KARL STORZ, Your Partner in Pediatric Surgery

The diagnosis and therapy of children requires instruments that are appropriately adapted to the anatomical characteristics of the pediatric patient.

The following pages provide you with an overview of the product portfolio specially developed for the specialist disciplines listed below:

- Anesthesiology and Emergency Medicine
- Pediatric Pneumology
- Gastroenterology
- Laparoscopic Pediatric Surgery
- Pediatric Urology
- Proctology in the Pediatric Population

Furthermore, KARL STORZ offers child-specific instrumentation for the specialist disciplines listed below:

- Neurosurgery
- Endoscopes and instruments for ENT
- Esophagscopy
- Units and Accessories for Pediatrics
- Telepresence

Additional information on these specialist disciplines is available on the KARL STORZ website: [www.karlstorz.com](http://www.karlstorz.com)
## Table of Contents

### Anesthesiology and Emergency Medicine
- C-MAC® S for Pediatrics ................................................................. 4
- C-MAC® Video Laryngoscopes for Pediatrics and Neonatology .......... 6
- Retromolar Intubation Endoscope 2.0 ............................................. 8

### Pediatric Pneumology
- Bronchoscopy Instruments for Children ........................................ 10

### Gastroenterology
- Flexible SILVER SCOPE® Gastroscopes ........................................ 12
- Slim Colonoscopes for Pediatric Applications ................................. 14

### Laparoscopic Pediatric Surgery
- New Trocar Generation .................................................................. 16
- The New RoTaLock™ Trocar ........................................................... 18
- Three-part Dismantling CLICKline Series ....................................... 20
- RoBi® – Rotating Bipolar Grasping Forceps and Scissors, diameter 3.5 mm .... 24
- Instrument Set for Pyloromyotomy .................................................. 26
- ENDOFLATOR® 50, with sensitive mode ........................................ 28

### Pediatric Urology
- Thin, Pediatric System for Pediatric Urology .................................... 30
- Operating Cystoscope-Urethroscope for Children ............................ 32

### Proctology in the Pediatric Population
- E.P.Si.T. – Endoscopic Pilonidal Sinus Treatment ............................ 34
C-MAC® S for Pediatrics

The new MILLER single-use video laryngoscopes

The new pediatric single-use video laryngoscopes from KARL STORZ set new standards in airway management. The single-use MILLER 0 and 1 form a perfect symbiosis with the C-MAC® S Pediatric IMAGER and meet the highest hygiene standards.

- Blade and handle form one continuous piece: Risk of cross-contamination is drastically reduced
- BlueButton: Documentation with the innovative multifunction button
- Simple Plug & Play thanks to the universal C-MAC® system interface
- Compatible with the C-MAC® III Monitor, C-MAC® PM II and C-HUB® II
- Extremely safe and break-resistant C-MAC® S video laryngoscopes
- Ergonomic handle specially designed to meet requirements in pediatrics
- For direct and indirect laryngoscopy with MILLER blades
8403 ZXK  **C-MAC® Monitor for CMOS Endoscopes**, screen size 7" with 1280 x 800 pixel resolution, two camera inputs, a USB and a HDMI port, optimized user interface, video and image capture in real time on SD card, playback of recorded video clips and still images, data transfer from SD card to USB flash drive possible, splash-proof according to IP54, suitable for wipe disinfection, shock-resistant ABS plastic housing, intelligent power management with rechargeable Li-Ion batteries, VESA 75 mounting option, power adaptor for EU, UK, USA and Australia, power supply 110-240 VAC, 50/60 Hz, for use with CMOS video endoscopes including:

SD Card ULTRA, 16 GB
Protection Cap
VESA 75 Quick Clip
Mains Adaptor Set

8403 X  **C-MAC® Connecting Cable**, with C-MAC® system interface, for C-MAC® Monitor 8403 ZXK or C-HUB® II 20290301, length 200 cm, for use with C-MAC® Video Laryngoscopes 8403 xxx

8403 XSP  **C-MAC® S Pediatric IMAGER**, with C-MAC® system interface, for manual and machine disinfection up to 65 °C and High Level Disinfection (HLD) acc. to US standards, for use with C-MAC® Connecting Cable 8403 X, C-MAC® Monitor 8403 ZX, C-MAC® PM 8403 XD or C-HUB® II 20290301 and single-use C-MAC® S Video Laryngoscopes 051110-10, 051111-10

051110-10*  **C-MAC® S Video Laryngoscope MILLER #0**, for single use, package of 10, for use with C-MAC® S Pediatric IMAGER 8403 XSP

051111-10*  **C-MAC® S Video Laryngoscope MILLER #1**, for single use, package of 10, for use with C-MAC® S Pediatric IMAGER 8403 XSP
C-MAC® Video Laryngoscopes for Pediatrics and Neonatology

For solutions that fit: The new MACINTOSH 0

To meet requirements for pediatrics and neonatology, particularly when dealing with the difficult airway, the C-MAC® video laryngoscope portfolio has been expanded to include the MACINTOSH 0. Five different blades are available for video laryngoscopy in pediatrics and neonatology: MILLER 0 and 1, MACINTOSH 0 and 2 as well as D-BLADE Ped. Thanks to the extremely low blade profile and the optimal distance from the camera to the distal tip, the new MACINTOSH 0 and the enhanced MILLER 0 are particularly suitable for the intubation of premature babies.

- Particularly flat model, especially suited for neonatology
- For direct and indirect laryngoscopy
- For routine clinical use and training
- Specially shaped and shortened handle for pediatrics and neonatology
- The new C-MAC® PM connecting cable provides more room to maneuver
8403 GXC **C-MAC® Video Laryngoscope MIL #1**, CMOS technology, with MILLER laryngoscope blade, size 1, with C-MAC® system interface, documentation of images and video sequences via the BlueButton, for use with C-MAC® Connecting Cable 8403 X for C-MAC® Monitor 8403 ZXK or C-HUB® II 20.2903.01 as well as C-MAC® PM 8403 XD

8403 DXC **Same**, size 0

8403 KXC **C-MAC® Video Laryngoscope MAC #2**, CMOS technology, with MACINTOSH laryngoscope blade, size 2, with C-MAC® system interface, documentation of images and video sequences via the BlueButton, for use with C-MAC® Connecting Cable 8403 X for C-MAC® Monitor 8403 ZXK or C-HUB® II 20.2903.01 as well as C-MAC® PM 8403 XD

8403 EXC **C-MAC® Video Laryngoscope MAC #0**, CMOS technology, with MACINTOSH laryngoscope blade, size 0, with C-MAC® system interface, documentation of images and video sequences via the BlueButton, for use with C-MAC® Connecting Cable 8403 X for C-MAC® Monitor 8403 ZXK or C-HUB® II 20.2903.01 as well as C-MAC® PM 8403 XD

8403 HXP **C-MAC® Video Laryngoscope D-BLADE Ped.**, pediatric, CMOS technology, for difficult intubation in children, with C-MAC® system interface, documentation of images and video sequences via the BlueButton, for use with C-MAC® Connecting Cable 8403 X for C-MAC® Monitor 8403 ZXK or C-HUB® II 20.2903.01 as well as C-MAC® PM 8403 XD

8403 ZXK **C-MAC® Monitor for CMOS Endoscopes**, screen size 7" with 1280 x 800 pixel resolution, two camera inputs, a USB and a HDMI port, optimized user interface, video and image capturing in real time on SD card

8403 X **C-MAC® Connecting Cable**, with C-MAC® system interface, for C-MAC® Monitor 8403 ZXK or C-HUB® II 20.2903.01, length 200 cm, for use with C-MAC® video laryngoscopes 8403 xxx

8403 XDK **C-MAC® PM Set**, unit with LCD monitor and power supply for all C-MAC® laryngoscopes, screen size 3.5", monitor movable via two rotation axes, rechargeable Li-ion batteries, 1 h operation time, 2 h charging time, power management with capacity indicator, protection class IPX8

8403 XDL **Charging Unit**, for one rechargeable battery for C-MAC® PM, with power supply and mains adaptor for EU, UK, USA and Aus, power supply 100-240 VAC, 50/60 Hz, suitable for wipe disinfection, for use with Battery 8403 XDA and C-MAC® PM 8403 XD/XDK

8403 XDP **C-MAC® PM Connecting Cable**, for the transmission of digital signals from C-MAC® PM 8403 XD to C-MAC® video laryngoscopes 8403xxx (C-MAC® system interface), length 50 cm

8403 XDA **Battery**, rechargeable Li-Ion battery for power supply of C-MAC® PM 8403 XD, charging via Charging Unit 8403 XDL, optimal operation time of 60 min, suitable for wipe disinfection
Retromolar Intubation Endoscope 2.0

The thinnest member of the C-MAC® product family

Children are not small adults. Anatomical differences, and possibly specific pathologies, of children and infants make airway management difficult for the inexperienced intubator. This is why we incorporated the 2.0 intubation endoscope with eyepiece into the C-MAC® product family. It can be easily connected to the C-MAC® monitor by means of the C-CAM®. The retromolar intubation endoscope is an expert tool for airway management in pediatric patients.

- For difficult airways in children and newborns
- Suitable for ET tubes with inner diameters ranging from 2.5 to 3.5 mm
- Continuous oxygen insufflation via the tube holder ensures additional safety
- Video-assisted intubation when using C-CAM® and a mobile light source in conjunction with the C-MAC® III monitor or C-HUB® II
11605 CK  
**Intubation Endoscope Set**, with eyepiece, outer diameter 2 mm, for ETT 2.5-3.5 mm, working length 22 cm, distal bending 40°, angle of view 80°, for use with LED Battery Light Sources (11301 D1, D3, D4, DE, DF), 8-pin C-CAM® Camera Head 20290132 including:

**Intubation Endoscope 2.0 x 22**
Case
**Tube Holder**, for tube fixation, with O₂ application

11301 D1  
**Battery Light Source LED for Endoscopes**, with fine screw thread, boost mode for temporary increase in brightness, burning time > 120 min, weight approx. 78 g, for use with KARL STORZ endoscopes

11301 D3  
**Same**, with coarse screw thread

121306 P  
**Photo Battery**, lithium, 3 V, CR 123 A

11301 DE  
**Battery Light Source LED for Endoscopes**, rechargeable, with click connection, boost mode for temporary increase in brightness, color temperature 5500 K, lithium-ion batteries, charging time 60 min, burning time at 100% brightness 40 min, weight approx. 150 g, suitable for wipe disinfection

11301 DG  
**Charging Unit**, for two LED battery light sources, with fixed integrated power supply and adaptor for EU, UK, USA and AUS, power supply 110-240 VAC, 50/60 Hz, suitable for wipe disinfection, for use with 11301 DE/DF Battery Light Source LED

20290132  
**C-CAM® Camera Head**, 8-pin, one-chip CMOS camera head, resolution 640 x 480, focal length f = 20 mm, for use with C-HUB® 20290101 and C-HUB® II 20290301 as well as C-MAC® Monitors 8402 ZX/8403 ZX

8403 ZXK  
**C-MAC® Monitor for CMOS Endoscopes**, screen size 7" with 1280 x 800 pixel resolution, two camera inputs, a USB and a HDMI port, optimized user interface, video and image capture in real time on SD card, playback of recorded video clips and still images, data transfer from SD card to USB flash drive possible, splash-proof according to IP54, suitable for wipe disinfection, shock-resistant ABS plastic housing, intelligent power management with rechargeable Li-ion batteries, VESA 75 mounting option, power adaptor for EU, UK, USA and Australia, power supply 110-240 VAC, 50/60 Hz, for use with CMOS video endoscopes including

**SD Card ULTRA**, 16 GB
**Protection Cap**
**VESA 75 Quick Clip**
**Mains Adaptor Set**

20290301  
**C-HUB® II Camera Control Unit**, for use with C-CAM® Camera Head 20290132, Electronic Module 8402 X, C-MAC® Connecting Cable 8403 X or compatible CMOS video endoscopes, Interfaces: USB 2.0, S-Video output (NTSC), HDMI output, power socket
Bronchoscopy Instruments for Children

A practical set classification for the clinical routine

KARL STORZ offers instruments for pediatric bronchoscopy that are customized to the anatomy of children. This includes bronchoscopes in various sizes and lengths as well as optical forceps and accessories. To optimally structure our comprehensive product range for the benefit of our customers, we offer a total of three sets for foreign body removal in children. They are organized by age and corresponding tracheal diameter. Each set includes the appropriate bronchoscope sizes with a compatible telescope, optical forceps, and accessories. The instrument sets therefore offer everything needed for foreign body removal.

Sets:

- Set 1: Age group 0-6 months
- Set 2: Age group 6 months – 6 years
- Set 3: Age group 6-14 years
Set 2: Age Group 6 Months – 6 Years

**HOPKINS® Telescope and Bronchoscopes**

- **10324 AA** HOPKINS® Straight Forward Telescope 0°, diameter 2.9 mm, length 36 cm, autoclavable, fiber optic light transmission incorporated, color code: green
- **10339 DD** DOESEL-HUZLY Bronchoscope, size 3.5, length 26 cm
- **10339 CC** DOESEL-HUZLY Bronchoscope, size 4, length 26 cm
- **10339 CD** DOESEL-HUZLY Bronchoscope, size 3.5, length 30 cm
- **10339 C** DOESEL-HUZLY Bronchoscope, size 4, length 30 cm
- **10339 BB** DOESEL-HUZLY Bronchoscope, size 4.5, length 30 cm

**Optical Forceps and Instrumentation**

- **10378 HF** Optical Forceps, with alligator jaws, for the controlled grasping of hard foreign bodies, with force-limited handle, incl. cleaning adaptor, for use with HOPKINS® Telescope 10324 AA
- **10378 CF** Optical Forceps, 2 x 2 teeth, for the controlled grasping of coins and flat foreign bodies, with force-limited handle, incl. cleaning adaptor, for use with HOPKINS® Telescope 10324 AA
- **10378 KF** Optical Forceps, with KILLIAN bean jaws, for the controlled grasping of peanuts and soft foreign bodies, with force-limited handle, incl. cleaning adaptor, for use with HOPKINS® Telescope 10324 AA
- **10381 B** Suction Tube, with rubber tip, straight, diameter 2 mm, working length 35 cm

**Accessories**

- **10101 FA** Prismatic Light Deflector, autoclavable, with connection to fiber optic light cable (not to be used with 8574 K/KB/KT/KW)
- **10924 D** Adaptor, for respirator
- **10318 K** Injection Cannula, for positive pressure assisted ventilation system, LUER-Lock, outer diameter 3.5 mm, for use with bronchoscope series 10318 and 10339
- **10338 S** Instrument Guide for Suction Catheters, short, for bronchoscopes for children and infants
- **10338 N** Rubber Telescope Guide, for use with telescopes and optical forceps

**Wire Trays**

- **39502 ZL** Wire Tray for Cleaning, Sterilization and Storage of instruments, long, stackable, including hole plate walls and foldaway handles, external dimensions: 535 x 250 x 66 mm
- **39100 SL** Silicone Grid Insert LARGE DIAMOND GRID, blue, extra wide meshed, for storage of instruments in wire trays, external dimensions: 530 x 240 mm
- **39100 PS** Fixation Pin, including screw and washer, to screw instruments into position in wire trays, height 38 mm, package of 12, for use with Silicone Tie-Downs 39360 AS
- **39360 AS** Silicone Tie-Downs, package of 12, for use with Fixation Pins 39100 PS and 39360 AP

Sets 1 and 3 are set out in detail in ENDOWORLD® “Bronchoscopy Instruments for Children” (Order No.: 96082014E).
Flexible SILVER SCOPE® Gastroscopes

The medium gastroscope for standard and pediatric use

- Elegant 7.8 mm outer diameter with 2.8 mm working channel
- Excellent deflection up to 210°

The slim gastroscope for pediatric use and in case of stenoses

- Very slender sheath with 5.9 mm outer diameter and a 2.0 mm working channel
- Particularly well suited for examinations on patients with stenoses and very young patients
- Excellent deflection up to 210°
13823 PKSK/NKSK
Flexible Video Gastroscope, with reduced outer diameter
Medium Gastroscope
Sheath outer diameter: 7.8 mm
Working channel diameter: 2.8 mm
Max. deflection up/down: 210°/100°
Max. deflection left/right: 120°/120°
Working length: 1100 mm
Direction of view: 0°

13820 PKSK/NKSK
Flexible Video Gastroscope
Slim Gastroscope
Sheath outer diameter: 5.9 mm
Working channel diameter: 2 mm
Max. deflection up/down: 210°/100°
Max. deflection left/right: 120°/120°
Working length: 1100 mm
Direction of view: 0°

To clean endoscopes 13823 PKSK/NKSK, the following brush is recommended:
110952-50*
Cleaning Brush, with double-sided brush, length 250 cm, brush diameter 3.2 mm, unsterile, for single use, package of 50, for use with flexible endoscopes with working channel diameters 2.6-3 mm

To clean endoscopes 13820 PKSK/NKSK, the following brush is recommended for the working/suction channel in the insertion tube:
110942-50*
Cleaning Brush, with double-sided brush, length 160 cm, brush diameter 2.6 mm, unsterile, for single use, package of 50, for use with flexible endoscopes with working channel diameters 2-2.3 mm

To clean the suction channel in the insertion tube, the following brush is recommended:
110962-50*
Cleaning Brush, with double-sided brush, length 230 cm, brush diameter 4.5 mm, unsterile, for single use, package of 50, for use with flexible endoscopes with working channel diameters 3.2-4.2 mm
Slim Colonoscopes for Pediatric Applications

- Elegant 11.2 mm outer diameter with 3.4 mm working channel
- Enhanced endoscope flexibility for greater patient comfort
- Excellent deflection up to 210°
- Three innovative visualization technologies for easy tissue differentiation:
  - CLARA: Homogeneous illumination
  - CHROMA: Contrast enhancement
  - SPECTRA*: Spectral color shift and color exchange
- CO₂ insufflation prevents postoperative pain
- Possible to clean water jet channel with a brush
- Available in three different lengths

* SPECTRA: Not for sale in the U.S.
<table>
<thead>
<tr>
<th>13920 PKSK/NKSK</th>
<th><strong>Flexible Video Sigmoidoscope, with reduced outer diameter</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sigmoidoscope with Water Jet Channel</td>
<td>Sheath outer diameter: 11.2 mm</td>
</tr>
<tr>
<td></td>
<td>Working channel diameter: 3.4 mm</td>
</tr>
<tr>
<td></td>
<td>Max. deflection up/down: 210°/180°</td>
</tr>
<tr>
<td></td>
<td>Max. deflection left/right: 160°/160°</td>
</tr>
<tr>
<td></td>
<td>Working length: 800 mm</td>
</tr>
<tr>
<td></td>
<td>Direction of view: 0°</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13926 PKSK/NKSK</th>
<th><strong>Flexible Video Colonoscope, with reduced outer diameter</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Slim Colonoscope with Water Jet Channel</td>
<td>Sheath outer diameter: 11.2 mm</td>
</tr>
<tr>
<td></td>
<td>Working channel diameter: 3.4 mm</td>
</tr>
<tr>
<td></td>
<td>Max. deflection up/down: 210°/180°</td>
</tr>
<tr>
<td></td>
<td>Max. deflection left/right: 160°/160°</td>
</tr>
<tr>
<td></td>
<td>Working length: 1330 mm</td>
</tr>
<tr>
<td></td>
<td>Direction of view: 0°</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13927 PKSK/NKSK</th>
<th><strong>Flexible Video Colonoscope, with reduced outer diameter</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Slim Colonoscope with Water Jet Channel</td>
<td>Sheath outer diameter: 11.2 mm</td>
</tr>
<tr>
<td></td>
<td>Working channel diameter: 3.4 mm</td>
</tr>
<tr>
<td></td>
<td>Max. deflection up/down: 210°/180°</td>
</tr>
<tr>
<td></td>
<td>Max. deflection left/right: 160°/160°</td>
</tr>
<tr>
<td></td>
<td>Working length: 1530 mm</td>
</tr>
<tr>
<td></td>
<td>Direction of view: 0°</td>
</tr>
</tbody>
</table>

We recommend the use of the IMAGE1 S™ camera platform and the CO₂MBI® LED light source with the endoscope.

The following brushes are recommended for cleaning the slim colonoscopes and the sigmoidoscope:

- **Cleaning Brush**, with double-sided brush, length 230 cm, brush diameter 4.5 mm, unsterile, for single use, package of 50, for use with flexible endoscopes with working channel diameters 3.2-4.2 mm
- **Biofilm Removal Device Cleaning Brush**, flocked, length 200 cm, unsterile, for single use, package of 10, for use with flexible endoscopes with a working channel diameter of 1.2 mm
- **Cleaning Brush**, length 200 cm, brush diameter 1.7 mm, unsterile, for single use, package of 50, for use with flexible endoscopes with working channel diameters 1.2-1.5 mm

*The instruments recommended for the slim colonoscopes and sigmoidoscopes can be viewed on the KARL STORZ website.*
New Trocar Generation for Laparoscopic Pediatric Surgery

The newly designed trocar generation combines single-use with reusable components. Whereas cannulas and trocars feature a design with reusable components, the new valve seal is intended for single use.

Special Features

- The ergonomic shape of the trocar ensures safe and reliable handling during placement
- The new plastic trocar housing ensures that the weight is considerably reduced and the trocar is well-balanced
- One-piece sealing system for single use (package of 10), now also available as a sterile version
- Minimal friction between the valve seal and the instrument
- Available in diameters 2.5 mm, 3.5 mm and 6 mm with a working length of 5 cm
### Trocars

<table>
<thead>
<tr>
<th>Size</th>
<th>Working length</th>
<th>Color code</th>
<th>Trocar Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 mm</td>
<td>5 cm</td>
<td>blue</td>
<td>with pyramidal tip, including valve seal, sterile, for single use, package of 10</td>
</tr>
<tr>
<td>3.5 mm</td>
<td>5 cm</td>
<td>green</td>
<td></td>
</tr>
<tr>
<td>6 mm</td>
<td>5 cm</td>
<td>black</td>
<td></td>
</tr>
</tbody>
</table>

- **11603 GZS**
- **30114 GZS**
- **30160 GZS**
- **30114 GNS**
- **30160 GNS**
- **30114 GYS**
- **30160 GYS**

### Valve Seals

<table>
<thead>
<tr>
<th>Valve Seals</th>
<th>unsterile</th>
<th>STERILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>For trocars size 2.5 mm</td>
<td>11603-XV2</td>
<td>021099-10</td>
</tr>
<tr>
<td>For trocars size 3.5 mm</td>
<td>30114-XV3</td>
<td>021199-10</td>
</tr>
<tr>
<td>For trocars size 6 mm</td>
<td>30160-XV5</td>
<td>021299-10</td>
</tr>
</tbody>
</table>

Further sizes and lengths can be found in the Laparoscopy catalog and the online Laparoscopy catalog at www.karlstorz.com.
The New RoTaLock™ Trocar

The TAN ROTALOCK™ trocar is a self-retaining trocar that was specially developed for neonatal surgery/pediatric laparoscopic surgery.

Special Features:

- Distal tip of the cannula enables fixation directly under the abdominal wall and prevents the cannula from slipping out of the abdominal wall
- Due to the short length of the sheath, the distal tip of the cannula does not hinder opening of the jaws
- One-piece sealing system for single use, now also available as a sterile version
- Available in sizes 3.5 mm and 6 mm
30114 RO  TAN ROTALOCK™ Trocar, without Luer-Lock connector for insufflation, size 3.5 mm, working length 3 cm, color code: green
    including:
    Cannula
    Valve Seal, sterile, for single use, package of 10
    Fixation Tube, package of 5

30114 RB  ROTALOCK™ Trocar

30160 RO  TAN ROTALOCK™ Trocar, with Luer-Lock connector for insufflation, size 6 mm, working length 5 cm, color code: black
    including:
    Cannula
    Valve Seal, sterile, for single use, package of 10
    Fixation Tube, package of 5

30160 RB  ROTALOCK™ Trocar

Valve Seals, for single use, package of 10

<table>
<thead>
<tr>
<th></th>
<th>unsterile</th>
<th>STERILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>For trocars size 3.5 mm</td>
<td>30114-XV3</td>
<td>021199-10</td>
</tr>
<tr>
<td>For trocars size 6 mm</td>
<td>30160-XV5</td>
<td>021299-10</td>
</tr>
</tbody>
</table>
Three-part Dismantling CLICKline Series for Pediatric Laparoscopic Surgery

The CLICKLINE instrument line (diameter 3.5 mm, length 20 cm) for pediatric laparoscopic surgery features great stability while its efficient, modular construction offers a high level of flexibility.

Special Features:

- Working length (20 cm) adapted to the special requirements of pediatric laparoscopy
- Modular concept: 3-part dismantling instruments fulfil the highest hygiene demands while offering the best possible variability
- Diverse combination possibilities thanks to a wide range of jaws with various outer sheaths and CLICKLINE handles
- Additional stability thanks to combination with metal outer sheath
- Working inserts with fully integrated joints

In addition to this instrument line (3.5 mm, three-part dismantling) we also offer 3 mm instruments with a length of 20 cm (two-part dismantling). Further information can be found in the main Laparoscopy catalog and the online Laparoscopy catalog at www.karlstorz.com.
CLICK\textit{line} Dissecting Forceps, insulated, size 3.5 mm, length 20 cm

Operating instruments, \textbf{length 20 cm}, for use with trocars size 3.5 mm

<table>
<thead>
<tr>
<th>Length</th>
<th>Handle</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 cm</td>
<td>33151</td>
</tr>
</tbody>
</table>

Double action jaws

<table>
<thead>
<tr>
<th>Working Insert</th>
<th>Complete Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>31110 ML</td>
<td>31151 ML 31152 ML 31153 ML 31156 ML 31121 ML 31149 ML</td>
</tr>
<tr>
<td>CLICK\textit{LINE} KELLY Dissecting and Grasping Forceps, long</td>
<td></td>
</tr>
<tr>
<td>31110 MD</td>
<td>31151 MD 31152 MD 31153 MD 31156 MD 31121 MD 31149 MD</td>
</tr>
<tr>
<td>CLICK\textit{LINE} KELLY Dissecting and Grasping Forceps</td>
<td></td>
</tr>
<tr>
<td>31110 R</td>
<td>31151 R 31152 R 31153 R 31156 R 31121 R 31149 R</td>
</tr>
<tr>
<td>CLICK\textit{LINE} Dissecting and Grasping Forceps, right-angled jaws</td>
<td></td>
</tr>
<tr>
<td>31110 UL</td>
<td>31151 UL 31152 UL 31153 UL 31156 UL 31121 UL 31149 UL</td>
</tr>
<tr>
<td>CLICK\textit{LINE} REDDICK-OLSEN Dissecting and Grasping Forceps, robust</td>
<td></td>
</tr>
</tbody>
</table>

Jaw length in mm (approx. measurements)

Further dissecting and grasping forceps can be found in the main Laparoscopy catalog and the online Laparoscopy catalog at www.karlstorz.com.
CLICKline Grasping Forceps, not insulated, size 3.5 mm, length 20 cm

Operating instruments, length 20 cm, for use with trocars size 3.5 mm

<table>
<thead>
<tr>
<th>Length</th>
<th>Handle</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 cm</td>
<td>33161</td>
</tr>
</tbody>
</table>

Single action jaws

<table>
<thead>
<tr>
<th>Working Insert</th>
<th>Complete Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>31110 ON</td>
<td>31161 ONM 31162 ONM 31163 ONM 31166 ONM 31131 ONM 31146 ONM 31147 ONM</td>
</tr>
</tbody>
</table>

CLICKLINE Grasping Forceps, fenestrated, with especially fine atraumatic serration

Double action jaws

| 31110 C         | 31161 CM 31162 CM 31163 CM 31166 CM 31131 CM 31146 CM 31147 CM |

CLICKLINE ROTHENBERG Bowel Grasper

| 31110 MG        | 31161 MGM 31162 MGM 31163 MGM 31166 MGM 31131 MGM 31146 MGM 31147 MGM |

CLICKLINE MANHES Dissecting and Grasping Forceps, “tiger jaws”, 2 x 4 teeth

| 31110 FG        | 31161 FGM 31162 FGM 31163 FGM 31166 FGM 31131 FGM 31146 FGM 31147 FGM |

CLICKLINE Grasping Forceps, atraumatic, wavy serration

Jaw length in mm (approx. measurements)

Further grasping forceps can be found in the main Laparoscopy catalog and the online Laparoscopy catalog at www.karlstorz.com.
CLICKline Scissors, insulated, size 3.5 mm, length 20 cm

Operating instruments, length 20 cm, for use with trocars size 3.5 mm

<table>
<thead>
<tr>
<th>Length</th>
<th>Handle</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 cm</td>
<td>33151</td>
</tr>
<tr>
<td></td>
<td>33121</td>
</tr>
<tr>
<td></td>
<td>33149</td>
</tr>
</tbody>
</table>

### Double action jaws

<table>
<thead>
<tr>
<th>Working Insert</th>
<th>Complete Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>31110 MW</td>
<td>31151 MW 31121 MW 31149 MW</td>
</tr>
</tbody>
</table>

CLICKLINE Scissors, serrated, curved, conical

<table>
<thead>
<tr>
<th>Single action jaws</th>
</tr>
</thead>
<tbody>
<tr>
<td>31110 EH</td>
</tr>
<tr>
<td>31151 EH</td>
</tr>
<tr>
<td>31121 EH</td>
</tr>
<tr>
<td>31149 EH</td>
</tr>
</tbody>
</table>

CLICKLINE Micro Hook Scissors

Jaw length in mm (approx. measurements)

Further scissors can be found in the main Laparoscopy catalog and the online Laparoscopy catalog at www.karlstorz.com.
RoBi® – Rotating Bipolar Grasping Forceps and Scissors for Pediatric Laparoscopic Surgery

The rotating and bipolar instruments are available with a diameter of 3.5 mm and a working length of 20 cm and allow precise work on tissue. The instrument design and materials used ensure the highest mechanical stability. The force limiter integrated in the handle prevents the jaws from overloading. Color coding on the forceps insert and the handle enables clear identification of the new, modular ROBi® components.

Special Features:

- Rotating and bipolar instruments, for the first time with a diameter of 3.5 mm, working length 20 cm
- Jaws with robust hinge in conjunction with force limiter allows precise and secure grasping
- Insulated outer sheath, 360° rotating sheath
- Modular construction for optimal cleaning
**RoBi® Bipolar Grasping Forceps and Scissors, size 3.5 mm**

*Rotating, 2-part, dismantling, with connector pin for bipolar coagulation, CLERMONT-FERRAND model*

Operating instruments, **length 20 cm**, for use with **trocars size 3.5 mm**

<table>
<thead>
<tr>
<th>Working Insert with Outer Sheath</th>
<th>Handle</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 cm</td>
<td>38151</td>
</tr>
</tbody>
</table>

**Double action jaws**

<table>
<thead>
<tr>
<th>Working Insert with Outer Sheath</th>
<th>Complete Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>38810 MD</td>
<td>38851 MD</td>
</tr>
<tr>
<td><img src="image" alt="Image of ROBi® KELLY Grasping Forceps" /></td>
<td><strong>ROBi® KELLY Grasping Forceps</strong>, CLERMONT-FERRAND model, especially suitable for dissection, color code: light blue</td>
</tr>
<tr>
<td>38810 ON</td>
<td>38851 ON</td>
</tr>
<tr>
<td><img src="image" alt="Image of ROBi Grasping Forceps" /></td>
<td><strong>ROBi® Grasping Forceps</strong>, CLERMONT-FERRAND model, with especially fine atraumatic serration, fenestrated jaws, color code: light blue</td>
</tr>
<tr>
<td>38810 PT</td>
<td>38851 PT</td>
</tr>
<tr>
<td><img src="image" alt="Image of ROBi® TAN Grasping Forceps" /></td>
<td><strong>ROBi® TAN Grasping Forceps</strong>, CLERMONT-FERRAND model, especially suitable for dissection, color code: light blue</td>
</tr>
<tr>
<td>38810 MW</td>
<td>38851 MW</td>
</tr>
<tr>
<td><img src="image" alt="Image of ROBi® METZENBAUM Scissors" /></td>
<td><strong>ROBi® METZENBAUM Scissors</strong>, CLERMONT-FERRAND model, curved blades, color code: light blue</td>
</tr>
</tbody>
</table>

---

Jaw length in mm (approx. measurements)

**Further information can be found in the main Laparoscopy catalog and the online Laparoscopy catalog at [www.karlstorz.com](http://www.karlstorz.com).**
Instrument Set for Pyloromyotomy

KARL STORZ offers a complete instrument set for pyloromyotomy featuring instruments that are specifically designed for this indication.

**Percutaneous pyloric knife with knife insert for single use:**

- Optimal cutting every time
- Integrated ratchet mechanism allows the knife insert to be locked in 8 positions (1.5 mm steps) and extended to the desired length in a controlled manner in order to achieve the required cutting depth.

**GEIGER Percutaneous Pyloric Grasper**

- Grasping forceps for stabilizing the pylorus during pyloromyotomy

The instrument set for pyloromyotomy also includes various pyloric spreaders and graspers that are suitable for both percutaneous applications and for use with a trocar.
26167 DRS  **Pyloric Knife**, with Luer-Lock connector for cleaning, size 3 mm, length 10 cm 
including:
**Handle**, with outer sheath
**Knife Insert**, for single use, unsterile, package of 10

30352 PS  **CLICKLINE GEIGER Pyloric Spreader**, rotating, with connector pin for unipolar coagulation, with Luer-Lock irrigation connector for cleaning, for percutaneous use, double action jaws, size 3 mm, length 20 cm 
including:
**Plastic Handle**, with MANHES style ratchet 
**Outer Sheath with Working Insert**

31161 PSM  **CLICKLINE Percutaneous Pyloric Spreader**, rotating, dismantling, without connector pin for unipolar coagulation, with Luer-Lock irrigation connector for cleaning, double action jaws, size 3.5 mm, length 20 cm 
including:
**Metal Handle**, without ratchet, with larger contact area 
**Metal Outer Sheath** 
**Forceps Insert**

31161 VTM  **CLICKLINE TAN Pyloric Spreader and Grasping Forceps**, rotating, dismantling, without connector pin for unipolar coagulation, with Luer-Lock irrigation connector for cleaning, double action jaws, in- and outside serrated jaws, size 3.5 mm, length 20 cm 
including:
**Metal Handle**, without ratchet, with larger contact area 
**Metal Outer Sheath** 
**Forceps Insert**

31151 VR  **CLICKLINE TAN Dissecting and Grasping Forceps**, rotating, dismantling, with connector pin for unipolar coagulation, with Luer-Lock irrigation connector for cleaning, double action jaws, jaws with rounded tips, size 3.5 mm, length 20 cm 
including:
**Plastic Handle**, without ratchet, with larger contact area 
**Metal Outer Sheath**, insulated 
**Forceps Insert**

Further sizes and lengths can be found in the Laparoscopy catalog and the online Laparoscopy catalog at www.karlstorz.com.
ENDOFLATOR® 50
The new insufflator with integrated heating element and sensitive mode for laparoscopic pediatric surgery

Special Features:

• Optimized control of the insufflation pressure for pediatric applications as well as safety limits for pressure (up to max. 15 mmHg) and flow (up to max. 15 l/min)

• Stable OR field thanks to innovative regulation

• Gas heating adapts to various ambient conditions and reliably prevents telescope fogging

• In combination with the S-PILOT® smoke evacuation system, creates optimal viewing conditions and a stable OR field, even in small cavity surgery*

* Further information on the S-PILOT® smoke evacuation system is available in the UNITS Highlights.
<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UI 500</td>
<td><strong>ENDOFLATOR® 50 SCB</strong>, with integrated SCB module, power supply 100-240 VAC, 50/60 Hz, System requirements for use with SCB-PC: SCB control NEO System with installed SCB control NEO Software Release 20090001-45 or higher</td>
</tr>
<tr>
<td>20090170</td>
<td>SCB Connecting Cable, length 100 cm</td>
</tr>
<tr>
<td>20400030</td>
<td>Universal Wrench</td>
</tr>
<tr>
<td>031210-10</td>
<td>Insufflation Tubing Set with Gas Filter, heatable, hydrophobic on both sides, sterile, for single use, package of 10, for use with ENDOFLATOR® 50</td>
</tr>
</tbody>
</table>
Thin, Pediatric System for Pediatric Urology

From childhood to old age, size plays a crucial role in urology. The pediatric system from KARL STORZ for newborn babies and children offers urologists and pediatric urologists or surgeons significant enhancements in urological care. The development of the 1.2 mm miniature telescope enables the further reduction of the previous cystoscopes, reflux cystoscopes, urethrotomes and resectoscopes while offering a new product line with special instruments for the field of pediatric urology.

Special Features:

- Excellent optical quality with the smallest possible diameter
- Straightforward and gentle patient treatment thanks to the smallest possible sheath size
- Bifunctional working element – pediatric resectoscope and urethrotome
- Special sheath for the treatment of vesicoureteral reflux
27033 AA  **Miniature Straight Forward Telescope 0°**, diameter 1.2 mm, length 20 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

27033 C  **Cystoscope-Urethroscope Sheath**, 8 Fr., with 4 Fr. working channel, working length 16 cm, color code: blue

27033 CR  **Cystoscope-Urethroscope Sheath**, 8 Fr., with 4 Fr. working channel, for reflux needles, working length 16 cm, color code: white

27033 EH  **Electrotome**
- Working Element
- Cutting Loop
- Coagulation Electrode
- High Frequency Cord
- Protection Tube

27033 R  **Resectoscope Sheath**, with Luer-Lock stopcock, 9 Fr., color code: yellow

27033 EK  **Working Element Set**
- Working Element
- Knife

27033 U  **Urethrotome Sheath**, with Luer-Lock stopcock, 8 Fr.

27033 F  **Telescope Bridge**, with 1 lockable channel
Operating Cystoscope-Urethroscope for Children

For straightforward and gentle treatment

The operating cysto-urethroscopes with atraumatic tip and excellent gliding properties provide the operating surgeon with enhanced possibilities for diagnosis as well as straightforward and gentle treatment of the patient. The straight working channel and the excellent telescope significantly enhance the efficient performance of various procedures.

Special Features:

- Atraumatically shaped distal end of sheath with rounded tip
- Minimal sheath diameter
- Maximum irrigation due to the large, straight working channel
27030 KAK  Pediatric Cysto-Urethroscope, 8 Fr., 6°, 1 step, 8-11 Fr., length 13 cm, autoclavable, with angled eyepiece, fiber optic light transmission incorporated, with 2 lateral irrigation ports and 1 working channel 4 Fr., for use with instruments up to 4 Fr.

The following accessories are included in delivery:
- Insertion Aid
- Instrument Port with Sealing System and Quick Release Lock
- Luer-Lock Tube Connector, male
- Luer-Lock Tube Connector, with stopcock
- Seal, package of 10
- Cleaning Adaptor

27030 KBK  Pediatric Cysto-Urethroscope, 9.5 Fr., 6°, 1 step, 9.5-11 Fr., length 13 cm, autoclavable, with angled eyepiece, fiber optic light transmission incorporated, with 2 lateral irrigation ports and 1 working channel 6 Fr. for operating instruments 5 Fr.

The following accessories are included in delivery:
- Insertion Aid
- Instrument Port with Sealing System and Quick Release Lock
- Luer-Lock Tube Connector, male
- Luer-Lock Tube Connector, with stopcock
- Seal, package of 10
- Cleaning Adaptor

The entire KARL STORZ product portfolio for pediatric urology can be found in the main Urology and Pediatric Surgery catalogs.
The pilonidal sinus is an acute or chronic inflammatory process in the subcutaneous adipose tissue, often occurring in the sacrococcygeal region. E.P.Si.T. – Endoscopic Pilonidal Sinus Treatment – proceeds in two phases. In the first – diagnostic – phase, the sinus cavity and the sinus tracts are examined. The aim of the second – therapeutic – phase is to ablate the abscess cavity and to eliminate the fistula. Both phases are performed under direct endoscopic control.

Special Features:

- E.P.Si.T. can be performed in an outpatient setting
- Ablation of the abscess cavity and elimination of the fistula under direct vision
- High patient satisfaction
- Straightforward, safe, effective and reproducible method of treatment
- Instruments can also be used to treat anal fistulas (VAAFT technique)
24511 Fistulectomy Set,
including:
Fistuloscope 8°, angled eyepiece, outer diameter 3.3 x 4.7 mm, working length 18 cm
Handle
Obturator
Wire Tray for Cleaning, Sterilization and Storage
Sealing Cap “Endoscopic Seal”, sterile, package of 10

100020-10* Sealing Cap “Endoscopic Seal”, for working channels of 4-10 Fr. instruments, sterile, for single use, package of 10

24515 Coagulation Electrode, unipolar, for fistulectomy, 7 Fr., length 53 cm

24514 Fistula Brush,
including:
3-ring Handle
Outer Sheath
Fistula Brush Insert, outer diameter 4 mm, unsterile, for single use
Fistula Brush Insert, outer diameter 4.5 mm, unsterile, for single use
Fistula Brush Insert, outer diameter 5 mm, unsterile, for single use

30251 KJ CLICKLINE REDDICK-OLSEN Grasping Forceps, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with Luer-Lock irrigation connector for cleaning, double action jaws, size 2 mm, length 30 cm
including:
Plastic Handle, without ratchet, with larger contact area at the finger ring
Outer Sheath, with working insert

Sources:
1 AWMF Summary of the S3 Guidelines 081/009: Sinus pilonidalis
2 Endoscopic Pilonidal Sinus Treatment: A Prospective Multicentre Trial. P. Meinero et al., 2016
3 Endoscopic Pilonidal Sinus Treatment, Giarratano G et al., 2017

* To view the application video, please scan the QR code
Imaging and OR Integration

Storage and administration of image and video data

Flexible support for image sources

Centralized communication interface

KARL STORZ OR1™
Future-oriented integration meets innovative data management

KARL STORZ SE & Co. KG, Dr.-Karl-Storz-Straße 34, 78532 Tuttlingen/Germany
www.karlstorz.com
Further information and an overview of Pediatrics products from KARL STORZ can be viewed on

www.karlstorz.com, in the Human Medicine section, Pediatrics

It is recommended to check the suitability of the product for the intended procedure prior to use.