryngoscope for children, **size 8590 K**
Small, length 15 cm
- CTNS-3-8590 L Jet Laryngoscope for infants, **size 8590 L**
Small, length 13 cm

Inner diameter in mm (proximal and distal):



8590 KL

Modified by Rudert for laser surgery with lateral outer channels for:

- suction tube
- fiber optic light carrier

- CTNS-3-8590 KL Jet Laryngoscope for children, **size 8590 KL**
Small, length 15 cm

Original KLEINSASSER by Carl Reiner



Original Kleinsasser

KLEINSASSER by Karl Storz



Kleinsasser

KLEINSASSER modified by Rudert



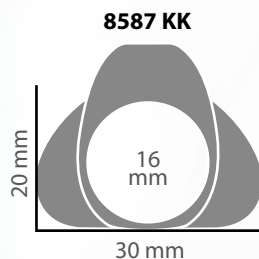
Kleinsasser-Rudert

Paediatric Jet Laryngoscopes

LINDHOLM



Inner diameter in mm (proximal and distal):



Designed for laryngeal surgery
Panoramic overview of laryngopharynx
Exceptional view of:

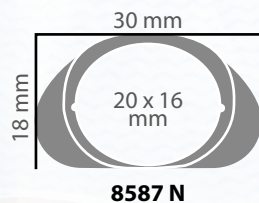
- epiglottis
- arytenoids
- posterior commissure
- pyriform sinuses
- cricoid region

CTNS-3-8587 KK Jet Laryngoscope for children, **size 8587 KK**
Small, length 11 cm

BENJAMIN-LINDHOLM



Inner diameter in mm (proximal and distal):

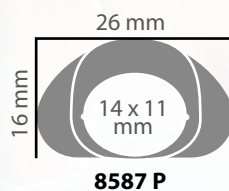


Designed for laryngeal surgery
Panoramic overview of laryngopharynx
Exceptional view of:

- epiglottis
- arytenoids
- posterior commissure
- pyriform sinuses
- cricoid region

CTNS-3-8587-N Jet Laryngoscope for children, **size 8587 N**
Small, length 11.5 cm

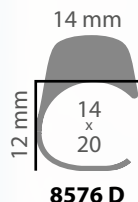
CTNS-3-8587-P Jet Laryngoscope for neonates & infants, **size 8590 P**
Small, length 9.5 cm



Original PARSONS



Inner diameter in mm (proximal and distal):

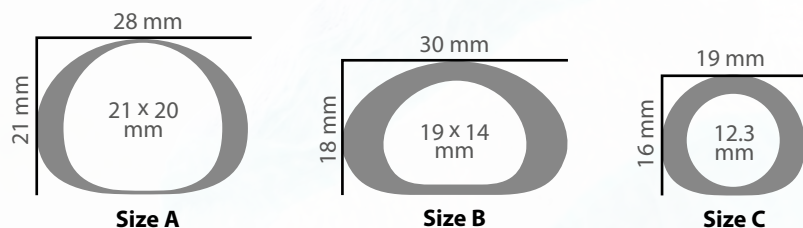


CTNS-3-8576-D Jet Laryngoscope for neonates, **size 8576 D**
Small, length 9 cm

- Enlarged proximal end enables binocular viewing
- Wide lateral slit allows introduction of bronchoscopes and oesophoscopes
- Flat anterior tip enables better positioning in the anterior commissure or vallecula
- Simultaneous use of a telescope enables excellent panoramic view
- Superior surface is rough to prevent tongue from sliding into the lumen, thereby ensuring an unobstructed view of supraglottic structures

Adult Jet Laryngoscopes

Inner diameter in mm (proximal and distal):

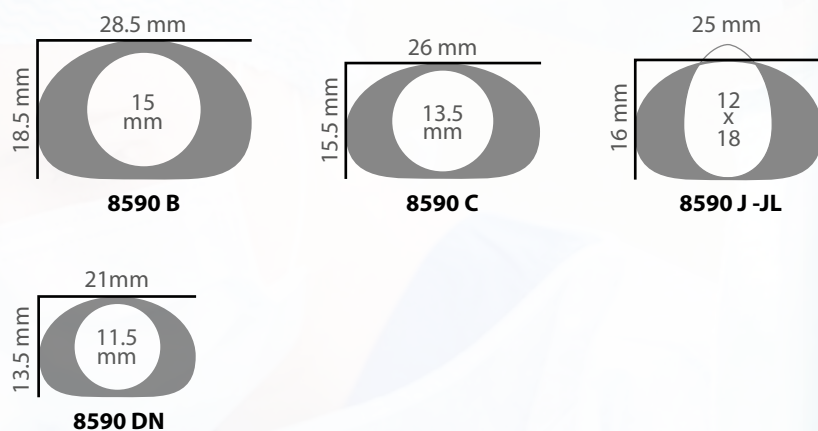


- CTNS-310-K41 Jet Laryngoscope for adults, **size A**
Large, length 19 cm
- CTNS-320-K41 Jet Laryngoscope for adults, **size B**
Medium, length 19 cm (modified by Glaniger)
- CTNS-330-K41 Jet Laryngoscope for adults, small, **size C**
Small, length 19 cm

Original KLEINSASSER by Carl Reiner



Inner diameter in mm (proximal and distal):



- CTNS-3-8590-B Jet Laryngoscope for adults, **size 8590 B**
Large, length 17 cm
- CTNS-3-8590-C Jet Laryngoscope for adults, **size 8590 C**
Medium, length 17 cm (most common size)
- CTNS-3-8590-J Jet Laryngoscope for adults, **size 8590 J**
Medium, length 18 cm (for anterior commissure)
- CTNS-3-8590-JL Jet Laryngoscope for adults, **size 8590 JL**
Medium, length 22 cm (for especially long neck)
- CTNS-3-8590-DN Jet Laryngoscope for adults, **size 8590 DN**
Small, length 18 cm (for difficult anatomy)

KLEINSASSER by Karl Storz

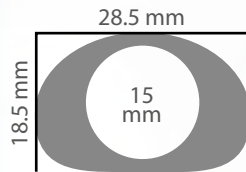


Adult Jet Laryngoscopes

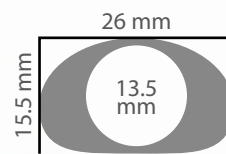
KLEINSASSER modified by Rudert



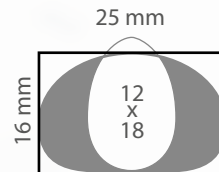
Inner diameter in mm (proximal and distal):



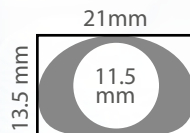
8590 BL



8590 CL



8590 JA



8590 DL

Modified by Rudert for laser surgery with lateral outer channels for:

- suction tube
- fiber optic light carrier

CTNS-3-8590 BL

Jet Laryngoscope for adults, **size 8590 BL**

Large, length 17 cm

CTNS-3-8590 CL

Jet Laryngoscope for adults, **size 8590 CL**

Medium, length 17 cm

CTNS-3-8590 JA

Jet Laryngoscope for adults, **size 8590 JA**

Medium, length 18 cm (for anterior commissure)

CTNS-3-8590 DL

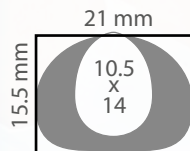
Jet Laryngoscope for adults, **size 8590 DL**

Small, length 18 cm

BENJAMIN Slimline



Inner diameter in mm (proximal and distal):



8574 SL

CTNS-3-8574 SL

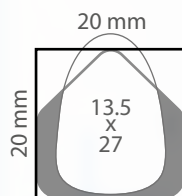
Jet Laryngoscope for slender adults, **size 8574 SL**

Length 17 cm (for difficult larynx inspection)

DEDO



Inner diameter in mm (proximal and distal):



8890 A

Special features:

- proximal end designed for optimal view of anterior commissure
- distal end shaped like a rounded "V" for optimal visualisation
- enables a view of the glottis from the anterior commissure right to the arytenoid region
- thin tube diameter allows universal use in adults

CTNS-3-8890-A

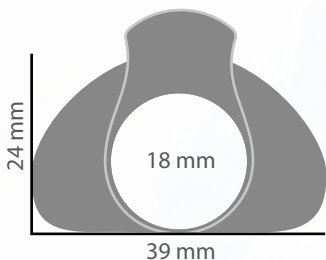
Jet Laryngoscope for adults, **size 8890 A**

Length 18 cm

Adult Jet Laryngoscopes

Inner diameter in mm (proximal and distal):

8587 A - AA



Designed for laryngeal surgery
Panoramic overview of laryngopharynx

Exceptional view of:

- epiglottis
- arytenoids
- posterior commissure
- pyriform sinuses
- cricoid region

CTNS-3-8587-A Jet Laryngoscope for adults, **size 8587 A**
Large, length 15 cm

CTNS-3-8587-AA Jet Laryngoscope for adults, **size 8587 AA**
Large, length 17 cm

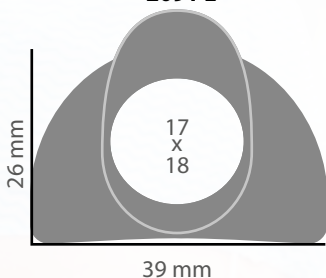
LINDHOLM



Lindholm

Inner diameter in mm (proximal and distal):

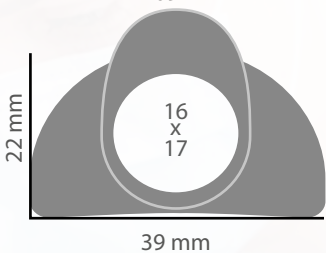
2091 L



Special features:

- large proximal opening for binocular microscope vision
- elevated distal tip for retraction of the epiglottis and exposure of the anterior commissure
- integrated light fiber for visualization

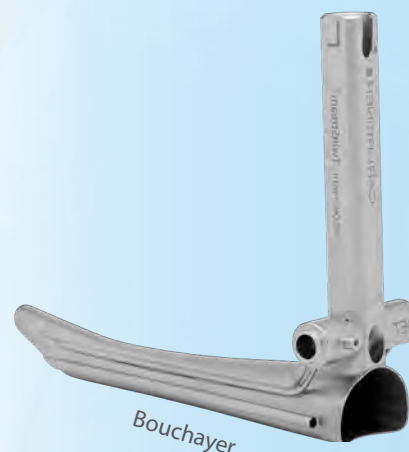
2091 M



CTNS-3-2091-L Jet Laryngoscope for adults, Large, length 18 cm
size A

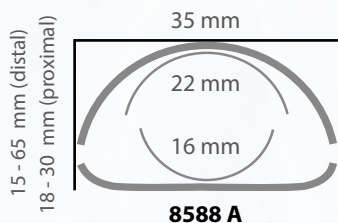
CTNS-3-2091-M Jet Laryngoscope for adults, Medium, length 18 cm
size C

BOUCHAYER

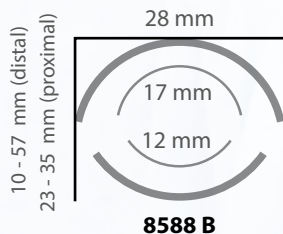


Bouchayer

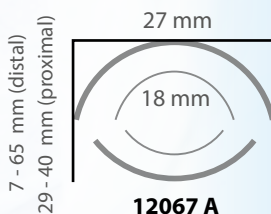
Inner diameter in mm (proximal and distal):



8588 A



8588 B



12067 A

CTNS-3-8588-A Distending Jet Laryngoscope for adults, **size 8588 A**
Large, length 18 cm

CTNS-3-8588-B Distending Jet Laryngoscope for adults, **size 8588 B**
Medium, length 18 cm

CTNS-3-12067-A Distending Jet Laryngoscope for adults, **size 12067 A**
Length 24 cm (with adapter for suction tube to be used for vapor removal during laser surgery)

WEERDA



Weerda

CARL REINER® ■

Manufactured by Carl Reiner GmbH, Mariannengasse 17, 1090 Vienna, Austria, +43 1 402 62 51 0

www.carlreiner.eu