

# Highlights 2018

Edition 1/2018



## Laparoscopy

**STORZ**  
KARL STORZ – ENDOSKOPE





## The New Trocar Generation from KARL STORZ

The new trocar generation combines single-use and reusable components. In line with the KARL STORZ company philosophy, the cannulas and trocars were designed with reusable components in mind. The valve seal is intended for single use.

### Special Features:




- Ergonomic shape of the trocar ensures safe and comfortable handling during placement of the trocar
- One-piece sealing system for single use, now also available as a sterile version
- Minimal friction between the valve seal and the instrument
- Considerably reduced weight and good balance thanks to the newly designed plastic trocar housing
- Color coding for clear identification of different sizes
- Available in the sizes 2.5 mm – 13.5 mm

Size	2.5 mm	3.5 mm	
<b>Working length</b>	5 cm	5 cm	10 cm
<b>Color code</b>	blue	green	green
<b>Trocar</b> , with pyramidal tip including <b>valve seal</b> , unsterile, for single use, package of 10	11603 GZS	30114 GZS	30114 GZG
<b>Trocar</b> , with blunt conical tip including <b>valve seal</b> , unsterile, for single use, package of 10		30114 GNS	30114 GNG
<b>Trocar</b> , with conical tip including <b>valve seal</b> , unsterile, for single use, package of 10		30114 GYS	30114 GYG

Size	6 mm		11 mm
<b>Working length</b>	5 cm	10 cm	10 cm
<b>Color code</b>	black	black	green
<b>Trocar</b> , with pyramidal tip including <b>valve seal</b> , unsterile, for single use, package of 10	30160 GZS	30160 GZG	30103 GZG
<b>Trocar</b> , with blunt conical tip including <b>valve seal</b> , unsterile, for single use, package of 10	30160 GNS	30160 GNG	30103 GNG
<b>Trocar</b> , with conical tip including <b>valve seal</b> , unsterile, for single use, package of 10	30160 GYS	30160 GYG	30103 GYG

Size	13.5 mm
<b>Working length</b>	10 cm
<b>Color code</b>	blue
<b>Trocar</b> , with pyramidal tip including <b>valve seal</b> , for single use, unsterile, package of 10	30108 GZG
<b>Trocar</b> , with blunt conical tip including <b>valve seal</b> , for single use, unsterile, package of 10	30108 GNG
<b>Trocar</b> , with conical tip including <b>valve seal</b> , for single use, unsterile, package of 10	30108 GYG

**Valve Seals**, for single use, package of 10

	unsterile 	STERILE 	
For trocars size 2.5 mm	11603-XV2	021099-10	
For trocars size 3.5 mm	30114-XV3	021199-10	
For trocars size 6 mm	30160-XV5	021299-10	
For trocars size 11 mm	30103-XV10	021399-10	
For trocars size 13.5 mm	30108-XV13	021499-10	

30141 RS **Reducer**, to reduce from 11 mm to 5 mm

30142 RS **Reducer**, to reduce from 13.5 mm to 5 mm



## New Flexible Trocar Generation

The new trocar generation from KARL STORZ has been expanded to include flexible trocars for use with curved instruments. The flexible trocar system is available in two sizes (6 mm and 11 mm) and with two different trocar types (pyramidal and conical-blunt).

The new DAPRI FLEX trocar (size 6 mm) has been added to the flexible trocar line. Thanks to the high flexibility of its sheath together with the short elastic housing, this trocar is suitable for use with instruments with a very strong curve. The distally mounted anchor ensures an optimal hold in the tissue.




### Special Features:

- Flexible cannulas for use with curved operating instruments
- Can be combined with ROTATIP® instruments with jaw and sheath rotation
- Ergonomic shape of the trocar ensures safe and comfortable handling during placement of the trocar
- One-piece sealing system for single use, now also available as a sterile version

<b>Size</b>	6 mm	11 mm
<b>Working length</b>	8.5 cm	8.5 cm
<b>Color code</b>	black	green
<b>Trocar, flexible</b> , with pyramidal tip including <b>valve seal</b> , unsterile, for single use, package of 10	30160 NKL	30103 NKL
<b>Trocar, flexible</b> , with conical-blunt tip including <b>valve seal</b> , unsterile, for single use, package of 10	30160 NOL	30103 NOL
<b>Accessory:</b> <b>Plastic Cannula, autoclavable</b> , for flexible trocars, package of 5	30120 X	30123 X

30160 NYD DAPRI **FLEX Trocar**, flexible, with conical tip, size 6 mm, working length 11 cm including:  
 DAPRI **FLEX Cannula**  
**Valve Seal**, unsterile  
**Trocar only**

**Valve Seals**, for single use, package of 10

	unsterile 	STERILE 	
For trocars size 6 mm	30160-XV5	021299-10	
For trocars size 11 mm	30103-XV10	021399-10	

23451 OBD **ROTATIP® Grasping Forceps**, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, with revolving jaw design, single action jaws, with especially fine atraumatic serration, fenestrated, CARUS sheath curve, size 5 mm, length 36 cm

23451 MSBD **ROTATIP® METZENBAUM Scissors**, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, with revolving jaw design, double action jaws, long, CARUS sheath curve, size 5 mm, length 36 cm

**Further curved instruments can be found in the Laparoscopy catalog.**



## KARL STORZ Smoke Evacuation Filter – The Simple and Cost-efficient Solution for Smoke-free Viewing

The KARL STORZ smoke evacuation filter, which can be used in conjunction with all trocars with a LUER-Lock connector, provides a simple and cost-effective option for removing smoke gas in a controlled fashion. With the aid of the included roller clamp, the speed at which the smoke is removed can be adapted to each respective situation. The integrated smoke evacuation filter prevents smoke gases and harmful substances from reaching the room air.

031110-10\* **Smoke Evacuation Filter Set**, with 50 cm tube, with male LUER-Lock, sterile, for single use, package of 10, for use with trocars with LUER-Lock connector





## S-PILOT® – The Comprehensive and Automatic Solution for Smoke Evacuation

The S-PILOT® from KARL STORZ offers a solution for smoke evacuation which removes airborne particles quickly and easily from the abdomen to ensure clear visibility. The S-PILOT® automatically starts smoke evacuation when a connected HF unit\*\* is activated. Alternatively, smoke evacuation can be activated independent of a HF unit.

UP 501 S1 **S-PILOT®**, incl. footswitch, power supply 100-240 VAC, 50/60 Hz

031447-10\* **Tubing Set for Smoke, Gas and Fluid Suction**, sterile,  
for single use, package of 10

STERILE 

031111-10\* **Smoke Evacuation Filter**, unsterile, for single use, package of 10





\*\*Compatible with: KARL STORZ AUTOCON® III 400 and several HF units from other manufacturers. More detailed information is available in ENDOWORLD® UNITS 12: S-PILOT® – The solution for smoke evacuation

**NEW**

## **EndoCAMEleon**® Telescope with Variable Direction of View

The ENDOCAMELEON® HOPKINS® telescope with rod lens system and a rigid 10 mm sheath offers a variable direction of view. This allows optimal adjustment of the viewing direction to any OR situation.

### Special Features:

- Variable direction of view 0° – 90°
- Enhanced illumination
- Easy-to-use adjustment knob for selecting the direction of view, now with fin
- Combines the convenient handling of the proven HOPKINS® telescope with the advantages and potential of a telescope offering various directions of view
- Particularly suitable for use in anatomically narrow working spaces



- 26003 EC **ENDOCAMELEON® HOPKINS® Telescope**, diameter 10 mm, length 31 cm, **autoclavable**, variable direction of view 0° – 90°, with adjusting knob with fin for selecting the direction of view, fiber optic light transmission incorporated, color code: gold
- 495 NCSC **Fiber Optic Light Cable**, with straight connector, extremely heat-resistant, enhanced light transmission, with safety lock, diameter 4.8 mm, length 250 cm
- 39501 BEC **Wire Tray for Cleaning, Sterilization and Storage** of one ENDOCAMELEON®, length 32 cm, and one light cable, including holder for light post adaptor, silicone telescope holder and lid, external dimensions (w x d x h): 480 x 125 x 54 mm

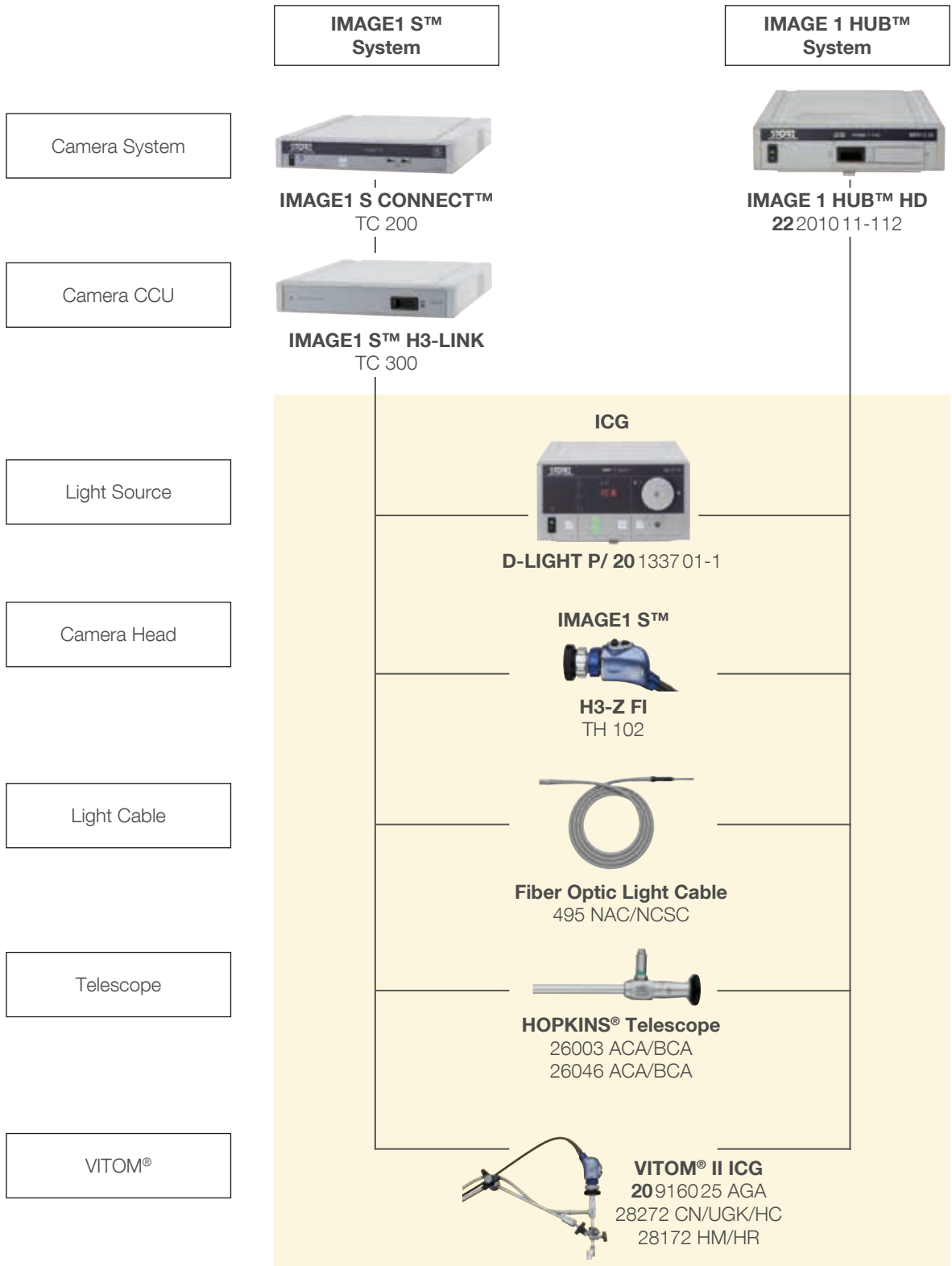


## Fluorescence Imaging

The near-infrared (NIR/ICG) system from KARL STORZ provides visualization beyond the tissue surface. Near-infrared (NIR) technology makes it possible to visualize the distribution of the fluorescent contrast agent indocyanine green (ICG), which enables enhanced visualization of anatomical structures such as the biliary ducts, the lymphatic system and blood vessels.

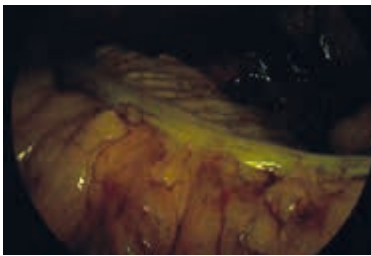
### Special Features:

- Fluorescence mode with background illumination
- Rapid switchover via footswitch between white light and ICG modes
- Telescopes for endoscopic and open surgical interventions (VITOM®)
- In addition to 10 mm telescopes, telescopes with a diameter of 5 mm (0° and 30°) are also available now
- Optimal illumination and contrast enhancement thanks to the IMAGE1 S™ camera platform

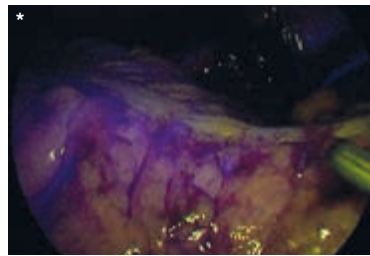


## Fluorescence Imaging with the NIR/ICG System

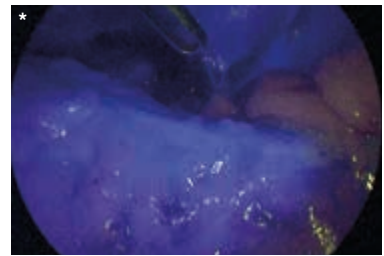
### Visualization of perfusion, e.g., for colorectal anastomoses



Background illumination in the fluorescence mode



Start of the influx approx. 25 seconds after ICG administration



Identification of the ischemic area approx. 1 min and 30 seconds after ICG administration

- Rapid perfusion assessment of a planned resection zone, e.g., for colon anastomoses, esophagus anastomoses and gastric bypass anastomoses
- NIR/ICG fluorescence imaging represents an intraoperative solution in real time
- Allows better differentiation between well-perfused tissue and ischemic areas

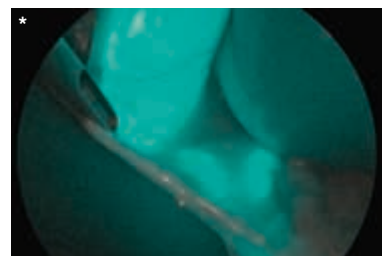
### Visualization of the gallbladder and bile ducts



Standard white light mode



NIR/ICG mode

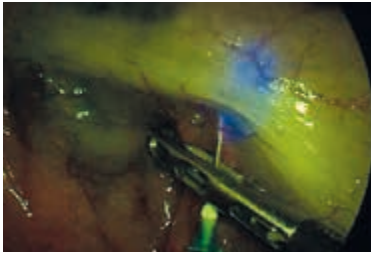


NIR/ICG mode with SPECTRA A\*\*\* for fluorescence signal amplification

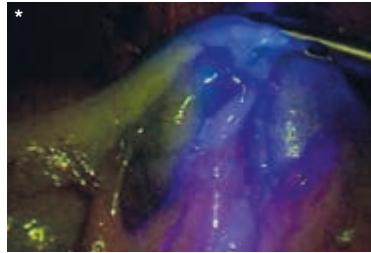
Following intravenous administration, ICG naturally collects in the gallbladder and bile ducts. This allows the rapid and reliable identification of gallbladder and bile duct anatomy.

- Allows the reliable differentiation between the cystic duct and the common bile duct
- Intraoperative leaks displayed with ICG
- Shortened surgical duration with ICG compared to standard cholangiography

## Visualization of the lymphatic system



Peritumoral injection of the fluorescent substance



Fluorescence imaging of the lymphatic system, starting point of the assessment of the lymphatic system

NIR/ICG imaging enables non-radioactive visualization of the entire lymph system surrounding a tumor in real time.

- Detection rates compare favorably with established methods of lymph node visualization
- Multidisciplinary use, for example, in gynecology, urology and general surgery

## Use in liver surgery



Partial liver resection using ICG in the standard white light mode



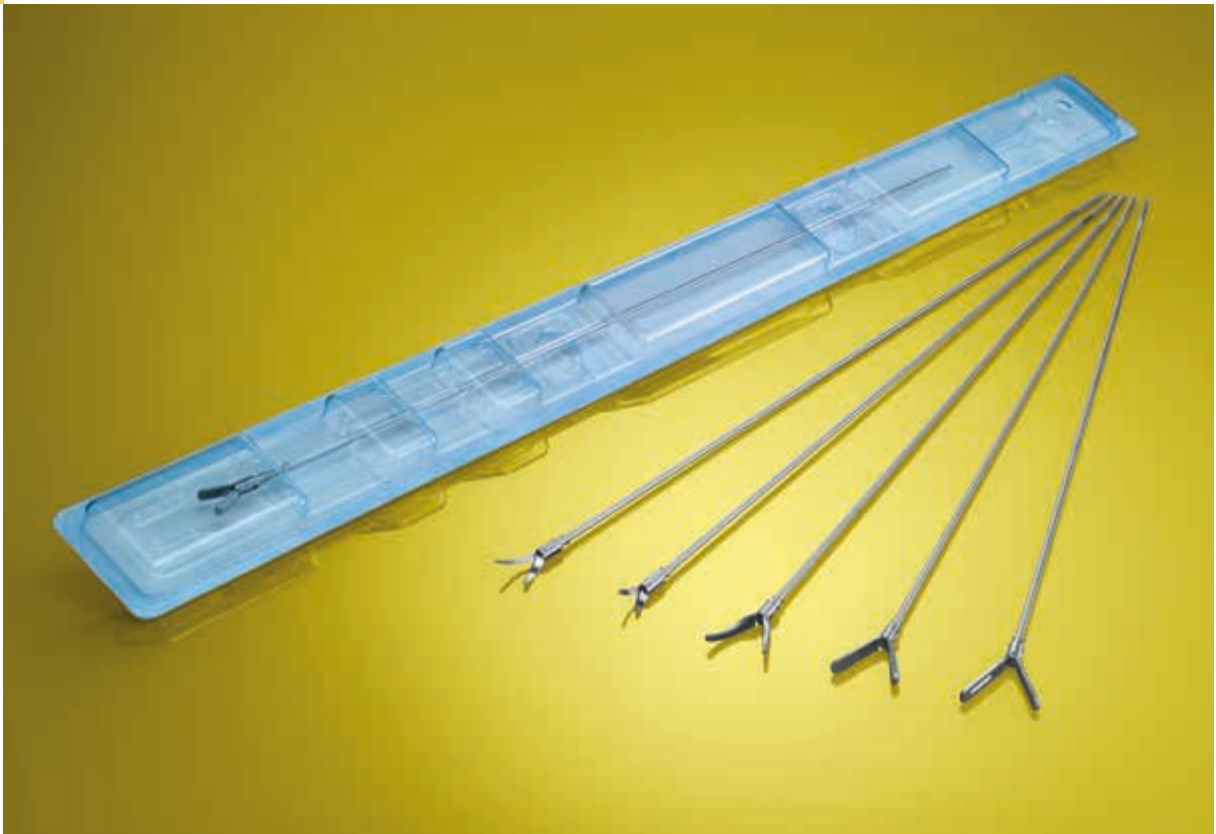
NIR/ICG mode

- The NIR/ICG system enables the diagnosis of liver metastases, primary liver tumors and bile leakage
- In liver segmentectomy, the NIR/ICG system can be used to visualize the course of vessels in individual liver segments

\* Source: Prof. Luigi Boni, IRCCS - Ca' Granda, Policlinico Hospital, University of Milan, Milan, Italy

\*\* Source: Niclas Kvarnström, M.D., Sahlgrenska University Hospital, Göteborg, Sweden

\*\*\* SPECTRA A: IMAGE1 S™ camera platform mode for color shift and switch. Not available for sale in the U.S.



## CLICKline Working Inserts for Single Use

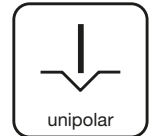
### The new cost-efficient combination possibility for laparoscopy

A selection of CLICKLINE working inserts for single use is also available now. These new CLICKLINE single use inserts can be combined with all reusable handles and outer sheaths (length 36 cm, diameter 5 mm). Due to the modular CLICKLINE system, the user can individually assemble the desired instrument at any time.

#### Special Features:

- Selection of the most commonly used KARL STORZ CLICKLINE working inserts for single use
- Inserts sterile-packed in individual blister packs and delivered in packages of 10 in a dispenser box
- Diverse combination possibilities
- “Single use meets reusable” – a cost-efficient solution for laparoscopy

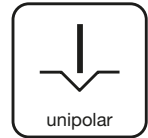
CLICKline Working Inserts for Single Use,  
size 5 mm, length 36 cm, sterile



- |  |            |  |
|--|------------|--|
|  | 33310 AF-S | <b>CLICKLINE Forceps Insert</b> , for grasping forceps, double action jaws, atraumatic, fenestrated, sterile, for single use, package of 10  |
|  | 33310 C-S  | <b>CLICKLINE Forceps Insert</b> , for bowel grasper, double action jaws, fenestrated, sterile, for single use, package of 10   |
|  | 33310 CC-S | <b>CLICKLINE Forceps Insert</b> , for CROCE-OLMI grasping forceps, single action jaws, atraumatic, fenestrated, curved, sterile, for single use, package of 10   |
|  | 33310 CK-S | <b>CLICKLINE Forceps Insert</b> , for bowel grasper, double action jaws, length of jaws 18 mm, fenestrated, sterile, for single use, package of 10   |
|  | 33310 G-S  | <b>CLICKLINE Forceps Insert</b> , for grasping forceps, double action jaws, 2 x 4 teeth, sterile, for single use, package of 10  |
|  | 33310 ME-S | <b>CLICKLINE Forceps Insert</b> , for MANHES grasping forceps, single action jaws, with multiple teeth, width of jaws 4.8 mm, for atraumatic and accurate grasping, sterile, for single use, package of 10 |
|  | 33310 MD-S | <b>CLICKLINE Forceps Insert</b> , for KELLY dissecting and grasping forceps, double action jaws, sterile, for single use, package of 10  |

Further CLICKLINE working inserts for single use for combination with reusable outer sheaths and handles can be found on the following pages.

CLICKline Working Inserts for Single Use,  
size 5 mm, length 36 cm, sterile



33310 ON-S

**CLICKLINE Forceps Insert**, for grasping forceps, single action jaws, with especially fine atraumatic serration, fenestrated, sterile, for single use, package of 10



33310 ML-S

**CLICKLINE Forceps Insert**, for KELLY dissecting and grasping forceps, double action jaws, long, sterile, for single use, package of 10



34310 MA-S

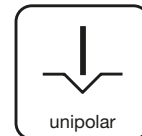
**CLICKLINE Scissors Insert, for scissors**, double action jaws, serrated jaws, spoon-shaped, sterile, for single use, package of 10



34310 MS-S

**CLICKLINE Scissors Insert**, for METZENBAUM scissors, double action jaws, curved, sterile, for single use, package of 10





For use with reusable outer sheaths from the **CLICKLINE** series, e.g.



33300

**CLICKLINE Metal Outer Sheath**, insulated,  
with LUER-Lock irrigation connector for cleaning

For use with reusable handles from the **CLICKLINE** series, e.g.



33151

**CLICKLINE Plastic Handle**, without ratchet,  
with larger contact area at the finger ring,  
with connector pin for unipolar coagulation



33149

**CLICKLINE Plastic Handle**, axial, without ratchet,  
rotating, double action shanks,  
with connector pin for unipolar coagulation

Further reusable outer sheaths and handles for combination with **CLICKLINE** working inserts for single use can be found in the Laparoscopy catalog.



## CLICKline Single Use Scissors – Simply Sharp!

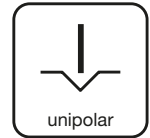
The new single use scissor inserts 34310 MA-D and 34310 MS-D can be combined with all reusable handles in the KARL STORZ CLICKLINE series, providing a practical solution for regular use or as a backup system.

### Special Features:

- Scissor blades are always sharp, resulting in optimal cutting effect
- Inserts sterile-packed in individual blister packs and delivered in packages of 10 in a dispenser box
- Proven scissor blade designs
- Cost-effective solution: “Single use meets reusable”
- Color coding allows clear identification of the single use components



CLICKline Single Use Scissors with Outer Sheath, size 5 mm, length 36 cm, sterile, for single use



34310 MA-D

**CLICKLINE Scissors Insert with Outer Sheath**, curved, double action jaws, spoon-shaped jaws, length of blades 17 mm, sterile, for single use, package of 10



34310 MS-D

**CLICKLINE METZENBAUM Scissors Insert with Outer Sheath**, curved, double action jaws, length of blades 12 mm, sterile, for single use, package of 10

**For use with reusable handles in the CLICKLINE series, e.g.**



33151

**CLICKLINE Plastic Handle**, without ratchet, with larger contact area at the finger ring, with connector pin for unipolar coagulation



33149

**CLICKLINE Plastic Handle**, axial, without ratchet, double action shanks, rotating, insulated, with connector pin for unipolar coagulation

Further handles for combination with the single use scissors 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 excellent image quality\*
- Compatible with the IMAGE1 S™ platform and backward-compatible to IMAGE 1 HUB™ HD
- Menu navigation via camera head (e.g., Picture-in-Picture)
- Minimal sheath circumference – 2.8 and 5.3 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



11292 VSK **Flexible Video Choledochoscope IMAGE1 S™**, steerable, 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

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

**For use with the following camera systems:**

- IMAGE1 S™
- IMAGE 1 HUB™ HD in conjunction with Video Endoscope Adaptor **TC 002**

11292 VPK **Flexible Video Choledochoscope, PAL**, deflection of distal tip: 210°/140°  
Direction of view: 0°  
Angle of view: 120°  
Working channel inner diameter: 2.1 mm  
Sheath size: 5.3 mm  
Working length: 37 cm

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

**For use with the following camera systems:**

- IMAGE1 S™ in conjunction with Video Endoscope Adaptor **TC 001**
- IMAGE 1 HUB™ HD in conjunction with Video Endoscope Adaptor **22 2000 77**
- TELECAM / TELE PACK X LED in conjunction with Video Endoscope Adaptor **20 2130 70**

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

**Grasping Forceps, for guiding video choledochoscopes**

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

**Cholangiography Fixation Clamp**

28378 CH **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.**

**Further information on camera systems is available in the Telepresence catalog.**



## KARL STORZ Suction and Irrigation Systems

KARL STORZ offers a wide range of suction and irrigation systems. Diverse combination possibilities for handles as well as suction and irrigation tubes can be selected to achieve the desired suction or irrigation results. The appropriate tubing systems are also available from KARL STORZ.




Special Features:

- A broad range of suction and irrigation tubes available in various lengths and diameters allows the user to select KARL STORZ suction and irrigation systems to meet individual needs.
- The modular system allows KARL STORZ handles to be combined with various suction and irrigation tubes as well as tubing sets.
- Suction and irrigation systems provide powerful suction and irrigation thanks to the customary KARL STORZ high quality standards.

Discover our range of suction and irrigation systems and assemble your preferred KARL STORZ suction and irrigation system.

- 37112 A **Handle**, straight, with clamping valve, for suction and irrigation, **autoclavable**
- 37113 A **Handle**, pistol grip, with clamping valve, for suction and irrigation, **autoclavable**
- 37112 RV **Suction and Irrigation Handle**, straight, with roller valve, for suction and irrigation, **autoclavable**
- 26167 ANL **Suction and Irrigation Tube**, with lateral holes, size 3.5 mm, length 36 cm, for use with handles for irrigation and suction
- 37360 LH **Suction and Irrigation Tube**, with lateral holes, size 5 mm, length 36 cm, for use with suction and irrigation handles
- 37460 LH **Suction and Irrigation Tube**, with lateral holes, size 5 mm, length 43 cm, for use with suction and irrigation handles
- 37560 LH **Suction and Irrigation Tube**, with lateral holes, size 10 mm, length 36 cm, for use with suction and irrigation handles

**For use with the following tubing sets**

- 031133-10\* **Tubing Set**, sterile, for single use, STERILE   
package of 10, for use with KARL STORZ Handles 37112 A (straight), 37113 A (pistol grip) and 37112 RV
- 031518-10\* **Cassette Tubing Set**, with two puncture needles, STERILE   
sterile, for single use, package of 10, for use with KARL STORZ HAMOU® ENDOMAT® 263311 20 (laparoscopy)  
  
**Note:** Tubing Set 031134-10\* is required when using Handles 37112 A, 37113 A and 37112 RV in conjunction with Cassette Tubing Set 031518-10\*. Tubing sets for older models are available in the MTP Single-Use Products catalog.
- 031134-10\* **Tubing Set**, sterile, for single use, STERILE   
package of 10, for use with KARL STORZ Handles 37112 A (straight), 37113 A (pistol grip) and 37112 RV in combination with silicone tube inner diameter 5 mm at the patient end



**Further combination possibilities for handles for suction and irrigation, suction and irrigation tubes as well as tubing sets are available in the Laparoscopy catalog.**

**Further information on KARL STORZ suction and irrigation pumps is available in the Laparoscopy catalog.**



## NATHANSON Liver Retractors

The new NATHANSON liver retractors are particularly characterized by a large and atraumatic surface area.

Special Features:

- Large surface area for the stable retraction of the entire liver
- Fatigue-free retraction when used in conjunction with a mechanical holding system
- Available in three sizes



30623 NAS NATHANSON **Liver Retractor**, small surface area, diameter 5 mm

30623 NAM NATHANSON **Liver Retractor**, medium surface area, diameter 5 mm

30623 NAL NATHANSON **Liver Retractor**, large surface area, diameter 6 mm

28272 RKC **Holding System, autoclavable**, with quick release coupling KSLOCK  
including:

**Rotation Socket**, to clamp to the OR table, for European and US standard rails, with lateral clamp for height and angle adjustment of the articulated stand

**Articulated Stand**, reinforced version, L-shaped, especially large swivel range, with one mechanical central clamp for all five joint functions, height 48 cm, swivel range 66 cm, with quick release coupling KSLOCK (female)

**Clamping Jaw**, metal, clamping range 4.8 up to 12.5 mm, with quick release coupling KSLOCK (male), for use with instrument and telescope sheaths



## Surgical Sponge Holder

The surgical sponge holder from KARL STORZ is available in two different sizes (5 mm and 10 mm) and can be used for blunt exposition and dissection in laparoscopic surgery.

Special Features:

- Easy sponge fixation (self-retaining)
- Available in sizes 5 mm and 10 mm
- Also suitable for blunt exposition and dissection
- The clamped sponge can also be used intraoperatively for cleaning soiled trocar seals

To view the application video,  
please scan the QR code



32340 PT **Surgical Sponge Holder**, self-retaining, size 5 mm, length 30 cm  
including:

**Handle**

**Outer Sheath**, insulated

**Sponge Holder Insert**

32540 PT **Surgical Sponge Holder**, self-retaining, size 10 mm, length 30 cm  
including:

**Handle**

**Outer Sheath**, insulated

**Sponge Holder Insert**



## KARL STORZ KOH Macro Needle Holder, dismantling

The dismantling KOH macro needle holder (diameter 5 mm) consists of three individual parts: Handle, outer sheath and working insert. A choice of six different handles and four different working inserts allows an individual configuration of the needle holder – depending on the surgeon's preferences.







### Special Features:

- The tungsten carbide inserts ensure stable, secure holding of the needle and suture material while still being highly resistant
- The smooth-running, precisely settable ratchet facilitates secure positioning of the needle
- The ergonomic design of the handles allows relaxed and precise work
- Even better cleaning results as the instrument can be dismantled into three parts: Handle, outer sheath and working insert
- Thanks to the modular design, only the component with the defect needs to be replaced in the event of damage – an environmentally friendly and cost-efficient solution





## KOH Macro Needle Holder

### dismantling, size 5 mm

Operating instruments, lengths 33 and 43 cm, **with axial handle**  
for use with trocars size 6 mm

Length	Handle		
	30173 AR	30173 AL	30173 AO
33 cm			
43 cm			







### Single action jaws

Working Insert	Complete Instrument		
30173 R	30173 RAR	30173 RAL	30173 RAO
30178 R	30178 RAR	30178 RAL	30178 RAO
	KOH <b>Macro Needle Holder</b> , jaws curved to right, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		
30173 L	30173 LAR	30173 LAL	30173 LAO
30178 L	30178 LAR	30178 LAL	30178 LAO
	KOH <b>Macro Needle Holder</b> , jaws curved to left, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		
30173 F	30173 FAR	30173 FAL	30173 FAO
30178 F	30178 FAR	30178 FAL	30178 FAO
	KOH <b>Macro Needle Holder</b> , straight jaws, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		
30173 G	30173 GAR	30173 GAL	30173 GAO
	KOH <b>Macro Assistant Needle Holder</b> , straight jaws		





## KOH Macro Needle Holder

### dismantling, size 5 mm

Operating instruments, lengths 33 and 43 cm, **with pistol grip handle**, for use with trocars size 6 mm

Length	Handle		
	30173 PR	30173 PL	30173 PO
33 cm			
43 cm			

### Single action jaws

Working Insert	Complete Instrument		
30173 R	30173 RPR	30173 RPL	30173 RPO
30178 R	30178 RPR	30178 RPL	30178 RPO
	KOH <b>Macro Needle Holder</b> , jaws curved to right, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		
30173 L	30173 LPR	30173 LPL	30173 LPO
30178 L	30178 LPR	30178 LPL	30178 LPO
	KOH <b>Macro Needle Holder</b> , jaws curved to left, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		
30173 F	30173 FPR	30173 FPL	30173 FPO
30178 F	30178 FPR	30178 FPL	30178 FPO
	KOH <b>Macro Needle Holder</b> , straight jaws, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		
30173 G	30173 GPR	30173 GPL	30173 GPO
	KOH <b>Macro Assistant Needle Holder</b> , straight jaws		



## Needle Holder with Righting Function

KARL STORZ has expanded its portfolio to include a new needle holder with a needle righting function. The needle holder offers significant time and handling advantages, especially for interrupted suturing. The needle, which is clamped flat in the needle holder, can be raised at the site by means of the rotary wheel.

Special Features:

- Righting function for the clamped needle by turning the rotary wheel
- The ergonomic handle design allows relaxed and precise work
- The smooth-running, precisely settable ratchet facilitates secure positioning of the needle

26173 HA **Macro Needle Holder**, with needle righting function, ergonomic straight handle with ratchet, ratchet position right, jaws straight, with tungsten carbide inserts, diameter 5 mm, length 33 cm

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



THE DIAMOND STANDARD

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