



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

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

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

Size	6 mm	11 mm
Working length	8.5 cm	8.5 cm
Color code	black	green
Trocar, flexible , with pyramidal tip including valve seal , sterile, for single use, package of 10	30160 NKL	30103 NKL
Trocar, flexible , with conical-blunt tip including valve seal , sterile, for single use, package of 10	30160 NOL	30103 NOL
Accessory: Plastic Cannula, autoclavable , 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, sterile, for single use
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, curved, CARUS sheath curve, size 5 mm, length 36 cm

Further curved instruments can be found in the Laparoscopy catalog.



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 independently 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



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 provides a straightforward and cost-effective option to allow smoke to escape in a controlled manner and thus protect the patient and the surgical team against viruses, bacteria and hazardous substances.



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 



**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

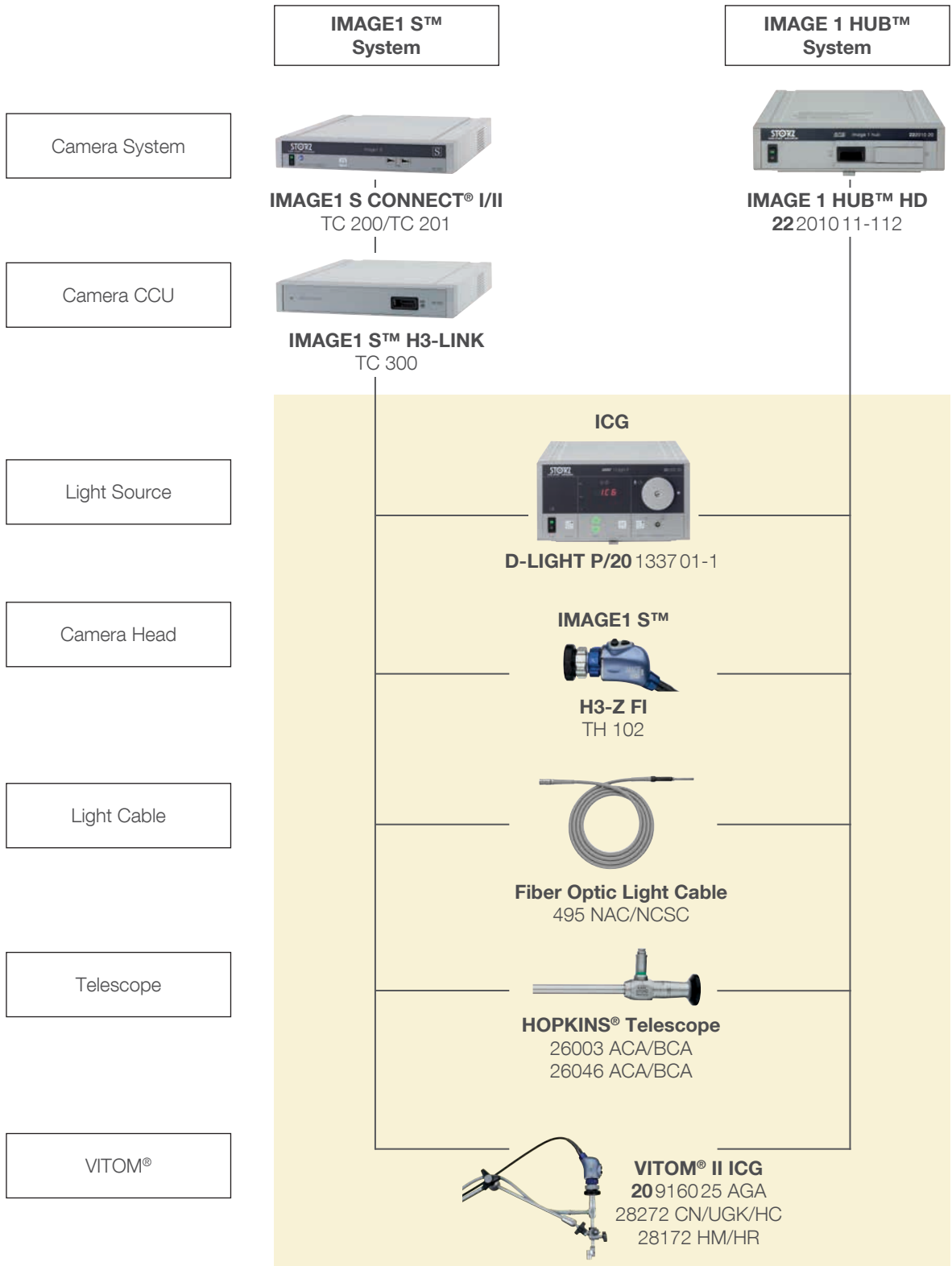


Fluorescence Imaging

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
- Now with new imaging option: Choice between green and blue fluorescence coloring

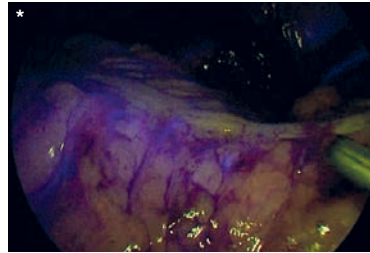


Fluorescence Imaging with the NIR/ICG System

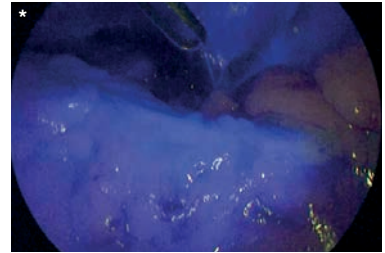
Visualization of perfusion, e.g., for colorectal anastomoses



Background illumination in the fluorescence mode



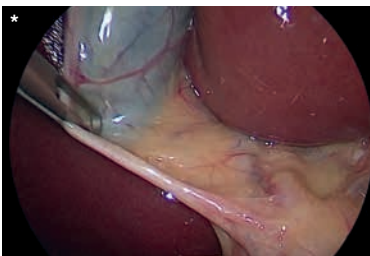
Start of the influx approx. 25 seconds after ICG administration



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

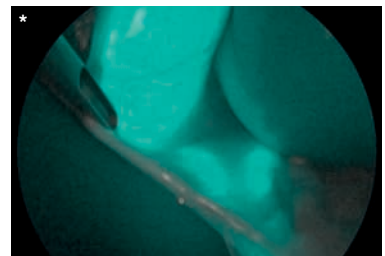
Visualization of the gallbladder and bile ducts



Standard white light mode



NIR/ICG mode

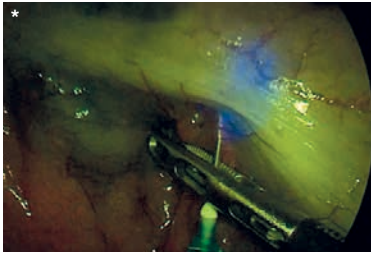


NIR/ICG mode with SPECTRA A*** for fluorescence signal amplification

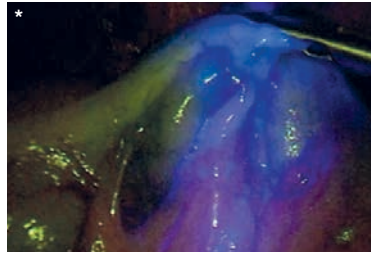
Following intravenous administration, ICG naturally collects in the gallbladder and bile ducts. This allows the rapid and reliable identification of gallbladder and bile duct anatomy.

- 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

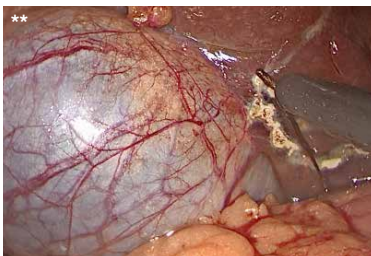


Fluorescence imaging of the lymphatic system, starting point of the assessment of the lymphatic system

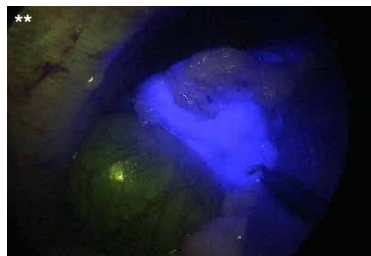
NIR/ICG imaging enables non-radioactive visualization of the entire lymph system surrounding a tumor in real time.

- 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.



Scope Warmer

For fog-free work and brilliant imaging

- No fogging of the endoscope, providing greater patient safety and reducing surgery time
- Convenient handling as no other heat source (electricity, warm water, etc.) is required
- Product is sterile on delivery and is ready for immediate use
- Two scopes can be heated in the warmer at the same time
- Available in two different sizes
- Can be used for approx. 2 hours after activation

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 – 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

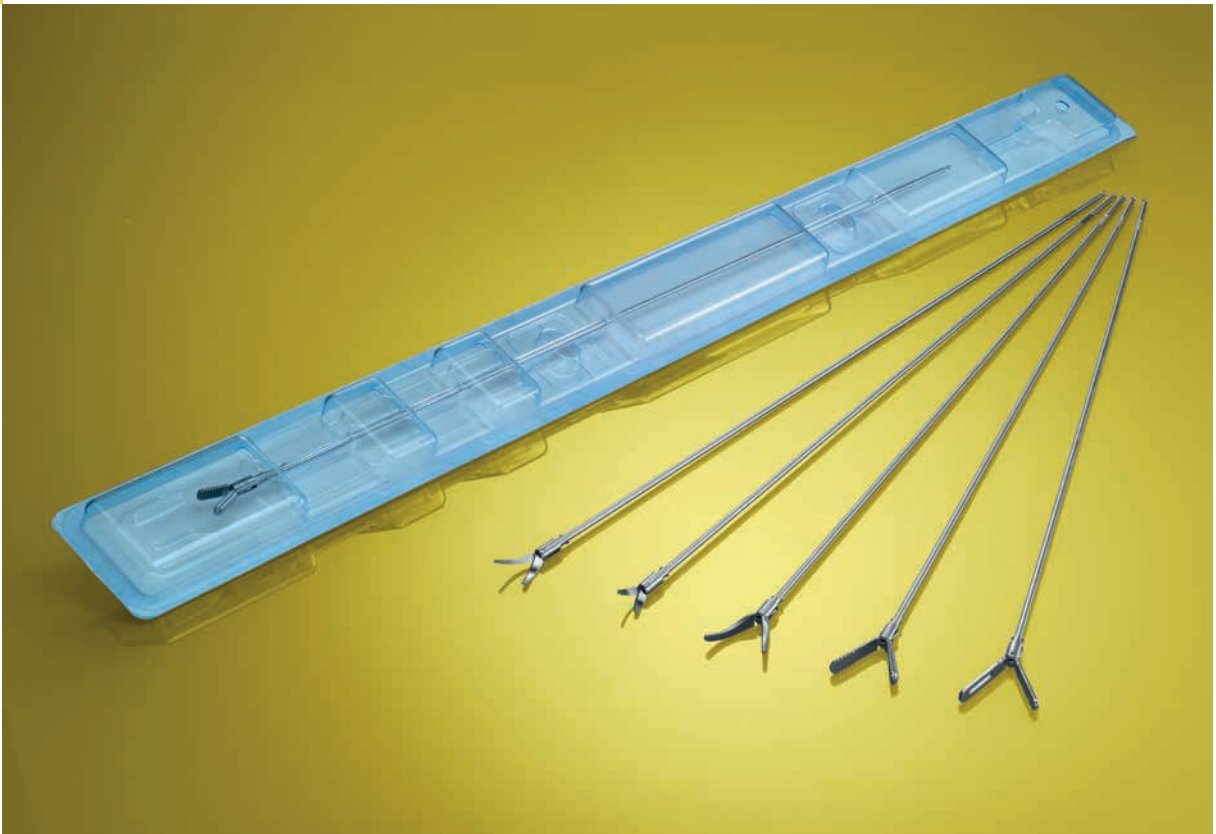
CLICKLINE Plastic Handle, without ratchet, with larger contact area at the finger ring, with connector pin for unipolar coagulation



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.



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

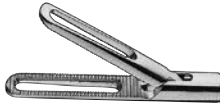
CLICKline Working Inserts for Single Use,
size 5 mm, length 36 cm, sterile



- | | | |
|--|------------|--|
| | 33310 AF-S | CLICKLINE Forceps Insert , for grasping forceps, double action jaws, atraumatic, sterile, for single use, package of 10 |
| | 33310 C-S | CLICKLINE Forceps Insert , for bowel grasper, double action jaws, fenestrated, sterile, for single use, package of 10 |
| | 33310 CC-S | CLICKLINE Forceps Insert , for CROCE-OLMI grasping forceps, single action jaws, atraumatic, fenestrated, curved, sterile, for single use, package of 10 |
| | 33310 CK-S | CLICKLINE Forceps Insert , for bowel grasper, double action jaws, length of jaws 18 mm, fenestrated, sterile, for single use, package of 10 |
| | 33310 G-S | CLICKLINE Forceps Insert , for grasping forceps, double action jaws, 2 x 4 teeth, sterile, for single use, package of 10 |
| | 33310 ME-S | CLICKLINE Forceps Insert , 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 | CLICKLINE Forceps Insert , for KELLY dissecting and grasping forceps, double action jaws, sterile, for single use, package of 10 |

Further combination possibilities for **CLICKLINE** working inserts for single use as well as 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, 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 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, rotating, insulated,
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 combination possibilities for **CLICKLINE** working inserts for single use as well as reusable outer sheaths and handles 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 the highest mechanical stability.

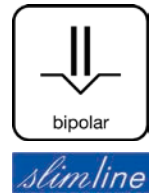
Special Features:

- Available in sizes 3.5 and 5 mm
- Robust joint mechanism in conjunction with the force limiter ensures powerful, yet safe grasping
- Ideal in combination with the new high-end HF unit AUTOCON® III 400 with a mode specially adapted to ROBI® instruments
- For optimal cleaning: 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
36 cm	38151

Double action jaws

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

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

— — 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

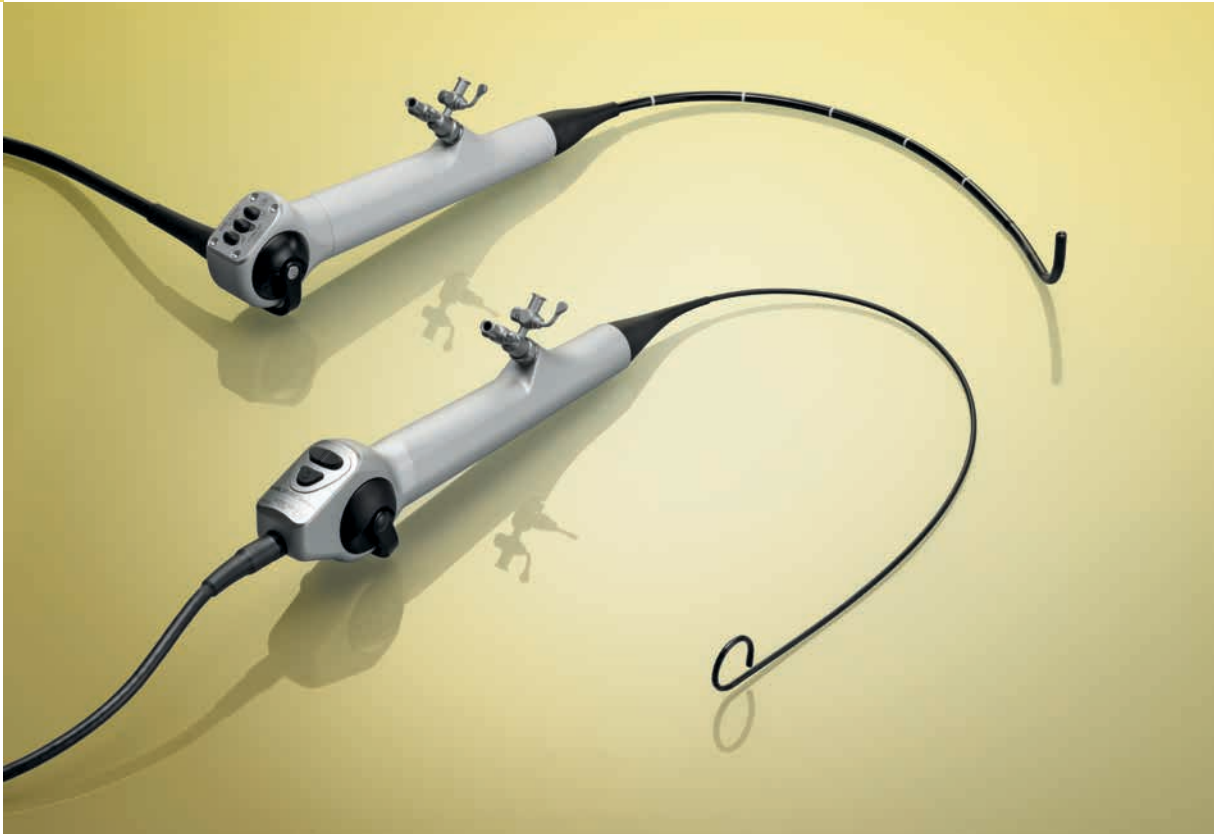
Working Insert	Complete Instrument
38610 MT	38651 MT
<p>— 23 mm —</p>	<p>ROBI® Scissors, CLERMONT-FERRAND model, straight jaws, for cutting vessels and tissue layers, color code: light blue</p>
38610 MZ	38651 MZ
<p>— 23 mm —</p>	<p>ROBI® Scissors, CLERMONT-FERRAND model, straight jaws, serrated, color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

Double action jaws

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

— — Jaw length in mm (approximate measurements)

Further information is available 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.



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

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

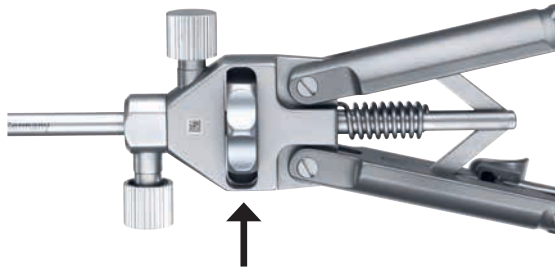


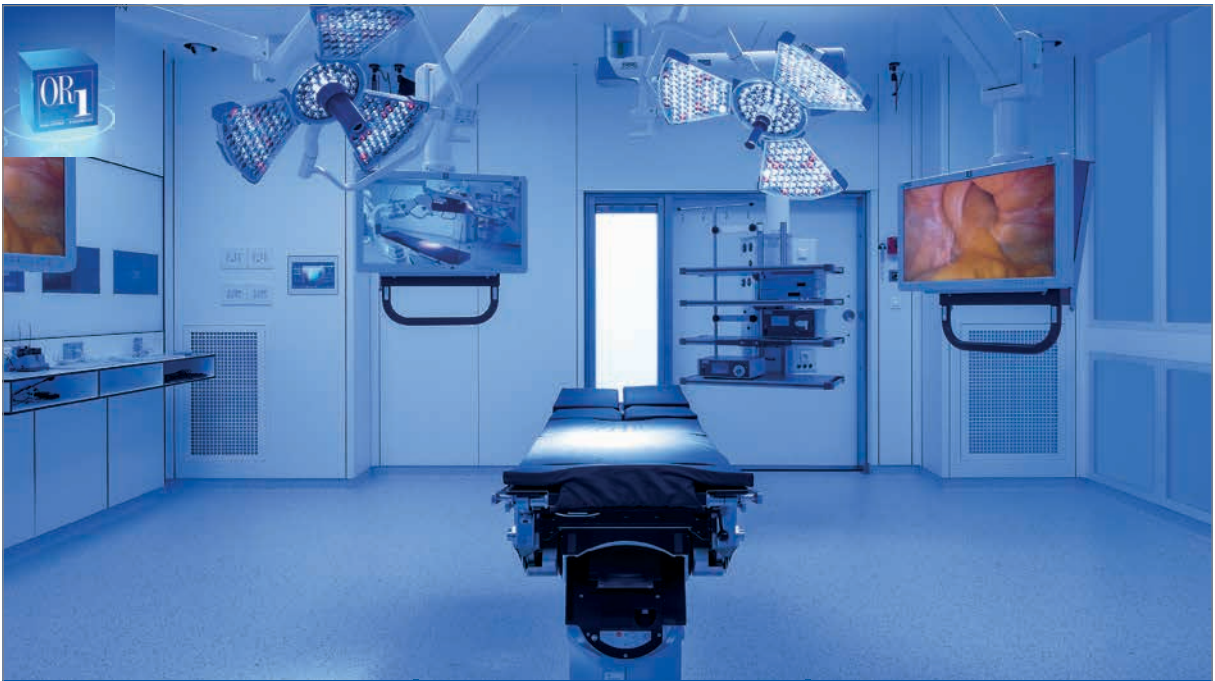
Fig. 3



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

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.

Imaging and OR Integration



Storage and administration of image and video data



SCENARA® .store

Flexible support for image sources



Centralized communication interface



SCENARA® .connect

OR1 88 1.0.01/2019/A-E

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 Laparoscopy products from KARL STORZ
can be viewed on



www.karlstorz.com
in the Human Medicine section,
Laparoscopy in Surgery,
Gynecology, and Urology

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



STORZ
KARL STORZ—ENDOSKOPE

THE DIAMOND STANDARD



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