Highlights

Flexible Endoscopy in Surgery
Flexible endoscopy is becoming increasingly prevalent in general and visceral surgery. The modular IMAGE1 S™ camera system combines rigid (2D, 3D and 4K) as well as flexible endoscopy in one system and thus allows the use of both applications.

**Special Features:**

- For use with KARL STORZ video endoscopes (video choledochoscopes, TROIDL flexible rectoscopes, colonoscopes, gastroscopes)
- Possible to combine rigid and flexible endoscopy thanks to the modular IMAGE1 S™ camera platform
- Picture-in-Picture mode enables the simultaneous display of laparoscopic and endoscopic images
- Cost-effective solution as it eliminates the need for a second video tower
Further information on flexible endoscopes and accessories is available in the Laparoscopy catalog.
CO₂mbi® LED Cold Light Fountain

- Two-in-one solution combines an LED light source and air/CO₂ insufflator in one unit
- Long LED module service life provides significant cost reductions
- Light intensity adjustable manually or automatically (depending on the distance to mucosa)
- Optimal light yield with high-efficiency LED
- CO₂ insufflation for greater patient comfort
- Choice of three insufflation modes: 100% CO₂ mode, regular room air, air/CO₂ mode
- Integrated pump with two power levels for rapid insufflation
- Display with interactive icons
- Touch screen can also be controlled with wet gloves
The following components are recommended for use with CO₂MBI® LED

**TL100S1** Cold Light Fountain CO₂MBI® LED SCB, with high-performance LED, integrated KARL STORZ-SCB and integrated insufflation pump for air and CO₂ insufflation, for use with KARL STORZ video endoscopes, power supply 100-240 VAC, 50/60 Hz including:
- Irrigation Bottle Holder
- Holding Ring, for water bottles
- Water Bottle
- Irrigation Adaptor, for water bottles
- SCB Connecting Cable
- Universal Wrench

For CO₂ supply, one of the following tubes must be selected

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Connection</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>20400021</td>
<td>CO₂ High Pressure Tube</td>
<td>American/German</td>
<td>55 cm</td>
</tr>
<tr>
<td>20400027</td>
<td>CO₂ High Pressure Tube</td>
<td>American/German</td>
<td>102 cm</td>
</tr>
<tr>
<td>20400022</td>
<td>CO₂ High Pressure Tube</td>
<td>American/Pin-Index</td>
<td>55 cm</td>
</tr>
<tr>
<td>20400028</td>
<td>CO₂ High Pressure Tube</td>
<td>American/Pin-Index</td>
<td>102 cm</td>
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<td>20400222</td>
<td>CO₂ High Pressure Tube</td>
<td>American/ISO</td>
<td>102 cm</td>
</tr>
<tr>
<td>UI001</td>
<td>Low Pressure Tube</td>
<td>For central CO₂</td>
<td>150 cm</td>
</tr>
<tr>
<td>UI002</td>
<td>Low Pressure Tube</td>
<td>For central CO₂</td>
<td>300 cm</td>
</tr>
<tr>
<td>UI003</td>
<td>Low Pressure Tube</td>
<td>For central CO₂</td>
<td>600 cm</td>
</tr>
</tbody>
</table>

For use with the aforementioned video gastroscopes, video colonoscopes and the video duodenoscope.
Flexible Choledocho-Fiberscopes

The flexible choledocho-fiberscopes from KARL STORZ allow the exploration of intra- and extrahepatic bile ducts as well as the surgical removal of gallstones.

Special Features:

- Large working channel
- Large field of view and wide range of distal tip
- Compatible with all KARL STORZ camera systems

*To view the application video, please scan the QR code
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11292ADK1</td>
<td>Choledocho-Fiberscope, steerable, direction of view 0°, angle of view 90°, working channel inner diameter 3.6 Fr., distal tip outer diameter 7.5 Fr., deflection up/down 160°/120°, working length 50 cm</td>
</tr>
<tr>
<td>11292ADUK1</td>
<td>Choledocho-Fiberscope, steerable, with contrapositive deflection mechanism, direction of view 0°, angle of view 90°, working channel inner diameter 3.6 Fr., distal tip outer diameter 7.5 Fr., deflection up/down 160°/120°, working length 50 cm</td>
</tr>
<tr>
<td>11292DEK1</td>
<td>Choledocho-Fiberscope, steerable, direction of view 0°, angle of view 110°, working channel inner diameter 6 Fr., distal tip outer diameter 15.5 Fr., deflection up/down 180°/100°, working channel 36 cm</td>
</tr>
</tbody>
</table>

**Further Accessories for Intraoperative Choledochoscopy and Cholangiography:**

**Grasping Forceps for Guiding Choledocho-Fiberscopes**
- 33561PG CLICKLINE BERCI Grasping Forceps, size 10 mm, double action jaws, with silicone pads

**Cholangiography Fixation Clamp**
- 28378CH OLESEN Cholangiography Fixation Clamp, with channel for catheter 6 Fr., length 27 cm

Further accessories for choledochoscopy and cholangiography can be found in the Laparoscopy catalog.
Flexible Video Choledochoscopes

The flexible video choledochoscopes from KARL STORZ allow exploration of both the intra- and extrahepatic bile ducts as well as the surgical removal of gallstones.

Special Features:

- “Chip-on-the-tip” technology for high image quality*
- Compatible with the IMAGE1 S™ platform
- Menu navigation via camera head (e.g., Picture-in-Picture)
- Minimal sheath circumference – 2.8 mm
- Infinitely adjustable deflection up to 270°
- Direct transmission of hand movements through to the distal end

* To view the application video, please scan the QR code
11292VSK  **Flexible Video Choledochoscope IMAGE1 S™**, steerable, for use with IMAGE1 S™
- Deflection of distal tip: 270°/270°
- Direction of view: 0°
- Angle of view: 90°
- Working channel inner diameter: 1.2 mm
- Sheath size: 2.8 mm
- Working length: 50 cm

11292VSK  **Same**, with contrapositive deflection mechanism

**Further accessories for intraoperative choledochoscopy and cholangiography:**

**Grasping Forceps, for guiding video choledochoscopes**

33561PG  **CLICKLINE BERCI Grasping Forceps**, size 10 mm, double action jaws, with silicone pads

**Cholangiography Fixation Clamp**

28378CH  **OLSEN Cholangiography Fixation Clamp**, with channel for catheter 6 Fr., length 27 cm

Further information on flexible video choledochoscopes and accessories is available in the Laparoscopy catalog.
KARL STORZ TROIDL SILVER SCOPE® Flexible Rectoscope

The flexible TROIDL SILVER SCOPE® rectoscope combines the fundamental advantages of flexible endoscopy with the application possibilities of rectoscopy.

Special Features:

- Short working length of 40 cm
- Inversion up to 210° improves visualization compared to rigid rectoscopy and, consequently, diagnostic and therapeutic options thanks to forward and retrograde viewing
- Field of application especially suited for surgical conditions and procedures in the rectal area
- Possibility to combine rigid and flexible endoscopy thanks to modular IMAGE1 S™ camera platform
13912PKSK  **TROIDL Rectoscope**, Set, flexible, 11.8 mm x 40 cm, color system PAL,
Direction of view: 0°
Sheath diameter: 11.8 mm
Working channel diameter: 3.4 mm
Deflection up/down: 210°/120°
Deflection left/right: 120°/120°
Field of view: 140°
Working length: 40 cm

13912NKSK  **Same**, color system NTSC

**For use with the following camera systems**

- **IMAGE1 S™**
- **IMAGE 1 HUB™ HD**
- **TELECAM/TELE PACK X GI**

**Please note:**

One of the following videoendoscope adaptors is required to connect the flexible TROIDL Rectoscope 13912PKSK/13912NKSK to a camera control unit:

**For use with IMAGE1 S™**

TC001  **IMAGE1 S™ Videoendoscope Adaptor**, color systems PAL/NTSC, length 60 cm, for use with IMAGE1 S™ X-LINK TC301

**For use with IMAGE 1 HUB™ HD**

22200077  **Videoendoscope Adaptor**, color systems PAL/NTSC, length 90 cm

**For use with TELECAM/TELE PACK X GI**

20213070  **Videoendoscope Adaptor**, for use between KARL STORZ videoendoscopes and TELECAM Camera Control Units (CCU) or TELE PACK video units

Further information on the TROIDL flexible rectoscope and other flexible endoscopes, e.g., gastroscopes and colonoscopes, is available in the Proctology catalog.
SILVER SCOPE® Gastroscopes

The flexible routine gastroscope

- The routine gastroscope is a reliable instrument for everyday use in gastroenterology. The 2.8 mm working channel allows the use of all corresponding instruments for diagnosis and intervention.
- Excellent deflection up to 210°

The medium gastroscope for standard and pediatric use and in case of stenosis

- Elegant 7.8 mm outer diameter with 2.8 mm working channel
- Excellent deflection up to 210°
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Sheath outer diameter</th>
<th>Working channel diameter</th>
<th>Max. deflection up/down</th>
<th>Max. deflection left/right</th>
<th>Working length</th>
<th>Direction of view</th>
</tr>
</thead>
<tbody>
<tr>
<td>13821PKSK/NKSK</td>
<td>Flexible Video Gastroscope</td>
<td>9.3 mm</td>
<td>2.8 mm</td>
<td>210°/100°</td>
<td>120°/120°</td>
<td>1100 mm</td>
<td>0°</td>
</tr>
<tr>
<td>13823PKSK/NKSK</td>
<td>Flexible Video Gastroscope, with reduced outer diameter</td>
<td>7.8 mm</td>
<td>2.8 mm</td>
<td>210°/100°</td>
<td>120°/120°</td>
<td>1100 mm</td>
<td>0°</td>
</tr>
</tbody>
</table>

To clean endoscopes **13821PKSK/NKSK** and **13823PKSK/NKSK**, the following brush is recommended:

110951-50*  Cleaning Brush, with double-sided brush, length 165 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 the suction channel in the insertion tube, the following brush is recommended:

110961-50*  Cleaning Brush, with double-sided brush, length 190 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

To clean valves, the following brush is recommended:

110922-100*  Valve Brush, double-sided, brush diameters 10 mm and 5 mm, brush lengths 33 mm and 20 mm, with thumb ring for brushing the valve seat, unsterile, for single use, package of 100, for use with flexible endoscopes

* Further flexible, sterile instruments for single use can be found in our brochure. Please scan the QR code or enter the short URL in your browser: https://go.karlstorz.com/HL-GE-single-use
SILVER SCOPE® Colonoscopes

- Available in five working lengths from 800 mm to 1600 mm
- Excellent deflection up to 210°
- Different outer diameters of the insertion sheath combined with different working channel sizes with or without additional water jet channel
- Possible to clean water jet channel with a brush
The following brushes are recommended for cleaning the slim colonoscopes and the sigmoidoscope

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

110920-10* 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

110932-50* 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

To clean valves, the following brush is recommended:

110922-100* Valve Brush, double-sided, brush diameters 10 mm and 5 mm, brush lengths 33 mm and 20 mm, with thumb ring for brushing the valve seat, unsterile, for single use, package of 100, for use with flexible endoscopes

Further products can be found on the KARL STORZ website.
75 Years

Shaping the Future of Endoscopy with you