

# Highlights 2020

## Laparoscopy







## 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:

- 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 identification of different sizes
- Available in the sizes 2.5 mm – 13.5 mm





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

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

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

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

	STERILE 	
For trocars size 2.5 mm	021099-10	
For trocars size 3.5 mm	021199-10	
For trocars size 6 mm	021299-10	
For trocars size 11 mm	021399-10	
For trocars size 13.5 mm	021499-10	

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

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





## S-PORT

S-PORT is a single-port platform that is suitable for performing hybrid procedures (LAP/Single Port) where the single-port entry can also be used as an extraction site.

### Special Features:

- Modular system
- Freedom of movement thanks to four working portals
- Platform for precise control of telescopes and instruments
- Possibility to extract resected tissue
- Cost-effective and reusable, except for the wound protector
- Can be combined with ROTATIP® instruments featuring jaw and sheath rotation



23030PA     **S-PORT**, single portal surgery access system, adaptable in sizes 15-45 mm, including wound protector (package of 10)

23030FA     **Wound Protector**, hole size 7 mm, sterile, package of 10

**For use with:**

- HOPKINS® Forward-Oblique Telescope 30°, diameter 5 mm, length 50 cm (item no. 26048BSA)
- Instrumentation specially adapted for single-port surgery (ROTATIP® instruments with various sheath curves) or alternatively with standard instrumentation for laparoscopy





## S-PILOT® – The Solution for Effective Smoke Evacuation

The S-PILOT® from KARL STORZ offers a solution for effective smoke evacuation. The S-PILOT® helps remove hazardous smoke plumes to ensure clear visibility. This allows easy, cost-efficient and individual integration into existing systems.

Smoke evacuation starts automatically when a connected HF unit is activated. Alternatively, smoke evacuation can be activated independently of a HF unit with a footswitch.



UP501S1 **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



As an alternative, KARL STORZ offers a smoke evacuation filter set that can be used in combination with all trocars with a LUER-Lock connector. This smoke evacuation filter is used to evacuate smoke and reduces the risk of viruses, bacteria and hazardous substances for the patient and the surgical team.



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

STERILE 



For further information, please contact your KARL STORZ sales representative.





## **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 adjustment of the viewing direction to any OR situation.

### Special Features:

- Variable direction of view 0° – 90°
- Enhanced illumination
- 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



- 26003EC **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
- 495NCSC **Fiber Optic Light Cable**, with straight connector, extremely heat-resistant, enhanced light transmission, with safety lock, diameter 4.8 mm, length 250 cm
- 39501BEC **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

## General and Visceral Surgery

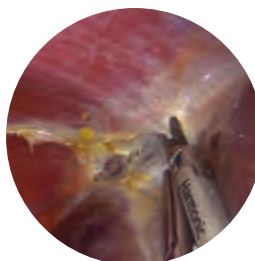


### Bariatric Surgery

Sleeve gastrectomy

- Complete visualization of the gastroesophageal junction
- 45° – 90°

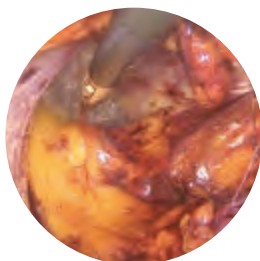
Prof. Carus, Germany



### Liver Segment Resection

- Better visualization of the postero-superior segments of the liver
- 45°

Prof. Abu Hilal, Italy



### Hernia Surgery

TEP

- Complete visualization of the hernial sac
- 45°

Prof. Boni, Italy



### Colorectal Surgery

Rectum resection

- Complete visualization of the anastomosis
- 30° – 90°

Dr. Kanehira, Japan

## Gynecology



### Adenectomy

- Better visualization of various adhesions for easier adhesiolysis
- 90°

Dr. Wojdat, Germany

## Thoracic Surgery



### VATS Lobectomy

- Better visualization during lymph node resection
- 45°

Dr. Kugler, Germany

The ENDOCAMELEON® can also be useful for urological laparoscopy.

Here you can view our product trailer  
ENDOCAMELEON® – The Next Generation







## IMAGE1 S™ 4U Rubina – The New 4K NIR/ICG Camera Head

IMAGE1 S™ 4U RUBINA combines 4K imaging technology as well as fluorescence imaging in the near infrared range for the display of indocyanine green (ICG) and for autofluorescence. The technology features very good image quality as well as new NIR/ICG fluorescence modes. The new modes, e.g. the superimposed NIR/ICG signal in the white light image, provide the user with valuable information. In addition, IMAGE1 S™ RUBINA offers the display intensity of a NIR/ICG signal and a purely near infrared mode in monochromatic color display for the clear delineation of structures.

- Native 4K image resolution with very good image brightness and rich color detail
- OPAL1® NIR/ICG technology with new functionalities
- S-Technologies in white light and the overlay modes Overlay and Intensity Map
- Enhanced\* NIR/ICG telescopes and new models
- Laser-free LED light source for white light and NIR/ICG excitation

\* in comparison to previous models



TC201EN*	<b>IMAGE1 S CONNECT® II</b> , connect module, for use with up to 3 link modules, resolution 3840 x 2160 and 1920 x 1080 pixels, with integrated KARL STORZ-SCB or KS HIVE and digital Image Processing Module, power supply 100-240 VAC, 50/60 Hz
TC304	<b>IMAGE1 S™ 4U-LINK</b> , link module, for use with IMAGE1 S™ 4U camera heads, power supply 100-240 VAC, 50/60 Hz, for use with IMAGE1 S CONNECT® TC200 or IMAGE1 S CONNECT® II TC201
TH121**	<b>IMAGE1 S 4U RUBINA</b> , OPAL1® NIR/ICG, S-Technologies available, progressive scan, soakable, low-temperature sterilization, 2 freely programmable camera head buttons, for use with IMAGE1 S™ 4U-LINK
TL400	<b>Cold Light Fountain POWER LED RUBINA</b> , for NIR/ICG fluorescence imaging and standard endoscopic diagnosis, with two LEDs and one KARL STORZ light cable connection, with integrated unit communication via KS HIVE, power supply 100-125/220-240 VAC, 50/60Hz
4800118	<b>Cable</b> , length 200 cm
UF101	<b>One-Pedal Footswitch</b> , one-stage
TM450	<b>55" 4K/3D Monitor</b> , power supply 100-240 VAC, 50/60 Hz, 5V DC output (5V/8W and 12V/20W), wall-mounted with VESA 200/300 adaptor
TM350	<b>32" 4K/3D Monitor</b> , screen resolution 3840 x 2160, image format 16:9, power supply 100-240 VAC, 50/60 Hz, 5V DC output (1 A), wall-mounted with VESA 100 adaptor
TM440	<b>58" 4K Monitor</b> , screen resolution 3840 x 2160, image format 16:9, power supply 100-240 VAC, 50/60 Hz, wall-mounted with VESA 400 x 400 and VESA 400 x 200 adaptors
TM342	<b>31" 4K Monitor</b> , screen resolution 3840 x 2160, image format 16:9, power supply 100-240 VAC, 50/60 Hz, wall-mounted with VESA 100 and VESA 200 adaptors
TM340	<b>32" 4K Monitor</b> , screen resolution 3840 x 2160, image format 16:9, power supply 100-240 VAC, 50/60 Hz, VESA 200 adaptor

#### NIR/ICG Telescopes:

26003ARA	<b>HOPKINS® RUBINA 0°</b> , NIR/ICG, straight-forward telescope 0°, enlarged view, diameter 10 mm, length 31 cm, <b>autoclavable</b> , for indocyanine green (ICG), fiber optic light transmission incorporated
26003BRA	<b>HOPKINS® RUBINA 30°</b> , NIR/ICG, forward-oblique telescope 30°, enlarged view, diameter 10 mm, length 31 cm, <b>autoclavable</b> , for indocyanine green (ICG), fiber optic light transmission incorporated
26003FRA	<b>HOPKINS® RUBINA 45°</b> , NIR/ICG, forward-oblique telescope 45°, enlarged view, diameter 10 mm, length 31 cm, <b>autoclavable</b> , for indocyanine green (ICG), fiber optic light transmission incorporated
26003FREA	<b>HOPKINS® RUBINA 45°</b> , NIR/ICG, forward-oblique telescope 45°, enlarged view, diameter 10 mm, length 42 cm, <b>autoclavable</b> , for indocyanine green (ICG), fiber optic light transmission incorporated
26046ARA	<b>HOPKINS® RUBINA 0°</b> , NIR/ICG, straight-forward telescope 0°, enlarged view, diameter 5 mm, length 29 cm, <b>autoclavable</b> , for indocyanine green (ICG), fiber optic light transmission incorporated
26046BRA	<b>HOPKINS® RUBINA 30°</b> , NIR/ICG, forward-oblique telescope 30°, enlarged view, diameter 5 mm, length 29 cm, <b>autoclavable</b> , for indocyanine green (ICG), fiber optic light transmission incorporated
26046FRA	<b>HOPKINS® RUBINA 45°</b> , NIR/ICG, forward-oblique telescope 45°, enlarged view, diameter 5 mm, length 29 cm, <b>autoclavable</b> , for indocyanine green (ICG), fiber optic light transmission incorporated

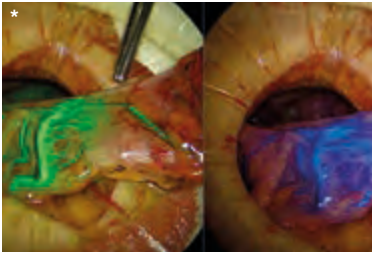
\* Also available in the following languages: DE, ES, FR, IT, PT, RU

\*\* For use with HOPKINS® RUBINA NIR/ICG telescopes

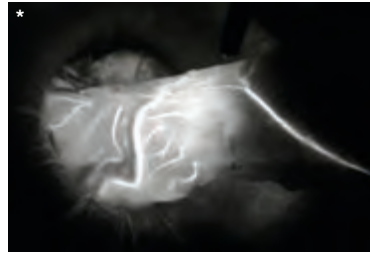


## Fluorescence Imaging with the NIR/ICG System

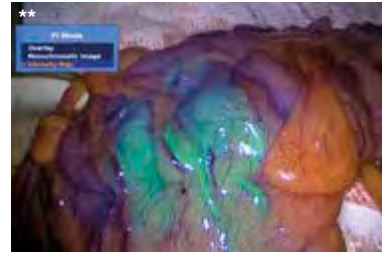
### Visualization of perfusion, e.g., for colorectal anastomoses



Overlay of NIR/ICG signal in the white light image



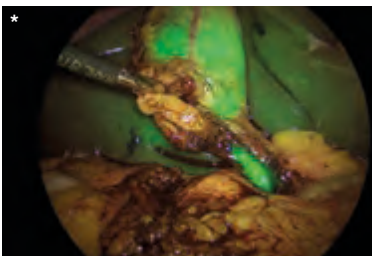
NIR/ICG mode in monochromatic color display



Display of NIR/ICG signal intensity

- 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



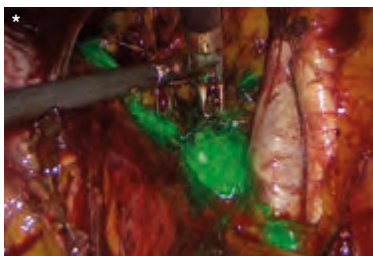
Overlay of NIR/ICG signal in the white light image

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.

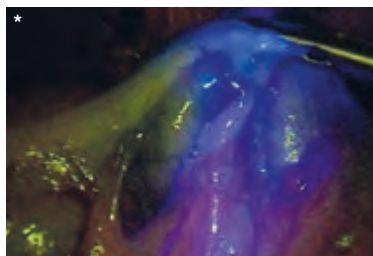
- Allows the reliable differentiation between the cystic duct and the common bile duct
- Intraoperative leaks displayed with ICG
- Shortened surgical duration with ICG compared to standard cholangiography



## Visualization of the lymphatic system



Overlay of NIR/ICG signal in the white light image

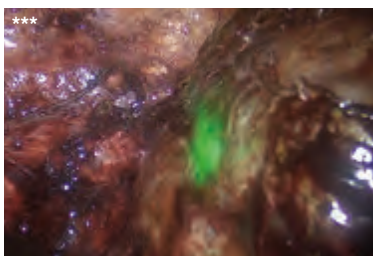


Fluorescence imaging of the lymphatic system, starting point of the assessment of the lymphatic system

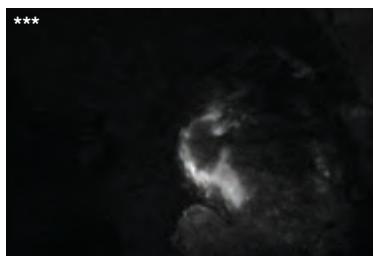
NIR/ICG imaging enables non-radioactive visualization of the entire lymph system surrounding a tumor in real time.

- 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



Overlay of NIR/ICG signal in the white light image



NIR/ICG mode in monochromatic color display

- 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: Prof. Salvador Morales Conde, Quirónsalud Sagrado Corazón Hospital, Seville, Spain

\*\*\* Source: Prof. Mohammed Abu Hilal, Poliambulanza Foundation Hospital, Brescia, Italy





## Scope Warmer for Single Use

For warming the scope for fog-free work

- Warmer activated to heat endoscope via a metal plate
- Suitable for all rigid endoscopes
- Available in two different sizes (12 x 20 cm and 12 x 36 cm)
- No other heat source (electricity, warm water, etc.) required
- Product is sterile on delivery and is ready for immediate use
- Two scopes can be heated in the warmer at the same time



100120-15\* **Scope Warmer**, 12 x 20 cm, sterile, for single use,  
package of 15, for use with all standard rigid endoscopes  
featuring optical systems with lengths that fit into the pad



100121-10\* **Scope Warmer**, 12 x 36 cm, sterile, for single use,  
package of 10, for use with all standard rigid endoscopes,  
featuring optical systems with lengths that fit into the pad







## CLICKline Single-Use Scissors

The new single-use scissor inserts 34310MA-D and 34310MS-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.

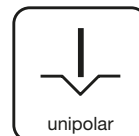
### Special Features:

- 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



34310MA-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



34310MS-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.





## RoBi® – Rotating Bipolar Grasping Forceps and Scissors in sizes 3.5 mm and 5 mm

The new generation of ROBI® instruments allows precise work on tissue. The enhanced instrument design and the materials used ensure high mechanical stability.

### Special Features:

- Available in sizes 3.5 and 5 mm
- Ideal in combination with the new high-end HF unit AUTOCON® III 400 with a mode specially adapted to ROBI® instruments
- Can be dismantled into individual components

To view the application video,  
please scan the QR code





# 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 36 cm**,  
for use **with trocars size 3.5 mm**



Working Insert with Outer Sheath	Handle
	38151
36 cm	

## Double action jaws

Working Insert with Outer Sheath	Complete Instrument
38910MD	38951 MD
 └ 12 mm ┘	<b>ROBI® KELLY Grasping Forceps</b> , CLERMONT-FERRAND model, especially suitable for dissection, color code: light blue
38910ON	38951 ON
 └ 12 mm ┘	<b>ROBI® Grasping Forceps</b> , CLERMONT-FERRAND model, with especially fine atraumatic serration, fenestrated jaws, color code: light blue
38910MW	38951 MW
 └ 13 mm ┘	<b>ROBI® Scissors</b> , CLERMONT-FERRAND model, curved blades, color code: light blue

└ ┘      Jaw length in mm (approximate measurements)

Further information is available in the Laparoscopy catalog.



## RoBi® Bipolar Grasping Forceps, size 5 mm

**Rotating, 3-part, dismantling, with connector pin for bipolar coagulation, CLERMONT-FERRAND model**



Operating instruments, **lengths 36 cm and 43 cm**,  
for use **with trocars size 6 mm**

Outer Sheath	Handle
	38151
36 cm	
43 cm	

### Double action jaws

Working Insert	Complete Instrument
38610ON	38651ON
38710ON	38751ON
   18 mm	<b>ROBI® Grasping Forceps</b> , CLERMONT-FERRAND model, with especially fine atraumatic serration, fenestrated jaws, color code: light blue
38610CL	38651CL
   14 mm	<b>ROBI® Grasping Forceps</b> , CLERMONT-FERRAND model, wide jaws, for dissection, grasping and bipolar coagulation of large vessels and tissue layers, color code: light blue
38610MD	38651MD
38710MD	38751MD
   19 mm	<b>ROBI® KELLY Grasping Forceps</b> , CLERMONT-FERRAND model, especially suitable for dissection, color code: light blue
38610ML	38651ML
   24 mm	<b>ROBI® KELLY Grasping Forceps, long</b> , CLERMONT-FERRAND model, especially suitable for dissection, color code: light blue

— — | Jaw length in mm (approximate measurements)

**Further bipolar grasping forceps and additional information can be found in the Laparoscopy catalog.**



# RoBi® Bipolar Scissors 5 mm

**Rotating, 3-part, dismantling, with connector pin for bipolar coagulation, CLERMONT-FERRAND model**



Operating instruments, **lengths 36 cm and 43 cm,**  
for use **with trocars size 6 mm**

Outer Sheath	Handle
	38151
36 cm	
43 cm	

## Single action jaws

Working Insert	Complete Instrument
38610MT	38651MT
   23 mm	<b>ROBI® Scissors</b> , CLERMONT-FERRAND model, straight jaws, for cutting vessels and tissue layers, color code: light blue
38610MZ	38651MZ
   23 mm	<b>ROBI® Scissors</b> , CLERMONT-FERRAND model, straight jaws, serrated, color code: light blue

## Double action jaws

38610MW	38651MW
38710MW	38751MW
   20 mm	<b>ROBI® METZENBAUM Scissors</b> , CLERMONT-FERRAND model, curved jaws, slender scissor blades, color code: light blue

| — |      Jaw length in mm (approximate measurements)

**Further information is available in the Laparoscopy catalog.**





## Instrument Set for Minilaparoscopy

Minilaparoscopy has now become a popular surgical technique as this method – also in hybrid procedures with standard instruments (diameter 5 mm) – represents a flat learning curve for the user and enhanced cosmetic results for the patient.

### Special Features:

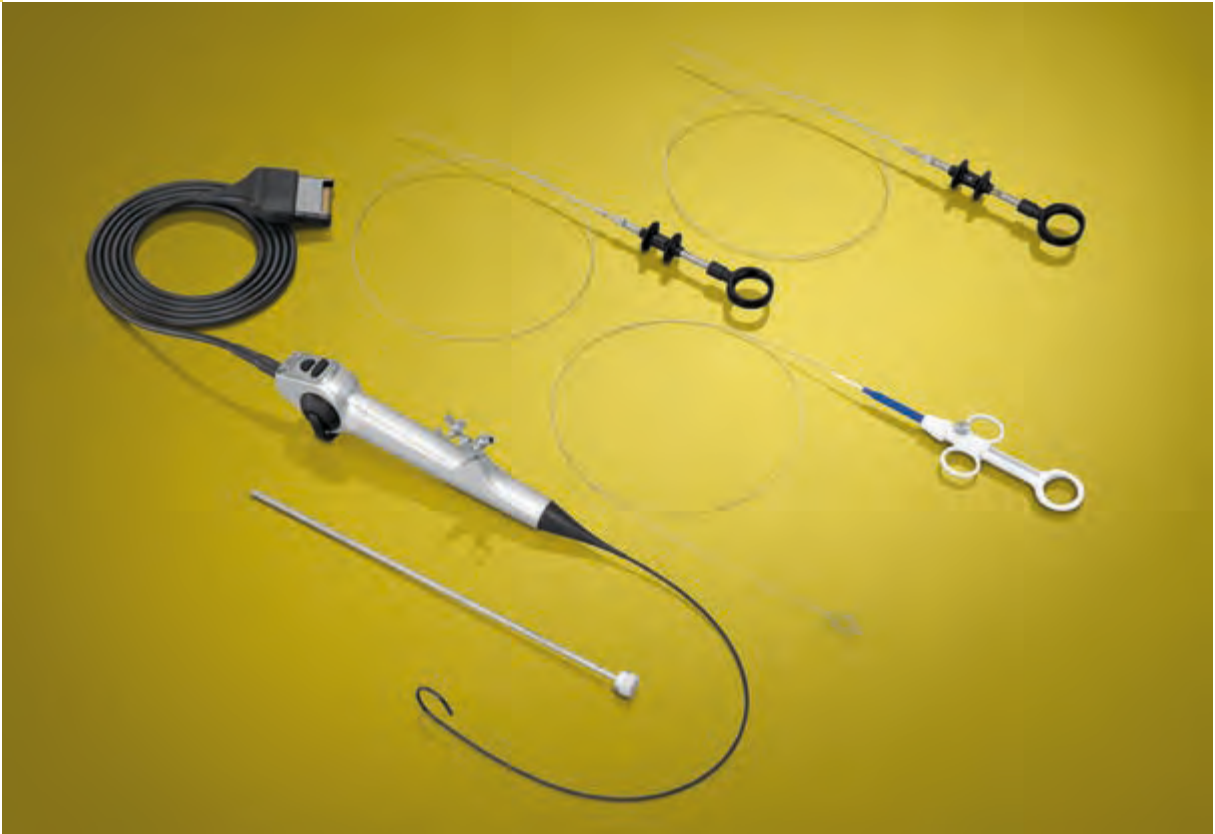
- Complete instrument set for minilaparoscopy (diameter 3.5 mm) available: Trocars, unipolar and bipolar instruments, suction-irrigation systems, suture and ligature instruments
- Modular design: 3-part dismantling instruments for high hygiene requirements and variability
- Diverse combination possibilities thanks to a wide range of jaws with various outer sheaths and CLICKLINE handles
- Rotating bipolar instruments (ROBI®, diameter 3.5 mm)



26046BA	<b>HOPKINS® Forward-Oblique Telescope 30°</b> , diameter 5 mm, length 29 cm, <b>autoclavable</b> , fiber optic light transmission incorporated
or	
26007BA	<b>HOPKINS® Forward-Oblique Telescope 30°</b> , enlarged view, diameter 3.3 mm, length 25 cm, <b>autoclavable</b> , fiber optic light transmission incorporated
533TVB	<b>Adaptor, autoclavable</b> , permits telescope changing under sterile conditions
30160GYG	<b>Trocar</b> , with conical tip, with LUER-Lock connector for insufflation, size 6 mm, working length 10 cm
3x 30114GYG	<b>Trocar</b> , with conical tip, with LUER-Lock connector for insufflation, size 3.5 mm, working length 10 cm
Alternative:	
3x 30217KAK	<b>CARVALHO Trocar</b> , with blunt tip, without LUER-Lock connector for insufflation, length 10 cm, for use with instruments size 3.5 mm
31352ML	<b>CLICKLINE KELLY Dissecting and Grasping Forceps</b> , rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, long, size 3.5 mm, length 36 cm
31362ONM	<b>CLICKLINE Grasping Forceps</b> , rotating, dismantling, without connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, single action jaws, fenestrated, with especially fine atraumatic serration, size 3.5 mm, length 36 cm
31351MW	<b>CLICKLINE Scissors</b> , rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, serrated, curved, conical, size 3.5 mm, length 36 cm
31351MD	<b>CLICKLINE KELLY Dissecting and Grasping Forceps</b> , rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, size 3.5 mm, length 36 cm
31361ULM	<b>CLICKLINE REDDICK-OLSEN Dissecting and Grasping Forceps</b> , rotating, dismantling, without connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, robust, size 3.5 mm, length 36 cm
25775CNL	<b>CADIERE Coagulation and Dissection Electrode</b> , L-shaped, with cm-marking, distal tip tapered, with connector pin for unipolar coagulation, size 3.5 mm, length 36 cm
38951MD	<b>ROBI® KELLY Grasping Forceps</b> , CLERMONT-FERRAND model, with connector pin for bipolar coagulation, double action jaws, size 3.5 mm, length 36 cm
38951ON	<b>ROBI® Grasping Forceps</b> , CLERMONT-FERRAND model, with connector pin for bipolar coagulation, fenestrated, double action jaws, size 3.5 mm, length 36 cm
33120G	<b>Rotating Wheel</b> , for CLICKLINE and ROBI® handles, <b>autoclavable</b> , package of 5
37113A	<b>Handle</b> , pistol grip, with clamping valve, for suction and irrigation, <b>autoclavable</b>
26167ANL	<b>Suction and Irrigation Tube</b> , with lateral holes, size 3.5 mm, length 36 cm
26167RNL	<b>KOH Ultramicro Needle Holder</b> , jaws curved to right, with tungsten carbide insert, straight handle, with disengageable ratchet, size 3.5 mm, length 36 cm

**The entire KARL STORZ product portfolio for minilaparoscopy and accessories can be found in the Laparoscopy catalog and the Minilaparoscopy catalog excerpt.**





## 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

11292VSUK **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

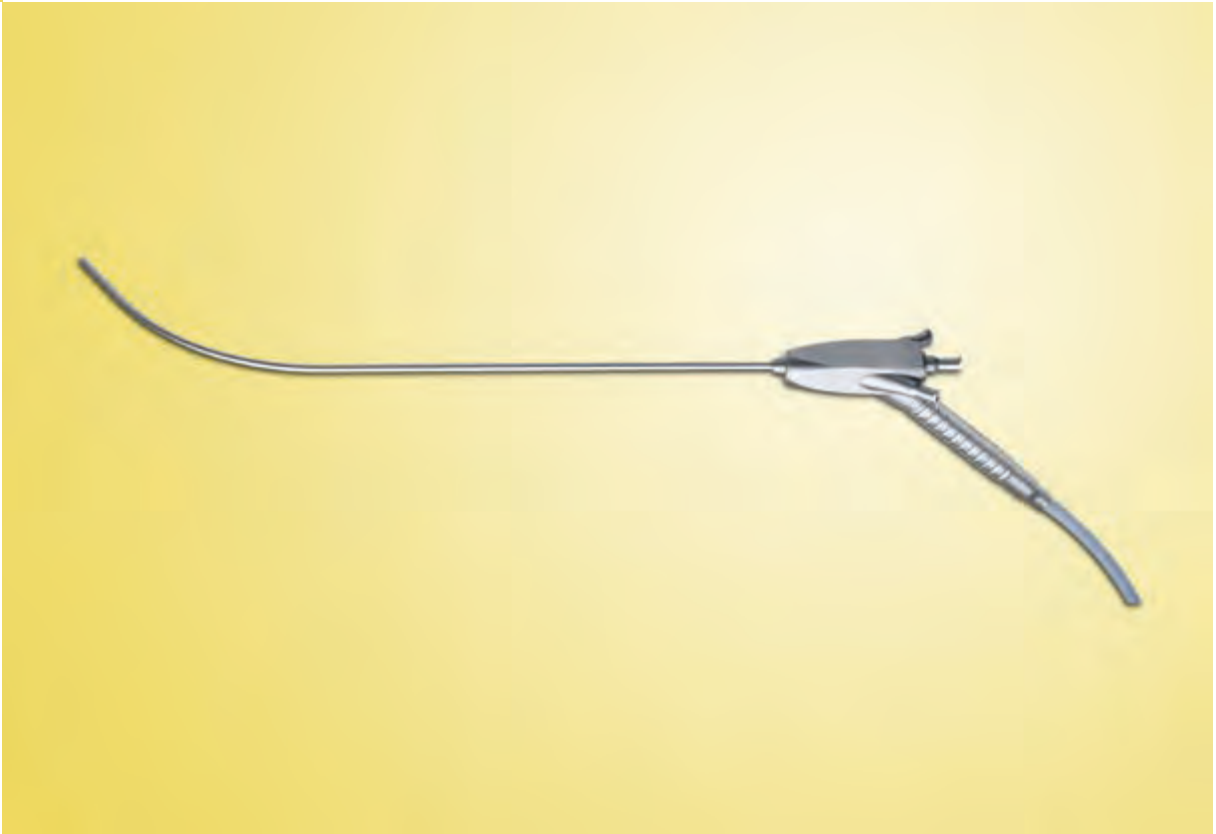
#### **Cholangiography Fixation Clamp**

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.**

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





## Rigid Choledochoscope with Distal Curvature

The rigid choledochoscope with distal curvature can be used as a supplement or cost-effective alternative to flexible choledochoscopes and thus allows the exploration of intra- and extrahepatic bile ducts as well as the surgical removal of gallstones.

### Special Features:

- Cost-effective alternative to flexible choledochoscopy
- 2 working channels that allow the simultaneous introduction of both stone baskets and a laser probe
- Autoclavable



- 28021AA     **Rigid Choledochoscope**, distally curved, diameter 3.5 mm, length 34 cm, **autoclavable**, with irrigation connector, two working channels 3.4 Fr., with remote eyepiece, fiber optic light transmission incorporated
- 30160NKL     **Trocar**, flexible, size 6 mm

## Further Accessories for Intraoperative Choledochoscopy and Cholangiography:

### Cholangiography Fixation Clamp

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

### For use with:

- 39502ZL     **Wire Tray**, long, stackable, including hole plate walls and foldaway handles
- 39100PS     **Fixation Pin**, height 38 mm, package of 12
- 39360AS     **Silicone Tie-Downs**, package of 12
- 39100SL     **Silicone Grid Insert LARGE DIAMOND GRID**
- 39752A2     **Sterilization Container**, with MicroStop® microbiological barrier, external dimensions (w x d x h): 600 x 300 x 160 mm

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





## Flexible Choledocho-Fiberscopes

The flexible choledochoscopes 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



- 11292ADK1      **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
- 11292ADUK1      **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
- 11292DEK1      **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

## 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      **OLSEN 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.





## NATHANSON Liver Retractors

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

Special Features:

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



- 30623NAS NATHANSON **Liver Retractor**, small surface area, diameter 5 mm
- 30623NAM NATHANSON **Liver Retractor**, medium surface area, diameter 5 mm
- 30623NAL NATHANSON **Liver Retractor**, large surface area, diameter 6 mm



**Holding System, autoclavable**, with quick release coupling KSLOCK.

The holding system comprises the following components:

- 28172HK **Socket**, to clamp to the OR table, for European and US standard rails, also suitable for rails 25 x 10 mm up to 35 x 8 mm, lateral clamp for height adjustment of the articulated stand
- 28272HB **Articulated Stand**, reinforced version, L-shaped, with one mechanical central clamp for all five joint functions, height 48 cm, swivel range 52 cm, with quick release coupling KSLOCK (female)
- 28272UKN **Clamping Jaw**, metal, clamping range 4.8-12.5 mm, with quick release coupling KSLOCK (male), for use with instrument and telescope sheaths





## Retractors for Laparoscopic Colorectal Procedures

Advanced laparoscopic surgery and particularly laparoscopic rectal surgery are technically extremely challenging.

One of the key requirements for successfully performing these procedures while respecting oncological principles is optimal exposure and, consequently, good visualization of the surgical site.

### Special Features:

- Useful for the visualization of different structures in the case of difficult anatomies (particularly obese male patients)
- Different retractor shapes for various anatomic conditions
- Stable design
- Easy to use thanks to rotating wheel for deflection



- 33541H **CLICKLINE H-Retractor**, long jaws with silicone pads 30510PY on the distal tip, double action jaws, jaws open in parallel, **autoclavable**, ratchet engages while handle opens, size 10 mm, length 36 cm  
including:  
**Metal Handle**, with disengageable ratchet  
**Outer Sheath**, insulated  
**H-Retractor Insert**  
**Silicone Pad**, package of 6
- 30623HA **Articulating H-Retractor**, long jaws, double action jaws, jaws open in parallel, bendable to 90°, **autoclavable**, size 10 mm, length 36 cm
- 30623T **T-Retractor**, with rotation wheel for angling and extending the distal tip, with LUER-Lock connector for cleaning, **autoclavable**, size 10 mm, length 30 cm
- 30623VL **V-Retractor**, with rotation wheel for angling and extending the distal tip, with LUER-Lock connector for cleaning, **autoclavable**, size 10 mm, length 30 cm
- 30623I **I-Retractor**, with rotation wheel for angling and extending the distal tip, with LUER-Lock connector for cleaning, **autoclavable**, size 10 mm, length 36 cm

Optional Accessories:

- 30623H **Handle Attachment, autoclavable**, for use with retractors for secure hold

**Holding System, autoclavable**, with quick release coupling KSLOCK.

The holding system comprises the following components:

- 28172HK **Socket**, to clamp to the OR table, for European and US standard rails, also suitable for rails 25 x 10 up to 35 x 8 mm, lateral clamp for height adjustment of the articulated stand
- 28272HB **Articulated Stand**, reinforced version, L-shaped, with one mechanical central clamp for all five joint functions, height 48 cm, swivel range 52 cm, with quick release coupling KSLOCK (female)
- 28272UKN **Clamping Jaw**, metal, clamping range 4.8-12.5 mm, with quick release coupling KSLOCK (male), for use with instrument and telescope sheaths





## Needle Holder with Righting Function

KARL STORZ has expanded its portfolio to include a new needle holder with a needle righting function. 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
- Axial handle design
- The smooth-running, precisely settable ratchet allows secure positioning of the needle



The clamped needle in the needle holder can be introduced with a 11 mm trocar (Fig. 1).  
Using the rotary wheel (Fig. 2), the needle can be brought into an upright position (Fig. 3).

Fig. 1



Fig. 2

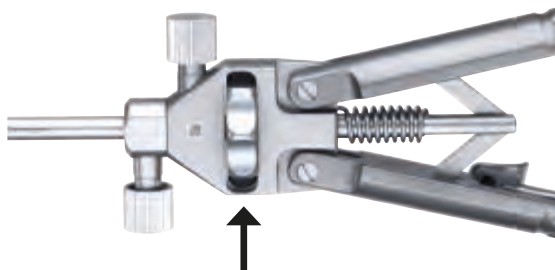


Fig. 3



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

**In addition to the needle holder with needle righting function, KARL STORZ offers a wide range of other needle holders. Further information is available in the Laparoscopy catalog.**





## 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.

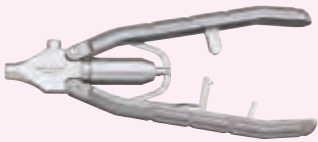
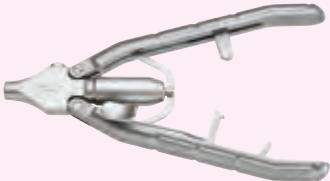
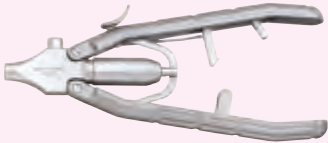
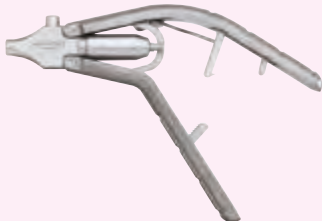
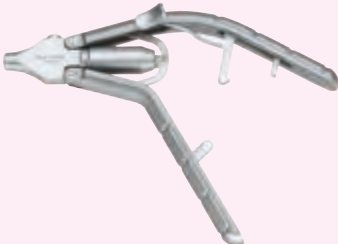

Special Features:

- The tungsten carbide inserts hold the needle and suture material
- The smooth-running, precisely settable ratchet enables the positioning of the needle
- Axial and pistol-shaped handles
- 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



# Handles and Outer Sheaths for KOH Macro Needle Holders

Handles, axial and pistol-shaped, with disengageable ratchet

		
30173AR <b>Handle</b> , axial, with disengageable ratchet, ratchet position right	30173AL <b>Handle</b> , axial, with disengageable ratchet, ratchet position left	30173AO <b>Handle</b> , axial, with disengageable ratchet, ratchet position top
		
30173PR <b>Handle</b> , pistol-shaped, with disengageable ratchet, ratchet position right	30173PL <b>Handle</b> , pistol-shaped, with disengageable ratchet, ratchet position left	30173PO <b>Handle</b> , pistol-shaped, with disengageable ratchet, ratchet position top

## Metal Outer Sheath Size 5 mm






- 30173A **Metal Outer Sheath**, with LUER-Lock connector for cleaning, size 5 mm, length 33 cm
- 30178A **Same**, length 43 cm







# 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		
	30173AR	30173AL	30173AO
33 cm			
43 cm			

### Single action jaws

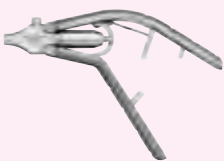


Working Insert	Complete Instrument		
30173R	30173RAR	30173RAL	30173RAO
30178R	30178RAR	30178RAL	30178RAO
	KOH <b>Macro Needle Holder</b> , jaws curved to right, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		
30173L	30173LAR	30173LAL	30173LAO
30178L	30178LAR	30178LAL	30178LAO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

### Single action jaws

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





## BERCI Fascial Closure Instrument

To prevent the risk of hernia, large trocar sites should be closed after laparoscopic interventions. KARL STORZ offers a special reusable fascial closure instrument for this purpose.

### Special Features:

- Solution for trocar site closures
- Integrated grasping forceps for passing and retrieving sutures during wound closure
- Another possible application in laparoscopic hernia surgery for the fixation of the synthetic mesh to the abdominal wall





26173AM

**BERCI Fascial Closure Instrument**, for subcutaneous ligature of trocar incisions, size 2.8 mm, length 17 cm, for closure of trocar incision wounds





## 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.



37112A	<b>Handle</b> , straight, with clamping valve, for suction and irrigation, <b>autoclavable</b>
37113A	<b>Handle</b> , pistol grip, with clamping valve, for suction and irrigation, <b>autoclavable</b>
37112RV	<b>Suction and Irrigation Handle</b> , straight, with roller valve, for suction and irrigation, <b>autoclavable</b>
26167ANL	<b>Suction and Irrigation Tube</b> , with lateral holes, size 3.5 mm, length 36 cm, for use with handles for irrigation and suction
37360LH	<b>Suction and Irrigation Tube</b> , with lateral holes, size 5 mm, length 36 cm, for use with suction and irrigation handles
37460LH	<b>Suction and Irrigation Tube</b> , with lateral holes, size 5 mm, length 43 cm, for use with suction and irrigation handles
37560LH	<b>Suction and Irrigation Tube</b> , 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*	<b>Tubing Set</b> , sterile, for single use, package of 10, for use with KARL STORZ Handles 37112A (straight), 37113A (pistol grip) and 37112RV	STERILE 
031518-10*	<b>Cassette Tubing Set</b> , with two puncture needles, sterile, for single use, package of 10, for use with HAMOU® ENDOMAT® 26331120-1 (laparoscopy)	STERILE 
<p><b>Note:</b> Tubing Set 031134-10* is required when using Handles 37112A, 37113A and 37112RV in conjunction with Cassette Tubing Set 031518-10*.</p> <p>Tubing sets for older models are available in the MTP Single-Use Products catalog.</p>		
031134-10*	<b>Tubing Set</b> , sterile, for single use, package of 10, for use with KARL STORZ Handles 37112A (straight), 37113A (pistol grip) and 37112RV in combination with silicone tube inner diameter 5 mm at the patient end	STERILE 



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.





## 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:

- For 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





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

**Handle**

**Outer Sheath**, insulated

**Sponge Holder Insert**

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

**Handle**

**Outer Sheath**, insulated

**Sponge Holder Insert**





## TRAPBAG Extraction Bag with Fish Trap Seal

- Each extraction bag pre-packaged in an insertion aid for insertion through a 10 mm trocar
- After the insertion aid is removed, the trocar is no longer blocked and can then be used for other instruments
- Fish trap seal prevents the leakage of tissue or fluid samples, even when bag is open
- Nitinol memory wire for opening and closing the extraction bag
- Transparent material



040343-05\* **TRAPBAG Extraction Bag**, opening diameter 6 cm, volume 200 ml, sterile,  
for single use, package of 5, for use with trocars size 10 mm







## MiniTwin TRAPBAG

### For the laparoscopic removal of lymph nodes

- Two extraction bags pre-packaged in one insertion aid:  
Bags can be inserted separately via a 10 mm trocar
- After the insertion aid is removed, the trocar is no longer blocked and can then be used for other instruments
- Both extraction bags feature a different design for the differentiation of tissue samples
- Fish trap seal prevents the leakage of tissue or fluid samples, even when bag is open
- Nitinol memory wire for opening and closing the extraction bag
- Transparent material



040302-05\* **MINITWIN TRAPBAG**, 2 mini extraction bags, opening diameter 3 cm, volume 20 ml, sterile, for single use, package of 5, for use with trocars size 10 mm









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



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