



THE WORLD OF ENDOSCOPY



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www.karlstorz.com

**LAPAROSCOPY
IN SURGERY,
GYNECOLOGY, UROLOGY**

8th EDITION 1/2016 US

Important information for U.S. customers

Note:

Certain devices and references made herein to specific indications of use may have not received clearance or approval by the United States Food and Drug Administration. Practitioners in the United States should first consult with their local KARL STORZ representative in order to ascertain product availability and specific labeling claims. Federal (USA) law restricts certain devices referenced herein to sale, distribution, and use by, or on the order of a physician, dentist, veterinarian, or other practitioner licensed by the law of the State in which she/he practices to use or order the use of the device.

Important Notes:

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

Endoscopes and accessories contained in this catalog have been designed in part with the cooperation of physicians and are manufactured by the KARL STORZ group. If subcontractors are hired to manufacture individual components, these are made according to proprietary KARL STORZ plans or drawings. Furthermore, these products are subject to strict quality and control guidelines of the KARL STORZ group. Both contractual and general legal provisions prohibit subcontractors from supplying components manufactured by order of KARL STORZ to competitors.

Any assumptions that competitors' endoscopes and accessories are acquired from the same suppliers as the KARL STORZ products are not correct. Moreover, endoscopes and instruments provided by competitors are not manufactured according to the design specifications of KARL STORZ. This means it cannot be assumed that these endoscopes and accessories – even if they look identical on the outside – are constructed in the same manner and have been tested according to the same criteria.

Standardized Design and Labeling

KARL STORZ participates both in national and international bodies involved in the development of standards for endoscopes and endoscopic accessories. Standardized design and development therefore have long been implemented consistently by KARL STORZ. The user can rest assured that all products by the KARL STORZ group have been designed and constructed not only in compliance with strict internal quality guidelines, but also with international standards. All data relevant for safe use, such as viewing direction, sizes and diameters, or notes regarding sterilization of telescopes, are applied to the instruments, have been formulated according to international standards, and therefore provide reliable information.

As we constantly seek to improve and modify our products, we reserve the right to make changes in design that vary from catalog descriptions.

Original or Counterfeit

KARL STORZ products are name brand articles renowned around the world and represent the state of the art in important areas of healthcare. A large number of "copy cat" products are currently being offered in many markets. These products are designed intentionally to resemble KARL STORZ products and use marketing strategies that at least point out their compatibility with KARL STORZ products. These products are by no means genuine products, since genuine KARL STORZ products are sold worldwide exclusively under the name of KARL STORZ, which appears on the packaging and the product. In the absence of such labeling, the product is not from KARL STORZ.

KARL STORZ, therefore, is unable to ensure that such products are actually compatible with genuine KARL STORZ products or can be used with them without injury to the patient.

BASIC SETS

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User Information

For easy location of the appropriate instrument set

The basic equipment comprises a **basic set** and one or more **supplementary sets**.

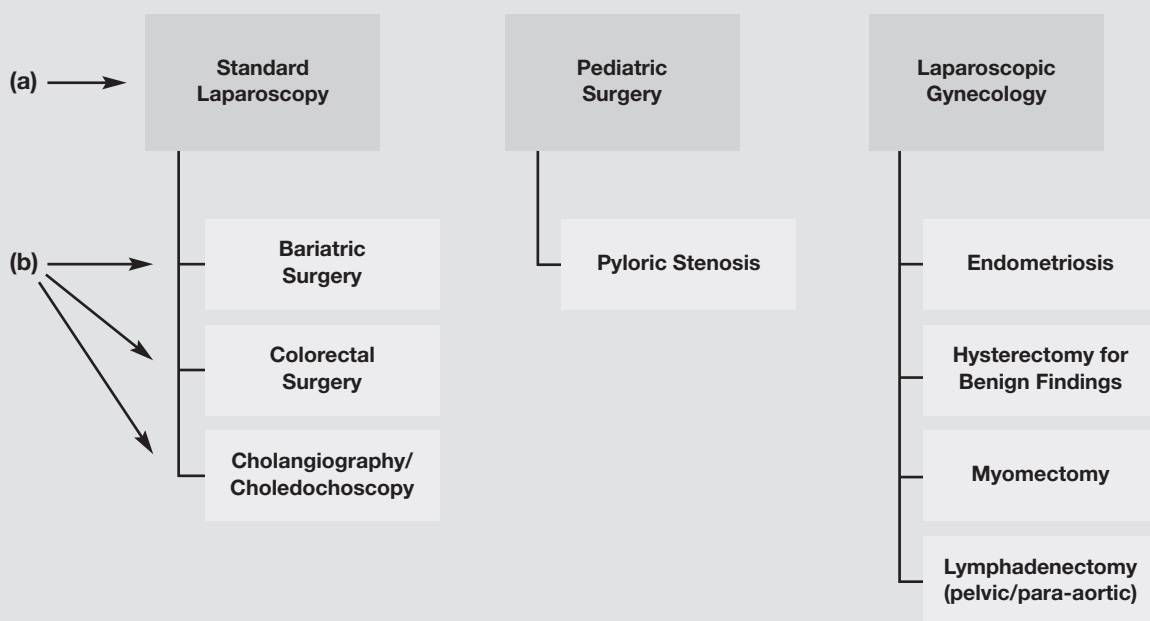
For optimal basic equipment:

(a) Select a **basic set**

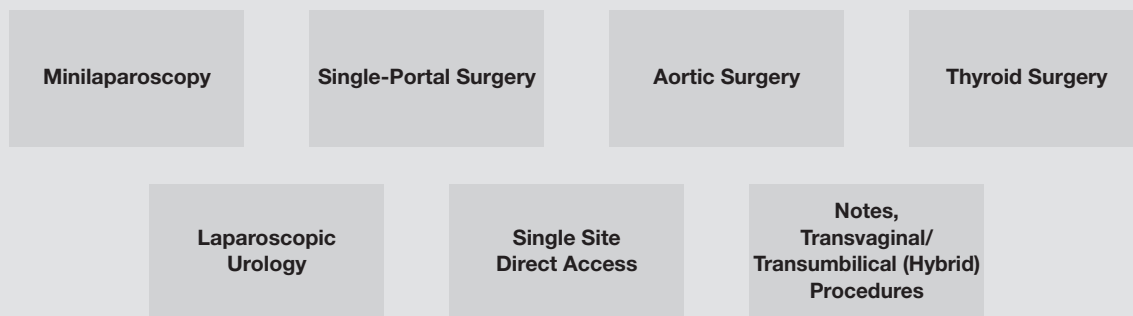
The instruments listed in the basic set are the minimum required for a specific application.

(b) **Supplementary sets** can be selected that include special instruments for specific indications such as, for example, bariatric and colorectal surgery.

Basic sets and corresponding supplementary sets at a glance



Basic sets without supplementary sets



Units for Laparoscopic Surgery, Gynecology and Urology

Basic Set

STORZ
KARL STORZ — ENDOSKOPE

IMAGE1 S 3D™



9832 NB-3D	32" 3D Monitor
TC 200EN*	IMAGE1 S CONNECT
TC 009	USB Adaptor , for ACC 1 and ACC 2
TC 300	IMAGE1 S H3-LINK
TC 302	IMAGE1 S D3-LINK™
26605 BA	TIPCAM®1 S 3D LAP
9800 GP	3D Polarization Glasses , passive
9800 C	3D Clip-on Glasses , circularly polarized
20 1331 01-1	Cold Light Fountain XENON 300 SCB
495 TIP	Fiber Optic Light Cable
UI 500 S1	ENDOFLATOR® 50 SCB
26 3311 01-1	HAMOU® ENDOMAT® SCB
20 5322 01	AUTOCON® II 200
WD 200 EN*	AIDA™ Documentation System
27805	Neutral Electrode
27806	Neutral Electrode Connecting Cable
20 0178 30	Two-Pedal Footswitch
UG 220	Equipment Cart , wide
UG 500	Monitor Holder
29005 DFH	Footswitch Holder , for two- and three-pedal footswitches
UG 609	Bottle Holder , for CO ₂ bottles
UG 310	Isolation Transformer
UG 410	Earth Leakage Monitor

* IMAGE1 S CONNECT and AIDA™ Documentation System are also available in the following languages:

DE, ES, FR, IT, PT, RU

Units see chapter 20, UNITS

FULL HD Camera Platforms see catalog TELEPRESENCE

Communication Bus and Accessories see catalog KARL STORZ OR1 NEO®

Units for Laparoscopic Surgery, Gynecology and Urology

Basic Set

IMAGE1 S



9826 NB	26" FULL HD Monitor
TC 200EN*	IMAGE1 S CONNECT
TC 009	USB Adaptor, for ACC 1 and ACC 2
TC 300	IMAGE1 S H3-LINK
TH 102	IMAGE1 S H3-Z FI Three-Chip FULL HD Camera Head
20 1331 01-1	Cold Light Fountain XENON 300 SCB
UI 500 S1	ENDOFLATOR® 50 SCB
26 3311 01-1	HAMOU® ENDOMAT® SCB
20 5322 01	AUTOCON® II 200
TC 010	Two-Pedal Footswitch USB
27805	Neutral Electrode
27806	Neutral Electrode Connecting Cable
20 0178 30	Two-Pedal Footswitch
WD 200 EN*	AIDA™ Documentation System
UG 220	Equipment Cart, wide
UG 500	Monitor Holder
29005 DFH	Footswitch Holder, for two- and three-pedal footswitches
UG 609	Bottle Holder, for CO₂ bottles
UG 310	Isolation Transformer
UG 410	Earth Leakage Monitor

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Units see chapter 20, UNITS

FULL HD Camera Platforms see catalog TELEPRESENCE

Communication Bus and Accessories see catalog KARL STORZ OR1 NEO®

Basic Set

26003 AA

HOPKINS® Straight Forward Telescope 0°, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

or

26003 BA **HOPKINS® Forward-Oblique Telescope 30°**, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red

Alternative 3D Telescopes:

26605 AA

IMAGE1 S 3D

TIPCAM®1 S 3D LAP, with two distal FULL HD image sensors, direction of view 0°, diameter 10 mm, **autoclavable**, freely programmable camera head buttons, including video connecting cable

or

26605 BA **TIPCAM®1 S 3D LAP**, with two distal FULL HD image sensors, direction of view 30°, diameter 10 mm, **autoclavable**, freely programmable camera head buttons, including video connecting cable

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

26120 JL

VERESS Pneumoperitoneum Needle, with spring-loaded blunt inner cannula, LUER-Lock, **autoclavable**, diameter 2.1 mm, length 13 cm

30103 TMR

TERNAMIAN EndoTIP Cannula, with thread and rotatable insufflation stopcock, size 11 mm, working length 10.5 cm, color code: green

30103 MP

Trocar, with pyramidal tip, insufflation stopcock and multifunctional valve, size 11 cm, working length 10.5 cm, color code: green

3x 30160 MP

Trocar, with pyramidal tip, insufflation stopcock and multifunctional valve, size 6 mm, working length 10.5 cm, color code: black

30140 DB

Reduction Sleeve, 11/5 mm

30141 DB

Reducer, 11/5 mm

33356 AF

CLICKline® Grasping Forceps, rotating, dismantling, double action jaws, with disengageable ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm

33351 MD

CLICKline® KELLY Dissecting and Grasping Forceps, rotating, dismantling, double action jaws, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm

33353 UL

CLICKline® REDDICK-OLSEN Dissecting and Grasping Forceps, rotating, dismantling, double action jaws, with hemostat style ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm

33351 ON

CLICKline® Grasping Forceps, rotating, dismantling, single action jaws, atraumatic, fenestrated, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm

34351 EH

CLICKline® Hook Scissors, rotating, dismantling, single action jaws, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm

34310 EH

CLICKline® Scissors Insert, for hook scissors, size 5 mm, length 36 cm

34351 MS

CLICKline® METZENBAUM Scissors, rotating, dismantling, double action jaws, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm

or

34310 MS-D **CLICKline® METZENBAUM Scissors Insert**, with outer sheath, curved, double action jaws, size 5 mm, length 36 cm, **sterile**, for single use, package of 10

33151 **CLICKline® Plastic Handle**, rotating, without ratchet, with larger contact area at the finger ring, insulated, with connector pin for unipolar coagulation

26775 CL

CADIERE Coagulation and Dissection Electrode, insulated sheath, L-shaped, distal tip tapered, with cm-marking, with connector pin for unipolar coagulation, size 5 mm, length 43 cm

26005 M

Unipolar High Frequency Cord, with 5 mm plug for AUTOCON®, length 300 cm

38651 MD

ROBI® KELLY Dissecting and Grasping Forceps, CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, double action jaws, especially suitable for dissection, size 5 mm, length 36 cm

38651 ON

ROBI® Grasping Forceps, CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, with especially fine atraumatic serration, fenestrated jaws, double action jaws, size 5 mm, length 36 cm

38651 MW

ROBI® METZENBAUM Scissors, CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, double action jaws, curved jaws, slender scissor blades, for cutting and bipolar coagulation, size 5 mm, length 36 cm

38610 MW

ROBI® METZENBAUM Scissors Insert, CLERMONT-FERRAND model, double action jaws, curved jaws, slender scissor blades, size 5 mm, length 36 cm

26176 LE

Bipolar High Frequency Cord, length 300 cm

26173 BN

Suction and Irrigation Tube, with lateral holes, anti-reflex surface, with two-way stopcock for single-hand control, size 5 mm, length 36 cm

or

37360 LH **Suction and Irrigation Tube**, with lateral holes, size 5 mm, length 36 cm

37113 A **Handle, pistol grip, with clamping valve**, for suction and irrigation, **autoclavable**

26173 AM

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

26173 KPL

KOH Macro Needle Holder, with tungsten carbide insert, ergonomic pistol handle with disengageable ratchet, ratchet position left, jaws curved to left, size 5 mm, length 33 cm

26173 KPR

KOH Macro Needle Holder, with tungsten carbide insert, ergonomic pistol handle with disengageable ratchet, ratchet position right, jaws curved to right, size 5 mm, length 33 cm

26172 AE

Endo-Loop Ligature, with ROEDER knot, for bleeding stumps, with absorbable synthetic suture, for single use, sterile, USP 0, size 3 mm, length 33 cm, package of 12

Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE

Laparoscopy Basic Set continued on next page

Supplementary Set for Bariatric Surgery



26003 AE	ENDOCAMELEON® HOPKINS® Telescope , diameter 10 mm, length 32 cm, autoclavable , variable direction of view from 0° – 120°, adjustment knob for selecting the desired direction of view, fiber optic light transmission incorporated, color code: gold
30103 MC	Trocar , with conical tip, insufflation stopcock and multifunctional valve, size 11 cm, working length 10.5 cm, color code: green
30108 MP	Trocar , with pyramidal tip, insufflation stopcock and multifunctional valve, size 13.5 cm, working length 11.5 cm, color code: blue
30141 DB	Reducer , 11/5 mm
30142 HB	Double Reducer , 13/10 mm, 13.5/10 mm, 13/5 mm and 13.5/5 mm
30623 GB	Retractor for Gastric Banding , size 10 mm, length 36 cm
30623 URL	CUSCHIERI Retractor , large contact surface, size 10 mm, length 36 cm
33563 BLS	CLICKline® BABCOCK Clamp , rotating, dismantling, double action jaws, with hemostat style ratchet, without connector pin for unipolar coagulation, size 10 mm, length 36 cm
33763 DU	CLICKline® DUVAL Grasping Forceps , rotating, dismantling, double action jaws, with hemostat style ratchet, without connector pin for unipolar coagulation, size 10 mm, length 36 cm
33500 CM	CLICKline® Metal Outer Sheath, with cm-marking
33363 ON	CLICKline® Grasping Forceps , rotating, dismantling, single action jaws, atraumatic, fenestrated, with hemostat style ratchet, without connector pin for unipolar coagulation, size 5 mm, length 36 cm
33325 ML	CLICKline® KELLY Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
33325 KW	CLICKline® MATKOWITZ Grasping Forceps , rotating, dismantling, double action jaws, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
33300 CM	CLICKline® Metal Outer Sheath, with cm-marking
26178 KPL	KOH Macro Needle Holder , with tungsten carbide insert, ergonomic pistol handle with disengageable ratchet, ratchet position left, jaws curved to left, size 5 mm, length 43 cm
26178 KPR	KOH Macro Needle Holder , with tungsten carbide insert, ergonomic pistol handle with disengageable ratchet, ratchet position right, jaws curved to right, size 5 mm, length 43 cm
30444 LR	Clip Applicator , dismantling, rotating, size 10 mm, length 36 cm, for PILLING-WECK Titanium Clips 30460 AL
30460 AL	PILLING-WECK Titan-Clip , medium-large, box with 16 sterile cartridges, 10 clips each, for use with Clip Applicator 30444 LR
Optional	
26003 BEA	HOPKINS® Forward-Oblique Telescope 30° , enlarged view, diameter 10 mm, length 42 cm, autoclavable , fiber optic light transmission incorporated, color code: red
28272 KKA	Holding System , for use with instrument and telescope sheaths

ENDOCAMELEON®: Recommended in conjunction with IMAGE1 S (CLARA and CHROMA modes)
see units basic set pages 4-5

Please note: Grasping forceps and scissors are also available in in XL lengths.
Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE
Laparoscopy Basic Set continued on next page

Supplementary Set for Colorectal Surgery


30108 MC	Trocar , with conical tip, insufflation stopcock, multifunctional valve, size 13.5 mm, working length 11.5 cm, color code: blue
30142 HB	Double Reducer , 13/10 mm, 13.5/10 mm, 13/5 mm and 13.5/5 mm
33353 ME	CLICK'line MANHES Grasping Forceps , rotating, dismantling, single action jaws, with hemostat style ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
33352 ML	CLICK'line KELLY Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, long, with MANHES style ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
33352 ON	CLICK'line Grasping Forceps , rotating, dismantling, single action jaws, with MANHES style ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
33352 C	CLICK'line Bowel Grasper , rotating, dismantling, double action jaws, with MANHES style ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
33562 BC	CLICK'line BABCOCK Clamp , rotating, dismantling, double action jaws, with MANHES style ratchet, without connector pin for unipolar coagulation, size 10 mm, length 36 cm
38651 KF	ROBI® Grasping Forceps , CLERMONT-FERRAND model, rotating, dismantling, flat jaws, fenestrated, single action jaws, with connector pin for bipolar coagulation, size 5 mm, length 36 cm
26596 SK	KÖCKERLING Knot Tier , for extracorporeal knotting, size 5 mm, length 36 cm
24941 H	LEROY Anal Dilator , outer diameter 42 mm, inner diameter 35 mm, working length 15 cm, with 8 cm gap on the upper proximal end of the tube, with handle for holding system, fiber optic light transmission incorporated for distal illumination, for use with circular staplers, size 32 or 24941 HS LEROY Anal Dilator , outer diameter 37 mm, inner diameter 30 mm
33541 H	CLICK'line LEROY H-Retractor , autoclavable, size 10 mm, length 36 cm
30623 T	LEROY T-Retractor , with LUER-Lock connector for cleaning, autoclavable, size 10 mm, length 30 cm
30623 VL	LEROY 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
30623 I	LEROY V-Retractor , with rotation wheel for angling and extending the distal tip, with LUER-Lock connector for cleaning, autoclavable, size 10 mm, length 36 cm
30623 HA	LEROY Articulating H-Retractor , long jaws, double action jaws, jaws open in parallel, bendable to 90°, autoclavable, size 10 mm, length 36 cm
30623 H	Handle Attachment , autoclavable, for use with LEROY retractors

Supplementary Set for Cholangiography/Choledochoscopy

11292 VSK	Flexible Video Choledochoscope IMAGE1 S , working channel inner diameter 1.2 mm, distal tip outer diameter diameter 2.8 mm, working length 50 cm
26169 DO	BERCI Micro Knife , pointed, distendable, size 5 mm, length 31 cm
28378 BC	Cholangiography Catheter Guide , for catheters with max. size 2.4 mm, with distal angulation 90° downwards
26020 XR	BERCI Plastic Stylet
33531 PG	CLICK'line Berci Grasping Forceps , double action jaws, with silicone pads, size 10 mm

FULL HD Camera Platforms see catalog TELEPRESENCE

Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE

26003 BA	HOPKINS® Forward-Oblique Telescope 30° , enlarged view, diameter 10 mm, length 31 cm, autoclavable , fiber optic light transmission incorporated, color code: red	
26046 BA	HOPKINS® Forward-Oblique Telescope 30° , diameter 5 mm, length 29 cm, autoclavable , fiber optic light transmission incorporated, color code: red	
26007 BA	HOPKINS® Forward-Oblique Telescope 30° , enlarged view, diameter 3.3 mm, length 25 cm, autoclavable , fiber optic light transmission incorporated, color code: red	
495 NCS	Fiber Optic Light Cable , with straight connector, extremely heat-resistant, diameter 4.8 mm, length 250 cm	
495 NA	Fiber Optic Light Cable , with straight connector, diameter 3.5 mm, length 230 cm	
533 TVA	Adaptor, autoclavable , permits telescope changing under sterile conditions	
26120 JL	VERESS Pneumoperitoneum Needle , with spring-loaded blunt inner cannula, LUER-Lock, autoclavable , diameter 2.1 mm, length 13 cm	
30160 GYG	Trocar , with conical tip, with LUER-Lock connector for insufflation, size 6 mm, working length 10 cm, color code: black	
30117 GP	Trocar , with pyramidal tip, with LUER-Lock connector for insufflation, size 3.9 mm, working length 10 cm, color code: red-green	
3x 30114 GYG	Trocar , with conical tip, with LUER-Lock connector for insufflation and valve seal, size 3.5 mm, working length 10 cm, color code: green	
31351 ML	CLICKliné KELLY Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, long, with connector pin for unipolar coagulation, without ratchet, size 3.5 mm, length 36 cm	
31366 ONM	CLICKliné Grasping Forceps , rotating, dismantling, single action jaws, fenestrated, with especially fine atraumatic serration, with disengageable ratchet, without connector pin for unipolar coagulation, size 3.5 mm, length 36 cm	
31351 MW	CLICKliné Scissors , rotating, dismantling, double action jaws, serrated, curved, conical, with LUER-Lock irrigation connector for cleaning, without ratchet, with connector pin for unipolar coagulation, size 3.5 mm, length 36 cm	
31351 EH	CLICKliné Micro Hook Scissors , rotating, dismantling, single action jaws, with connector pin for unipolar coagulation, without ratchet, size 3.5 mm, length 36 cm	
25775 CNL	CADIERE Coagulation and Dissection Electrode , L-shaped, distal tip tapered, with cm-marking, with connector pin for unipolar coagulation, size 3.5 mm, length 36 cm	
26005 M	Unipolar High Frequency Cord , with 5 mm plug for AUTOCON®, length 300 cm	
38951 MD	ROBI® KELLY Grasping Forceps , CLERMONT-FERRAND model, rotating, dismantling, double action jaws, with connector pin for bipolar coagulation, size 3.5 mm, length 36 cm	
38951 ON	ROBI® Grasping Forceps , CLERMONT-FERRAND model, rotating, dismantling, with especially fine atraumatic serration, fenestrated, double action jaws, with connector pin for bipolar coagulation, size 3.5 mm, length 36 cm	
38951 MW	ROBI® Scissors , CLERMONT-FERRAND model, rotating, dismantling, curved scissor blades, double action jaws, with connector pin for bipolar coagulation, size 3.5 mm, length 36 cm	
26176 LE	Bipolar High Frequency Cord , length 300 cm	
26167 ANL	Suction and Irrigation Tube , with lateral holes, size 3.5 mm, length 36 cm, for use with handles for irrigation and suction	
30805	Handle with Two-Way Stopcock , for suction and irrigation, autoclavable , for use with suction and irrigation tubes size 5 mm	
26167 LNL	KOH Ultramicro Needle Holder , with tungsten carbide inserts, jaws curved to left, straight handle, with ratchet, size 3.5 mm, length 36 cm	
26167 RNL	KOH Ultramicro Needle Holder , with tungsten carbide inserts, jaws curved to right, straight handle, with ratchet, size 3.5 mm, length 36 cm	

Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE

Single Port

Basic Set



26048 BSA	HOPKINS® Forward-Oblique Telescope 30° , diameter 5.5 mm, length 50 cm, autoclavable , fiber optic light transmission incorporated, light connection offset by 180° and angled 45°, color code: red
23030 PA	LEROY S-PORT® , single portal surgery access system, adaptable in sizes 15 – 45 mm or 23010 PA CUSCHIERI ENDOCONE Single Portal Surgery Access System , size 34 mm
23451 MUD	ROTATIP® KELLY Dissecting and Grasping Forceps , dismantling, with connector pin for unipolar coagulation, double action jaws, long, jaws and sheath rotatable, CUSCHIERI O-CON sheath curve, coaxially curved downwards, size 5 mm, length 36 cm
23451 AUD	ROTATIP® Grasping Forceps , dismantling, with connector pin for unipolar coagulation, with revolving jaw design, double action jaws, atraumatic, fenestrated, CUSCHIERI O-CON sheath curve, coaxially curved downwards, size 5 mm, length 36 cm
23451 MSUD	ROTATIP® METZENBAUM Scissors , dismantling, with connector pin for unipolar coagulation, with revolving jaw design, double action jaws, curved, CUSCHIERI O-CON sheath curve, coaxially curved downwards, size 5 mm, length 36 cm
38751 MLU	ROBI® KELLY Grasping Forceps , CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, double action jaws, especially suitable for dissection, CUSCHIERI O-CON sheath curve, size 5 mm, length 43 cm

Supplementary Instrumentation see laparoscopy basic set pages 6-8
Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE



Basic Set

26011 AA	HOPKINS® Straight Forward Telescope 0° , enlarged view, diameter 5 mm, length 24 cm, autoclavable , fiber optic light transmission incorporated, color code: green or
26007 AA	HOPKINS® Straight Forward Telescope 0° , enlarged view, diameter 3.3 mm, length 25 cm, autoclavable , fiber optic light transmission incorporated, color code: green
495 NA	Fiber Optic Light Cable , with straight connector, diameter 3.5 mm, length 230 cm
26120 J	VERESS Pneumoperitoneum Needle , with spring-loaded blunt inner cannula, LUER-Lock, autoclavable , diameter 2.1 mm, length 10 cm
30160 GYS	Trocar , with conical tip, LUER-Lock connector and valve seal, size 6 mm, working length 5 cm, color code: black
4x 30114 GZS	Trocar , with pyramidal tip, LUER-Lock connector and valve seal, size 3.5 mm, working length 5 cm, color code: green
31151 MW	CLICKline® Scissors , rotating, dismantling, double action jaws, serrated, curved, conical, without ratchet, with connector pin for unipolar coagulation, size 3.5 mm, length 20 cm
2x 31151 UL	CLICKline® REDDICK-OLSEN Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, robust, without ratchet, with connector pin for unipolar coagulation, size 3.5 mm, length 20 cm
31153 ON	CLICKline® Grasping Forceps , rotating, dismantling, single action jaws, with especially fine atraumatic serration, fenestrated, with hemostat style ratchet, with connector pin for unipolar coagulation, size 3.5 mm, length 20 cm
31151 EH	CLICKline® Micro Hook Scissors , rotating, dismantling, single action jaws, without ratchet, with connector pin for unipolar coagulation, size 3.5 mm, length 20 cm
31151 MD	CLICKline® KELLY Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, without ratchet, with connector pin for unipolar coagulation, size 3.5 mm, length 20 cm
26870 UNS	Coagulation and Dissecting Electrode , L-shaped, insulated, with connector pin for unipolar coagulation, size 3.5 mm, length 20 cm
26005 M	Unipolar High Frequency Cord , with 5 mm plug for AUTOCON®, length 300 cm
38851 MD	ROBI® KELLY Grasping Forceps , CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, size 3.5 mm, length 20 cm
38851 ON	ROBI® Grasping Forceps , CLERMONT-FERRAND model, rotating, dismantling, with especially fine atraumatic serration, fenestrated jaws, with connector pin for bipolar coagulation, size 3.5 mm, length 20 cm
38851 MW	ROBI® Scissors , CLERMONT-FERRAND model, rotating, dismantling, curved blades, with connector pin for bipolar coagulation, size 3.5 mm, length 20 cm
26176 LE	Bipolar High Frequency Cord , length 300 cm
26167 ANS	Suction and Irrigation Tube , with lateral holes, size 3.5 mm, length 20 cm, for use with handles for irrigation and suction
30805	Handle with Two-Way Stopcock , for suction and irrigation, autoclavable , for use with suction and irrigation tubes size 5 mm
31143 REM	CLICKline® Palpation Probe , retractable, size 3.5 mm, length 20 cm
26167 LNS	KOH Ultramicro Needle Holder , with tungsten carbide insert, jaws curved to left, straight handle, with disengageable ratchet, size 3.5 mm, length 20 cm
26167 RNS	KOH Ultramicro Needle Holder , with tungsten carbide insert, jaws curved to right, straight handle, with disengageable ratchet, size 3.5 mm, length 20 cm

Supplementary Set for Pyloric Stenosis

26167 DRS	Pyloric Knife , size 3 mm, length 10 cm
31161 PSM	CLICKline® Percutaneous Pyloric Spreader , rotating, dismantling, size 3.5 mm, length 20 cm
31161 PF	CLICKline® GEIGER Pyloric Grasper , for percutaneous use, size 3 mm, length 20 cm

Optional Instruments, size 2 mm

30251 MSS	CLICKline® METZENBAUM Scissors , rotating, double action jaws, curved, size 2 mm, length 20 cm
30251 KJS	CLICKline® REDDICK-OLSEN Dissecting and Grasping Forceps , rotating, double action jaws, size 2 mm, length 20 cm
30200 FNS	KOH Ultramicro Needle Holder , straight handle, with ratchet, size 2 mm, length 20 cm

Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE

Laparoscopic Aortic Surgery

Basic Set

KOLVENBACH Recommended Set

26003 FA	HOPKINS® Telescope 45° , enlarged view, diameter 10 mm, length 31 cm, autoclavable , fiber optic light transmission incorporated, color code: black
6x 30103 MC	Trocar , with conical tip, insufflation stopcock and multifunctional valve, size 11 cm, working length 10.5 cm, color code: green
3x 30140 DB	Reduction Sleeve , 11/5
37113 A	Handle, pistol grip, with clamping valve , for suction and irrigation, autoclavable
37360 SC	Suction and Irrigation Tube , size 5 mm, length 36 cm
37560 LH	Suction and Irrigation Tube , with lateral holes, size 10 mm, length 36 cm
33351 DF	CLICK'line® Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, atraumatic, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
33351 KW	CLICK'line® MATKOWITZ Grasping Forceps , rotating, dismantling, double action jaws, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
2x 33351 ML	CLICK'line® KELLY Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, long, without ratchet, with connector pin for unipolar coagulation
34351 MA	CLICK'line® Scissors , rotating, dismantling, double action jaws, spoon-shaped blades, serrated, curved, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
2x 33362 ON	CLICK'line® Grasping Forceps , rotating, dismantling, single action jaws, with especially fine atraumatic serration, fenestrated, with MANHES style ratchet, without connector pin for unipolar coagulation, size 5 mm, length 36 cm
33362 DY	CLICK'line® DeBAKEY Grasping Forceps , rotating, dismantling, single action jaws, atraumatic, with MANHES style ratchet, without connector pin for unipolar coagulation, size 5 mm, length 36 cm
49531 DD	CLICK'line® Grasping Forceps , rotating, for grasping deployable vascular clamps, without ratchet, without connector pin for unipolar coagulation, size 10 mm, length 36 cm
49310 DJ	Vascular Clamp Applicator , size 10 mm, length 32 cm, for use with Deployable Vascular Clamps 49310 DH, 49310 DI and 49310 DM, including inner rod and outer sheath
49310 DH	Deployable Vascular Clamp , single action jaws, length of jaws 5 cm, size 10 mm, for use with Vascular Clamp Applicator 49310 DJ
49310 DI	Deployable Vascular Clamp , single action jaws, length of jaws 6 cm, size 10 mm, for use with Vascular Clamp Applicator 49310 DJ
49310 DM	Deployable Vascular Clamp , parallel-action jaws, length of jaws 7 cm, size 10 mm, for use with Vascular Clamp Applicator 49310 DJ
38651 MD	ROBI® KELLY Dissecting and Grasping Forceps , CLERMONT-FERRAND model, rotating, with connector pin for bipolar coagulation, especially suitable for dissection, size 5 mm, length 36 cm
49310 SB	SATINSKY Laparoscopic Clamp , long version, length of jaws 10 cm, depth of jaws 2.5 cm, straight sheath, with axial ring handle, ratchet with safety locking device, size 10 mm, length 30 cm
2x 49310 SS	Vascular Clamp , straight jaws, length of jaws 7 cm, straight sheath, with axial ring handle, ratchet with safety locking device, size 10 mm, length 30 cm
2x 49310 VC	Vascular Clamp , jaws slightly curved, length of jaws 5 cm, straight sheath, with axial ring handle, ratchet with safety locking device, size 10 mm, length 30 cm
30173 RAO	KOH Macro Needle Holder , jaws curved to right, with tungsten carbide inserts, with disengageable ratchet, size 5 mm, length 33 cm
30173 LAO	KOH Macro Needle Holder , curved to left, with tungsten carbide inserts, with disengageable ratchet, size 5 mm, length 33 cm
30623 VR	Retractor , dismantling, with variable curvature, blunt, size 10 mm, length 36 cm
26169 DO	BERCI Micro Knife , pointed, distendable, size 5 mm, length 31 cm
30623 FP	Fan Retractor , dismantling, distendable, diameter 10 mm, length 36 cm
2x 32540 PT	Surgical Sponge Holder , self-retaining, size 10 mm, length 30 cm
28272 KGB	Holding System , L-shaped

Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE

Endoscopically Assisted Thyroidectomy and Parathyroidectomy

Basic Sets

Video-assisted Thyroidectomy and Parathyroidectomy, MICCOLI Recommended Set

Telescopes and Instruments:

26046 BA	HOPKINS® Forward-Oblique Telescope 30° , diameter 5 mm, length 29 cm, autoclavable , fiber optic light transmission incorporated, color code: red
474003	MICCOLI Suction Dissector , blunt, with stylet and cut-off hole, width 2 mm, length 19 cm
2x 477002	HALLE-MICCOLI Elevator , blunt, width 2 mm, length 19 cm
786505	MICCOLI Vessels Suspender Hook , malleable, length 21 cm
2x 801910	MICCOLI Retractor , double-ended, size 35 x 10 mm and 21 x 10 mm, length 16 cm
801911	MICCOLI Retractor , double-ended, size 45 x 10 mm and 21 x 10 mm, length 16 cm
222500	BELLUCCI Scissors , blade length 8 mm, working length 8 cm
649165	Grasping Forceps , rough serrated, working length 15 cm
31151 UL	CLICKlinē REDDICK-OLSEN Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, robust, without ratchet, with connector pin for unipolar coagulation, size 3.5 mm, length 20 cm
31151 MW	CLICKlinē Scissors , rotating, dismantling, double action jaws, serrated, curved, conical, without ratchet, with connector pin for unipolar coagulation, size 3.5 mm, length 20 cm
38851 ON	CLICKlinē Grasping Forceps , CLERMONT-FERRAND model, rotating, dismantling, with especially fine atraumatic serration, fenestrated, with connector pin for bipolar coagulation, size 3.5 mm, length 20 cm

STRIK Extracervical Approach in Thyroid Surgery (ABBA Method)

26046 BA	HOPKINS® Forward-Oblique Telescope 30° , diameter 5 mm, length 29 cm, autoclavable , fiber optic light transmission incorporated, color code: red
2x 30160 ACL	Trocar , with conical tip, insufflation stopcock and automatic valve, size 6 mm, working length 20 cm, color code: black or: 2x 30160 MCL Trocar , with conical tip, insufflation stopcock and multifunctional valve, size 6 mm, working length 20 cm, color code: black
30103 AC	Trocar , with conical tip, insufflation stopcock and automatic valve, size 11 mm, working length 10.5 cm, color code: green or: 30103 MC Trocar , with conical tip, insufflation stopcock and multifunctional valve, size 11 mm, working length 10.5 cm, color code: green
30140 DB	Reduction Sleeve , 11/5 mm
30140 KA	Reduction Sleeve , 6/3 mm
38651 MD	ROBI® KELLY Dissecting and Grasping Forceps , CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, double action jaws, especially suitable for dissection, size 5 mm, length 36 cm
38651 ON	ROBI® Grasping Forceps , CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, with especially fine atraumatic serration, fenestrated jaws, double action jaws, size 5 mm, length 36 cm
38651 MW	ROBI® METZENBAUM Scissors , CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, double action jaws, curved jaws, slender scissor blades, for cutting and bipolar coagulation, size 5 mm, length 36 cm
31151 MD	CLICKlinē KELLY Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, without ratchet, with connector pin for unipolar coagulation, size 3.5 mm, length 20 cm
31151 MW	CLICKlinē Scissors , rotating, dismantling, double action jaws, serrated, curved, conical, without ratchet, with connector pin for unipolar coagulation, size 3.5 mm, length 20 cm

Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE

Laparoscopic Gynecology

Basic Set

Basic Set

26003 AA **HOPKINS® Straight Forward Telescope 0°**, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

or

26046 AA **HOPKINS® Straight Forward Telescope 0°**, enlarged view, diameter 5 mm, length 29 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

Alternative 3D Telescopes:

26605 AA **TIPCAM®1 S 3D LAP**, with two distal FULL HD image sensors, direction of view 0°, diameter 10 mm, **autoclavable**, freely programmable camera head buttons, including video connecting cable

IMAGE1 S 3D

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

or

495 NA **Fiber Optic Light Cable**, with straight connector, diameter 3.5 mm, length 230 cm

26120 JL **VERESS Pneumoperitoneum Needle**, with spring-loaded blunt inner cannula, LUER-Lock, **autoclavable**, diameter 2.1 mm, length 13 cm

2x 30103 MA **Trocar**, with blunt tip, insufflation stopcock and multifunctional valve, size 11 mm, working length 10.5 cm, color code: green

3x 30160 MA **Trocar**, with blunt tip, insufflation stopcock and multifunctional valve, size 6 mm, working length 10.5 cm, color code: black

33362 ME **CLICKline® MANHES Grasping Forceps**, rotating, dismantling, single action jaws, width of jaws 4.8 mm, with multiple teeth, for atraumatic and accurate grasping, with MANHES style ratchet, without connector pin for unipolar coagulation, size 5 mm, length 36 cm

33362 FM **CLICKline® Claw Forceps**, rotating, dismantling, single action jaws, 2 x 3 teeth, with MANHES style ratchet, without connector pin for unipolar coagulation, size 5 mm, length 36 cm

33362 ON **CLICKline® Grasping Forceps**, rotating, dismantling, single action jaws, with especially fine atraumatic serration, fenestrated, with MANHES style ratchet, without connector pin for unipolar coagulation, size 5 mm, length 36 cm

33362 UM **CLICKline® Ovary Grasping Forceps**, rotating, dismantling, double action jaws, serrated, with MANHES style ratchet, without connector pin for unipolar coagulation, size 5 mm, length 36 cm

33352 ML **CLICKline® KELLY Dissecting and Grasping Forceps**, rotating, dismantling, double action jaws, long, with MANHES style ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm

34561 GS **CLICKline® Spoon Forceps**, rotating, dismantling, single action jaws, without ratchet, without connector pin for unipolar coagulation, size 5 mm, length 36 cm

34361 EH **CLICKline® Hook Scissors**, rotating, dismantling, single action jaws, without ratchet, without connector pin for unipolar coagulation, size 5 mm, length 36 cm

34351 MA **CLICKline® Scissors**, rotating, dismantling, double action jaws, serrated, spoon-shaped, without ratchet, rotating, dismantling, insulated, with connector pin for unipolar coagulation, size 5 mm, length 36 cm

38651 KL **ROBI® Grasping Forceps**, CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, single action jaws, flat jaws, for dissection, grasping and bipolar coagulation, size 5 mm, length 36 cm

38651 ON **ROBI® Grasping Forceps**, CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, with especially fine atraumatic serration, fenestrated jaws, double action jaws, size 5 mm, length 36 cm

38651 ML **ROBI® KELLY Dissecting and Grasping Forceps**, CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, especially suitable for dissection, size 5 mm, length 36 cm

26173 BN **Suction and Irrigation Tube**, with lateral holes, anti-reflex surface, with two-way stopcock for single-hand control, size 5 mm, length 36 cm

37360 CP **Suction and Irrigation Tube**, for puncture and suction of cysts, size 5 mm, length 36 cm, for use with suction/irrigation handles

37370 GC **GORDTS and CAMPO Coagulating Suction and Irrigation Tube**, bipolar, diameter 5 mm, length 36 cm, for use with suction and irrigation handles

30810 **Handle**, for suction and irrigation, **autoclavable**, for use with 5 mm coagulation suction tubes and 3 and 5 mm suction and irrigation tubes

26775 UF **Coagulation and Dissection Electrode**, L-shaped, with connector pin for unipolar coagulation, size 5 mm, length 36 cm

30675 ND **MANHES High Frequency Needle**, for splitting and coagulation, insulated, retractable, with connector pin for unipolar coagulation, size 5 mm, length 31 cm

2x 26005 M **Unipolar High Frequency Cord**, with 5 mm plug for AUTOCON®, length 300 cm

2x 26176 LE **Bipolar High Frequency Cord**, length 300 cm

39301 C **Plastic Container for Sterilization and Storage of two Telescopes**, perforated, with transparent lid, with silicone telescope holder, external dimensions (w x d x h): 520 x 90 x 45 mm, for laparoscopy telescopes size 10 mm or similar

39301 CHS **Silicone Telescope Holder**, for two rigid endoscopes up to diameter 10 mm, for Plastic Container 39301 AS/BS/CS

30173 LAR **KOH Macro Needle Holder**, dismantling, with ergonomic handle, axial, disengageable ratchet, ratchet position right, jaws curved to left, with tungsten carbide inserts, diameter 5 mm, length 33 cm

Basic Set for Laparoscopic Gynecology continued on next page

30173 RAL	KOH Macro Needle Holder , dismantling, with ergonomic handle, axial, disengageable ratchet, ratchet position left, jaws curved to right, with tungsten carbide inserts, diameter 5 mm, length 33 cm
26596 CL	CICE Knot Tier , CLERMONT-FERRAND model, for extracorporeal knotting, size 5 mm, length 36 cm
26168 TN	TINTARA Uterine Manipulator , complete
33331 ST	CLICKline TCHARTCHIAN Dissecting and Grasping Forceps "JET GRASPER", rotating, dismantling, single action jaws, with integrated irrigation function, size 5 mm, length 36 cm

Supplementary Set for Endometriosis

26168 D	Uterine Manipulator , CLERMONT-FERRAND model, complete or 26168 Z KECKSTEIN Uterine Manipulator , complete
30103 SK	C.C.L. Vaginal Extractor , diameter 11 mm, with insulated ball-shaped sphere, diameter 35 mm
33562 FS	CLICKline Claw Forceps , rotating, dismantling, with MANHES style ratchet, without connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, single action jaws, 2 x 3 teeth, size 10 mm, length 36 cm
26166 V	Vaginal Plug
26166 VG	Handle , for Vaginal Plug 26166 V
26166 VH	Cannula , for vaginal plug, for use with instruments up to size 10 mm
26166 RG	Rectal Plug , large
26166 RK	Rectal Plug , small
26166 GL	Handle , for rectal plugs, strongly curved
26166 GS	Handle , for rectal plugs, slightly curved

Supplementary Set for Hysterectomy for Benign Findings

26168 D	Uterine Manipulator , CLERMONT-FERRAND model, complete or 26168 Z KECKSTEIN Uterine Manipulator , complete or 26168 K HOHL Uterine Manipulator , complete or 26168 DZ DONNEZ Uterine Manipulator , complete or 26168 J MANGESHIKAR Uterine Manipulator , complete
26723 RC	Rotocut G2 , 11/15 mm, set, for use with UNIDRIVE® S III SCB 20 7010 20-1 or 26 7115 15 SAWALHE II SuperCut Set , diameter 12/15 mm, electromechanical morcellator, for use with UNIDRIVE® S III SCB 20 7010 20-1
26 7010 01-1	UNIDRIVE® S III SCB, GYN Set , motor system, with KARL STORZ-SCB, power supply 100 – 240 VAC, 50/60 Hz
26183 M	BRUCKER/MESSROGHLI SupraLoop , size 5 mm, length 30 cm
26183 MR	Spare Resection Loop , for laparoscopic conization following supracervical hysterectomy, diameter 5 mm, for single use, for use with Handle 26183 MA and Outer Sheath 26183 MB
26190 A	CHARDONNENS Morcellation Knife , diameter 10 mm, length 22 cm
208210	Blade , Fig. 10, sterile, package of 100, for use with 26190 A

Supplementary Set for Myomectomy

26723 RC	Rotocut G2 , 11/15 mm set, for use with UNIDRIVE® S III SCB 20 7010 20-1 or 26 7115 15 SAWALHE II SuperCut Set , diameter 12/15 mm, electromechanical morcellator, for use with UNIDRIVE® S III SCB 20 7010 20-1
26 7010 01-1	UNIDRIVE® S III SCB, GYN Set , motor system, with KARL STORZ-SCB, power supply 100 – 240 VAC, 50/60 Hz
26175 BB	CIRAVOLO Myoma Fixation Instrument , bendable, with threaded tip, diameter 10 mm or 26175 BL Myoma Fixation Instrument , screw-shaped, size 5 mm

Supplementary Set for Lymphadenectomy (pelvic/para-aortic)

33352 SN	CLICKline SCHNEIDER Lymph Node Grasping Forceps , rotating, dismantling, single action jaws, atraumatic, with MANHES style ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
38651 MW	ROBI® METZENBAUM Scissors , CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, double action jaws, curved jaws, slender scissor blades, for cutting and bipolar coagulation, size 5 mm, length 36 cm

Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE

26003 BA	HOPKINS® Forward-Oblique Telescope 30° , enlarged view, diameter 10 mm, length 31 cm, autoclavable , fiber optic light transmission incorporated, color code: red
3x 30160 MP	Trocar , with pyramidal tip, insufflation stopcock and multifunctional valve, size 6 mm, working length 10.5 cm, color code: black
2x 30103 MP	Trocar , with pyramidal tip, insufflation stopcock and multifunctional valve, size 11 mm, working length 10.5 cm, color code: green
2x 30108 MP	Trocar , with pyramidal tip, insufflation stopcock and multifunctional valve, size 13.5 mm, working length 11.5 cm, color code: blue
30142 HB	Double Reducer , 13/10 mm, 13.5/10 mm, 13/5 mm and 13.5/5 mm
2x 30141 DB	Reducer , 11/5 mm
2x 33352 MG	CLICK'liné MANHES Grasping Forceps , "tiger jaws", rotating, dismantling, single action jaws, 2 x 4 teeth, with MANHES style ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
33351 MD	CLICK'liné KELLY Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
2x 33351 R	CLICK'liné Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, right-angled jaws, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
33563 RG	CLICK'liné Grasping Forceps , rotating, dismantling, double action jaws, right-angled jaws, with hemostat style ratchet, size 10 mm, length 36 cm
33561 MLL	CLICK'liné KELLY Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, without ratchet, without connector pin for unipolar coagulation, size 10 mm, length 36 cm
33561 PR	CLICK'liné Dissecting and Grasping Forceps , rotating, dismantling, double action jaws, without ratchet, without connector pin for unipolar coagulation, size 10 mm, length 36 cm
34561 GS	CLICK'liné Spoon Forceps , rotating, dismantling, single action jaws, without ratchet, without connector pin for unipolar coagulation, size 10 mm, length 36 cm
34351 MS	CLICK'liné METZENBAUM Scissors , rotating, dismantling, double action jaws, curved, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
34310 MS	METZENBAUM Scissors Insert , size 5 mm, length 36 cm
38651 MD	ROBI® KELLY Dissecting and Grasping Forceps , CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, especially suitable for dissection, size 5 mm, length 36 cm
32340 PT	Surgical Sponge Holder , self-retaining, size 5 mm, length 30 cm
26173 BN	Suction and Irrigation Tube , with lateral holes, anti-reflex surface, with two-way stopcock for single-hand control, size 5 mm, length 36 cm
26173 SKG	RASSWEILER Needle Holder , straight jaws, size 5 mm, length 33 cm
26173 SKL	RASSWEILER Needle Holder , convex/concave, slender jaws, curved to left, size 5 mm, length 33 cm
27566 BL	RASSWEILER Transurethral Bougie , 18 Fr., with working channel 9 Fr.

Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE

Laparoscopic Single Site Direct Access Appendectomy and Cholecystectomy

Basic Set

DAPRI Recommended Set



26003 BA	HOPKINS® Forward Oblique Telescope 30° , enlarged view, diameter 10 mm, length 31 cm, autoclavable , fiber optic light transmission incorporated, color code: red
30103 MP	Trocar , with pyramidal tip, insufflation stopcock and multifunctional valve, size 11 cm, working length 10.5 cm, color code: green
23161 ONF	CLICKline® Dissecting and Grasping Forceps , dismantling, with connector pin for unipolar coagulation, single action jaws, fenestrated, with especially fine atraumatic serration, DARPI sheath curve, size 5 mm
23161 ONE	CLICKline® Dissecting and Grasping Forceps , dismantling, with connector pin for unipolar coagulation, single action jaws, fenestrated, with especially fine atraumatic serration, DARPI sheath curve, size 5 mm
23262 MSG	CLICKline® METZENBAUM Scissors , dismantling, with connector pin for unipolar coagulation, double action jaws, curved, DARPI sheath curve, size 5 mm
38751 MWG	ROBI® METZENBAUM Scissors , CLERMONT-FERRAND model, curved scissor blades, slender, rotating, double action jaws, DARPI sheath curve, size 5 mm
23775 CLG	Coagulation and Dissecting Electrode , without suction channel, insulated sheath, L-shaped tip, DARPI sheath curve, size 5 mm
23460 LHG	Suction and Irrigation Tube , with lateral holes, curved, DARPI sheath curve, size 5 mm
30805	Handle with Two-Way Stopcock , for suction and irrigation, autoclavable , for use with suction and irrigation tubes size 5 mm

Optional:

26003 AE	ENDOCAMELEON® HOPKINS® Telescope , diameter 10 mm, length 32 cm, autoclavable , variable direction of view from 0° – 120°, adjustment knob for selecting the desired direction of view, fiber optic light transmission incorporated, color code: gold
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ENDOCAMELEON®: Recommended in conjunction with IMAGE1 S see basic set units pages 4-5
Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE

Notes, Transvaginal – Transumbilical (Hybrid) Procedures

Basic Set

Set recommended by Dr. BURGHARDT

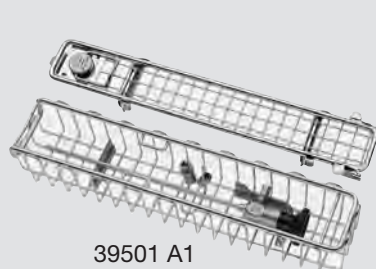
26046 BA	HOPKINS® Forward-Oblique Telescope 30° , diameter 5 mm, length 29 cm, autoclavable , fiber optic light transmission incorporated, color code: red
26003 FEA	HOPKINS® Telescope 45° , enlarged view, diameter 10 mm, length 42 cm, autoclavable , fiber optic light transmission incorporated, color code: black
495 EW	Light Adaptor , angled 90°, diameter 4.8 mm, free rotatable, to connect with standard telescopes
30160 MC	Trocar , with conical tip, insufflation stopcock and multifunctional valve, size 6 mm, working length 10.5 cm, color code: black
30123 GDL	BURGHARDT Double Trocar , 1 mm with blunt tip and 5.5 mm with atraumatic conical tip, working length 15 cm
35444 DFU	CLICK'line® Grasping Forceps , rotating, dismantling, double action jaws, jaws open laterally, atraumatic, CUSCHIERI O-CON sheath curve, coaxially curved downwards, size 5 mm, length 43 cm
33144	CLICK'line® MOURET Metal Handle , axial, rotating, with hemostat style ratchet, without connector pin for unipolar coagulation
26775 CL	CADIERE Coagulation and Dissecting Electrode , insulated sheath, L-shaped, distal tip tapered, with cm-marking, with connector pin for unipolar coagulation, size 5 mm, length 43 cm
34321 MA	CLICK'line® Scissors , rotating, dismantling, double action jaws, serrated, spoon-shaped, curved, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
533 TVA	Adaptor, autoclavable , permits telescope changing under sterile conditions
26175 LN	MOURET Laparoscopic Needle Retractor , size 2.8 mm, working length 30 cm

Containers for the Sterilization and Storage of Telescopes see catalog HYGIENE

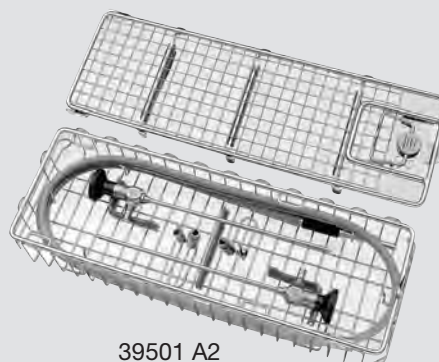
Wire Trays and Containers

for the cleaning, sterilization and storage of telescopes and instruments

Telescopes



39501 A1



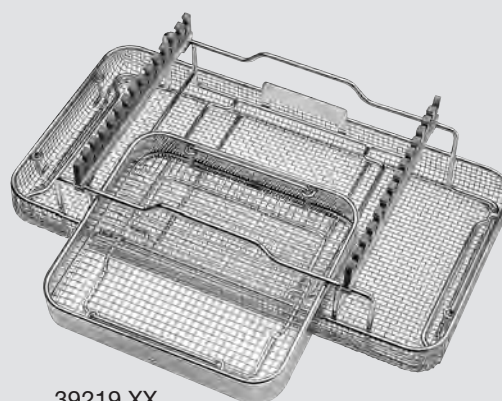
39501 A2

- 39501 A1** **Wire Tray for Cleaning, Sterilization and Storage** of one rigid endoscope, including holder for light post adaptors, silicone telescope holders and lid, external dimensions (w x d x h): 290 x 60 x 52 mm, for rigid endoscopes up to diameter 5 mm and working length 20 cm
- 39501 B1** **Wire Tray for Cleaning, Sterilization and Storage** of one rigid endoscope, including holder for light post adaptors, silicone telescope holders and lid, external dimensions (w x d x h): 430 x 65 x 52 mm, for rigid endoscopes up to diameter 10 mm and working length 34 cm
- 39501 A2** **Wire Tray for Cleaning, Sterilization and Storage** of two rigid endoscopes and one light cable, including holder for light post adaptors, silicone telescope holders and lid, external dimensions (w x d x h): 352 x 125 x 54 mm, for rigid endoscopes up to diameter 10 mm and working length 20 cm
- 39501 B2** **Wire Tray for Cleaning, Sterilization and Storage** of two rigid endoscopes and one light cable, including holder for light post adaptors, silicone telescope holders and lid, external dimensions (w x d x h): 487 x 125 x 54 mm, for rigid endoscopes up to diameter 10 mm and working length 34 cm

Instruments



39752 A2



39219 XX

- 39752 A2** **Sterilization Container**, with MicroStop® microbiological barrier, for sterilization and sterile storage, external dimensions (w x d x h) 600 x 300 x 160 mm, internal dimensions (w x d x h): 548 x 267 x 138 mm
- 39219 XX** **Instrument Rack for Cleaning, Sterilization and Storage** of up to 14 instruments with diameter 2.5 to 10 mm, incl. variable bars with silicone holders, rack with Tray 39502 V for drawer and Wire Tray 39502 X, external dimensions (w x d x h): 480 x 250 x 125 mm

VIDEO ENDOSCOPES, HOPKINS® TELESCOPES Diameters 2 – 10 mm

3D CAMERA PLATFORMS ^{NEW} 23-29



ENDOCAMELEON® 30-31



HOPKINS® TELESCOPES 32-35
Diameters 2 – 10 mm



**HOPKINS® TELESCOPES FOR
FLUORESCENCE-SUPPORTED PERFUSION
EVALUATION USING ICG, Diameter 10 mm** 36-39



HOPKINS® TELESCOPES 40-41
WITH INBUILT WORKING CHANNEL
Diameters 10 – 11 mm



ACCESSORIES 42



3D Camera Platforms

Discover a New World in 3D

Exact depth perception inside the human body is essential for any endoscopic procedure.

Studies¹ have shown that even experienced surgeons benefit from three-dimensional display technology with regard to the duration and precision of an intervention.

The IMAGE1 S 3D system provides excellent depth of field to enable precise hand-eye coordination in three-dimensional vision and simplifies particularly complex endoscopic procedures for the surgeon.

This first-class stereoscopic system from KARL STORZ leads to significant improvements in surgical efficiency and patient safety in the OR.

IMAGE1 S 3D consists of 3D video endoscopes with a 0° or 30° direction of view that are 10 mm in diameter as well as 3D camera modules and 3D monitors with passive-polarized 3D glasses.

The lightweight design makes the 3D video endoscopes easy to use, even after long hours of surgery. Furthermore, the 3D video endoscopes from KARL STORZ are autoclavable.

Two image sensors at the distal end are precisely aligned mechanically. Complemented by precise electronics in the endoscope and camera control unit, the system generates endoscopic 3D images that are true to life.

Combined with 3D monitors, this system offers the surgeon an excellent complete system that makes it easy to switch between 2D and 3D applications.

¹ 3D visualization in medical applications (Fraunhofer-Institut für Nachrichtentechnik, Heinrich-Hertz-Institut HHI, April 2013)



3D Camera Platforms

Overview

3D Monitors



9832 NB-3D
9826 NB-3D

3D Polarization Glasses
3D Clip-on Glasses



9800 GF
9800 GP
9800 C

IMAGE1 S CONNECT

TC 200EN



IMAGE1 S D3-LINK™

TC 302

TIPCAM®1 S 3D LAP in FULL HD



26605 AA/BA

IMAGE1 S 3D in FULL HD ^{NEW}

Camera Control Unit, Link Module

Special Features:

- Forward and backward compatibility with video endoscopes and FULL HD camera heads
- Compatible with all light sources

IMAGE1 S 3D™



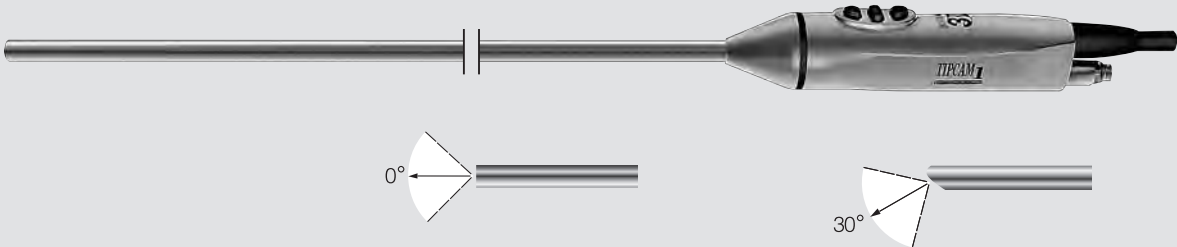
	TC 200EN* IMAGE1 S CONNECT	TC 302 IMAGE1 S D3-LINK™
including:	Mains Cord , length 300 cm DVI-D Connecting Cable , length 300 cm SCB Connecting Cable , length 100 cm USB Flash Drive , 32 GB USB Silicone Keyboard , with touchpad, US	Mains Cord , length 300 cm Link Cable , length 20 cm
for use with:	up to 3 link modules, with integrated KARL STORZ-SCB and digital Image Processing Module	TIPCAM®1 S 3D


Specifications:

Video outputs	2x DVI-D 1920 x 1080 pixels 1x 3G-SDI 1920 x 1080 pixels (level A)	—
Monitor frequency	50/60 Hz	
Remote outputs	optional with TC 009	—
USB ports	4x USB, (2x front, 2x rear)	—
Unit communication	Communication Bus (SCB)	—
Service interface	RJ45	—
Power consumption	62 VA	
Power supply	100 – 120 VAC / 200 – 240 VAC	
Dimensions (w x h x d)	305 x 54 x 320 mm	305 x 54 x 320 mm
Weight	2.1 kg	1.86 kg

* Available in the following languages: DE, EN, ES, FR, IT, PT, RU
Components/Spare Parts see catalog TELEPRESENCE

IMAGE1 S 3D in FULL HD ^{NEW} 3D Video Endoscopes



TIPCAM®1 S 3D LAP	26605 AA	26605 BA
including:	Video Connecting Cables	
for use with:	<div> <div> IMAGE1 S CONNECT TC 200EN* </div> <div> IMAGE1 S D3-LINK™ TC 302 </div> </div> 	

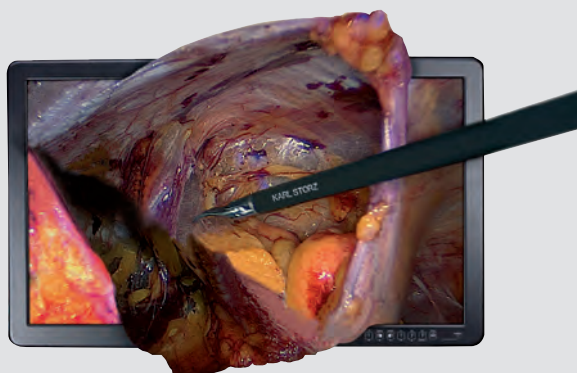
Specifications:

Image sensor	2x FULL HD CMOS, distal	
Focal length	15 – 120 mm	
Direction of view	0°	30°
Outer diameter	10 mm	
Total length	45 cm	
Working length	32 cm	
Video cable	non-detachable, 300 cm	
Cable conduit	straight	
Camera head buttons	freely programmable	
Reprocessing	autoclavable , gas- and plasma-sterilizable	
Weight	420 g	

Components/Spare Parts see catalog TELEPRESENCE

3D Camera Platforms

16:9 FULL HD Monitors



	9826 NB-3D 26" 3D Monitor	9832 NB-3D 32" 3D Monitor
	wall mounting with VESA 100 adaptor, for use with Monitor Stand 9826 SF	with integrated power supply, wall mounting with VESA 200 adaptor, for use with Monitor Stand 9832 SFH
including:	Mains Cord External 24 VDC Power Supply 3x 3D Glasses, passive	Mains Cord 3x 3D Glasses, passive

Specifications:

Screen diagonal	26"	32"
Resolution	1920 x 1080 pixels	
Contrast ratio	1000:1	
Brightness	350 cd/m ² (typ.)	340 cd/m ² (typ.)
Max. viewing angle	178° vertical	
Video inputs	2x DVI-D, 2x HD-SDI, 1x RGBS (VGA), 1x S-Video, 1x Composite	
Video outputs	1x DVI, 2x HD-SDI, 1x S-Video, 1 Composite	
RS-232C connector	for external control (D-Sub 9-pin), RS-232C-compatible	
DC output	DC 5 V 1 A	
Mount	100 mm VESA	200 mm VESA
Power supply	external	internal
Unit properties	4:3, 16:9, Picture-in-Picture	
Monitor frequency	50/60 Hz	
Rated power	72 W	124 W
Power supply	100 – 120 VAC / 200 – 240 VAC	
Dimensions (w x h x d)	643 x 396 x 87 mm	776 x 443 x 114 mm
Weight	7.1 kg	15.5 kg
Monitor stand	optional 9826 SF	optional 9832 SFH

3D Camera Platforms

Accessories

Accessories for IMAGE1 S 3D in FULL HD



USB Silicone Keyboard, with touchpad

Character Sets:

20 0402 40DE German

20 0402 40FR French

20 0402 40IT Italian

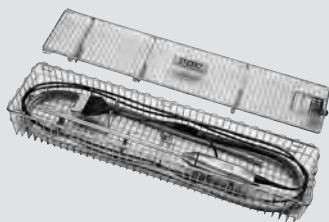
20 0402 40PT Portuguese

20 0402 40ES Spanish

20 0402 40RU Russian

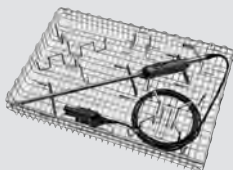
20 0402 40US US-English

Accessories for 3D Video Endoscopes



39501 XTC

Wire Tray for Cleaning, Sterilization and Storage of TIPCAM®1 S 3D LAP Video Endoscopes 26605 AA/BA and one light cable, **autoclavable**, external dimensions (w x d x h): 640 x 150 x 87 mm



39501 TC

Wire Tray for Cleaning, Sterilization and Storage of TIPCAM®1 Video Endoscopes 266x3 AA/BA, TIPCAM®1 3D Video Endoscopes 266x4 AA/BA and one light cable, **autoclavable**, external dimensions (w x d x h): 480 x 320 x 75 mm

Accessories for 3D FULL HD Monitors



9800 GF

3D Polarization Glasses, fogless, passive, package of 2, for use with 3D monitors

9800 GP

3D Polarization Glasses, passive, package of 2, for use with 3D monitors



9800 C

3D Clip-on Glasses, circularly polarized

Please note:

The instruments displayed in the trays are not included in delivery.

Further accessories



20 0402 82 **USB Flash Drive, 32 GB**
20 0402 81 **Same, 4 GB**



495 TIP **Fiber Optic Light Cable**, with straight connector,
extremely heat-resistant, enhanced light
transmission, diameter 4.8 mm, length 300 cm



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



Recommended in combination with IMAGE1 S (CLARA and CHROMA modes)

Telescope with variable direction of view

Until now, surgeons had to choose in advance which telescope or direction of view to use in a procedure. Moreover, surgeons were restricted to the selected direction of view throughout the surgery or had to make an intraoperative telescope change.

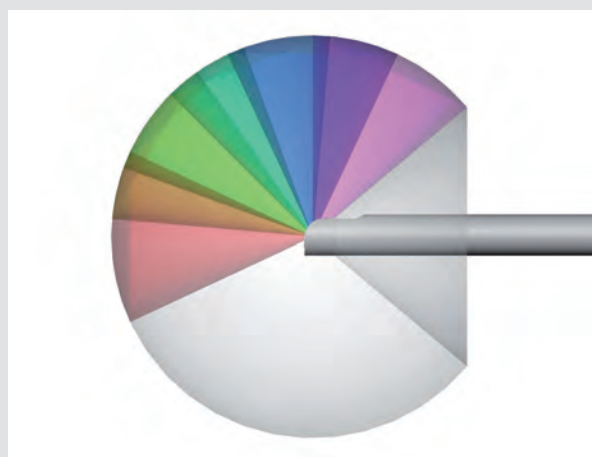
To prevent this predicament in the future, we developed the ENDOCAMELEON®: a telescope that allows you to adjust the desired direction of view – also during surgery – between 0° and 120°.

The ENDOCAMELEON® combines the user comfort of the proven HOPKINS® telescope with the advantages and potential of a telescope featuring a variable direction of view – offering you the quality you expect from KARL STORZ telescopes.

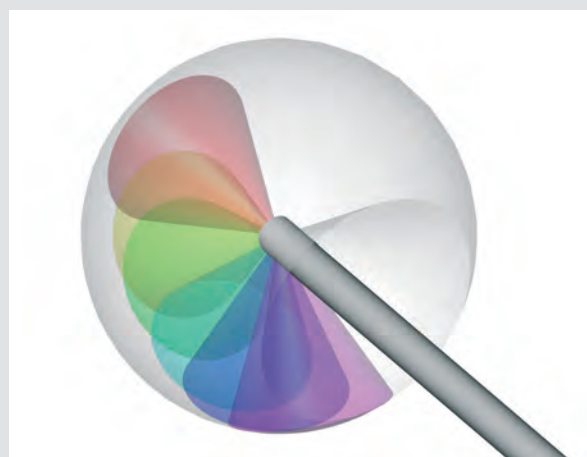
The innovative ENDOCAMELEON® technology is not difficult to use and, due to the external moving parts, does not take up extra intracorporal space. Handling remains straightforward and ergonomic. Image alignment is the same as rigid telescopes: the direction of view is selected by simply turning the adjustment knob, making the system very intuitive to use. As the ENDOCAMELEON® is equipped with a standard eyepiece, the variable direction of view benefits all standard camera systems. Thanks to the HOPKINS® rod lens system, ENDOCAMELEON® also offers image quality that enables a useful application of three-chip cameras or HD camera systems.

To have the direction of view best suited for each situation available at all times offers the surgeon a higher degree of safety. With the ENDOCAMELEON®, visual inspection of the entire surgical field is easily achieved. Instrument movement can be controlled throughout the entire procedure and hemorrhages in

previously inaccessible areas can be detected and controlled. With a simple turn of the adjusting knob, the ENDOCAMELEON® enables the user to easily select the direction of view between 0° and 120° to suit all OR requirements.



ENDOCAMELEON® with variable direction of view, lateral view



ENDOCAMELEON® with variable direction of view, isometric view



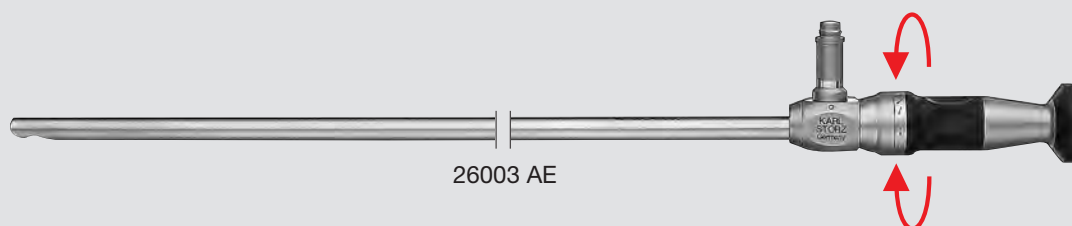
Diameter 10 mm, length 32 cm

Trocar size 11 mm

Recommended in combination with IMAGE1 S (CLARA and CHROMA modes)

Special Features:

- Variable direction of view 0° – 120°
- HOPKINS® telescope with unique rod lens system
- Easy-to-use adjusting knob for selecting the direction of view
- Rigid sheath with a diameter of 10 mm



26003 AE

ENDOCAMELEON® HOPKINS® Telescope,
diameter 10 mm, **length 32 cm, autoclavable,**
variable direction of view from 0° – 120°, adjustment
knob for selecting the desired direction of view, fiber
optic light transmission incorporated,
color code: gold

26003 AEE

Same, length 42 cm

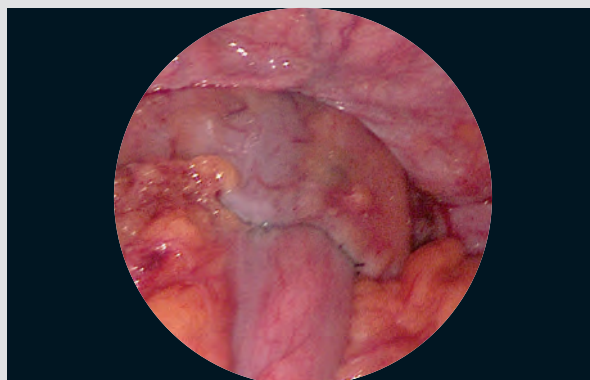


Fig. 1: Rectal anastomosis, angle of view, 30°

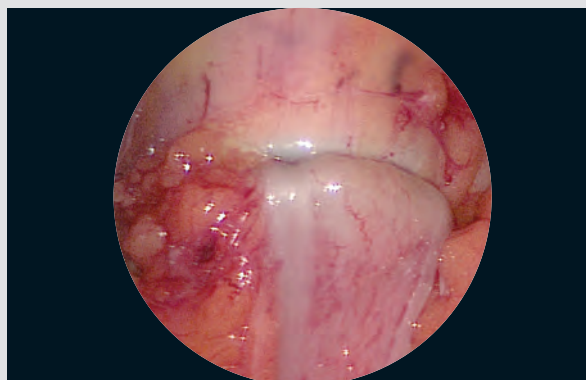
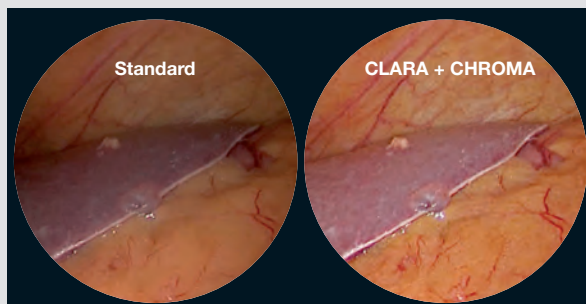
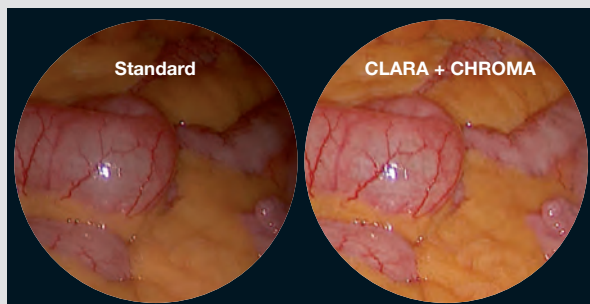


Fig. 2: Rectal anastomosis, angle of view, 80°



Figs. 3/4: Standard endoscopy image compared to IMAGE1 S (CLARA and CHROMA modes)

Figs. 1 and 2: Images courtesy of Prof. Dr. Thomas Carus, Asklepios Westklinikum Hamburg, Germany

Figs. 3 and 4: Images courtesy of Prof. Luigi Boni, University of Insubria Varese, Italy

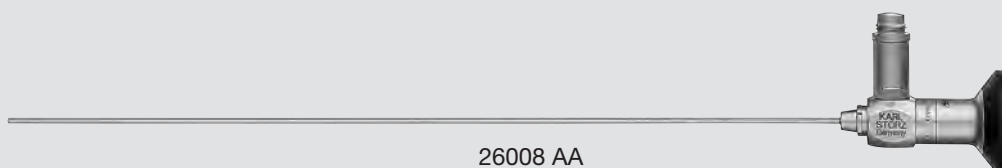
Containers for Sterilization and Storage of Telescopes see catalog HYGIENE

Special Features:

- 2.5x improved image brightness
- Evenly distributed brightness: No decrease of brightness from center to margins
- Less risk of burns to objects: Telescopes require less lamp performance at the same brightness level
- Improved detailed resolution

Diameter 2 mm, length 26 cm

Trocar size 2.5 mm



26008 AA

HOPKINS® Straight Forward Telescope 0°, diameter 2 mm, length 26 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

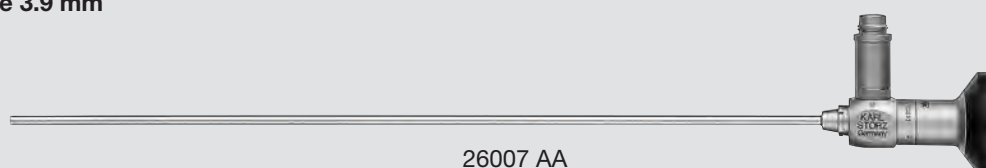


26008 BA

HOPKINS® Forward-Oblique Telescope 30°, diameter 2 mm, length 26 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red

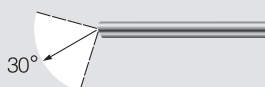
Diameter 3.3 mm, length 25 cm

Trocar size 3.9 mm



26007 AA

HOPKINS® Straight Forward Telescope 0°, enlarged view, diameter 3.3 mm, length 25 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



26007 BA

HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 3.3 mm, length 25 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red

Trocars for use with telescopes with diameter 2 mm see pages 55 and 62

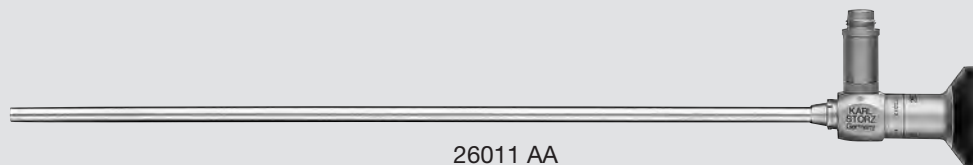
Trocars for use with telescopes with diameter 3.3 mm see pages 48 and 63

Containers for Sterilization and Storage of Telescopes see catalog HYGIENE



Diameter 5 mm, length 24 cm

Trocar size 6 mm

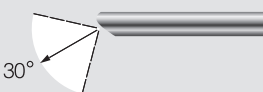


26011 AA



26011 AA

HOPKINS® Straight Forward Telescope 0°, enlarged view, diameter 5 mm, length 24 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

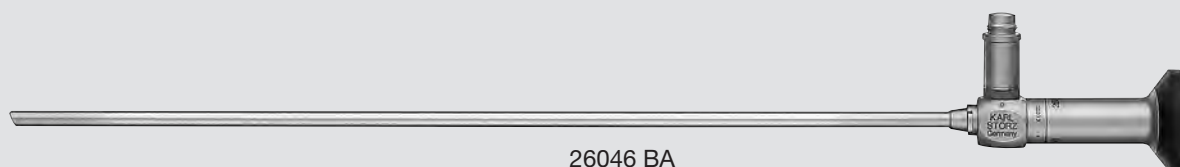


26011 BA

HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 5 mm, length 24 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red

Diameter 5 mm, length 29 cm

Trocar size 6 mm

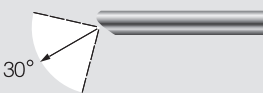


26046 BA



26046 AA

HOPKINS® Straight Forward Telescope 0°, enlarged view, diameter 5 mm, length 29 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



26046 BA

HOPKINS® Forward-Oblique Telescope 30°, diameter 5 mm, length 29 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red



26046 FA

HOPKINS® Telescope 45°, enlarged view, diameter 5 mm, length 29 cm, **autoclavable**, fiber optic light transmission incorporated, color code: black

Trocars for use with telescopes with diameter 5 mm see pages 49-50, 57, 61, 64, 69 and 74
Containers for Sterilization and Storage of Telescopes see catalog HYGIENE

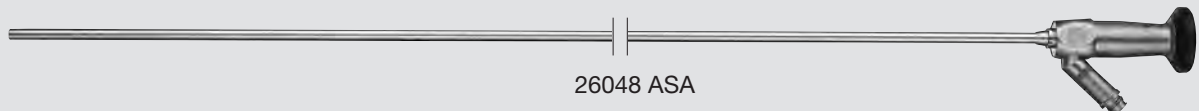
HOPKINS® Telescopes

Diameter 5.5 mm, length 50 cm

Trocar size 6 mm

Recommended for use in S-PORTAL® procedures

S-PORTAL
SINGLE-PORTAL-ACCESS

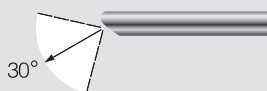


26048 ASA



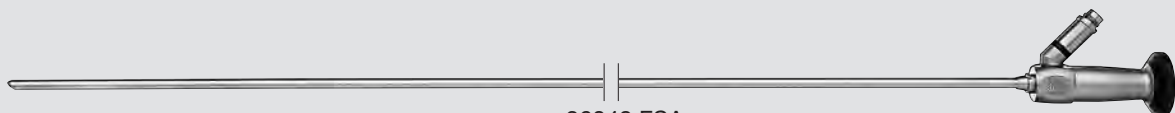
26048 ASA

HOPKINS® Straight Forward Telescope 0°, diameter 5.5 mm, length 50 cm, **autoclavable**, fiber optic light transmission incorporated, light connection offset by 180° and angled 45°, color code: green



26048 BSA

HOPKINS® Forward-Oblique Telescope 30°, diameter 5.5 mm, length 50 cm, **autoclavable**, fiber optic light transmission incorporated, light connection offset by 180° and angled 45°, color code: red



26048 FSA



26048 FSA

HOPKINS® Telescope 45°, diameter 5.5 mm, length 50 cm, **autoclavable**, fiber optic light transmission incorporated, light connection angled 45°, color code: black

S-PORTAL® Port Systems see chapter 10

Containers for Sterilization and Storage of Telescopes see catalog HYGIENE

HOPKINS® Telescopes

Diameter 10 mm, length 31 cm

Trocar size 11 mm



26003 AA



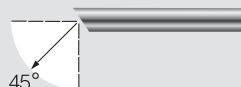
26003 AA

HOPKINS® Straight Forward Telescope 0°, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



26003 BA

HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red



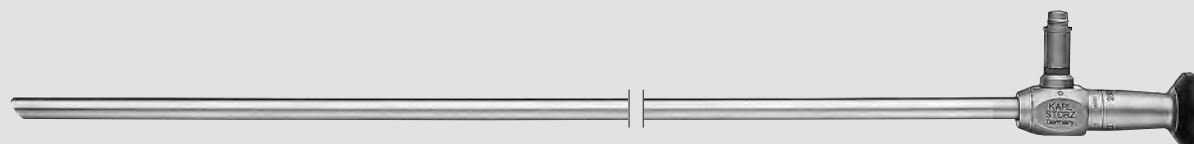
26003 FA

HOPKINS® Telescope 45°, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, fiber optic light transmission incorporated, color code: black

Diameter 10 mm, length 42 cm

Trocar size 11 mm

Recommended for use for surgery in the adipose patient

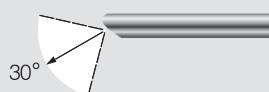


26003 BEA



26003 AEA

HOPKINS® Straight Forward Telescope 0°, enlarged view, diameter 10 mm, length 42 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



26003 BEA

HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 10 mm, length 42 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red



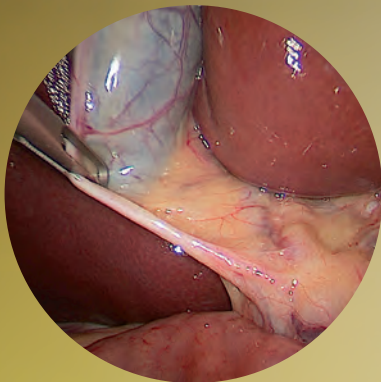
26003 FEA

HOPKINS® Telescope 45°, enlarged view, diameter 10 mm, length 42 cm, **autoclavable**, fiber optic light transmission incorporated, color code: black

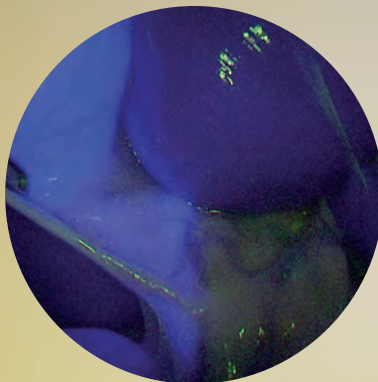
Trocars for use with telescopes with diameter 10 mm, see pages 51-52, 58, 65, 70-71 and 74
Containers for Sterilization and Storage of Telescopes see catalog HYGIENE

HOPKINS® Telescopes

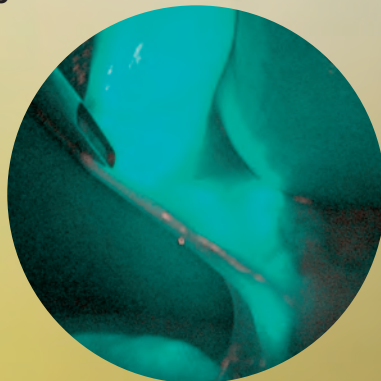
for fluorescence-supported perfusion evaluation using ICG,
diameter 10 mm



White light mode



ICG mode



ICG/Spectra A mode



Indocyanine green (ICG) is a photographic dye that is used as a fluorescence marker in fluorescence imaging. Due to its ability to bind to plasma proteins, ICG remains in the vascular system and so enables the evaluation of circulation in tissues and organs.

The new high-performance light source D-LIGHT P from KARL STORZ, in conjunction with a precise camera system and specialized endoscopic telescopes, adapts the requirements of fluorescence imaging to ICG. Consequently, ICG-based fluorescence diagnosis can now be used in endoscopic applications, which was only possible in open surgical procedures for a long time.

The ICG system can be used for multiple disciplines, including blood flow diagnosis of tissues and organs or for detecting sentinel lymph nodes during tumor resection.

Experience has been gained with the ICG system for the control of anastomoses in rectal or bariatric surgery and flap transplants.

The ICG system is easy to use. All components are suitable for universal use for both fluorescence and pure white light applications.



Fig. 1



Fig. 2

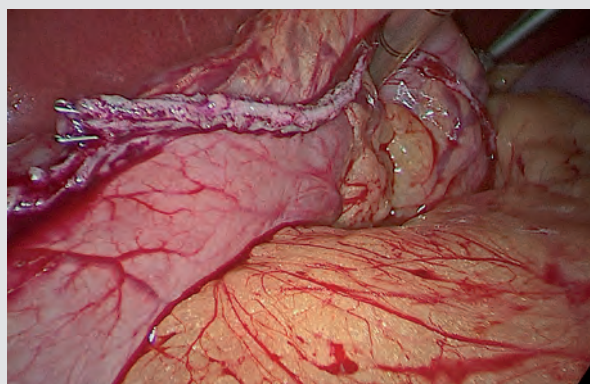


Fig. 3

White light mode



Fig. 4

ICG mode

Endoscopic procedure combined with fluorescence marker indocyanine green (ICG) enables the perfusion evaluation, for example, of suspected ischemia (Fig. 1 and Fig. 2) or anastomoses following colorectal or bariatric surgery (Fig. 3 and Fig. 4).

The perfused tissue fluoresces in blue, enabling good differentiation from adipose tissue.

*Images and captions courtesy of
Prof. Dr. T. CARUS, Asklepios Westklinikum Hamburg,
Germany*

Visualization of the Biliary System

Intravenously administered ICG naturally collects in the biliary system. The KARL STORZ ICG imaging platform enables illumination of the collected ICG and thus rapid identification of the biliary system anatomy. A doctor can then easily transition between white light and ICG fluorescence modalities at the click of a button to navigate through the cholecystectomy quickly and easily.

The KARL STORZ ICG imaging system presents the following key benefits for cholecystectomy procedures:

- Visualization beyond the tissue surface in real time
- Fluorescence-guided anatomical mapping

- More effective use of surgical time and improved surgical outcomes
- Empowers the surgeon with greater awareness to provide better patient care

With the IMAGE1 S ICG system, we can now virtually “navigate” the anatomy of the extrahepatic biliary tree and obtain a fluorescence cholangiography in real time, eliminating the need for dissection or cannulation of the cystic duct. The new D-LIGHT P enhances visualization and thus enables work in the near-infrared mode.

*Prof. L. BONI, University of Insubria,
Varese, Italy*

Fluorescence-guided identification of the biliary system during a laparoscopic cholecystectomy

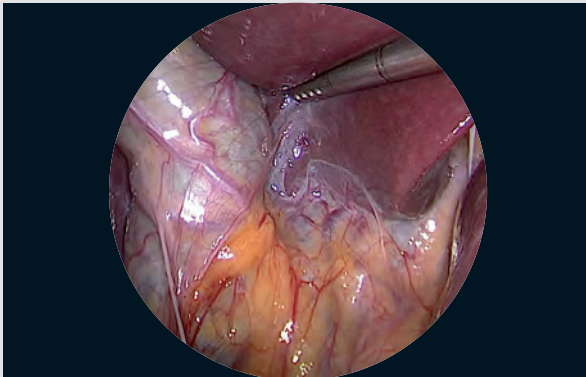


Fig. 1: White light mode

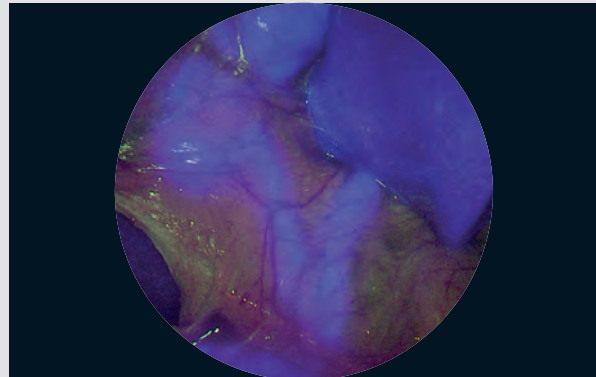


Fig. 2: ICG mode

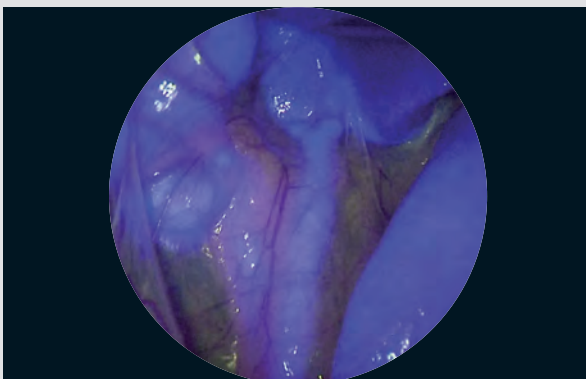


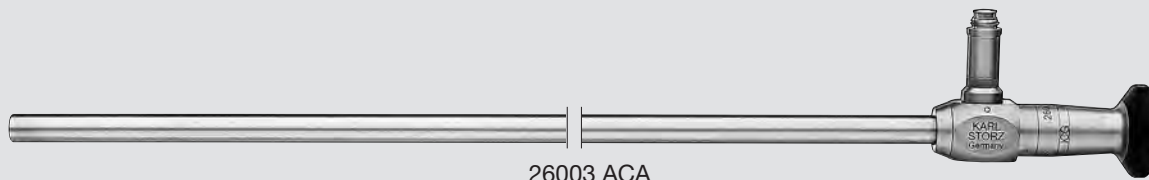
Fig. 3: ICG mode

HOPKINS® Telescopes

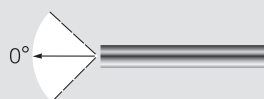
for fluorescence-supported perfusion evaluation using ICG

Diameter 10 mm, length 31 cm

Trocar size 11 mm

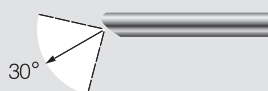


26003 ACA



26003 ACA
NEW

HOPKINS® Straight Forward Telescope 0°, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, for indocyanine green (ICG), fiber optic light transmission incorporated, for use with Fiber Optic Light Cable 495 NCSC, Fluid Light Cable 495 FQ/FR and Cold Light Fountain D-LIGHT P SCB **20** 1337 01-1, color code: green



26003 BCA
NEW

HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, for indocyanine green (ICG), fiber optic light transmission incorporated, for use with Fiber Optic Light Cable 495 NCSC, Fluid Light Cable 495 FQ/FR and Cold Light Fountain D-LIGHT P SCB **20** 1337 01-1, color code: red

Recommended light cables for fluorescence-supported perfusion evaluation using ICG

495 FQ	Fluid Light Cable , diameter 5 mm, length 180 cm
495 FR	Fluid Light Cable , diameter 5 mm, length 250 cm
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

D-LIGHT P-System for Autofluorescence and ICG Fluorescence see catalog TELEPRESENCE
Trocars for use with telescopes with diameter 10 mm see pages 51-52, 58, 65, 70-71 and 74
Containers for Sterilization and Storage of Telescopes see catalog HYGIENE

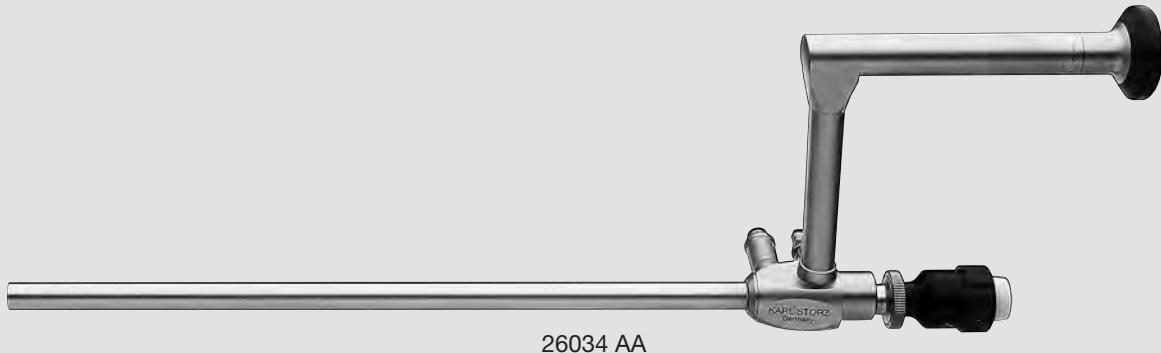
HOPKINS® Telescopes

with inbuilt working channel 6 mm

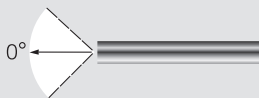
Diameter 10 mm, length 27 cm

Trocar size 11 mm

for use with CLICKline®, TAKE APART® and ROBI® instruments size 5 mm and length 43 cm

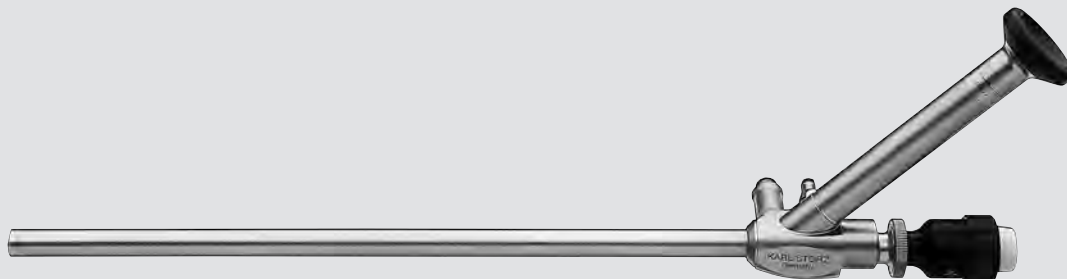


26034 AA

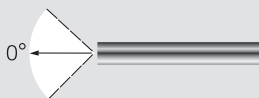


26034 AA

HOPKINS® Straight Forward Telescope 0°, with parallel eyepiece, diameter 10 mm, length 27 cm, **autoclavable**, fiber optic light transmission incorporated, **with 6 mm working channel**



26038 AA



26038 AA

HOPKINS® Straight Forward Telescope 0°, with angled eyepiece, diameter 10 mm, length 27 cm, **autoclavable**, fiber optic light transmission incorporated, **with 6 mm working channel**

Please note:

The HOPKINS® telescopes shown on this page are also available with a connection for the fiber optic light cable on the opposite side. If you wish to order this design, please add the letter “U” to the order number, e. g. 26034 AUA.

Trocars for use with telescopes with diameter 10 mm see pages 51-52, 58, 65, 70-71 and 74

Containers for Sterilization and Storage of Telescopes see catalog HYGIENE

HOPKINS® Telescopes

with inbuilt working channel 7.5 mm

Diameter 11 mm, length 27.5 cm

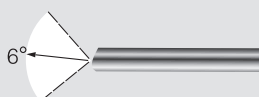
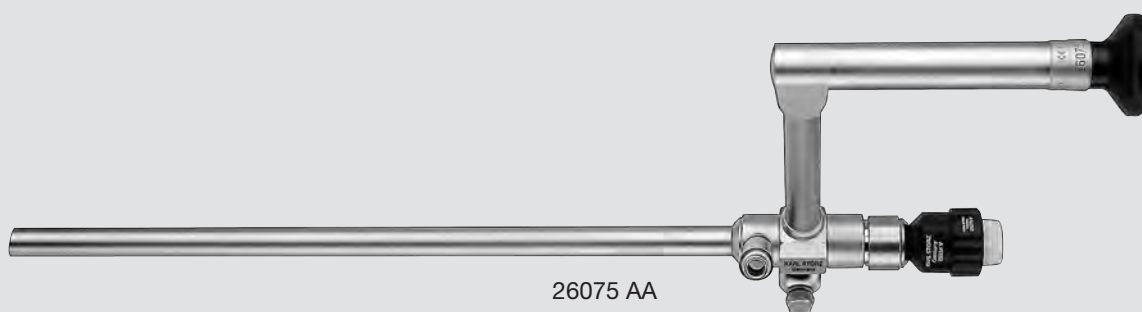
Trocar size 13.5 mm

Special Features:

The HOPKINS® telescope with 7.5 mm working channel enables the use of a:

- Ring applicator with loaded rings
- Operating instruments up to diameter 7 mm

- HICAP® insufflation connection – essential feature for the efficient removal of vapor



26075 AA

HOPKINS® Wide Angle Straight Forward Telescope 6°, with parallel eyepiece, diameter 11 mm, length 27.5 cm, **autoclavable**, fiber optic light transmission incorporated, **with 7.5 mm working channel**

Trocars for use with telescopes with diameter 11 mm see pages 59, 72 and 74
Containers for Sterilization and Storage of Telescopes see catalog HYGIENE

Fiber Optic Light Cables and Antifog Solution

Fiber Optic Light Cables with Straight Connector

Light Cable and Endoscope Combination



Please note: Symbol coding on the light cable and endoscope allows easier identification and light cable/endoscope combination.

	Light Cable Diameter	Endoscope Diameter		
	2 – 2.5 mm	0.8 – 2.9 mm	495 NT	Fiber Optic Light Cable , diameter 2.5 mm, length 180 cm
			495 NTA	Fiber Optic Light Cable , diameter 2.5 mm, length 230 cm
	3 – 3.5 mm	3 – 6.5 mm	495 NL	Fiber Optic Light Cable , diameter 3.5 mm, length 180 cm
			495 NA	Fiber Optic Light Cable , diameter 3.5 mm, length 230 cm
			495 NAC NEW	Fiber Optic Light Cable , diameter 3.5 mm, length 230 cm, extremely heat-resistant, with safety lock, enhanced light transmission, can be used for ICG applications
			495 ND	Fiber Optic Light Cable , diameter 3.5 mm, length 300 cm
	4.8 – 5 mm	10 – 11 mm	495 NB	Fiber Optic Light Cable , diameter 4.8 mm, length 180 cm
			495 NCS	Fiber Optic Light Cable , diameter 4.8 mm, length 250 cm, extremely heat-resistant, enhanced light transmission
			495 NCSC NEW	Fiber Optic Light Cable , diameter 4.8 mm, length 250 cm, extremely heat-resistant, with safety lock
			495 NE	Fiber Optic Light Cable , diameter 4.8 mm, length 300 cm

Antifog Solution



15006 B

15006 C

15006 D

- 15006 B
“ULTRA STOP” Antifog Solution, 25 ml, pipette bottle
- 15006 C
Same, 30 ml, sterile pierce bottle
- 15006 D
Same, 15 ml, atomizer bottle

Adaptor for connecting KARL STORZ fiber optic light cables with endoscopes and light sources from other manufacturers see catalog TELEPRESENCE

TROCARS FOR LAPAROSCOPY

Sizes 2.5 – 22 mm and PORT SYSTEMS

OPEN LAPAROSCOPY 45



TERNAMIAN EndoTIP CANNULAS 46-52
Sizes 3.9 – 11 mm



VERESS PNEUMOPERITONEUM NEEDLES. 53



TROCARS 54-74
Sizes 2.5 – 22 mm



PORT SYSTEMS FOR S-PORTAL® 75



ACCESSORIES 76-78



Trocars for Laparoscopy

Special Features:

- Stainless steel
- Autoclavable
- **Oblique end:** Cannulas with an oblique end allow smooth and atraumatic entry and perforation of the peritoneum.
- With and without **stopcock for insufflation** and therefore also suitable for “single-site” surgical procedures
- **Color coding:** for easier identification of different sizes and lengths
- **TERNAMIAN EndoTIP System:**
With the TERNAMIAN EndoTIP System, KARL STORZ presents a reusable instrument which provides entry into the abdominal cavity under visual control. The TERNAMIAN EndoTIP System replaces standard trocars while preserving the integrity of both the fascia and the fascial shutter mechanism.

- Trocars with pyramidal, blunt, conical or a combination of tips. Conical trocar tips prevent hematoma caused by muscular or vascular injury.

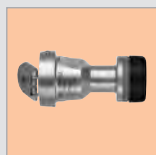


The **SCARFI Trocar** has a combined pyramidal, blunt and conical tip that ensures atraumatic yet smooth introduction of the trocar.



The **MOTSON Trocar** features an atraumatic conical-blunt tip to ensure safe trocar entry.

Trocars with flap valves (automatic and multifunctional):

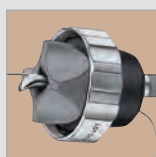


Trocars with **automatic valves** allow rapid and easy insertion of instruments without any significant loss of gas resulting from valves being opened prematurely. Sharp instruments, such as needles, hook dissectors or knives may become blunt as a result of repeated contact with the valve flap.



To prevent this sort of wear from occurring, KARL STORZ developed the **multifunctional valve** which can be opened both automatically and manually. When blunt instruments are inserted, the valve flaps open automatically. When inserting sharp instruments, the valve can be opened manually (by applying finger pressure). This effectively prolongs the service life of sharp instruments.

Trocars with silicone leaflet valves



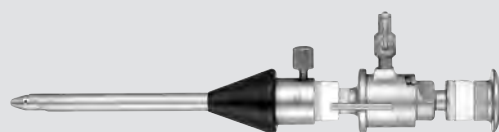
The **silicone leaflet valve** from KARL STORZ also offers a cost-effective and lightweight alternative to the trocar valves described above, which also ensures quick and easy cleaning and exchange. It is suitable for pediatric surgery as well as both extracorporeal and intracorporeal suturing techniques with conventional suture material using straight and curved needles. The elastic silicone leaflet valve seals off the cannula while preventing damage to the introduced suture threads.

Trocars with valve seal ^{NEW}



The new **valve seal** is a one-piece sealing system that is designed for single use (unsterile). Its lightweight construction and very low friction between the seal and the instrument allows precise and delicate work.

For **KARL STORZ trocars** only the individual components are numbered. The catalog number for the **entire assembled trocar**, as shown in the table in **bold print**, does not appear on the instrument.



30103 AO

- 30103 AO **Trocar**, size 11 mm,
color code: green
including:
Cannula, with 2 flanges for fixation of
sutures, adjustable cone, with insufflation
stopcock, working length 13 cm
Trocar only, with blunt tip
Automatic Valve
Cone



30103 CM1

- 30103 CM1 **Metal Cone**, with lateral suture anchor,
for trocars size 11 mm,
color code: green



30160 C3

- 30160 C3 **Cone**, ribbed, with 2 discs for fixation of
sutures, for trocars size 6 mm,
color code: black
30103 C3 **Same**, size 11 mm,
color code: green



26031 SO

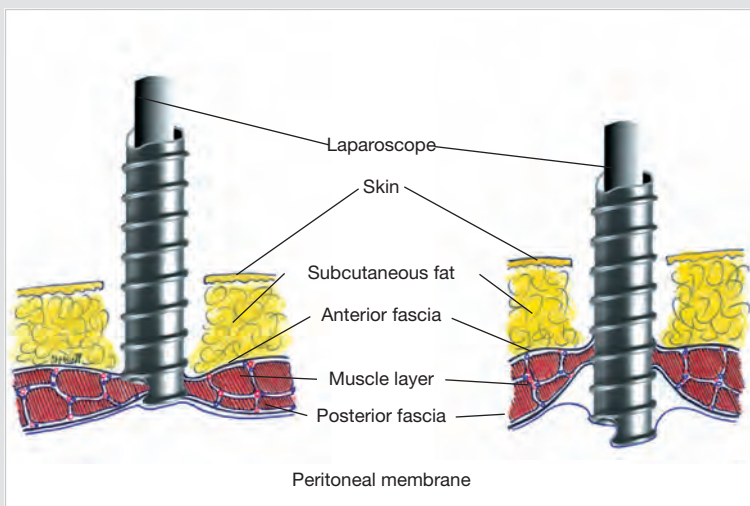
- 26031 SO **Retractor**, S-shaped, 2 pieces,
length 17 cm

Trocars with blunt tip see pages 57, 58, 64, 65, 69, 70 and 74
Components/Spare Parts see chapter 21

TERNAMIAN EndoTIP System

The TERNAMIAN **EndoTIP** System (Endoscopic Threaded Imaging Port) is a new KARL STORZ instrument for optically controllable access to the abdominal cavity. It replaces conventional trocars and, due to its unique design, offers a range of notable advantages for both surgeon and patient.

- The tissue is not cut through as it is when punctured with a conventional trocar, but is merely displaced. The integrity of the fasciae is preserved, and, therefore, that of the fascial closure mechanism.
- As sharp points or cutting trocars are not used, the risk of unintentional injuries to the patient is eliminated.
- Since the TERNAMIAN **EndoTIP** System is not pushed into the peritoneum by applying pressure, but is introduced by controlled rotation, injuries to organs caused by uncontrolled penetration of the abdominal wall are virtually impossible.
- In conjunction with a HOPKINS® Telescope, the surgeon has an excellent, enlarged image of the point of

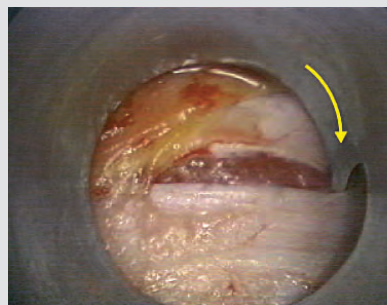


penetration and is, therefore, able to carefully monitor the penetration under optical control. The various tissue layers can be identified precisely.

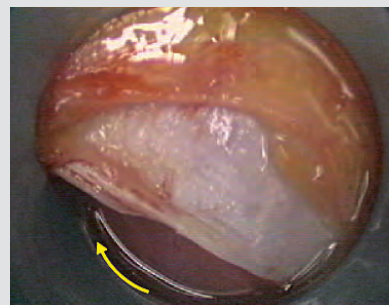
- The special design of the TERNAMIAN **EndoTIP** System ensures a secure hold in the abdominal wall and prevents gas loss at the point of penetration.



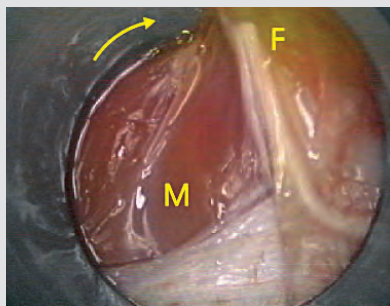
A small horizontal anterior rectus fascial incision is made under magnified video control. Blunt cannula tip (T).



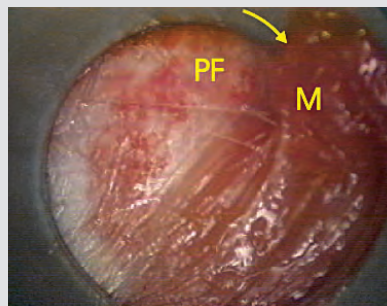
The TERNAMIAN **EndoTIP** cannula is engaged in the anterior rectus fascial window and rotated clockwise.



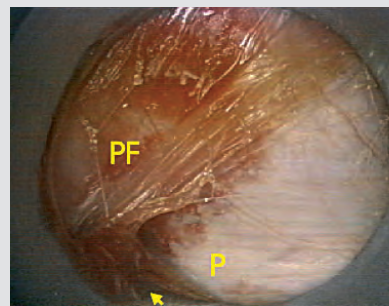
Under clear visual control the cannula advances atraumatically without applying axial penetration force.



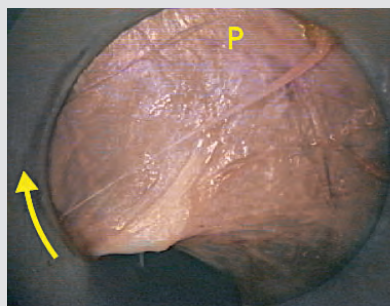
Rotation stretches radially, transposes and then lifts the anterior rectus fascia (F) and muscle (M) on to the cannula's outer thread.



The rectus muscle (M) is transposed laterally to expose the posterior rectus fascia (PF).



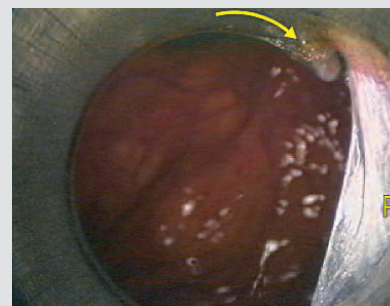
Further rotation will lift the posterior rectus fascia (PF) and advance the cannula to the pre-peritoneal space (P).



The thin peritoneal membrane transilluminates and appears blue-gray in color (P).



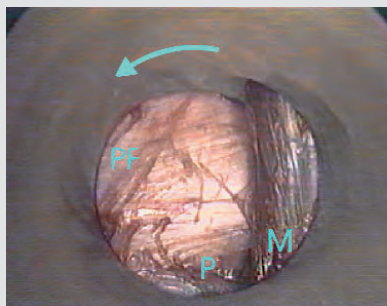
Continuous video control demonstrates different entry and exit layers clearly. This unique feature of the TERNAMIAN EndoTIP System allows the surgeon to stop advancing the cannula if bowel, vessels or adhesions are observed.



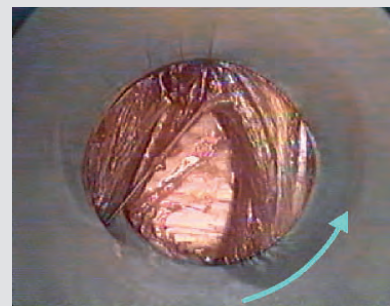
Access is under magnified visual control and atraumatic. Fascia and muscle fibers are not transected. The cannula's thread acts as a stabilizer to prevent slippage and discourage CO₂ leakage.



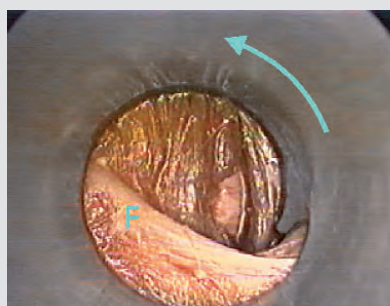
When the surgery is completed the cannula is rotated counter-clockwise. The different tissue layers disengage from the outer thread to converge in perfect apposition.



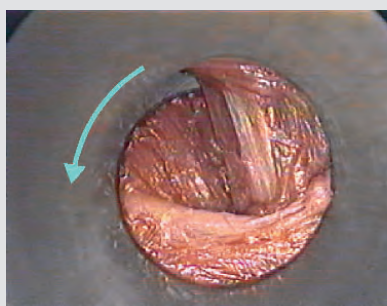
The peritoneum appears first (P), followed by the posterior rectus fascia (PF), rectus muscle (M), and then the anterior rectus fascia.



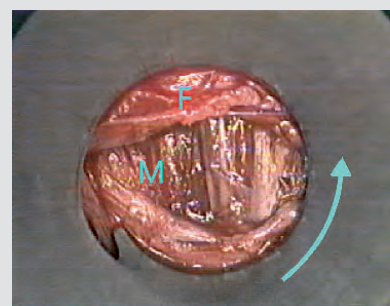
The rectus muscle fibers meet vertically to seal the peritoneal window, while the anterior rectus fascia shuts horizontally, to restore the natural tissue fiber orientation.



Since access is under visual control, hiatal or omental herniation along the cannula's tract is avoided. Lower half of anterior rectus fascia (F).



As sharp instruments or trocars are not used, muscle and fascial fibers are not transected and no tripolar fascial rent is sustained.



Tissue integrity is preserved at the access and exit site, maintaining the natural muscle shutter-mechanism.



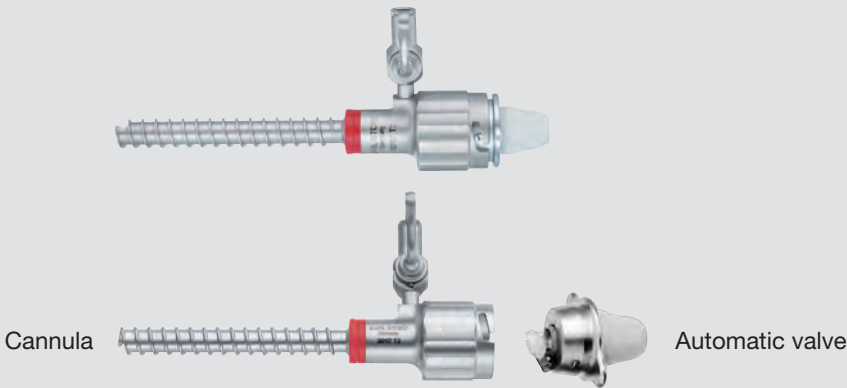
Video

TERNAMIAN EndoTIP Cannulas

Size 3.9 mm

For use with instruments size 3/3.5 mm
and telescopes diameter 3.3 mm

US patents 5,478,329 and 5,630,805



Size:		3.9 mm
Working length:		5 cm
Color code:		red
	TERNAMIAN EndoTIP Cannula including: Cannula , with thread and insufflation stopcock Automatic Valve	30117 MT
		30117 T2
		30117 A1
Accessory 	Telescope Stopper , sterile, for single use, package of 12	30117 CS

Telescopes for use with TERNAMIAN EndoTIP cannulas, size 3.9 mm see page 32

TERNAMIAN EndoTIP Cannulas

Size 6 mm

NEW

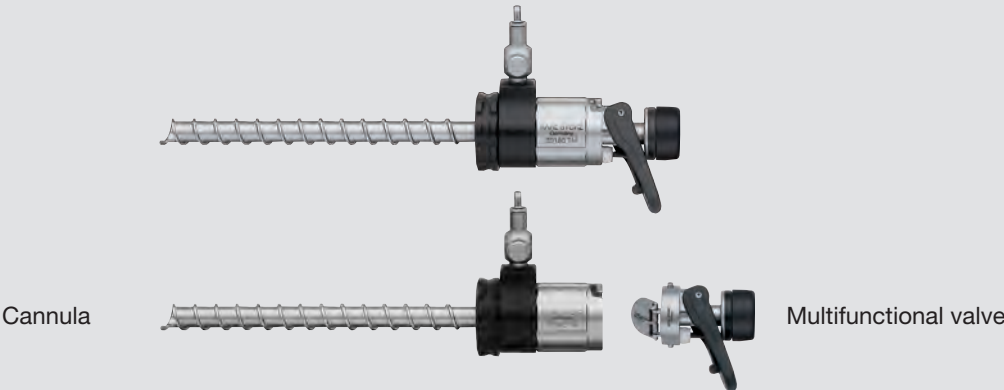
For use with instruments and
telescopes diameter 5 mm

US patents 5,478,329 and 5,630,805



Special Features:

- Detachable stopcock housing
- Weight reduction due to plastic housing
- Color coding of housing indicates sizes
(6 mm black/11 mm green)



Size:		6 mm	
Working length:		8.5 cm	10.5 cm
Color code:		black	black
	TERNAMIAN EndoTIP Cannula	30160 TKR	30160 TMR
	including:		
	Cannula, with thread and rotatable insufflation stopcock	30160 TK	30160 TM
Multifunctional Valve		30160 M1	30160 M1
Accessory	Telescope Stopper, sterile, for single use, package of 12	30160 CS	

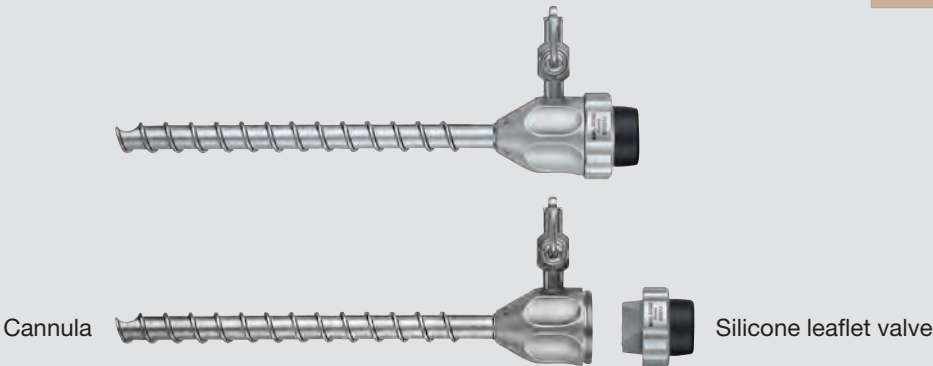
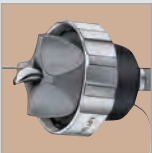
Telescopes for use with TERNAMIAN EndoTIP cannulas, size 6 mm see page 33
HEINKEL-SEMM Dilation Set see page 78, Accessories for Trocars see pages 76-77

TERNAMIAN EndoTIP Cannulas

Size 6 mm

For use with instruments and telescopes diameter 5 mm

US patents 5,478,329 and 5,630,805



Size:		6 mm	
Working length:		6.5 cm	10.5 cm
Color code:		black	black
	TERNAMIAN EndoTIP Cannula including: Cannula , with thread and insufflation stopcock Silicone Leaflet Valve	30120 MSS	30120 MLS
		30120 T9	30120 T8
		30120 L1	30120 L1
Accessory 	Telescope Stopper , sterile, for single use, package of 12	30160 CS	

Telescopes for use with TERNAMIAN **EndoTIP** cannulas, size 6 mm see page 33
 HEINKEL-SEMM **Dilation Set** see page 78, **Accessories for Trocars** see pages 77-78

TERNAMIAN EndoTIP Cannulas ^{NEW}

Size 11 mm

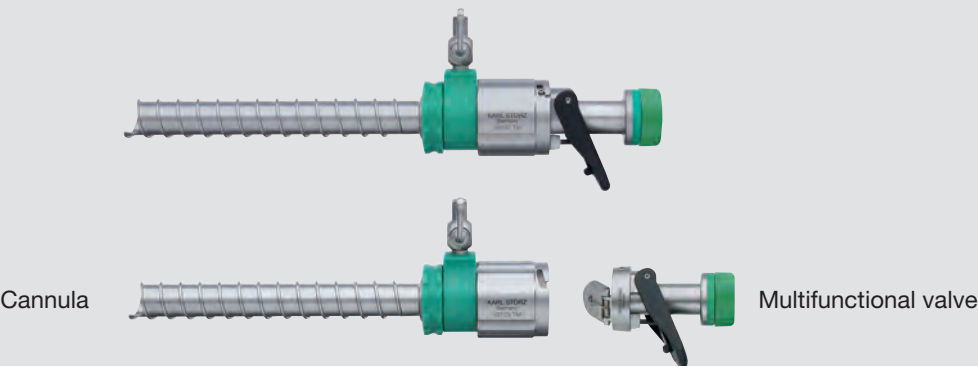
For use with telescopes diameter 10 mm

US patents 5,478,329 and 5,630,805



Special Features:

- Detachable stopcock housing
- Weight reduction due to plastic housing
- Color coding of housing indicates sizes (6 mm black/11 mm green)



Size:		11 mm
Working length:		10.5 cm
Color code:		green
	TERNAMIAN EndoTIP Cannula including: Cannula , with thread and rotatable insufflation stopcock Multifunctional Valve	30103 TMR
		30103 TM
		30103 M1
Accessory 	Telescope Stopper , sterile, for single use, package of 12	30103 CS

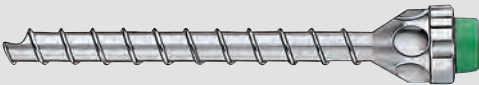
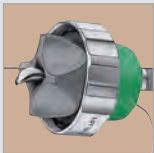
Telescopes for use with TERNAMIAN EndoTIP cannulas, size 11 mm see pages 31, 35, 38-40
HEINKEL-SEMM Dilation Set see page 78, **Accessories for Trocars** see pages 76-77

TERNAMIAN EndoTIP Cannulas

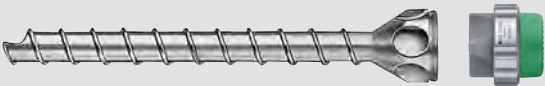
Size 11 mm

For use with telescopes diameter 10 mm




US patents 5,478,329 and 5,630,805



Cannula

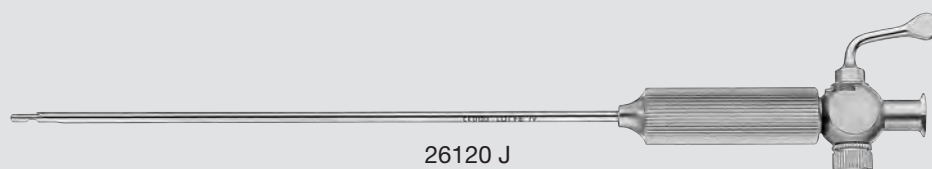


Silicone leaflet valve

Size:		11 mm
Working length:		10.5 cm
Color code:		green
	TERNAMIAN EndoTIP Cannula including: Cannula , with thread, without insufflation stopcock Silicone Leaflet Valve	30103 ML
		30103 T6
		30103 L1
Accessory 	Telescope Stopper , sterile, for single use, package of 12 	30103 CS

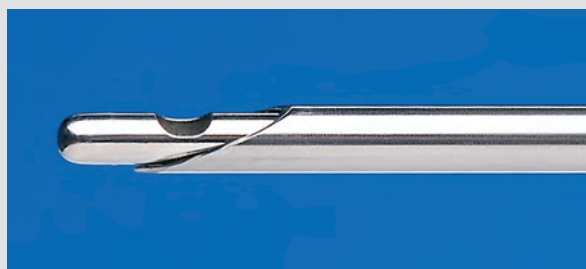
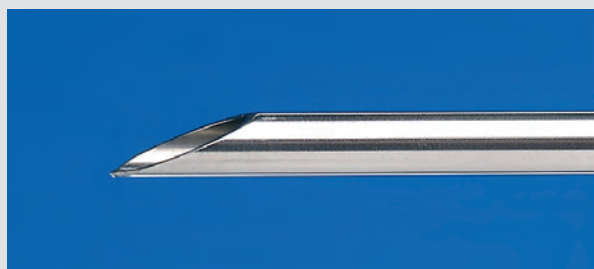
Telescopes for use with TERNAMIAN EndoTIP cannulas, size 11 mm see pages 31, 35, 38-40
 HEINKEL-SEMM Dilation Set see page 78, Accessories for Trocars see pages 76-77

VERESS Pneumoperitoneum Needles



26120 J

26120 JK	VERESS Pneumoperitoneum Needle , with spring-loaded blunt inner cannula, LUER-Lock, autoclavable , diameter 2.1 mm, length 7 cm
26120 J	Same , length 10 cm
26120 JL	Same , length 13 cm
26120 JLL	Same , length 15 cm
26120 XL	Same , length 18 cm



Insufflation Units for use with VERESS Pneumoperitoneum Needles see chapter 20, UNITS

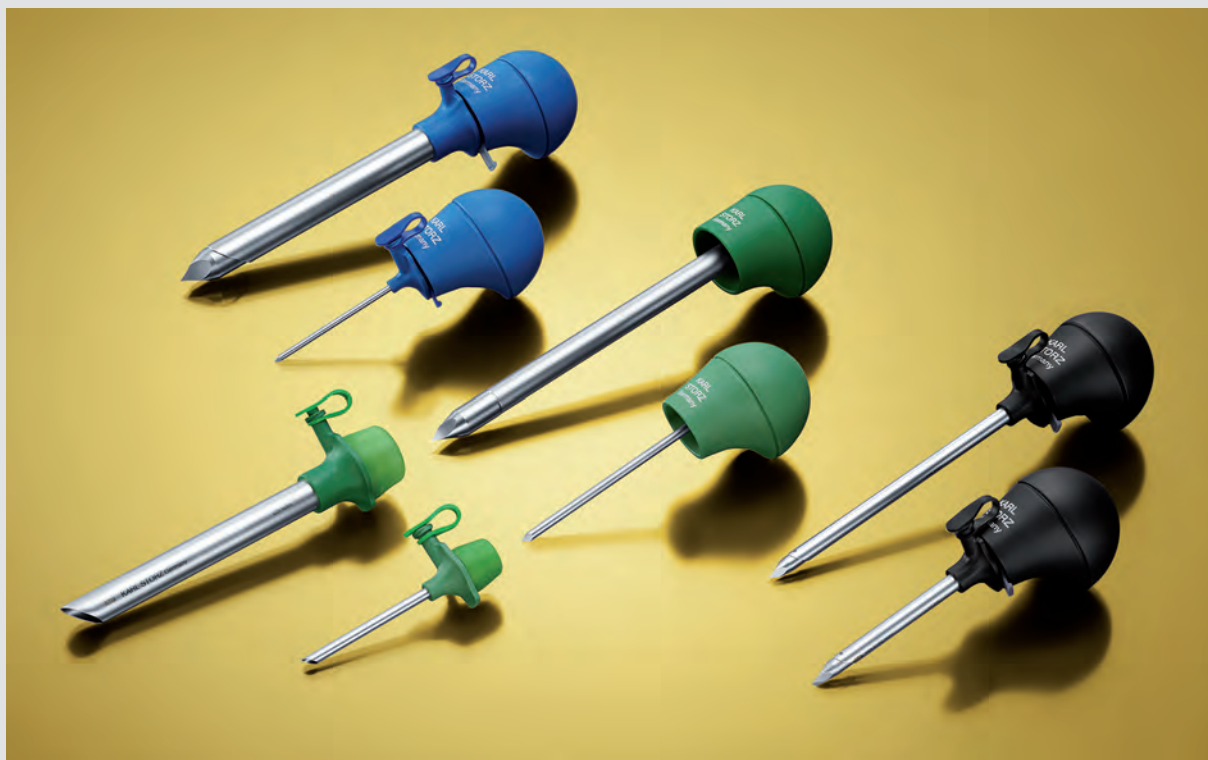
Trocars for Laparoscopy ^{NEW}

Special Features:

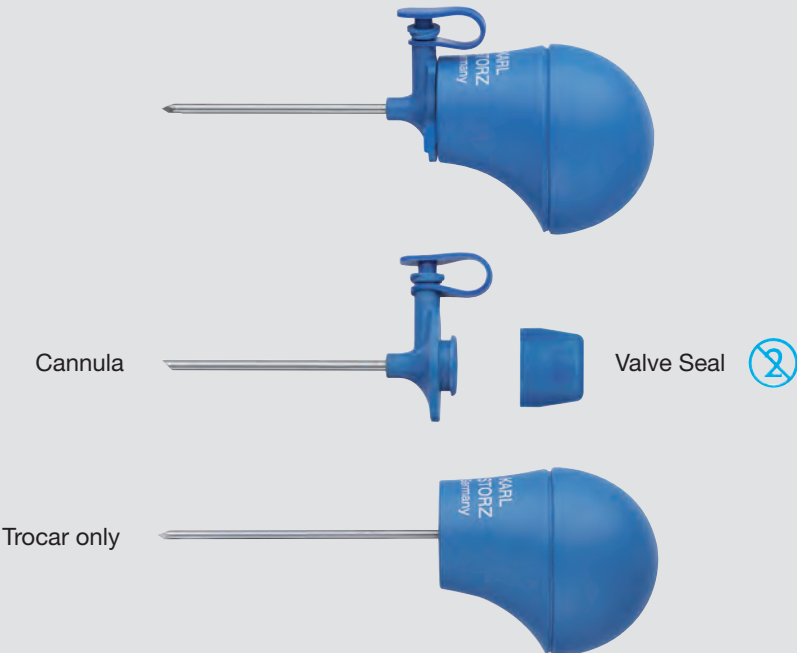
- Ergonomic trocar design (ergonomically shaped trocar head) ensures a secure grip of the trocar during placement
- Good balance (optimal weight distribution in the distal and proximal ends) thanks to lightweight design
- Trocar housing and proximal end of the trocar made of colored plastic
- Color coded in blue, green and black according to trocar size
- Valve seal for single use, included with each trocar set in packages of 10 (unsterile)
- Low friction between seal and instrument
- Cannula is safely anchored in the abdominal wall
- Trocars are available in sizes 2.5 mm, 3.5 mm and 6 mm with a length of 5 cm for laparoscopy in pediatric surgery as well as in sizes 3.5 mm, 6 mm, 11 mm and 13.5 mm with a length of 10 cm for laparoscopy in adults
- Reducer 30141 RS for trocars sizes 11 mm and 13.5 mm (see accessories page 77)




The new **valve seal** is a one-piece sealing system that is designed for single use (unsterile). Its lightweight construction and very low friction between the seal and the instrument allows precise and delicate work.



For use with instruments size 2 mm



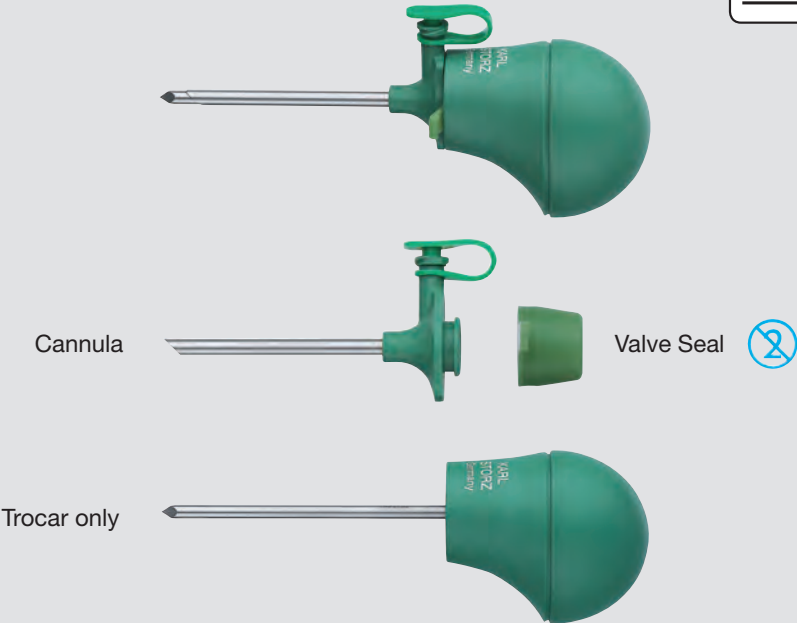
Size:		2.5 mm
Working length:		5 cm
Color code:		blue
	Trocar , with pyramidal tip including:	11603 GZS
	Cannula , with LUER-Lock connector	11603 G5
	Trocar only	11603 ZS
	Valve Seal , for single use, package of 10	11603-XV2

Telescopes for use with trocars size 2.5 mm see page 32

For use with instruments sizes 3 and 3.5 mm

slimline




XS



Size:		3.5 mm	
Working length:		5 cm	10 cm
Color code:		green	green
	Trocar , with pyramidal tip including: Cannula , with LUER-Lock connector Trocar only Valve Seal , for single use, package of 10	30114 GZS	30114 GZG
		30114 G5	30114 G6
		30114 ZS	30114 ZG
		30114-XV3	30114-XV3
	Trocar , with blunt conical tip including: Cannula , with LUER-Lock connector Trocar only Valve Seal , for single use, package of 10	30114 GNS	30114 GNG
		30114 G5	30114 G6
		30114 NS	30114 NG
		30114-XV3	30114-XV3
	Trocar , with conical tip including: Cannula , with LUER-Lock connector Trocar only Valve Seal , for single use, package of 10	30114 GYS	30114 GYG
		30114 G5	30114 G6
		30114 YS	30114 YG
		30114-XV3	30114-XV3

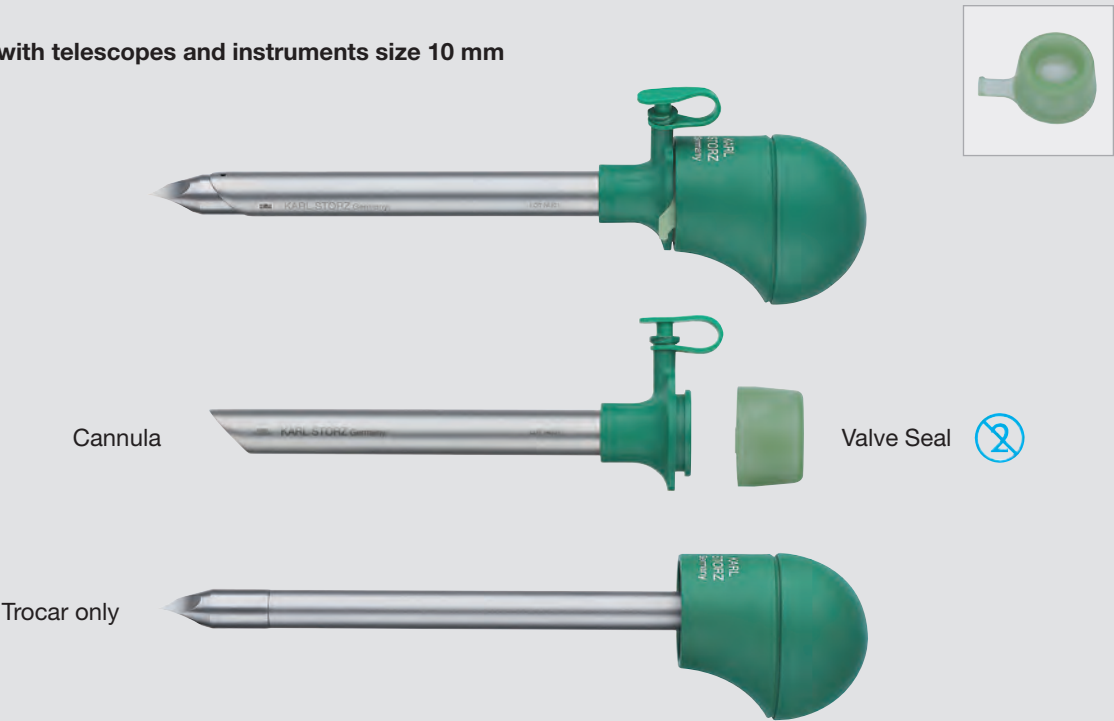
For use with instruments size 5 mm









Size:		6 mm	
Working length:		5 cm	10 cm
Color code:		black	black
	Trocar , with pyramidal tip including: Cannula , with LUER-Lock connector Trocar only Valve Seal , for single use, package of 10	30160 GZS 30160 G5 30160 ZS 30160-XV5	30160 GZG 30160 G6 30160 ZG 30160-XV5
	Trocar , with blunt conical tip including: Cannula , with LUER-Lock connector Trocar only Valve Seal , for single use, package of 10	30160 GNS 30160 G5 30160 NS 30160-XV5	30160 GNG 30160 G6 30160 NG 30160-XV5
	Trocar , with conical tip including: Cannula , with LUER-Lock connector Trocar only Valve Seal , for single use, package of 10	30160 GYS 30160 G5 30160 YS 30160-XV5	30160 GYG 30160 G6 30160 YG 30160-XV5

Telescopes for use with trocars size 6 mm see page 33
Trocars for use with curved needles see pages 58 and 65

For use with telescopes and instruments size 10 mm






Size:		11 mm
Working length:		10 cm
Color code:		green
	Trocar, with pyramidal tip	30103 GZG
	including:	
	Cannula,	30103 G6
	with LUER-Lock connector	
	Trocar only	30103 ZG
	Valve Seal, for single use,	30103-XV10
	package of 10	
	Trocar, with blunt conical tip	30103 GNG
	including:	
	Cannula,	30103 G6
	with LUER-Lock connector	
	Trocar only	30103 NG
	Valve Seal, for single use,	30103-XV10
	package of 10	
	Trocar, with conical tip	30103 GYG
	including:	
	Cannula,	30103 G6
	with LUER-Lock connector	
	Trocar only	30103 YG
	Valve Seal, for single use,	30103-XV10
	package of 10	

Trocars for use with straight needles see page 57
Telescopes for use with trocars size 11 mm see pages 31, 35, 38-40
HEINKEL-SEMM Dilation Set see page 78, Accessories for Trocars see pages 76-77

For use with linear staplers



Size:		13.5 mm
Working length:		10 cm
Color code:		blue
	Trocar , with pyramidal tip including: Cannula , with LUER-Lock connector Trocar only Valve Seal , for single use, package of 10	30108 GZG 30108 G6 30108 ZG 30108-XV13
	Trocar , with blunt conical tip including: Cannula , with LUER-Lock connector Trocar only Valve Seal , for single use, package of 10	30108 GNG 30108 G6 30108 NG 30108-XV13
	Trocar , with conical tip including: Cannula , with LUER-Lock connector Trocar only Valve Seal , for single use, package of 10	30108 GYG 30108 G6 30108 YG 30108-XV13

HEINKEL-SEMM **Dilation Set** see page 78
Accessories for Trocars see pages 76-77

TAN RoTalock Trocar ^{NEW}

Sizes 3.5 and 6 mm

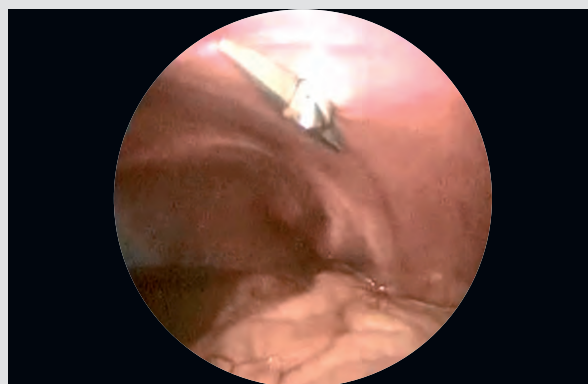
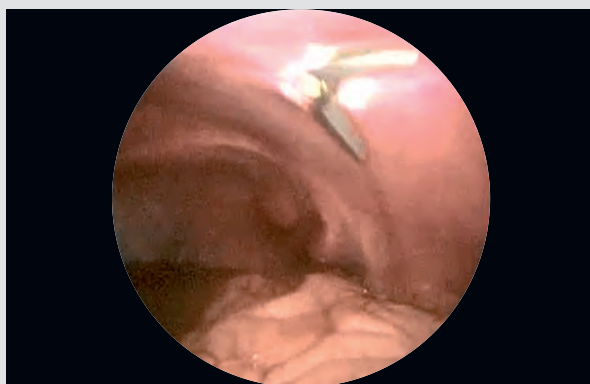
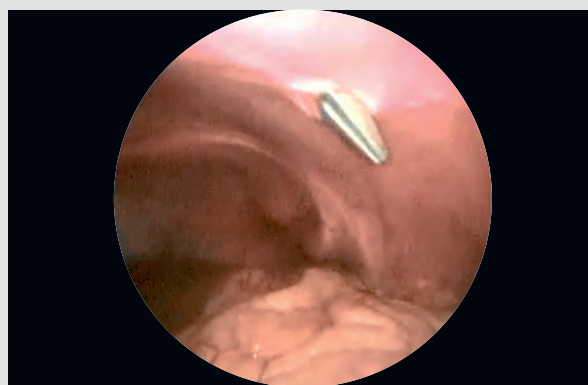
STORZ
KARL STORZ — ENDOSKOPE

RoTaLock

XS

Special Features:

- Distal tip of the cannula enables fixation directly under the abdominal wall and prevents the cannula from slipping out of the abdominal wall
- The fixation disc also enables cannula placement outside the abdominal wall
- Due to the short length of the sheath, the distal tip of the cannula does not hinder opening of the jaws
- One-piece sealing system for single use (unsterile)
- Available in sizes 3.5 and 6 mm



Figs. 1-4: Introducing the RoTalock trocar

TAN RoTalock Trocar ^{NEW}

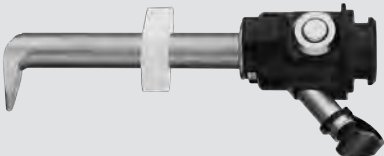
Sizes 3.5 and 6 mm

RoTaLock

XS



Cannula



Valve Seal



Trocar only



For use with instruments size 3 mm

Size:		3.5 mm
Working length:		3 cm
Color code:		green
	TAN RoTalock Trocar including: Cannula , without LUER-Lock connector Valve Seal , for single use, package of 10 Fixation Disc , package of 5	30114 RO 30114 RT 30114-XV3 30114 RS
Optional:	Trocar only	30114 RB

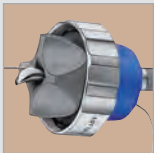
For use with instruments size 5 mm

Size:		6 mm
Working length:		5 cm
Color code:		black
	TAN RoTalock Trocar including Cannula , with LUER-Lock connector Valve Seal , for single use, package of 10 Fixation Disc , package of 5	30160 RO 30160 RT 30160-XV5 30160 RS
Optional:	Trocar only	30160 RB

Trocars

Size 2.5 mm

For use with instruments size 2 mm



Size:		2.5 mm
Working length:		4 cm
Color code:		blue
	Trocar, with pyramidal tip including:	11603 GK
	Cannula, with LUER-Lock connector	11603 G1
	Trocar only	11603 K
	Silicone Leaflet Valve	11603 L1

Telescopes for use with trocars size 2.5 mm see page 32

Trocars

Size 3.9 mm

For use with instruments sizes 3 and 3.5 mm
and telescopes diameter 3.3 mm

slimline

XS



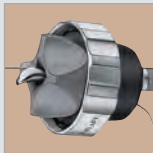
Size:		3.9 mm		
Working length:		5 cm	7.5 cm	10 cm
Color code:		red	red-white	red-green
	Trocar, with pyramidal tip	30117 GPK	30117 GPM	30117 GP
	including:			
	Cannula,	30117 G3	30117 G2	30117 G1
	with LUER-Lock connector	30117 PK	30117 PM	30117 P
	Trocar only	30117 L1	30117 L1	30117 L1
	Silicone Leaflet Valve			
	Trocar, with blunt tip	30117 GAK	30117 GAM	30117 GA
	including:			
	Cannula,	30117 G3	30117 G2	30117 G1
	with LUER-Lock connector	30117 AK	30117 AM	30117 A
	Trocar only	30117 L1	30117 L1	30117 L1
	Silicone Leaflet Valve			

Telescopes for use with trocars size 3.9 mm see page 32

Trocars

Size 6 mm

For use with instruments size 5 mm



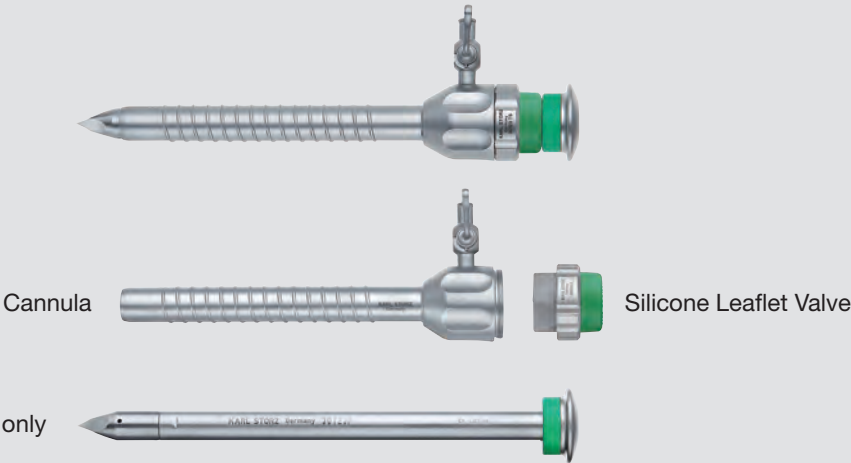
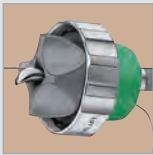
Size:		6 mm		
Working length:		5 cm	8.5 cm	10.5 cm
Color code:		black-green	black-white	black
	Trocar, with conical tip	30160 GYK	30160 GYM	30160 GC
	including:			
	Cannula,	30160 G3	30160 G2	30160 G1
	with LUER-Lock connector			
	Trocar only	30160 YK	30160 Y	30160 C
	Silicone Leaflet Valve	30160 L1	30160 L1	30160 L1
	Trocar, with pyramidal tip	30160 GZK	30160 GZM	30160 GP
	including:			
	Cannula,	30160 G3	30160 G2	30160 G1
	with LUER-Lock connector			
	Trocar only	30160 ZK	30160 Z	30160 P
	Silicone Leaflet Valve	30160 L1	30160 L1	30160 L1
	Trocar, with blunt tip	30160 GXK	30160 GXM	30160 GA
	including:			
	Cannula,	30160 G3	30160 G2	30160 G1
	with LUER-Lock connector			
	Trocar only	30160 XK	30160 X	30160 A
	Silicone Leaflet Valve	30160 L1	30160 L1	30160 L1
	SCARFI Trocar	—	—	30160 GB
	including:			
	Cannula,			30160 G1
	with LUER-Lock connector			
	Trocar only			30160 B
	Silicone Leaflet Valve			30160 L1





Telescopes for use with trocars size 6 mm see page 33

Trocars

Size 11 mm

For use with telescopes and instruments size 10 mm



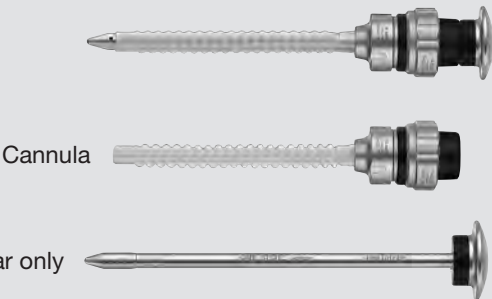
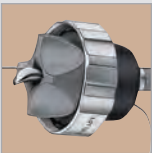
Size:		11 mm
Working length:		10.5 cm
Color code:		green
	Trocar, with conical tip including: Cannula, with thread Trocar only Silicone Leaflet Valve	30123 TCS 30123 TS1 30123 C 30123 L1
	Trocar, with pyramidal tip including: Cannula, with thread Trocar only Silicone Leaflet Valve	30123 TPS 30123 TS1 30123 P 30123 L1
	Trocar, with blunt tip including: Cannula, with thread Trocar only Silicone Leaflet Valve	30123 TBS 30123 TS1 30123 B 30123 L1
	SCARFI Trocar including: Cannula, with thread Trocar only Silicone Leaflet Valve	30123 TFS 30123 TS1 30123 F 30123 L1




Trocars for use with straight needles see page 57
Telescopes for use with trocars size 11 mm see pages 31, 35, 38-40
HEINKEL-SEMM Dilation Set see page 78, Accessories for Trocars see pages 76-77

Trocars with Flexible Sleeves

Sizes 6 and 11 mm

For use with curved operating instruments



Size:		6 mm	11 mm
Working length:		8.5 cm	8.5 cm
Color code:		black	green
	Trocar , with pyramidal tip including: Cannula , flexible, with thread, with silicone leaflet valve Trocar only	30120 NKL	30123 NKL
		30120 NL	30123 NL
		30120 NK	30123 K
	Trocar , with blunt tip including: Cannula , flexible, with thread, with silicone leaflet valve Trocar only	30120 NOL	30123 NOL
		30120 NL	30123 NL
		30120 NO	30123 O
Accessory	Plastic Cannula, autoclavable, for flexible trocars, package of 5 	30120 X	30123 X

Note: 6 mm cannulas with 9 mm head size for easier exchange of instrument: 30120 NLS.
Curved instruments see chapter 10



Minilaparoscopy is the natural development of minimally invasive surgery. It was first presented in 1996, proposing to diminish surgical trauma by reducing the diameter of the standard conventional laparoscopic instruments. However, minilaparoscopy as originally described in the '90s did not become popular because it was so complicated. Having available only disposable trocars or reusable ones with high friction forces, expensive mini-scopes that were very fragile and offered very poor vision as well as mini instruments that were too flimsy made minilaparoscopy unpopular and limited for laparoscopic surgeons.

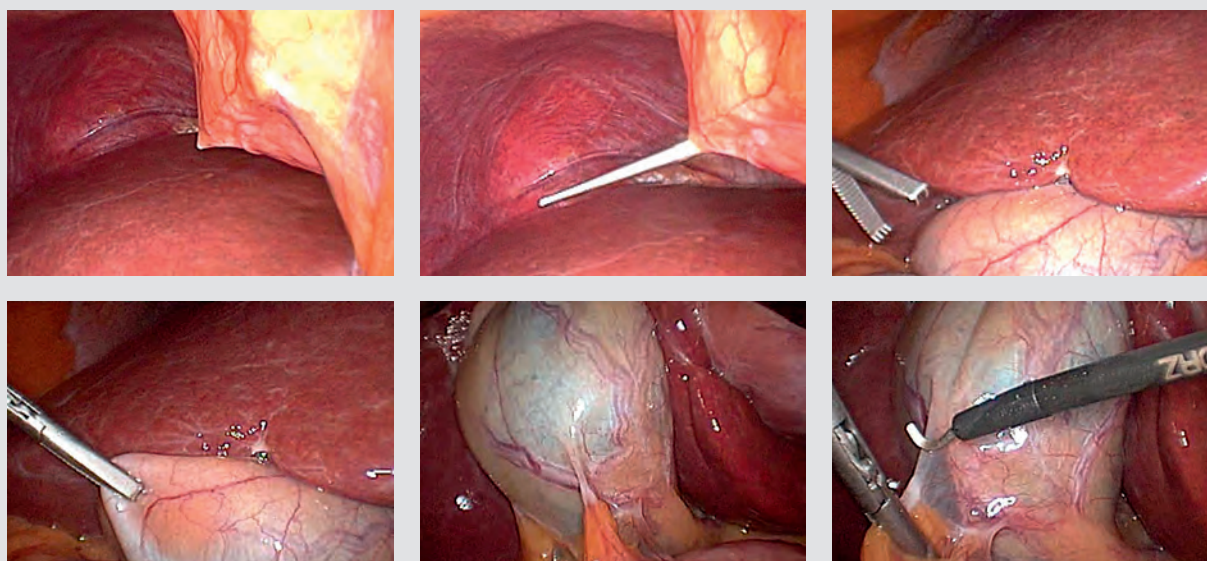
KARL STORZ now offers a new rubber-seal-free mini trocar. In order to increase the precision of movement and decrease surgical stress during mini procedures, no seal is used, minimizing usual friction forces between trocar and instrument. KARL STORZ has registered this principle under the trademark LOWFRIX. The special trocar was designed to resemble a long needle, with very little technical tolerances and matching exactly the diameter of the corresponding instrument. In this trocar system, free left lumen is minimal, therefore eliminating the need for additional rubber sealing or a valve system to prevent gas loss (gas loss < 0.15 l/min per trocar).

The outer part of the rubber seal-free trocar system resembles a needle but is longer than traditional mini trocars. Its insert with a progressive dilating tip and minimal gap causes less damage during insertion to muscle layers and skin than traditional trocars. To facilitate insertion, its insert fits very firmly with a LUER Lock

connector type which can also be used for suction or gas inflation, being especially useful for creating the retro-peritoneal space for TEP Hernia and lumbar sympathectomies. By noticeably reducing the friction forces between the trocar and the mini instruments, the precisely engineered device significantly diminishes trocar movement and dislocation of the trocar in the skin, consequently improving wound healing and cosmetic results. A great improvement is also found in the precision of movements during dynamic surgical tasks (e. g. suturing), resulting in less stress to the surgeon.

Minilaparoscopy nowadays is perfectly seen as a great refinement of laparoscopy, because it not only retains the same principles of instrument triangulation and access to anatomical structures but also offers the same ergonomics and safety. In many cases, through the use of the newest mini no-rubber trocars, mini can increase the surgeon's dexterity and precision necessary for the development of modern minilaparoscopic surgery. In operations such as TEP inguinal hernia repair or lumbar sympathectomy, where surgical space is very narrow and precision highly desired, the use of no-rubber mini trocars leads to a significant decrease in operating time. Other advantages of mini are better aesthetic results, as well as less pain, a shorter hospital stay, and quicker return to work.

G. CARVALHO M.D. PhD,
University Hospital Oswaldo Cruz,
Pernambuco University, Recife, Brazil



CARVALHO Trocars

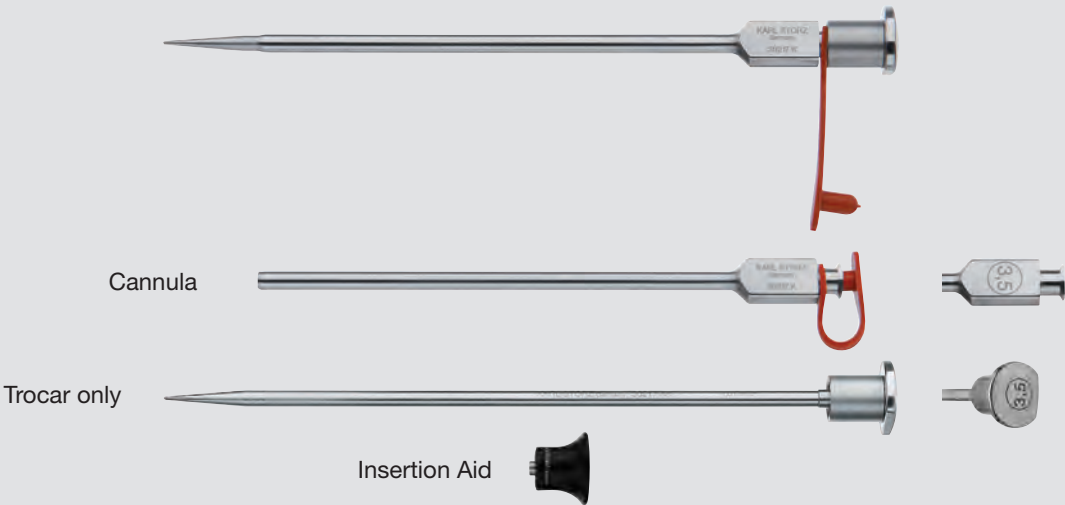
Sizes 3 and 3.5

slimline


LowFrix
Low Friction Trocars®

Special Features:


- Trocar features long, flat tapered design and, therefore, extremely atraumatic trocar tip
- LUER-Lock connects trocar to cannula, preventing dislocation of the trocar
- LUER-Lock connector at the proximal end of the cannula allows use solely as insufflation port
- Flat trocar head allows secure placement on the OR tray
- No friction
- Insertion aid for smooth instrument changeover
- Available for instruments in sizes 3 mm and 3.5 mm
- Labeling on trocar sleeve and trocar for identification of compatible instrument size



For use with instruments size 3 mm

Size:		3
Working length:		15 cm
Color code:		green
	CARVALHO Trocar,	30214 KAK
	with blunt tip	
	including:	
	Low-friction Cannula	
	Trocar only	30214 K
	Insertion Aid	30214 AK
		30214 K1

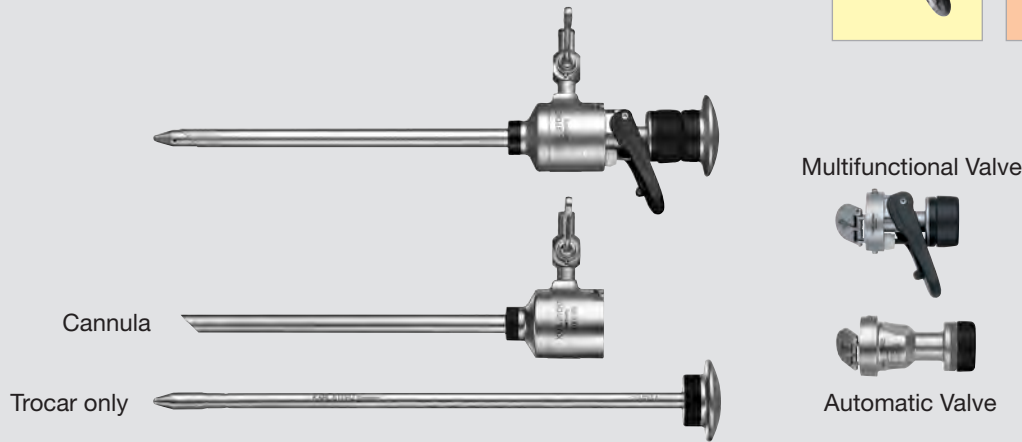
For use with instruments size 3.5 mm

Size:		3.5
Working length:		10 cm
Color code:		red
	CARVALHO Trocar, with blunt tip	NEW 30217 KAK
	including:	
	Low-friction Cannula	30217 K
	Trocar only	30217 AK
	Insertion Aid	30214 K1

Trocars

Size 6 mm

For use with telescopes and instruments size 5 mm



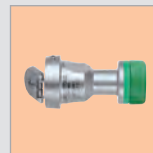
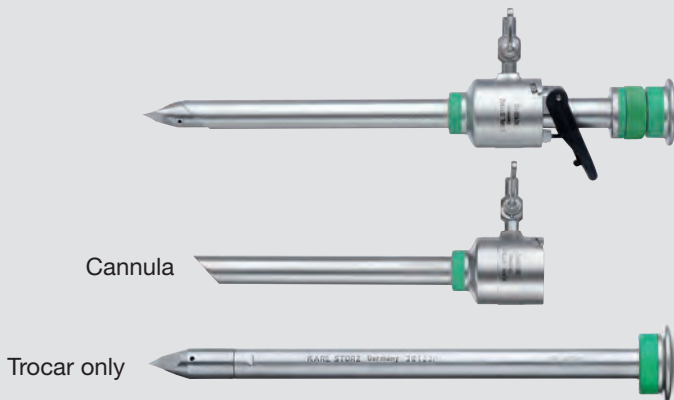
Size:		6 mm			
Working length:		8.5 cm	10.5 cm	8.5 cm	10.5 cm
Color code:		black-white	black	black-white	black
		Multifunctional Valve		Automatic Valve	
	Trocar, with conical tip	30160 WY	30160 MC	30160 FY	30160 AC
	including:				
	Cannula	30160 H1	30160 H2	30160 H1	30160 H2
	Trocar only	30160 Y	30160 C	30160 Y	30160 C
	Trocar, with pyramidal tip	30160 WZ	30160 MP	30160 FZ	30160 AP
	including:				
	Cannula	30160 H1	30160 H2	30160 H1	30160 H2
	Trocar only	30160 Z	30160 P	30160 Z	30160 P
	Trocar, with blunt tip	30160 WX	30160 MA	30160 FX	30160 AA
	including:				
	Cannula	30160 H1	30160 H2	30160 H1	30160 H2
	Trocar only	30160 X	30160 A	30160 X	30160 A
	SCARFI Trocar	30160 M1	30160 M1	30160 A1	30160 A1
	including:				
	Cannula	—	30160 MB	—	30160 AB
	Trocar only		30160 H2		30160 H2
	Valve		30160 B		30160 B
			30160 M1		30160 A1

Telescopes for use with trocars size 6 mm see page 33
HEINKEL-SEMM Dilation Set see page 78, Accessories for Trocars see pages 76-77

Trocars

Size 11 mm






For use with telescopes and instruments size 11 mm



Multifunctional Valve



Automatic Valve

Size:		11 mm			
Working length:		8.5 cm	10.5 cm	8.5 cm	10.5 cm
Color code:		green-white	green	green-white	green
		Multifunctional Valve		Automatic Valve	
	Trocar, with conical tip including: Cannula Trocar only Valve	30103 WY 30103 H1 30103 Y 30103 M1	30103 MC 30103 H2 30103 C 30103 M1	30103 FY 30103 H1 30103 Y 30103 A1	30103 AC 30103 H2 30103 C 30103 A1
	Trocar, with pyramidal tip including: Cannula Trocar only Valve	30103 WZ 30103 H1 30103 Z 30103 M1	30103 MP 30103 H2 30103 P 30103 M1	30103 FZ 30103 H1 30103 Z 30103 A1	30103 AP 30103 H2 30103 P 30103 A1
	Trocar, with blunt tip including: Cannula Trocar only Valve	30103 WX 30103 H1 30103 X 30103 M1	30103 MA 30103 H2 30103 A 30103 M1	30103 FX 30103 H1 30103 X 30103 A1	30103 AA 30103 H2 30103 A 30103 A1
	MOTSON Trocar, with conical, blunt tip, including: Cannula Trocar only Valve	—	30103 MMO 30103 H2 30103 MO 30103 M1	—	30103 AMO 30103 H2 30103 MO 30103 A1
	SCARFI Trocar, including: Cannula Trocar only Valve	—	30103 WSB 30103 H2 30103 SB 30103 M1	—	30103 FSB 30103 H2 30103 SB 30103 A1

Telescopes for use with trocars size 11 mm see pages 31, 35, 38-40
HEINKEL-SEMM Dilation Set see page 78, Accessories for Trocars see pages 76-77

HICAP® Trocars

Size 11 mm

For use with telescopes and instruments size 10 mm



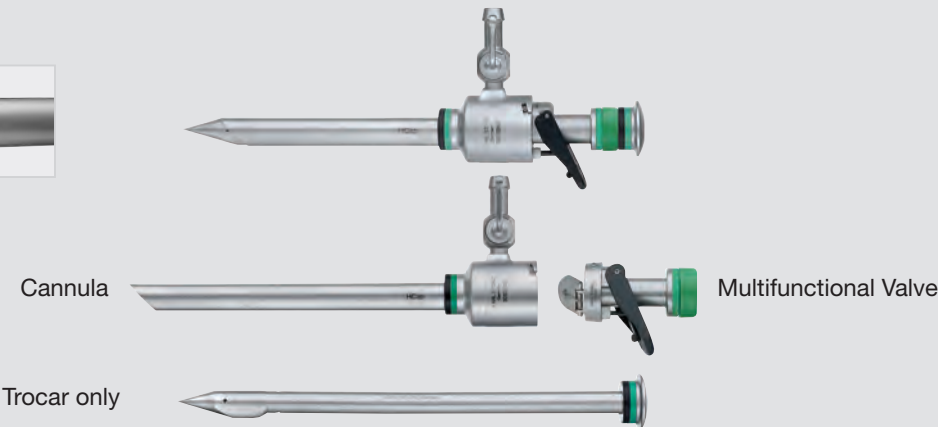
HICAP® Trocars for ENDOFLATOR®

The ENDOFLATOR® 40 UI 400 and ENDOFLATOR® 50 UI 500 provides a CO₂ flow of max. 50 l/min for laparoscopic procedures. This flow rate enables a stable pneumoperitoneum when LASER or high frequency surgery units are used, even if secretion or smoke suction is performed at the same time. Moreover, it is important to note that connected accessories (insufflation tube, instruments) may influence the maximum

flow as connected instruments can considerably reduce the indicated max. flow of an insufflator. LUER-Lock connections on the trocars restrict the flow to, e.g., 15 – 18 l/min. To ensure high CO₂ gas flows up to 50 l/min, KARL STORZ recommends the use of **HICP® trocars**. These feature specially designed gas connection points for large gas flows as well as an oval profile.



Oval profile



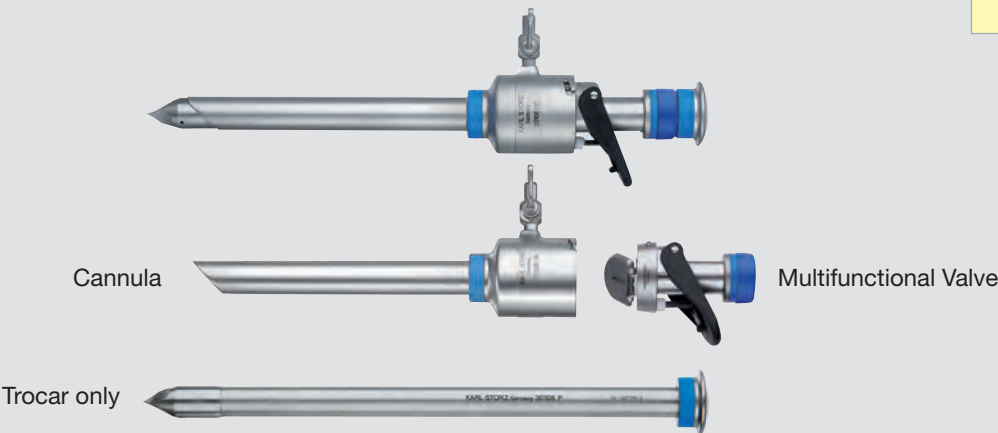
Size:		11 mm
Working length:		10.5 cm
Color code:		black-green
	Trocar, with conical tip, oval design	30103 HC
	including:	
	Cannula,	30103 H8
	with HICAP® insufflation stopcock	30103 EC
	Trocar only	30103 M2
	Multifunctional Valve	
	Trocar, with pyramidal tip, oval design	30103 HP
	including:	
	Cannula,	30103 H8
	with HICAP® insufflation stopcock	30103 EP
	Trocar only	30103 M2
	Multifunctional Valve	




Telescopes for use with trocars size 11 mm see pages 31, 35, 38-40
HEINKEL-SEMM Dilation Set see page 78, Accessories for Trocars see pages 76-77
ENDOFLATOR® 40 and ENDOFLATOR® 50 see chapter 20, UNITS

Trocars

Size 13.5 mm

For use with linear staplers

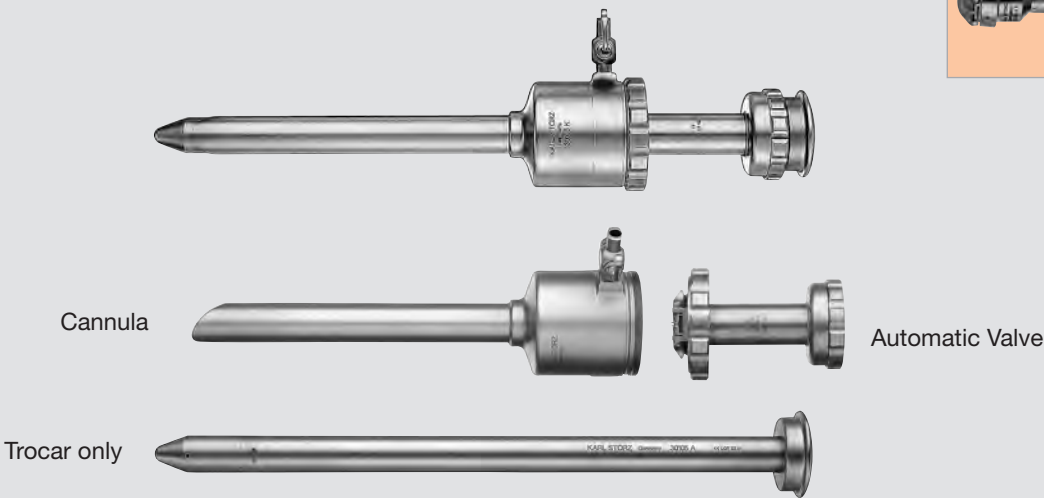




Size:		13.5 mm
Working length:		11.5 cm
Color code:		blue
	Trocar, with conical tip including: Cannula Trocar only Multifunctional Valve	30108 MC 30108 H2 30108 C 30108 M1
	Trocar, with pyramidal tip including: Cannula Trocar only Multifunctional Valve	30108 MP 30108 H2 30108 P 30108 M1
	Trocar, with blunt tip including: Cannula Trocar only Multifunctional Valve	30108 MA 30108 H2 30108 A 30108 M1

HEINKEL-SEMM **Dilation Set**, see page 78
Accessories for Trocars see pages 76-77

Trocars

Sizes 15 and 22 mm

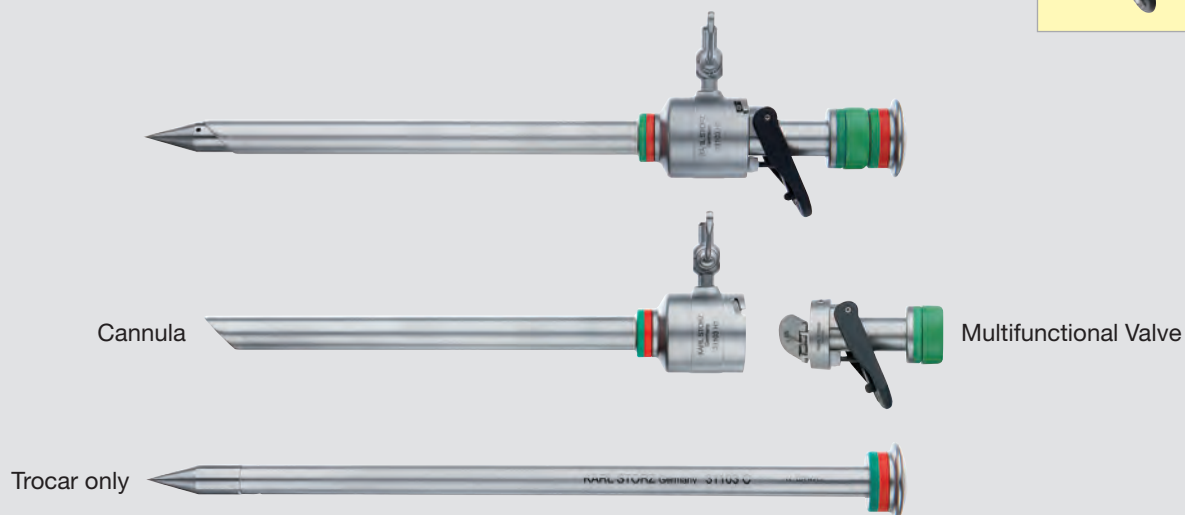




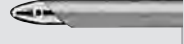
Size:		15 mm	22 mm
Working length:		12 cm	12 cm
	Trocar, with pyramidal tip	30105 KP	30106 KP
	including:		
	Cannula	30105 H2	30106 H2
	Trocar only	30105 P	30106 P
	Trocar, with blunt tip	30105 KA	30106 KA
	including:		
	Cannula	30105 H2	30106 H2
	Trocar only	30105 A	30106 A
Automatic Valve		30105 K1	30106 K1

HEINKEL-SEMM **Dilation Set**, see page 78
Accessories for Trocars see pages 76-77

Trocars for Adipose Patients

Size 6, 11 and 13.5 mm



Size:		6 mm	11 mm	13.5 mm
Working length:		15 cm	15 cm	15 cm
Color code:		black-red	green-red	blue-red
	Trocar, with conical tip including: Cannula Trocar only Multifunctional Valve	31160 MC 31160 H1 31160 C 30160 M1	31103 MC 31103 H1 31103 C 30103 M1	—
	Trocar, with pyramidal tip including: Cannula Trocar only Multifunctional Valve	31160 MP 31160 H1 31160 P 30160 M1	31103 MP 31103 H1 31103 P 30103 M1	31108 MP 31108 H1 31108 P 30108 M1
	Trocar, with blunt tip including: Cannula Trocar only Multifunctional Valve	31160 MA 31160 H1 31160 A 30160 M1	31103 MA 31103 H1 31103 A 30103 M1	—

Telescopes for use with trocars size 6 mm see page 33

Telescopes for use with trocars size 11 mm see pages 31, 35, 38-40

HEINKEL-SEMM Dilation Set see page 78, Accessories for Trocars see pages 76-77

S-PORTAL

SINGLE-PORTAL-ACCESS

Accessories

Reduction Sleeves/Extractors and Reducers

Reduction Sleeves/Extractors



30140 DB

Instrument Diameter	Outer Diameter of Trocar Cannula – Color Code					
	6 mm black	11 mm green	12 mm white	13 mm black	15 mm	22 mm
3 mm	30140 KA	30140 DA	–	–	–	–
5 mm	–	30140 DB	30140 EB	30140 HB	30140 FB	30140 GB
8 mm	–	30140 DD	–	–	–	–
10 mm	–	–	30140 EE	30140 HE	30140 FE	30140 GE

Reducers, for use with trocars with automatic valves and TERNAMIAN EndoTIP cannulas with automatic valves



30141 AA



30141 DB

- 30141 AA

Reducer, 6/3 mm
- 30141 DB

Same, 11/5 mm
- 30141 HB

Same, 13/5 mm and 13.5/5 mm
- 30141 HE

Same, 13/10 mm

Double Reducer



30142 HB

- 30142 HB

Double Reducer, 13/10 mm, 13.5/10 mm, 13/5 mm and 13.5/5 mm

Reducers, for use with trocars with silicone leaflet valves and TERNAMIAN EndoTIP cannulas with silicone leaflet valves



30160 RE

- 30160 RE

Reducer, 6/3 mm
- 30103 RE

Same, 11/5 mm

Accessories

Reducer, Thread Sleeves and Distance Holders

Reducer, for use with trocars with valve seals



30141 RS

30141 RS **Reducer**, 13.5/5 mm and 11/5 mm

Thread Sleeves



30160 S

30160 S **Thread Sleeve**, for trocars size 6 mm,
color code: black

30103 S **Thread Sleeve**, for trocars size 11 mm,
color code: green

NEW 30108 S **Thread Sleeve**, for trocars size 13.5 mm,
color code: blue

Distance Holders, to limit the depth of puncture



30103 D

30160 D **Distance Holder**, for trocars size 6 mm,
color code: black

30103 D **Distance Holder**, for trocars size 11 mm,
color code: green

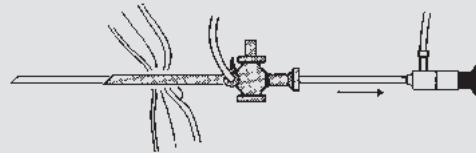
Accessories

Dilation Sets, diameter 6/22 mm

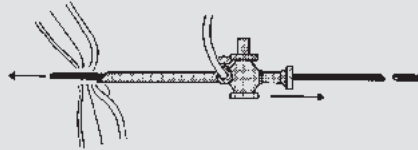
- | | |
|----------|--|
| 26020 HL | HEINKEL-SEMM Dilation Set , for trocars with diameter 6/11 mm |
| 26020 HM | Same , for trocars with diameter 11/15 mm |
| 26020 HP | Same , for trocars with diameter 11/22 mm |

The atraumatic HEINKEL-SEMM Dilation Instrument Set enables 6 or 11 mm cannulas to be exchanged for cannulas with a larger diameter without having to make a second puncture.

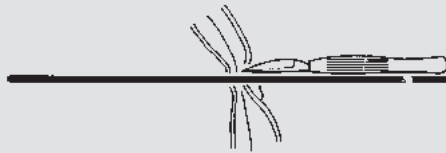
Example: 6/11 mm



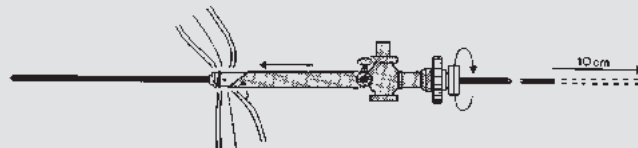
1. Telescope with 6 mm cannula



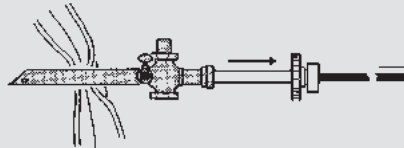
2. The dilation rod is inserted into the 6 mm cannula



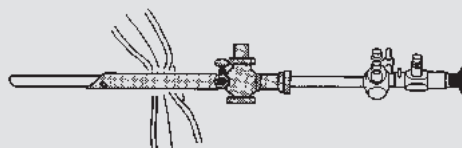
3. The 6 mm cannula is removed and the incision into the skin is enlarged to 10 mm



4. The 11 mm cannula is inserted over the directing probe and pushed to the skin. Then the directing probe is retracted 10 cm, before the cannula with the dilation sleeve perforates the abdominal wall by turning to the right continuously



5. Holding the inserted cannula in place, the dilation rod and sleeve are removed



6. Telescope (or 10 mm operating instrument) with 11 mm cannula



DISSECTING AND GRASPING FORCEPS

Sizes 2 – 10 mm

CLICK'line® HANDLES AND OUTER SHEATHS 80-90



CLICK'line® DISSECTING AND GRASPING FORCEPS 91-98
Sizes 2 – 3.5 mm



CLICK'line® DISSECTING AND GRASPING FORCEPS 99-133
Size 5 mm



CLICK'line® DISSECTING AND GRASPING FORCEPS 134-138
Size 10 mm



SURGICAL SPONGE HOLDERS, GRASPING FORCEPS .. 139-141
Sizes 5 and 10 mm



TAKE-APART® DISSECTING AND GRASPING FORCEPS .. 142-149
Sizes 3 – 5 mm, FOR BIPOLAR COAGULATION



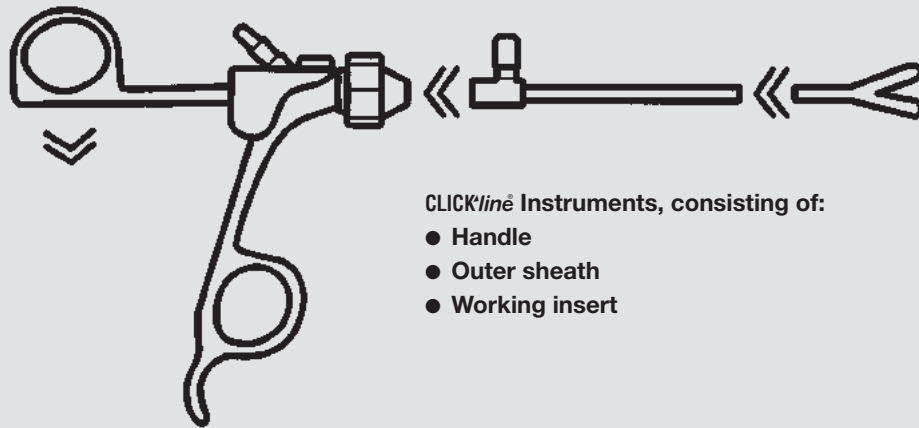
ROBI® BIPOLAR GRASPING FORCEPS 150-156
Sizes 3.5 and 5 mm



ACCESSORIES 157-158



CURVED DISSECTING AND GRASPING FORCEPS
FOR SINGLE-PORT SURGERY see chapter 10



CLICK'line Instruments, consisting of:

- Handle
- Outer sheath
- Working insert

Nothing could be simpler!

The **CLICK'line** series continues the development of instruments which have proven their value for years. The simplicity of handling and ease with which the instruments can be cleaned has been improved, in particular with respect to assembly and disassembly. When the rear handle is positioned horizontally, the

handle can be separated from the outer sheath and the working insert at the press of a button. Reassembly is equally reliable and quick. The high frequency connection is mounted in a 45° angle on the upper side of the handle, thereby ergonomically guiding the high frequency cable away from the field of operation.

Available in size 2 to 10 mm, **CLICK'line** instruments can be completely disassembled into separate components:

- Handle
- Outer sheath/outer sheath with working insert
- Working insert

This unique, reusable two/three-piece design offers the surgeon the following benefits:

- Available in sizes 2, 3, 3.5, 5 and 10 mm and lengths 20, 30, 36 and 43 cm
- Choice of handle styles
- Fully rotational 360° sheath facilitates easy access in all clinical situations
- No hidden spaces that can trap blood or tissue debris
- Can be dismantled at the press of a button – reducing instrument cleaning time considerably
- Completely autoclavable design
- Cost-effective – reusable instruments reduce O.R. costs per case and simplify inventory management, eliminating the need to store large quantities of disposable instruments
- Environmentally correct, i.e., if damage occurs, only the component with the defect needs to be replaced – not the entire instrument
- Convenient and ergonomic handling
- Cleaning port allows the instrument to be cleaned without disassembly

Due to the modular **CLICK'line** system, the user can individually assemble the desired instrument at any time.

User Information

For easy location of the correct catalog number
for the required CLICK'linē Instrument

How to find the required instrument:

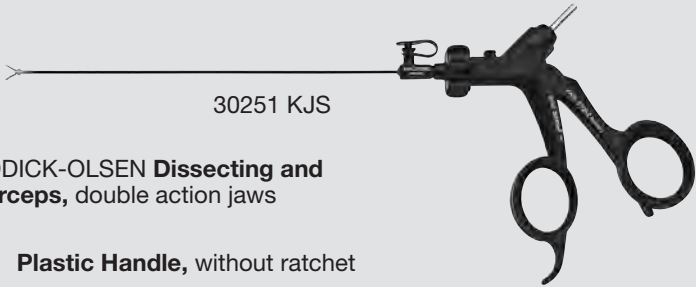
- (a) Select the required **instrument size** and the required **type of jaws**
- (b) Select the required **handle style**
 - **Metal handles: without** connector pin for unipolar coagulation, against a **blue background** in the table
 - **Handles, insulated: with** connector pin for unipolar coagulation, against a **red background** in the table
- (c) The catalog number for the fully assembled instrument can be found at the point where the horizontal line of the respective working length (see below) intersects with the vertical column of the required handle.

Example:

30251 KJS

30251 KJS

CLICK'linē REDDICK-OLSEN Dissecting and Grasping Forceps, double action jaws including:
33151 Plastic Handle, without ratchet
30210 KJS Outer Sheath, with working insert








Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling,
with and without connector pin for unipolar coagulation

Size 2 mm

Operating instruments, length 20 cm,
for use with trocars size 2.5 mm

Length	Handle			
	33151 (b)	33152	33153	33161
(a) 20 cm				
Double action jaws				
Outer Sheath with Working Insert	Complete Instrument			
30210 KJS	30251 KJS (c)	30252 KJS	30253 KJS	–


7
Jaw length in mm

CLICK'linē REDDICK-OLSEN Dissecting and Grasping Forceps

Please note:

For CLICK'linē instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does **not** appear on the instrument. Instruments with **insulated handles with connector pin** for unipolar coagulation are shown against the **red** background. Instruments with **handles without connector pin** for unipolar coagulation are shown against the **blue** background. The color **green** indicates the **lengths**.

KOH Ultramicro Instruments

Special Features:

- Designed specifically for laparoscopic microsurgery – wide range of miniature jaws for full range of applications
- Unique jaw design enables sutures 6 – 0 to 8 – 0 to be held securely without tearing
- Graduated sheath improves mechanical stability and delivers unobstructed distal view of anatomy/pathology
- Ergonomic handle, available with or without ratchet

The advantages of the KOH suture system:

- Smaller incisions, less scarring
- Need for suturing during closure is reduced
- Trauma to the abdominal wall is minimized
- Reduces the incidences of trocar site hernias
- Shorter hospital stay/less postoperative pain
- Shorter convalescence
- Comparable results to open laparotomy for tubal anastomosis
- Superior results compare to thermal techniques

The KOH ultramicro series instruments are suitable for gynecological reproductive surgical procedures including:

- Tubal anastomosis
- Second look laparoscopic adhesiolysis
- Neosalpingostomy
- Ovarian closure following cystectomy
- Barrier membrane suturing to prevent postoperative adhesions
- Ureteral resection and anastomosis for infiltrative endometriosis

The KOH ultramicro series instruments are suitable for urological procedures such as:

- Ureteral resection and anastomosis
- Ureteral repair
- Vasovasostomy

Plastic Handles

for Dissecting and Grasping Forceps, insulated,
CLICK'line – rotating, with connector pin for unipolar coagulation

Plastic Handles, with and without ratchets, with larger contact area at the finger ring – made of high-quality plastics, meeting the highest safety requirements for both patient and user



The anatomy of the hand varies in size from person to person. Wider contact areas at the finger and thumb ring and a more ergonomic design ensures the CLICK'line handles are comfortable to hold, preventing pressure marks even after hours of use. Due to their ergonomic shape, the new handles can be used in various holding positions and, therefore, meet a wide range of demands.

Special Features:

- With larger contact area at the finger ring
- Comfortable handling
- Prevention of pressure marks
- Variable holding positions due to ergonomic shape



33151 CLICK'line Plastic Handle, without ratchet, with larger contact area at the finger ring



33152 CLICK'line Plastic Handle, with MANHES style ratchet, with larger contact area at the finger ring



33153 CLICK'line Plastic Handle, with hemostat style ratchet, with larger contact area at the finger ring



33156 CLICK'line Plastic Handle, with disengageable ratchet, with larger contact area at the finger ring

Metal Handles with larger contact surface see page 86
Accessories for Handles see page 157

Plastic Handles

for Dissecting and Grasping Forceps, insulated,
CLICKline® – rotating, with connector pin for unipolar coagulation



Plastic Handles, with and without ratchets, made of high-quality plastics – meeting the highest safety requirements for both patient and user



33121 **CLICKline® Plastic Handle, without ratchet**



33122 **CLICKline® Plastic Handle, with MANHES style ratchet**



33123 **CLICKline® Plastic Handle, with hemostat style ratchet**



33126 **CLICKline® Plastic Handle, with disengageable ratchet**

Accessories for Handles see page 157

Plastic and Metal Handles

for Dissecting and Grasping Forceps, insulated,
CLICK'line – with connector pin for unipolar coagulation



Plastic Handles, insulated, with or without ratchets

33149 NEW CLICK'line Plastic Handle, axial, rotating, without ratchet, double action shanks	33149 P NEW CLICK'line Plastic Handle, axial, non-rotating, without ratchet, double action shanks, with 4 locking positions	33148 NEW CLICK'line Plastic Handle, axial, rotating, with ratchet, double action shanks

Metal Handles, insulated, without ratchet

33125 CLICK'line Metal Handle, rotating, without ratchet	33125 P CLICK'line Metal Handle, non-rotating, without ratchet, with 4 locking positions

Accessories for Handles see page 157

Metal Handles ^{NEW}

for Dissecting and Grasping Forceps,
CLICK'linē – rotating, without connector pin for unipolar coagulation



Plastic Handles, with and without ratchets, with larger contact area at the finger ring – made of high-quality plastics, meeting the highest safety requirements for both patient and user

The anatomy of the hand varies in size from person to person. Wider contact areas at the finger and thumb ring and a more ergonomic design ensures the **CLICK'linē** handles are comfortable to hold, preventing pressure marks even after hours of use. Due to their ergonomic shape, the new handles can be used in various holding positions and, therefore, meet a wide range of demands.

Special Features:

- With larger contact area at the finger ring
- Comfortable handling
- Prevention of pressure marks
- Variable holding positions due to ergonomic shape



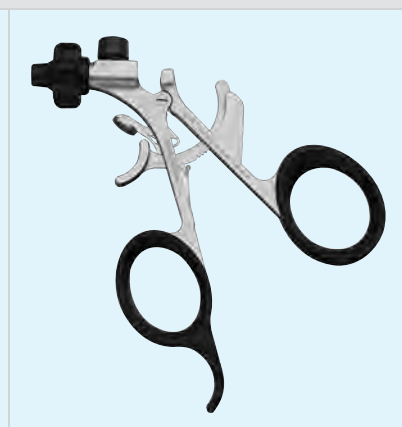
33161 **CLICK'linē Metal Handle, without ratchet, with larger contact area at the finger ring**



33162 **CLICK'linē Metal Handle, with MANHES style ratchet, with larger contact area at the finger ring**



33163 **CLICK'linē Metal Handle, with hemostatic style ratchet, with larger contact area at the finger ring**



33166 **CLICK'linē Metal Handle, with disengageable ratchet, with larger contact area at the finger ring**

Accessories for Handles see page 157

Metal Handles

for Dissecting and Grasping Forceps,
CLICK'line® – rotating, without connector pin for unipolar coagulation

Metal Handles, with or without ratchets



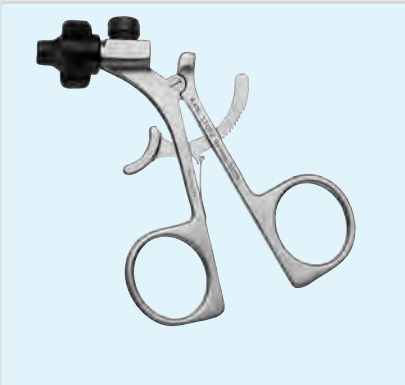
33131 **CLICK'line® Metal Handle, without ratchet**



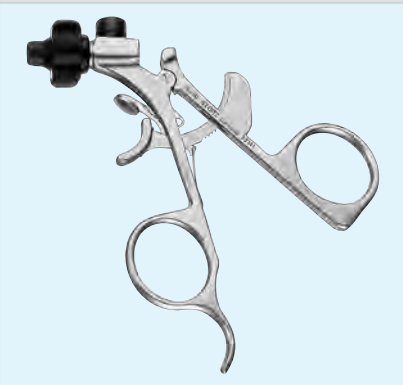
33132 **CLICK'line® Metal Handle, with MANHES style ratchet**



33133 **CLICK'line® Metal Handle, with hemostat style ratchet**



33139 **CLICK'line® Metal Handle, with ratchet**



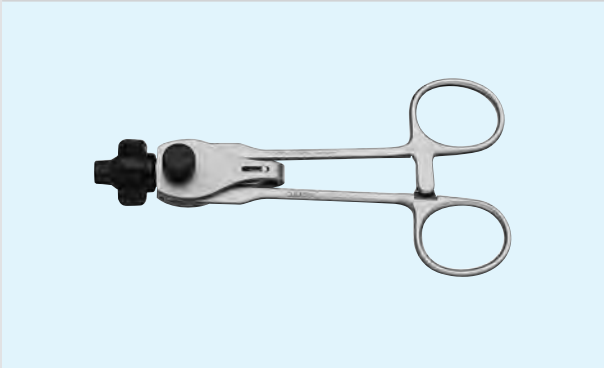
33141 **CLICK'line® Metal Handle, with disengageable ratchet**

Accessories for Handles see page 157

Metal Handles

for Dissecting and Grasping Forceps,
CLICK'line® – rotating, without connector pin for unipolar coagulation

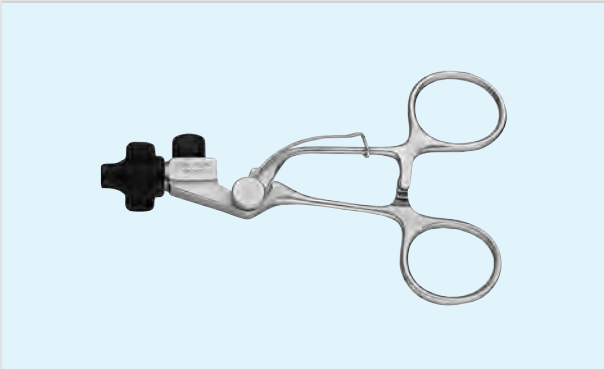
Metal Handles, axial, with and without ratchets



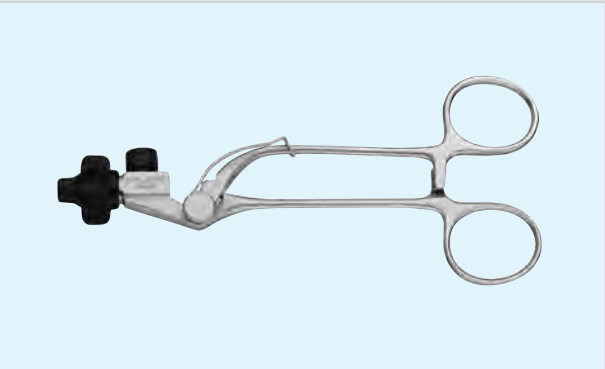
33146 **CLICK'line® Metal Handle**, axial, with **hemostat style** ratchet, double action handle shanks



33147 **CLICK'line® Metal Handle**, axial, **without** ratchet, double action handle shanks



33144 **CLICK'line® MOURET Metal Handle**, axial, with **hemostat style** ratchet

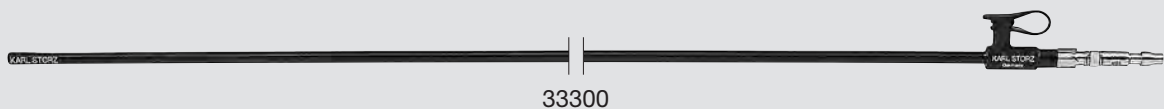


33145 **CLICK'line® MOURET Metal Handle**, axial, with **hemostat style** ratchet, with long handle bar

Accessories for Handles see page 157

Metal Outer Sheaths

for Dissecting and Grasping Forceps, *CLICK'linē*



Size 3.5 mm

NEW	31100	CLICK'linē Metal Outer Sheath, insulated, with LUER-Lock irrigation connector for cleaning, size 3.5 mm, length 20 cm
NEW	31300	Same, length 36 cm

Size 5 mm

33200	CLICK'linē Metal Outer Sheath, insulated, with LUER-Lock irrigation connector for cleaning, size 5 mm, length 30 cm
33300	Same, length 36 cm
33400	Same, length 43 cm



33300 CM	CLICK'linē Metal Outer Sheath, with cm-marking, insulated, with LUER-Lock irrigation connector for cleaning, size 5 mm, length 36 cm
33400 CM	Same, length 43 cm

Size 10 mm

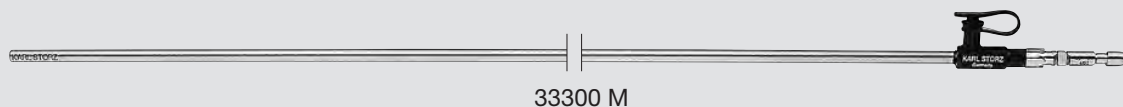


33500	CLICK'linē Metal Outer Sheath, insulated, with LUER-Lock irrigation connector for cleaning, size 10 mm, length 36 cm
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Working Inserts for *CLICK'linē* Instruments size 3.5 mm see pages 92-97
 Working Inserts for *CLICK'linē* Instruments size 5 mm see pages 100-133
 Working Inserts for *CLICK'linē* Instruments size 10 mm see pages 134-138
 Accessories for Outer Sheaths see page 157

Metal Outer Sheaths

for Dissecting and Grasping Forceps, CLICK'line®



Size 3.5 mm

NEW	31100 M	CLICK'line® Metal Outer Sheath, with LUER-Lock irrigation connector for cleaning, size 3.5 mm, length 20 cm
NEW	31300 M	Same, length 36 cm

Size 5 mm

33200 M	CLICK'line® Metal Outer Sheath, with LUER-Lock irrigation connector for cleaning, size 5 mm, length 30 cm
33300 M	Same, length 36 cm
33400 M	Same, length 43 cm

Size 10 mm



33500 M	CLICK'line® Metal Outer Sheath, with LUER-Lock irrigation connector for cleaning, size 10 mm, length 36 cm
33500 CM	CLICK'line® Metal Outer Sheath, with cm-marking, with LUER-Lock irrigation connector for cleaning, size 10 mm, length 36 cm



The distance markers on the forceps (in cm-steps) facilitate measurement of the correct length of the Roux limb during a laparoscopic Roux-En-Y gastric bypass.

Please note:

The metal outer sheaths may only be used in conjunction with handles without a connector pin for unipolar coagulation.

Working Inserts for CLICK'line® Instruments size 3.5 mm see pages 92-97

Working Inserts for CLICK'line® Instruments size 5 mm see pages 100-133

Working Inserts for CLICK'line® Instruments size 10 mm see pages 134-138

Accessories for Outer Sheaths see page 157

Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling,
with and without connector pin for unipolar coagulation

Size 2 mm

Operating instruments, length 20 cm,
for use with trocars size 2.5 mm



Length	Handle						
	33151	33152	33153	33156	33161	33146	33147
20 cm							

Double action jaws

Outer Sheath with Working Insert	Complete Instrument						
30240 AS	–	–	–	–	30261 AS	30246 AS	30247 AS
 12	CLICK'line® BABCOCK Grasping Forceps, atraumatic, fenestrated						
30210 KJS	30251 KJS	30252 KJS	30253 KJS	30256 KJS	–	30246 KJS	30247 KJS
 7	CLICK'line® REDDICK-OLSEN Dissecting and Grasping Forceps						

Dissecting and Grasping Forceps ^{NEW}

CLICK^{line} – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 3.5 mm

slimline

XS



Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars sizes 3.5 and 3.9 mm**

3.5 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
20 cm							
36 cm							

Double action jaws

Working Insert	Complete Instrument						
31110 ML	31151 ML	31152 ML	31153 ML	31156 ML	31121 ML	31125 ML	31149 ML
31310 ML	31351 ML	31352 ML	31353 ML	31356 ML	31321 ML	31325 ML	31349 ML



CLICK^{line} KELLY Dissecting and Grasping Forceps, long

31110 MD	31151 MD	31152 MD	31153 MD	31156 MD	31121 MD	31125 MD	31149 MD
31310 MD	31351 MD	31352 MD	31353 MD	31356 MD	31321 MD	31325 MD	31349 MD



CLICK^{line} KELLY Dissecting and Grasping Forceps

31110 R	31151 R	31152 R	31153 R	31156 R	31121 R	31125 R	31149 R
31310 R	31351 R	31352 R	31353 R	31356 R	31321 R	31325 R	31349 R



CLICK^{line} Dissecting and Grasping Forceps, right-angled

Single action jaws

31110 ON	31151 ON	31152 ON	31153 ON	31156 ON	31121 ON	31125 ON	31149 ON
31310 ON	31351 ON	31352 ON	31353 ON	31356 ON	31321 ON	31325 ON	31349 ON



CLICK^{line} Grasping Forceps, with especially fine atraumatic serration,
fenestrated

Dissecting and Grasping Forceps ^{NEW}

CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 3.5 mm

slimline

XS

Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars sizes 3.5 and 3.9 mm**

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
20 cm		NEW 	NEW 	NEW 			
36 cm							

Double action jaws

Working Insert	Complete Instrument						
31110 ML	31161 MLM	31162 MLM	31163 MLM	31166 MLM	31131 MLM	31146 MLM	31147 MLM
31310 ML	31361 MLM	31362 MLM	31363 MLM	31366 MLM	31331 MLM	31346 MLM	31347 MLM



CLICK'line® KELLY Dissecting and Grasping Forceps, long

31110 MD	31161 MDM	31162 MDM	31163 MDM	31166 MDM	31131 MDM	31146 MDM	31147 MDM
31310 MD	31361 MDM	31362 MDM	31363 MDM	31366 MDM	31331 MDM	31346 MDM	31347 MDM



CLICK'line® KELLY Dissecting and Grasping Forceps

31110 R	31161 RM	31162 RM	31163 RM	31166 RM	31131 RM	31146 RM	31147 RM
31310 R	31361 RM	31362 RM	31363 RM	31366 RM	31331 RM	31346 RM	31347 RM



CLICK'line® Dissecting and Grasping Forceps, right-angled

Single action jaws

31110 ON	31161 ONM	31162 ONM	31163 ONM	31166 ONM	31131 ONM	31146 ONM	31147 ONM
31310 ON	31361 ONM	31362 ONM	31363 ONM	31366 ONM	31331 ONM	31346 ONM	31347 ONM



CLICK'line® Grasping Forceps, with especially fine atraumatic serration,
fenestrated

3.5 mm

Dissecting and Grasping Forceps ^{NEW}

CLICK'line® – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 3.5 mm

slimline

XS



Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars sizes 3.5 and 3.9 mm**

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
20 cm							
36 cm							

Double action jaws

Working Insert	Complete Instrument						
31110 UL	31151 UL	31152 UL	31153 UL	31156 UL	31121 UL	31125 UL	31149 UL
31310 UL	31351 UL	31352 UL	31353 UL	31356 UL	31321 UL	31325 UL	31349 UL



CLICK'line® REDDICK-OLSEN Dissecting and Grasping Forceps, robust

31110 K	31151 K	31152 K	31153 K	31156 K	31121 K	31125 K	31149 K
31310 K	31351 K	31352 K	31353 K	31356 K	31321 K	31325 K	31349 K



CLICK'line® Grasping Forceps, atraumatic, fenestrated

Single action jaws

31110 FA	31151 FA	31152 FA	31153 FA	31156 FA	31121 FA	31125 FA	31149 FA
31310 FA	31351 FA	31352 FA	31353 FA	31356 FA	31321 FA	31325 FA	31349 FA



CLICK'line® KOH Grasping Forceps, straight

31110 FR	31151 FR	31152 FR	31153 FR	31156 FR	31121 FR	31125 FR	31149 FR
31310 FR	31351 FR	31352 FR	31353 FR	31356 FR	31321 FR	31325 FR	31349 FR



CLICK'line® KOH Grasping Forceps, curved to right,
for ipsilateral suturing technique

3.5 mm

Dissecting and Grasping Forceps ^{NEW}

CLICK'linē – drotating, dismantling,
without connector pin for unipolar coagulation

Size 3.5 mm

slimline

XS

Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars sizes 3.5 and 3.9 mm**

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
20 cm		NEW 	NEW 	NEW 			
36 cm							

Double action jaws

Working Insert	Complete Instrument						
31110 UL	31161 ULM	31162 ULM	31163 ULM	31166 ULM	31131 ULM	31146 ULM	31147 ULM
31310 UL	31361 ULM	31362 ULM	31363 ULM	31366 ULM	31331 ULM	31346 ULM	31347 ULM



CLICK'linē REDDICK-OLSEN Dissecting and Grasping Forceps, robust

31110 K	31161 KM	31162 KM	31163 KM	31166 KM	31131 KM	31146 KM	31147 KM
31310 K	31361 KM	31362 KM	31363 KM	31366 KM	31331 KM	31346 KM	31347 KM



CLICK'linē Grasping Forceps, atraumatic, fenestrated

Single action jaws

31110 FA	31161 FAM	31162 FAM	31163 FAM	31166 FAM	31131 FAM	31146 FAM	31147 FAM
31310 FA	31361 FAM	31362 FAM	31363 FAM	31366 FAM	31331 FAM	31346 FAM	31347 FAM



CLICK'linē KOH Grasping Forceps, straight

31110 FR	31161 FRM	31162 FRM	31163 FRM	31166 FRM	31131 FRM	31146 FRM	31147 FRM
31310 FR	31361 FRM	31362 FRM	31363 FRM	31366 FRM	31331 FRM	31346 FRM	31347 FRM



CLICK'linē KOH Grasping Forceps, curved to right,
for ipsilateral suturing technique

3.5 mm

Dissecting and Grasping Forceps ^{NEW}

CLICK'line® – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 3.5 mm

slimline

XS



Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars sizes 3.5 and 3.9 mm**

3.5 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
20 cm							
36 cm							

Double action jaws

Working Insert	Complete Instrument						
31110 A	31151 A	31152 A	31153 A	31156 A	31121 A	31125 A	31149 A
31310 A	31351 A	31352 A	31353 A	31356 A	31321 A	31325 A	31349 A



CLICK'line® BABCOCK Grasping Forceps, atraumatic, fenestrated

31110 C	31151 C	31152 C	31153 C	31156 C	31121 C	31125 C	31149 C
31310 C	31351 C	31352 C	31353 C	31356 C	31321 C	31325 C	31349 C



CLICK'line® ROTHENBERG Bowel Grasper

31110 VT	31151 VT	31152 VT	31153 VT	31156 VT	31121 VT	31125 VT	31149 VT
31310 VT	31351 VT	31352 VT	31353 VT	31356 VT	31321 VT	31325 VT	31349 VT



CLICK'line® TAN Pyloric Spreader and Grasping Forceps,
in- and outside serrated jaws

31110 MG	31151 MG	31152 MG	31153 MG	31156 MG	31121 MG	31125 MG	31149 MG
31310 MG	31351 MG	31352 MG	31353 MG	31356 MG	31321 MG	31325 MG	31349 MG



CLICK'line® MANHES Dissecting and Grasping Forceps,
“tiger jaws”, 2 x 4 teeth

31110 FG	31151 FG	31152 FG	31153 FG	31156 FG	31121 FG	31125 FG	31149 FG
31310 FG	31351 FG	31352 FG	31353 FG	31356 FG	31321 FG	31325 FG	31349 FG



CLICK'line® Grasping Forceps, atraumatic, wavy serration

Dissecting and Grasping Forceps ^{NEW}

CLICK'line® – drotating, dismantling,
without connector pin for unipolar coagulation

Size 3.5 mm

slimline

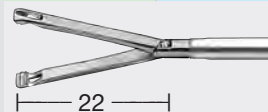
XS

Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars sizes 3.5 and 3.9 mm**

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
20 cm		NEW 	NEW 	NEW 			
36 cm							

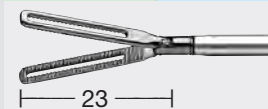
Double action jaws

Working Insert	Complete Instrument						
31110 A	31161 AM	31162 AM	31163 AM	31166 AM	31131 AM	31146 AM	31147 AM
31310 A	31361 AM	31362 AM	31363 AM	31366 AM	31331 AM	31346 AM	31347 AM



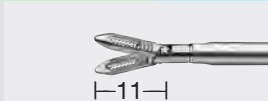
CLICK'line® BABCOCK Grasping Forceps, atraumatic, fenestrated

31110 C	31161 CM	31162 CM	31163 CM	31166 CM	31131 CM	31146 CM	31147 CM
31310 C	31361 CM	31362 CM	31363 CM	31366 CM	31331 CM	31346 CM	31347 CM



CLICK'line® ROTHENBERG Bowel Grasper

31110 VT	31161 VTM	31162 VTM	31163 VTM	31166 VTM	31131 VTM	31146 VTM	31147 VTM
31310 VT	31361 VTM	31362 VTM	31363 VTM	31366 VTM	31331 VTM	31346 VTM	31347 VTM



CLICK'line® TAN Pyloric Spreader and Grasping Forceps,
in- and outside serrated jaws

31110 MG	31161 MGM	31162 MGM	31163 MGM	31166 MGM	31131 MGM	31146 MGM	31147 MGM
31310 MG	31361 MGM	31362 MGM	31363 MGM	31366 MGM	31331 MGM	31346 MGM	31347 MGM



CLICK'line® MANHES Dissecting and Grasping Forceps,
"tiger jaws", 2 x 4 teeth

31110 FG	31161 FGM	31162 FGM	31163 FGM	31166 FGM	31131 FGM	31146 FGM	31147 FGM
31310 FG	31361 FGM	31362 FGM	31363 FGM	31366 FGM	31331 FGM	31346 FGM	31347 FGM



CLICK'line® Grasping Forceps, atraumatic, wavy serration

Percutaneous Pyloric Spreader, GEIGER Pyloric Grasper

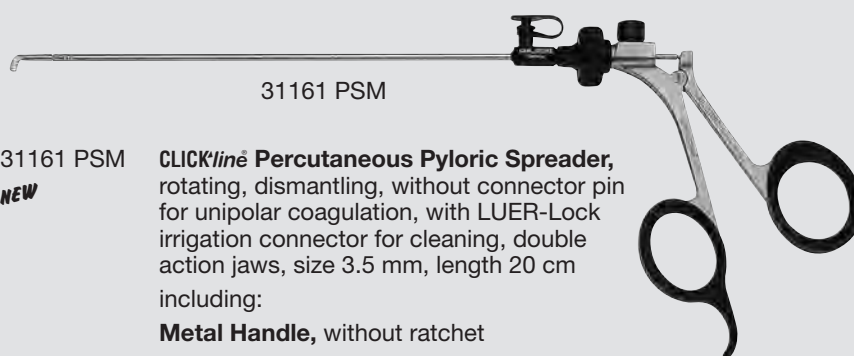
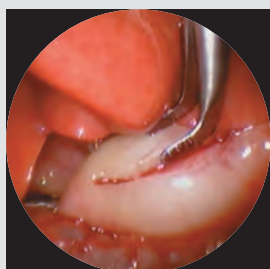


Size 3.5 mm

Operating instruments, length 20 cm

Minimally invasive surgery is constantly being refined due to the development of new techniques and instruments. Weber-Ramstedt pyloromyotomy and the Benson pyloric spreader have already been proven valuable in open surgery. KARL STORZ offers a special percutaneous pyloric spreader for minimal access. The design of the miniature access percutaneous pyloric spreader is modeled after the Benson spreader. The spreader has the following unique features: It is slim, it has a double action mechanism, its angled jaws are serrated on the outside and inside and it can be used without a trocar. The use of the miniature access percutaneous pyloric spreader has considerably

improved the pyloromyotomy procedure. Its slim size allows the spreader to easily fit into the myotomy incision. Serrations outside the spreader permit enough friction to prevent the instrument from sliding. The double action mechanism allows equal distribution of force on both sides of the myotomy. Introduction without a trocar decreases abdominal trauma and improves cosmetic results. The miniature access pyloric spreader proves to be a useful instrument for miniature access pyloromyotomy, which improves surgical precision, avoids unnecessary movements and minimizes potential complications.



31161 PSM

31161 PSM
NEW

CLICK'line® Percutaneous Pyloric Spreader, rotating, dismantling, without connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, size 3.5 mm, length 20 cm including:

- Metal Handle**, without ratchet
- Metal Outer Sheath**
- Forceps Insert**



31161 PF

31161 PF
NEW

CLICK'line® GEIGER Pyloric Grasper, rotating, dismantling, without connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, for percutaneous use, size 3.5 mm, length 20 cm including:

- Metal Handle**, without ratchet
- Outer Sheath**
- Working Insert**

Components/Spare Parts see chapter 21

Dissecting and Grasping Forceps ^{NEW} “JET GRASPER®”

CLICK'line® – rotating, dismantling, without connector pin for unipolar coagulation

STORZ
KARL STORZ — ENDOSKOPE

Size 5 mm

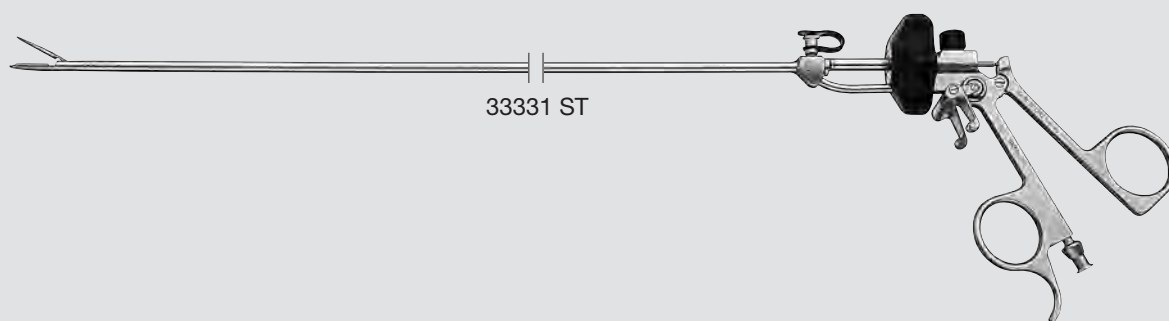
Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

The **CLICK'line®** instrument “JET GRASPER®” is a grasping forceps with an integrated irrigation function for the careful removal of adhesions (pelvic adhesions). The idea is to enable dilation of adhered tissue layers with the help of an irrigation jet (pocket formation) to gain

more space for further preparation or dissection. The increased space allows enhanced exposure and easier detachment of tissue layers. In particular, this creates access to the affected organs.

Special Features

- With integrated irrigation function
- Duckbill jaws with irrigation port
- Special handle and outer sheath with irrigation channel



33331 ST



CLICK'line® TCHARTCHIAN Dissecting and Grasping Forceps “JET GRASPER®”, rotating, dismantling, without connector pin for unipolar coagulation, with integrated irrigation function, with LUER-Lock irrigation connector for cleaning, single action jaws, size 5 mm, length 36 cm

including:

Metal Handle, without ratchet

Rotating Wheel

Outer Sheath with Working Insert

Cleaning Brush

5 mm

Components/Spare Parts see chapter 21

Dissecting and Grasping Forceps

CLICK^{linē} – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm



Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

Single action jaws

Working Insert	Complete Instrument						
33310 MF	33351 MF	33352 MF	33353 MF	33356 MF	33321 MF	33325 MF	33349 MF
 — 24 —	CLICK ^{linē} MANHES Dissecting and Grasping Forceps, atraumatic, specially designed for grasping and removal of hollow organs						
33310 MR	33351 MR	33352 MR	33353 MR	33356 MR	33321 MR	33325 MR	33349 MR
 — 20 —	CLICK ^{linē} MANHES Dissecting and Grasping Forceps, “duckbill jaws”, blunt, specially designed for extended clinching of tissue to effect mechanical hemostasis						
33310 MS	33351 MS	33352 MS	33353 MS	33356 MS	33321 MS	33325 MS	33349 MS
33410 MS	33451 MS	33452 MS	33453 MS	33456 MS	33421 MS	33425 MS	33449 MS
 — 14 —	CLICK ^{linē} MANHES Dissecting and Grasping Forceps, “duckbill jaws”, blunt, specially designed for extended clinching of tissue to effect mechanical hemostasis						
33210 MT	33251 MT	33252 MT	33253 MT	33256 MT	33221 MT	33225 MT	33249 MT
33310 MT	33351 MT	33352 MT	33353 MT	33356 MT	33321 MT	33325 MT	33349 MT
33410 MT	33451 MT	33452 MT	33453 MT	33456 MT	33421 MT	33425 MT	33449 MT
 — 20 —	CLICK ^{linē} MANHES Dissecting and Grasping Forceps, “duckbill jaws”, blunt, specially designed for partial clinching of tissue to effect mechanical hemostasis						

Dissecting and Grasping Forceps

CLICK'linē – drotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							
43 cm							

Single action jaws

Working Insert	Complete Instrument						
33310 MF	33361 MF	33362 MF	33363 MF	33366 MF	33331 MF	33346 MF	33347 MF
 — 24 —	CLICK'linē MANHES Dissecting and Grasping Forceps, atraumatic, specially designed for grasping and removal of hollow organs						
33310 MR	33361 MR	33362 MR	33363 MR	33366 MR	33331 MR	33346 MR	33347 MR
 — 20 —	CLICK'linē MANHES Dissecting and Grasping Forceps, “duckbill jaws”, blunt, specially designed for extended clinching of tissue to effect mechanical hemostasis						
33310 MS	33361 MS	33362 MS	33363 MS	33366 MS	33331 MS	33346 MS	33347 MS
33410 MS	33461 MS	33462 MS	33463 MS	33466 MS	33431 MS	33446 MS	33447 MS
 — 14 —	CLICK'linē MANHES Dissecting and Grasping Forceps, “duckbill jaws”, blunt, specially designed for extended clinching of tissue to effect mechanical hemostasis						
33210 MT	33261 MT	33262 MT	33263 MT	33266 MT	33231 MT	33246 MT	33247 MT
33310 MT	33361 MT	33362 MT	33363 MT	33366 MT	33331 MT	33346 MT	33347 MT
33410 MT	33461 MT	33462 MT	33463 MT	33466 MT	33431 MT	33446 MT	33447 MT
 — 20 —	CLICK'linē MANHES Dissecting and Grasping Forceps, “duckbill jaws”, blunt, specially designed for partial clinching of tissue to effect mechanical hemostasis						

5 mm

Dissecting and Grasping Forceps

CLICK^{linē} – rotating, dismantling, insulated,
with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
36 cm							
43 cm							

Single action jaws

Working Insert	Complete Instrument						
33310 MU	33351 MU	33352 MU	33353 MU	33356 MU	33321 MU	33325 MU	33349 MU
 — 20 —	CLICK ^{linē} MANHES Dissecting and Grasping Forceps, conical, blunt, specially designed for extended clinching of tissue to effect mechanical hemostasis						
33310 MV	33351 MV	33352 MV	33353 MV	33356 MV	33321 MV	33325 MV	33349 MV
33410 MV	33451 MV	33452 MV	33453 MV	33456 MV	33421 MV	33425 MV	33449 MV
 — 14 —	CLICK ^{linē} MANHES Dissecting and Grasping Forceps, conical, blunt, specially designed for extended clinching of tissue to effect mechanical hemostasis						
33310 MP	33351 MP	33352 MP	33353 MP	33356 MP	33321 MP	33325 MP	33349 MP
 — 10 —	CLICK ^{linē} MANHES Dissecting and Grasping Forceps, “dolphin nose”, small						

Dissecting and Grasping Forceps

CLICK'linē – drotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
36 cm		NEW 	NEW 	NEW 			
43 cm							

Single action jaws

Working Insert	Complete Instrument						
33310 MU	33361 MU	33362 MU	33363 MU	33366 MU	33331 MU	33346 MU	33347 MU
 — 20 —	CLICK'linē MANHES Dissecting and Grasping Forceps , conical, blunt, specially designed for extended clinching of tissue to effect mechanical hemostasis						
33310 MV	33361 MV	33362 MV	33363 MV	33366 MV	33331 MV	33346 MV	33347 MV
33410 MV	33461 MV	33462 MV	33463 MV	33466 MV	33431 MV	33446 MV	33447 MV
 — 14 —	CLICK'linē MANHES Dissecting and Grasping Forceps , conical, blunt, specially designed for extended clinching of tissue to effect mechanical hemostasis						
33310 MP	33361 MP	33362 MP	33363 MP	33366 MP	33331 MP	33346 MP	33347 MP
 — 10 —	CLICK'linē MANHES Dissecting and Grasping Forceps , “dolphin nose”, small						

5 mm

Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm



Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

Single action jaws

Working Insert	Complete Instrument						
33210 AK	33251 AK	33252 AK	33253 AK	33256 AK	33221 AK	33225 AK	33249 AK
33310 AK	33351 AK	33352 AK	33353 AK	33356 AK	33321 AK	33325 AK	33349 AK
33410 AK	33451 AK	33452 AK	33453 AK	33456 AK	33421 AK	33425 AK	33449 AK



CLICK'linē MOURET **Dissecting and Grasping Forceps**,
atraumatic, distal end serrated, slender jaws, long jaw reservoir

33310 MO	33351 MO	33352 MO	33353 MO	33356 MO	33321 MO	33325 MO	33349 MO
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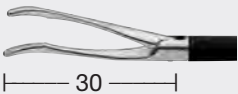
CLICK'linē MOURET **Dissecting and Grasping Forceps**,
distal serration, atraumatic, long jaws, large reservoir

33210 MN	33251 MN	33252 MN	33253 MN	33256 MN	33221 MN	33225 MN	33249 MN
33310 MN	33351 MN	33352 MN	33353 MN	33356 MN	33321 MN	33325 MN	33349 MN
33410 MN	33451 MN	33452 MN	33453 MN	33456 MN	33421 MN	33425 MN	33449 MN



CLICK'linē MOURET **Dissecting and Grasping Forceps**,
slender, atraumatic, fenestrated

33210 MM	33251 MM	33252 MM	33253 MM	33256 MM	33221 MM	33225 MM	33249 MM
33310 MM	33351 MM	33352 MM	33353 MM	33356 MM	33321 MM	33325 MM	33349 MM
33410 MM	33451 MM	33452 MM	33453 MM	33456 MM	33421 MM	33425 MM	33449 MM



CLICK'linē MOURET **Dissecting and Grasping Forceps**,
with slender curved jaws, large reservoir

Dissecting and Grasping Forceps

CLICK'liné – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							
43 cm							

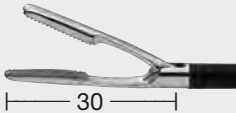
Single action jaws

Working Insert	Complete Instrument						
33210 AK	33261 AK	33262 AK	33263 AK	33266 AK	33231 AK	33246 AK	33247 AK
33310 AK	33361 AK	33362 AK	33363 AK	33366 AK	33331 AK	33346 AK	33347 AK
33410 AK	33461 AK	33462 AK	33463 AK	33466 AK	33431 AK	33446 AK	33447 AK



CLICK'liné MOURET **Dissecting and Grasping Forceps**,
atraumatic, distal end serrated, slender jaws, long jaw reservoir

33310 MO	33361 MO	33362 MO	33363 MO	33366 MO	33331 MO	33346 MO	33347 MO
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CLICK'liné MOURET **Dissecting and Grasping Forceps**,
distal serration, atraumatic, long jaws, large reservoir

33210 MN	33261 MN	33262 MN	33263 MN	33266 MN	33231 MN	33246 MN	33247 MN
33310 MN	33361 MN	33362 MN	33363 MN	33366 MN	33331 MN	33346 MN	33347 MN
33410 MN	33461 MN	33462 MN	33463 MN	33466 MN	33431 MN	33446 MN	33447 MN



CLICK'liné MOURET **Dissecting and Grasping Forceps**,
slender, atraumatic, fenestrated

33210 MM	33261 MM	33262 MM	33263 MM	33266 MM	33231 MM	33246 MM	33247 MM
33310 MM	33361 MM	33362 MM	33363 MM	33366 MM	33331 MM	33346 MM	33347 MM
33410 MM	33461 MM	33462 MM	33463 MM	33466 MM	33431 MM	33446 MM	33447 MM



CLICK'liné MOURET **Dissecting and Grasping Forceps**,
with slender curved jaws, large reservoir

5 mm

Dissecting and Grasping Forceps

CLICK*liné* – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm



5 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33210 MH	33251 MH	33252 MH	33253 MH	33256 MH	33221 MH	33225 MH	33249 MH
33310 MH	33351 MH	33352 MH	33353 MH	33356 MH	33321 MH	33325 MH	33349 MH



CLICK*liné* Dissecting and Grasping Forceps, atraumatic

33210 DF	33251 DF	33252 DF	33253 DF	33256 DF	33221 DF	33225 DF	33249 DF
33310 DF	33351 DF	33352 DF	33353 DF	33356 DF	33321 DF	33325 DF	33349 DF
33410 DF	33451 DF	33452 DF	33453 DF	33456 DF	33421 DF	33425 DF	33449 DF



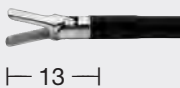
CLICK*liné* Dissecting and Grasping Forceps, atraumatic

33210 DN	33251 DN	33252 DN	33253 DN	33256 DN	33221 DN	33225 DN	33249 DN
33310 DN	33351 DN	33352 DN	33353 DN	33356 DN	33321 DN	33325 DN	33349 DN
33410 DN	33451 DN	33452 DN	33453 DN	33456 DN	33421 DN	33425 DN	33449 DN



CLICK*liné* Dissecting and Grasping Forceps, “dolphin nose”

33210 KJ	33251 KJ	33252 KJ	33253 KJ	33256 KJ	33221 KJ	33225 KJ	33249 KJ
33310 KJ	33351 KJ	33352 KJ	33353 KJ	33356 KJ	33321 KJ	33325 KJ	33349 KJ
33410 KJ	33451 KJ	33452 KJ	33453 KJ	33456 KJ	33421 KJ	33425 KJ	33449 KJ



CLICK*liné* REDDICK-OLSEN Dissecting and Grasping Forceps

7-11

Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33210 MH	33261 MH	33262 MH	33263 MH	33266 MH	33231 MH	33246 MH	33247 MH
33310 MH	33361 MH	33362 MH	33363 MH	33366 MH	33331 MH	33346 MH	33347 MH



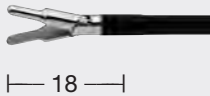
CLICK'line® Dissecting and Grasping Forceps, atraumatic

33210 DF	33261 DF	33262 DF	33263 DF	33266 DF	33231 DF	33246 DF	33247 DF
33310 DF	33361 DF	33362 DF	33363 DF	33366 DF	33331 DF	33346 DF	33347 DF
33410 DF	33461 DF	33462 DF	33463 DF	33466 DF	33431 DF	33446 DF	33447 DF



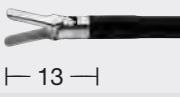
CLICK'line® Dissecting and Grasping Forceps, atraumatic

33210 DN	33261 DN	33262 DN	33263 DN	33266 DN	33231 DN	33246 DN	33247 DN
33310 DN	33361 DN	33362 DN	33363 DN	33366 DN	33331 DN	33346 DN	33347 DN
33410 DN	33461 DN	33462 DN	33463 DN	33466 DN	33431 DN	33446 DN	33447 DN



CLICK'line® Dissecting and Grasping Forceps, “dolphin nose”

33210 KJ	33261 KJ	33262 KJ	33263 KJ	33266 KJ	33231 KJ	33246 KJ	33247 KJ
33310 KJ	33361 KJ	33362 KJ	33363 KJ	33366 KJ	33331 KJ	33346 KJ	33347 KJ
33410 KJ	33461 KJ	33462 KJ	33463 KJ	33466 KJ	33431 KJ	33446 KJ	33447 KJ

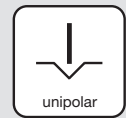


CLICK'line® REDDICK-OLSEN Dissecting and Grasping Forceps

5 mm

Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling, insulated,
with connector pin for unipolar coagulation



Size 5 mm

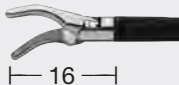
Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33210 MD	33251 MD	33252 MD	33253 MD	33256 MD	33221 MD	33225 MD	33249 MD
33310 MD	33351 MD	33352 MD	33353 MD	33356 MD	33321 MD	33325 MD	33349 MD
33410 MD	33451 MD	33452 MD	33453 MD	33456 MD	33421 MD	33425 MD	33449 MD



CLICK'linē KELLY Dissecting and Grasping Forceps

33210 ML	33251 ML	33252 ML	33253 ML	33256 ML	33221 ML	33225 ML	33249 ML
33310 ML	33351 ML	33352 ML	33353 ML	33356 ML	33321 ML	33325 ML	33349 ML
33410 ML	33451 ML	33452 ML	33453 ML	33456 ML	33421 ML	33425 ML	33449 ML



CLICK'linē KELLY Dissecting and Grasping Forceps, long

33310 DK	33351 DK	33352 DK	33353 DK	33356 DK	33321 DK	33325 DK	33349 DK
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CLICK'linē DeBAKEY Grasping Forceps,
curved and slender jaws, atraumatic

33310 UY	33351 UY	33352 UY	33353 UY	33356 UY	33321 UY	33325 UY	33349 UY
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CLICK'linē UYAMA Dissecting and Grasping Forceps,
long jaws, with reservoir, fine, for dissection

33310 NO	33351 NO	33352 NO	33353 NO	33356 NO	33321 NO	33325 NO	33349 NO
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CLICK'linē NOSHIRO Dissecting and Grasping Forceps,
short jaws, fine, for dissection

Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

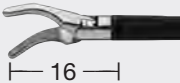
Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33210 MD	33261 MD	33262 MD	33263 MD	33266 MD	33231 MD	33246 MD	33247 MD
33310 MD	33361 MD	33362 MD	33363 MD	33366 MD	33331 MD	33346 MD	33347 MD
33410 MD	33461 MD	33462 MD	33463 MD	33466 MD	33431 MD	33446 MD	33447 MD



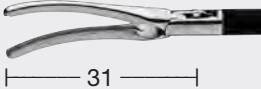
CLICK'linē **KELLY Dissecting and Grasping Forceps**

33210 ML	33261 ML	33262 ML	33263 ML	33266 ML	33231 ML	33246 ML	33247 ML
33310 ML	33361 ML	33362 ML	33363 ML	33366 ML	33331 ML	33346 ML	33347 ML
33410 ML	33461 ML	33462 ML	33463 ML	33466 ML	33431 ML	33446 ML	33447 ML



CLICK'linē **KELLY Dissecting and Grasping Forceps, long**

33310 DK	33361 DK	33362 DK	33363 DK	33366 DK	33331 DK	33346 DK	33347 DK
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CLICK'linē **DeBAKEY Grasping Forceps**,
curved and slender jaws, atraumatic

33310 UY	33361 UY	33362 UY	33363 UY	33366 UY	33331 UY	33346 UY	33347 UY
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CLICK'linē **UYAMA Dissecting and Grasping Forceps**,
long jaws, with reservoir, fine, for dissection

33310 NO	33361 NO	33362 NO	33363 NO	33366 NO	33331 NO	33346 NO	33347 NO
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CLICK'linē **NOSHIRO Dissecting and Grasping Forceps**,
short jaws, fine, for dissection

5 mm

Dissecting and Grasping Forceps

CLICK^{line} – rotating, dismantling, insulated,
with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33210 R	33251 R	33252 R	33253 R	33256 R	33221 R	33225 R	33249 R
33310 R	33351 R	33352 R	33353 R	33356 R	33321 R	33325 R	33349 R
33410 R	33451 R	33452 R	33453 R	33456 R	33421 R	33425 R	33449 R



CLICK^{line} Dissecting and Grasping Forceps, right-angled

33210 UL	33251 UL	33252 UL	33253 UL	33256 UL	33221 UL	33225 UL	33249 UL
33310 UL	33351 UL	33352 UL	33353 UL	33356 UL	33321 UL	33325 UL	33349 UL
33410 UL	33451 UL	33452 UL	33453 UL	33456 UL	33421 UL	33425 UL	33449 UL



CLICK^{line} REDDICK-OLSEN Dissecting and Grasping Forceps, robust

33210 HM	33251 HM	33252 HM	33253 HM	33256 HM	33221 HM	33225 HM	33249 HM
33310 HM	33351 HM	33352 HM	33353 HM	33356 HM	33321 HM	33325 HM	33349 HM
33410 HM	33451 HM	33452 HM	33453 HM	33456 HM	33421 HM	33425 HM	33449 HM



CLICK^{line} Dissecting and Grasping Forceps, “alligator jaws”

Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33210 R	33261 R	33262 R	33263 R	33266 R	33231 R	33246 R	33247 R
33310 R	33361 R	33362 R	33363 R	33366 R	33331 R	33346 R	33347 R
33410 R	33461 R	33462 R	33463 R	33466 R	33431 R	33446 R	33447 R



CLICK'linē Dissecting and Grasping Forceps, right-angled

33210 UL	33261 UL	33262 UL	33263 UL	33266 UL	33231 UL	33246 UL	33247 UL
33310 UL	33361 UL	33362 UL	33363 UL	33366 UL	33331 UL	33346 UL	33347 UL
33410 UL	33461 UL	33462 UL	33463 UL	33466 UL	33431 UL	33446 UL	33447 UL



CLICK'linē REDDICK-OLSEN Dissecting and Grasping Forceps, robust

33210 HM	33261 HM	33262 HM	33263 HM	33266 HM	33231 HM	33246 HM	33247 HM
33310 HM	33361 HM	33362 HM	33363 HM	33366 HM	33331 HM	33346 HM	33347 HM
33410 HM	33461 HM	33462 HM	33463 HM	33466 HM	33431 HM	33446 HM	33447 HM

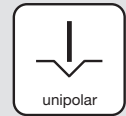


CLICK'linē Dissecting and Grasping Forceps, “alligator jaws”

5 mm

Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling, insulated,
with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

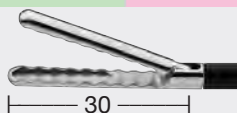
Single action jaws

Working Insert	Complete Instrument						
33210 ON	33251 ON	33252 ON	33253 ON	33256 ON	33221 ON	33225 ON	33249 ON
33310 ON	33351 ON	33352 ON	33353 ON	33356 ON	33321 ON	33325 ON	33349 ON
33410 ON	33451 ON	33452 ON	33453 ON	33456 ON	33421 ON	33425 ON	33449 ON



CLICK'line® Grasping Forceps, with especially fine atraumatic serration,
fenestrated

33210 LF	33251 LF	33252 LF	33253 LF	33256 LF	33221 LF	33225 LF	33249 LF
33310 LF	33351 LF	33352 LF	33353 LF	33356 LF	33321 LF	33325 LF	33349 LF
33410 LF	33451 LF	33452 LF	33453 LF	33456 LF	33421 LF	33425 LF	33449 LF



CLICK'line® Grasping Forceps, atraumatic, with hollow jaws

33210 CC	33251 CC	33252 CC	33253 CC	33256 CC	33221 CC	33225 CC	33249 CC
33310 CC	33351 CC	33352 CC	33353 CC	33356 CC	33321 CC	33325 CC	33349 CC
33410 CC	33451 CC	33452 CC	33453 CC	33456 CC	33421 CC	33425 CC	33449 CC



CLICK'line® CROCE-OLMI Grasping Forceps, atraumatic, fenestrated, curved

Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

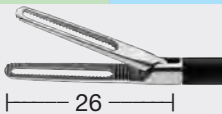
Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							
43 cm							

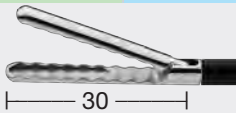
Single action jaws

Working Insert	Complete Instrument						
33210 ON	33261 ON	33262 ON	33263 ON	33266 ON	33231 ON	33246 ON	33247 ON
33310 ON	33361 ON	33362 ON	33363 ON	33366 ON	33331 ON	33346 ON	33347 ON
33410 ON	33461 ON	33462 ON	33463 ON	33466 ON	33431 ON	33446 ON	33447 ON



CLICK'line® Grasping Forceps, with especially fine atraumatic serration, fenestrated

33210 LF	33261 LF	33262 LF	33263 LF	33266 LF	33231 LF	33246 LF	33247 LF
33310 LF	33361 LF	33362 LF	33363 LF	33366 LF	33331 LF	33346 LF	33347 LF
33410 LF	33461 LF	33462 LF	33463 LF	33466 LF	33431 LF	33446 LF	33447 LF



CLICK'line® Grasping Forceps, atraumatic, with hollow jaws

33210 CC	33261 CC	33262 CC	33263 CC	33266 CC	33231 CC	33246 CC	33247 CC
33310 CC	33361 CC	33362 CC	33363 CC	33366 CC	33331 CC	33346 CC	33347 CC
33410 CC	33461 CC	33462 CC	33463 CC	33466 CC	33431 CC	33446 CC	33447 CC

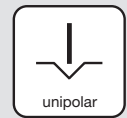


CLICK'line® CROCE-OLMI Grasping Forceps, atraumatic, fenestrated, curved

5 mm

Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling, insulated,
with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

Single action jaws

Working Insert	Complete Instrument						
33310 SN	33351 SN	33352 SN	33353 SN	33356 SN	33321 SN	33325 SN	33349 SN
	CLICK'linē SCHNEIDER Lymph Node Grasping Forceps, atraumatic						
33310 DY	33351 DY	33352 DY	33353 DY	33356 DY	33321 DY	33325 DY	33349 DY
33410 DY	33451 DY	33452 DY	33453 DY	33456 DY	33421 DY	33425 DY	33449 DY
	CLICK'linē DeBAKEY Grasping Forceps, atraumatic						
33310 WT	33351 WT	33352 WT	33353 WT	33356 WT	33321 WT	33325 WT	33349 WT
	CLICK'linē Grasping Forceps, atraumatic						
33210 BA	33251 BA	33252 BA	33253 BA	33256 BA	33221 BA	33225 BA	33249 BA
33310 BA	33351 BA	33352 BA	33353 BA	33356 BA	33321 BA	33325 BA	33349 BA
33410 BA	33451 BA	33452 BA	33453 BA	33456 BA	33421 BA	33425 BA	33449 BA
	CLICK'linē BABCOCK Grasping Forceps, atraumatic, jaws with multiple teeth, fenestrated						

Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation





Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							
43 cm							

Single action jaws

Working Insert	Complete Instrument						
33310 SN	33361 SN	33362 SN	33363 SN	33366 SN	33331 SN	33346 SN	33347 SN
 22	CLICK'line® SCHNEIDER Lymph Node Grasping Forceps, atraumatic						
33310 DY	33361 DY	33362 DY	33363 DY	33366 DY	33331 DY	33346 DY	33347 DY
33410 DY	33461 DY	33462 DY	33463 DY	33466 DY	33431 DY	33446 DY	33447 DY
 24	CLICK'line® DeBAKEY Grasping Forceps, atraumatic						
33310 WT	33361 WT	33362 WT	33363 WT	33366 WT	33331 WT	33346 WT	33347 WT
 28	CLICK'line® Grasping Forceps, atraumatic						
33210 BA	33261 BA	33262 BA	33263 BA	33266 BA	33231 BA	33246 BA	33247 BA
33310 BA	33361 BA	33362 BA	33363 BA	33366 BA	33331 BA	33346 BA	33347 BA
33410 BA	33461 BA	33462 BA	33463 BA	33466 BA	33431 BA	33446 BA	33447 BA
 16	CLICK'line® BABCOCK Grasping Forceps, atraumatic, jaws with multiple teeth, fenestrated						

5 mm

Dissecting and Grasping Forceps

CLICK*liné* – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm





Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm



Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
36 cm							
43 cm							

Single action jaws

Working Insert	Complete Instrument						
33310 BB	33351 BB	33352 BB	33353 BB	33356 BB	33321 BB	33325 BB	33349 BB
33410 BB	33451 BB	33452 BB	33453 BB	33456 BB	33421 BB	33425 BB	33449 BB
 <div>30</div>	CLICK <i>liné</i> BABCOCK Grasping Forceps, atraumatic, jaws with multiple teeth, fenestrated, long						
33310 AA	33351 AA	33352 AA	33353 AA	33356 AA	33321 AA	33325 AA	33349 AA
 <div>23</div>	CLICK <i>liné</i> MOURET Grasping Forceps, atraumatic, fenestrated, slender						
33310 AB	33351 AB	33352 AB	33353 AB	33356 AB	33321 AB	33325 AB	33349 AB
 <div>30</div>	CLICK <i>liné</i> MOURET Grasping Forceps, atraumatic, fenestrated, round jaws, slender						
33310 MA	33351 MA	33352 MA	33353 MA	33356 MA	33321 MA	33325 MA	33349 MA
 <div>17</div>	CLICK <i>liné</i> MANHES Grasping Forceps, “cobra-jaws”, 1 x 2 teeth						

Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
36 cm		NEW 	NEW 	NEW 			
43 cm							

Single action jaws

Working Insert	Complete Instrument						
33310 BB	33361 BB	33362 BB	33363 BB	33366 BB	33331 BB	33346 BB	33347 BB
33410 BB	33461 BB	33462 BB	33463 BB	33466 BB	33431 BB	33446 BB	33447 BB
 30	CLICK'linē BABCOCK Grasping Forceps, atraumatic, with multiple teeth, fenestrated, long						
33310 AA	33361 AA	33362 AA	33363 AA	33366 AA	33331 AA	33346 AA	33347 AA
 23	CLICK'linē MOURET Grasping Forceps, atraumatic, fenestrated, slender						
33310 AB	33361 AB	33362 AB	33363 AB	33366 AB	33331 AB	33346 AB	33347 AB
 30	CLICK'linē MOURET Grasping Forceps, atraumatic, fenestrated, round jaws, slender						
33310 MA	33361 MA	33362 MA	33363 MA	33366 MA	33331 MA	33346 MA	33347 MA
 17	CLICK'linē MANHES Grasping Forceps, “cobra jaws”, 1 x 2 teeth						

5 mm

Dissecting and Grasping Forceps

CLICKlinē – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm



Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

Single action jaws

Working Insert	Complete Instrument						
33310 M	33351 M	33352 M	33353 M	33356 M	33321 M	33325 M	33349 M
 	CLICKlinē MANHES Grasping Forceps, with multiple teeth, width of jaws 3 mm, for atraumatic and accurate grasping						
33310 FM	33351 FM	33352 FM	33353 FM	33356 FM	33321 FM	33325 FM	33349 FM
33410 FM	33451 FM	33452 FM	33453 FM	33456 FM	33421 FM	33425 FM	33449 FM
 	CLICKlinē Claw Forceps, 2 x 3 teeth						
33210 ME	33251 ME	33252 ME	33253 ME	33256 ME	33221 ME	33225 ME	33249 ME
33310 ME	33351 ME	33352 ME	33353 ME	33356 ME	33321 ME	33325 ME	33349 ME
33410 ME	33451 ME	33452 ME	33453 ME	33456 ME	33421 ME	33425 ME	33449 ME
 	CLICKlinē MANHES Grasping Forceps, with multiple teeth, width of jaws 4.8 mm, for atraumatic and accurate grasping						
33210 MG	33251 MG	33252 MG	33253 MG	33256 MG	33221 MG	33225 MG	33249 MG
33310 MG	33351 MG	33352 MG	33353 MG	33356 MG	33321 MG	33325 MG	33349 MG
33410 MG	33451 MG	33452 MG	33453 MG	33456 MG	33421 MG	33425 MG	33449 MG
 	CLICKlinē MANHES Grasping Forceps, “tiger jaws”, 2 x 4 teeth, for grasping and removal of solid organs, in particular during adhesiolyses						

Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							
43 cm							

Single action jaws

Working Insert	Complete Instrument						
33310 M	33361 M	33362 M	33363 M	33366 M	33331 M	33346 M	33347 M
 14	CLICK'linē MANHES Grasping Forceps , with multiple teeth, width of jaws 3 mm, for atraumatic and accurate grasping						

33310 FM	33361 FM	33362 FM	33363 FM	33366 FM	33331 FM	33346 FM	33347 FM
33410 FM	33461 FM	33462 FM	33463 FM	33466 FM	33431 FM	33446 FM	33447 FM
 26	CLICK'linē Claw Forceps , 2 x 3 teeth						

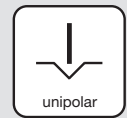
33210 ME	33261 ME	33262 ME	33263 ME	33266 ME	33231 ME	33246 ME	33247 ME
33310 ME	33361 ME	33362 ME	33363 ME	33366 ME	33331 ME	33346 ME	33347 ME
33410 ME	33461 ME	33462 ME	33463 ME	33466 ME	33431 ME	33446 ME	33447 ME
 14	CLICK'linē MANHES Grasping Forceps , with multiple teeth, width of jaws 4.8 mm, for atraumatic and accurate grasping						

33210 MG	33261 MG	33262 MG	33263 MG	33266 MG	33231 MG	33246 MG	33247 MG
33310 MG	33361 MG	33362 MG	33363 MG	33366 MG	33331 MG	33346 MG	33347 MG
33410 MG	33461 MG	33462 MG	33463 MG	33466 MG	33431 MG	33446 MG	33447 MG
 14	CLICK'linē MANHES Grasping Forceps , “tiger jaws”, 2 x 4 teeth, for grasping and removal of solid organs, in particular during adhesiolyses						

5 mm

Dissecting and Grasping Forceps

CLICK^{liné} – rotating, dismantling, insulated,
with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33310 LFD	33351 LFD	33352 LFD	33353 LFD	33356 LFD	33321 LFD	33325 LFD	33349 LFD
33410 LFD	33451 LFD	33452 LFD	33453 LFD	33456 LFD	33421 LFD	33425 LFD	33449 LFD



CLICK^{liné} Grasping Forceps, atraumatic, hollow jaws

33310 WTD	33351 WTD	33352 WTD	33353 WTD	33356 WTD	33321 WTD	33325 WTD	33349 WTD
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CLICK^{liné} Grasping Forceps, atraumatic

33310 DYD	33351 DYD	33352 DYD	33353 DYD	33356 DYD	33321 DYD	33325 DYD	33349 DYD
33410 DYD	33451 DYD	33452 DYD	33453 DYD	33456 DYD	33421 DYD	33425 DYD	33449 DYD



CLICK^{liné} DeBAKEY Grasping Forceps, atraumatic

33310 CG	33351 CG	33352 CG	33353 CG	33356 CG	33321 CG	33325 CG	33349 CG
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CLICK^{liné} Dissecting and Grasping Forceps, atraumatic, hollow jaws

Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
36 cm		NEW 	NEW 	NEW 			
43 cm							

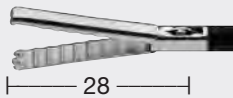
Double action jaws

Working Insert	Complete Instrument						
33310 LFD	33361 LFD	33362 LFD	33363 LFD	33366 LFD	33331 LFD	33346 LFD	33347 LFD
33410 LFD	33461 LFD	33462 LFD	33463 LFD	33466 LFD	33431 LFD	33446 LFD	33447 LFD



CLICK'linē Grasping Forceps, atraumatic, hollow jaws

33310 WTD	33361 WTD	33362 WTD	33363 WTD	33366 WTD	33331 WTD	33346 WTD	33347 WTD
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CLICK'linē Grasping Forceps, atraumatic

33310 DYD	33361 DYD	33362 DYD	33363 DYD	33366 DYD	33331 DYD	33346 DYD	33347 DYD
33410 DYD	33461 DYD	33462 DYD	33463 DYD	33466 DYD	33431 DYD	33446 DYD	33447 DYD



CLICK'linē DeBAKEY Grasping Forceps, atraumatic

33310 CG	33361 CG	33362 CG	33363 CG	33366 CG	33331 CG	33346 CG	33347 CG
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CLICK'linē Dissecting and Grasping Forceps, atraumatic, hollow jaws

5 mm

Dissecting and Grasping Forceps

CLICKlinē – rotating, dismantling, insulated,
with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

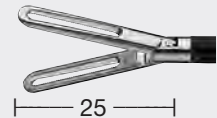
Double action jaws

Working Insert	Complete Instrument						
33210 AF	33251 AF	33252 AF	33253 AF	33256 AF	33221 AF	33225 AF	33249 AF
33310 AF	33351 AF	33352 AF	33353 AF	33356 AF	33321 AF	33325 AF	33349 AF
33410 AF	33451 AF	33452 AF	33453 AF	33456 AF	33421 AF	33425 AF	33449 AF



CLICKlinē Grasping Forceps, atraumatic, fenestrated

33310 OD	33351 OD	33352 OD	33353 OD	33356 OD	33321 OD	33325 OD	33349 OD
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CLICKlinē Grasping Forceps, fenestrated,
with especially fine atraumatic serration

33310 FG	33351 FG	33352 FG	33353 FG	33356 FG	33321 FG	33325 FG	33349 FG
33410 FG	33451 FG	33452 FG	33453 FG	33456 FG	33421 FG	33425 FG	33449 FG



CLICKlinē Grasping Forceps, atraumatic

33210 D	33251 D	33252 D	33253 D	33256 D	33221 D	33225 D	33249 D
33310 D	33351 D	33352 D	33353 D	33356 D	33321 D	33325 D	33349 D



CLICKlinē Grasping Forceps, atraumatic, spoon-shaped, with multiple teeth

33310 K	33351 K	33352 K	33353 K	33356 K	33321 K	33325 K	33349 K
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CLICKlinē Grasping Forceps, atraumatic, fenestrated

5 mm

Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							
43 cm							

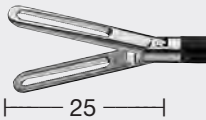
Double action jaws

Working Insert	Complete Instrument						
33210 AF	33261 AF	33262 AF	33263 AF	33266 AF	33231 AF	33246 AF	33247 AF
33310 AF	33361 AF	33362 AF	33363 AF	33366 AF	33331 AF	33346 AF	33347 AF
33410 AF	33461 AF	33462 AF	33463 AF	33466 AF	33431 AF	33446 AF	33447 AF



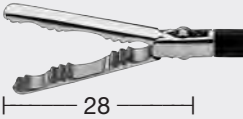
CLICK'linē Grasping Forceps, atraumatic, fenestrated

33310 OD	33361 OD	33362 OD	33363 OD	33366 OD	33331 OD	33346 OD	33347 OD
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CLICK'linē Grasping Forceps, fenestrated,
with especially fine atraumatic serration

33310 FG	33361 FG	33362 FG	33363 FG	33366 FG	33331 FG	33346 FG	33347 FG
33410 FG	33461 FG	33462 FG	33463 FG	33466 FG	33431 FG	33446 FG	33447 FG



CLICK'linē Grasping Forceps, atraumatic

33210 D	33261 D	33262 D	33263 D	33266 D	33231 D	33246 D	33247 D
33310 D	33361 D	33362 D	33363 D	33366 D	33331 D	33346 D	33347 D



CLICK'linē Grasping Forceps, atraumatic, spoon-shaped, with multiple teeth

33310 K	33361 K	33362 K	33363 K	33366 K	33331 K	33346 K	33347 K
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CLICK'linē Grasping Forceps, atraumatic, fenestrated

5 mm

Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling, insulated,
with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33210 A	33251 A	33252 A	33253 A	33256 A	33221 A	33225 A	33249 A
33310 A	33351 A	33352 A	33353 A	33356 A	33321 A	33325 A	33349 A
33410 A	33451 A	33452 A	33453 A	33456 A	33421 A	33425 A	33449 A



CLICK'line® **BABCOCK Grasping Forceps**, atraumatic, fenestrated

33210 C	33251 C	33252 C	33253 C	33256 C	33221 C	33225 C	33249 C
33310 C	33351 C	33352 C	33353 C	33356 C	33321 C	33325 C	33349 C
33410 C	33451 C	33452 C	33453 C	33456 C	33421 C	33425 C	33449 C



CLICK'line® **Bowel Grasper**, fenestrated

33310 CK	33351 CK	33352 CK	33353 CK	33356 CK	33321 CK	33325 CK	33349 CK
33410 CK	33451 CK	33452 CK	33453 CK	33456 CK	33421 CK	33425 CK	33449 CK



CLICK'line® **Bowel Grasper**, fenestrated, short

33310 UK	33351 UK	33352 UK	33353 UK	33356 UK	33321 UK	33325 UK	33349 UK
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CLICK'line® **KOH Urethra Grasping Forceps**, insulated jaws,
concave inwardly curved jaws, continuously toothed

5 mm








Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33210 A	33261 A	33262 A	33263 A	33266 A	33231 A	33246 A	33247 A
33310 A	33361 A	33362 A	33363 A	33366 A	33331 A	33346 A	33347 A
33410 A	33461 A	33462 A	33463 A	33466 A	33431 A	33446 A	33447 A



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CLICK'line® **BABCOCK Grasping Forceps**, atraumatic, fenestrated

33210 C	33261 C	33262 C	33263 C	33266 C	33231 C	33246 C	33247 C
33310 C	33361 C	33362 C	33363 C	33366 C	33331 C	33346 C	33347 C
33410 C	33461 C	33462 C	33463 C	33466 C	33431 C	33446 C	33447 C



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CLICK'line® **Bowel Grasper**, fenestrated

33310 CK	33361 CK	33362 CK	33363 CK	33366 CK	33331 CK	33346 CK	33347 CK
33410 CK	33461 CK	33462 CK	33463 CK	33466 CK	33431 CK	33446 CK	33447 CK



18

CLICK'line® **Bowel Grasper**, fenestrated, short

33310 UK	33361 UK	33362 UK	33363 UK	33366 UK	33331 UK	33346 UK	33347 UK
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21

CLICK'line® **KOH Urethra Grasping Forceps**, insulated jaws,
concave inwardly curved jaws, continuously toothed

5 mm

Dissecting and Grasping Forceps

CLICK^{line} – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, length 36 cm,
for use with trocars size 6 mm



Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
36 cm							NEW

Double action jaws

Working Insert	Complete Instrument						
33310 VK	33351 VK	33352 VK	33353 VK	33356 VK	33321 VK	33325 VK	33349 VK
	CLICK ^{line} VANCAILLIE Adhesion Forceps, one fenestrated jaw						
33310 VT	33351 VT	33352 VT	33353 VT	33356 VT	33321 VT	33325 VT	33349 VT
	CLICK ^{line} VANCAILLIE Oviduct Forceps						
33310 VA	33351 VA	33352 VA	33353 VA	33356 VA	33321 VA	33325 VA	33349 VA
	CLICK ^{line} VANCAILLIE Mesoovarian Forceps						
33310 NW	33351 NW	33352 NW	33353 NW	33356 NW	33321 NW	33325 NW	33349 NW
	CLICK ^{line} NUWAYHID Oviduct Forceps						

Dissecting and Grasping Forceps





CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
36 cm		NEW 	NEW 	NEW 			

Double action jaws

Working Insert	Complete Instrument						
33310 VK	33361 VK	33362 VK	33363 VK	33366 VK	33331 VK	33346 VK	33347 VK
 15	CLICK'line® VANCAILLIE Adhesion Forceps, one fenestrated jaw						
33310 VT	33361 VT	33362 VT	33363 VT	33366 VT	33331 VT	33346 VT	33347 VT
 13	CLICK'line® VANCAILLIE Oviduct Forceps						
33310 VA	33361 VA	33362 VA	33363 VA	33366 VA	33331 VA	33346 VA	33347 VA
 15	CLICK'line® VANCAILLIE Mesoovarian Forceps						
33310 NW	33361 NW	33362 NW	33363 NW	33366 NW	33331 NW	33346 NW	33347 NW
 14	CLICK'line® NUWAYHID Oviduct Forceps						

5 mm

Dissecting and Grasping Forceps

CLICK^{line} – rotating, dismantling, insulated,
with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, length 36 cm,
for use with trocars size 6 mm

Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
36 cm							

Double action jaws

Working Insert	Complete Instrument						
33310 SW	33351 SW	33352 SW	33353 SW	33356 SW	33321 SW	33325 SW	33349 SW
 23	CLICK ^{line} SWOLIN Grasping Forceps, atraumatic, blunt edges and teeth protect against injury and allow the fallopian tubes or similarly delicate structures to be held gently						
33310 AG	33351 AG	33352 AG	33353 AG	33356 AG	33321 AG	33325 AG	33349 AG
 16	CLICK ^{line} MANGESHIKAR Grasping Forceps, serrated						

Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, length 36 cm,
for use with trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
36 cm		NEW 	NEW 	NEW 			

Double action jaws

Working Insert	Complete Instrument						
33310 SW	33361 SW	33362 SW	33363 SW	33366 SW	33331 SW	33346 SW	33347 SW
 23	CLICK'line® SWOLIN Grasping Forceps, atraumatic, blunt edges and teeth protect against injury and allow the fallopian tubes or similarly delicate structures to be held gently						
33310 AG	33361 AG	33362 AG	33363 AG	33366 AG	33331 AG	33346 AG	33347 AG
 16	CLICK'line® MANGESHIKAR Grasping Forceps, serrated						

5 mm

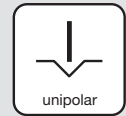
Dissecting and Grasping Forceps

CLICK^{line} – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm



Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33310 KW	33351 KW	33352 KW	33353 KW	33356 KW	33321 KW	33325 KW	33349 KW



CLICK^{line} MATKOWITZ Grasping Forceps

33210 G	33251 G	33252 G	33253 G	33256 G	33221 G	33225 G	33249 G
33310 G	33351 G	33352 G	33353 G	33356 G	33321 G	33325 G	33349 G
33410 G	33451 G	33452 G	33453 G	33456 G	33421 G	33425 G	33449 G



CLICK^{line} Grasping Forceps, 2 x 4 teeth

33310 J	33351 J	33352 J	33353 J	33356 J	33321 J	33325 J	33349 J
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**CLICK^{line} BERCİ Multifunctional Grasping Forceps, 1 x 1 teeth,
to close gallbladder perforations or to facilitate blunt dissections**

33310 PM	33351 PM	33352 PM	33353 PM	33356 PM	33321 PM	33325 PM	33349 PM
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CLICK^{line} MANGESHIKAR Grasping Forceps, 2 x 1 teeth

Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33310 KW	33361 KW	33362 KW	33363 KW	33366 KW	33331 KW	33346 KW	33347 KW
 18	CLICK'line® MATKOWITZ Grasping Forceps						
33210 G	33261 G	33262 G	33263 G	33266 G	33231 G	33246 G	33247 G
33310 G	33361 G	33362 G	33363 G	33366 G	33331 G	33346 G	33347 G
33410 G	33461 G	33462 G	33463 G	33466 G	33431 G	33446 G	33447 G
 14	CLICK'line® Grasping Forceps, 2 x 4 teeth						
33310 J	33361 J	33362 J	33363 J	33366 J	33331 J	33346 J	33347 J
 11	CLICK'line® BERCI Multifunctional Grasping Forceps, 1 x 1 teeth, to close gallbladder perforations or to facilitate blunt dissection						

5 mm

Dissecting and Grasping Forceps

CLICK^{line} – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, length 36 cm,
for use with trocars size 6 mm



Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
36 cm							

Double action jaws

Working Insert	Complete Instrument						
33310 TF	33351 TF	33352 TF	33353 TF	33356 TF	33321 TF	33325 TF	33349 TF
	CLICK ^{line} Ovary Grasping Forceps, serrated						
34310 SA	34351 SA	34352 SA	34353 SA	34356 SA	34321 SA	34325 SA	34349 SA
	CLICK ^{line} SHAWKI Duo, cutting-coagulation forceps, "dolphin nose"						
34310 SO	34351 SO	34352 SO	34353 SO	34356 SO	34321 SO	34325 SO	34349 SO
	CLICK ^{line} SHAWKI Duo, cutting-coagulation forceps, right-angled jaws						

Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
30 cm		NEW 	NEW 	NEW 			
36 cm							

Double action jaws

Working Insert	Complete Instrument						
33310 TF	33361 TF	33362 TF	33363 TF	33366 TF	33331 TF	33346 TF	33347 TF
 40	CLICK'line® Ovary Grasping Forceps, serrated						
33210 UM	33261 UM	33262 UM	33263 UM	33266 UM	33231 UM	33246 UM	33247 UM
33310 UM	33361 UM	33362 UM	33363 UM	33366 UM	33331 UM	33346 UM	33347 UM
 27	CLICK'line® Ovary Grasping Forceps, serrated						
33310 AV	33361 AV	33362 AV	33363 AV	33366 AV	33331 AV	33346 AV	33347 AV
 17	CLICK'line® Grasping Forceps, for stapler pressure plates						

5 mm

Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 10 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 11 mm**

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
36 cm		NEW 	NEW 	NEW 			

Double action jaws

Working Insert	Complete Instrument						
33510 PR	33561 PR	33562 PR	33563 PR	33566 PR	33531 PR	33546 PR	33547 PR
 43	CLICK'line® Dissecting and Grasping Forceps, atraumatic, for grasping organs						
33510 MLL	33561 MLL	33562 MLL	33563 MLL	33566 MLL	33531 MLL	33546 MLL	33547 MLL
 44	CLICK'line® KELLY Dissecting and Grasping Forceps, long						
33510 RG	33561 RG	33562 RG	33563 RG	33566 RG	33531 RG	33546 RG	33547 RG
 26	CLICK'line® Grasping Forceps, jaws right-angled						
33510 AF	33561 AF	33562 AF	33563 AF	33566 AF	33531 AF	33546 AF	33547 AF
 32	CLICK'line® Grasping Forceps, atraumatic, fenestrated						

Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling,
without connector pin for unipolar coagulation

Size 10 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 11 mm**

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
36 cm		NEW 	NEW 	NEW 			

Double action jaws

Working Insert	Complete Instrument						
33510 TH	33561 TH	33562 TH	33563 TH	33566 TH	33531 TH	33546 TH	33547 TH
<div> <div>CLICK'linē Grasping Forceps, fenestrated</div> <div>15</div> </div>							
33510 BC	33561 BC	33562 BC	33563 BC	33566 BC	33531 BC	33546 BC	33547 BC
<div> <div>CLICK'linē BABCOCK Clamp</div> <div>34</div> </div>							
33510 BLS	33561 BLS	33562 BLS	33563 BLS	33566 BLS	33531 BLS	33546 BLS	33547 BLS
<div> <div>CLICK'linē BABCOCK Clamp, rounded jaws, long</div> <div>33</div> </div>							

10 mm

Dissecting and Grasping Forceps


CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 10 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 11 mm**

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
36 cm		NEW 	NEW 	NEW 			

Double action jaws

Working Insert	Complete Instrument						
33510 UO	33561 UO	33562 UO	33563 UO	33566 UO	33531 UO	33546 UO	33547 UO
 <div>20</div>	CLICK'line® SAWALHE Tenaculum Forceps, short						
33510 UM	33561 UM	33562 UM	33563 UM	33566 UM	33531 UM	33546 UM	33547 UM
 <div>32</div>	CLICK'line® SAWALHE Tenaculum Forceps						
33510 UN	33561 UN	33562 UN	33563 UN	33566 UN	33531 UN	33546 UN	33547 UN
 <div>34</div>	CLICK'line® SAWALHE Tissue Grasping Forceps						

Dissecting and Grasping Forceps

CLICK'linē – rotating, dismantling,
without connector pin for unipolar coagulation

Size 10 mm

Operating instruments, length 36 cm,
for use with trocars size 11 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
36 cm		NEW 	NEW 	NEW 			

Single action jaws

Working Insert	Complete Instrument						
33510 FK	33561 FK	33562 FK	33563 FK	33566 FK	33531 FK	33546 FK	33547 FK
 21	 CLICK'linē Claw Forceps, 2 x 3 teeth, short						
33510 FS	33561 FS	33562 FS	33563 FS	33566 FS	33531 FS	33546 FS	33547 FS
 35	 CLICK'linē Claw Forceps, 2 x 3 teeth						

Double action jaws

33510 SR	33561 SR	33562 SR	33563 SR	33566 SR	33531 SR	33546 SR	33547 SR
 22	 CLICK'linē Forceps, to retrieve lost gallstones						

10 mm

Dissecting and Grasping Forceps

CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 10 mm

Operating instruments, length 36 cm,
for use with trocars size 11 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
36 cm		NEW 	NEW 	NEW 			

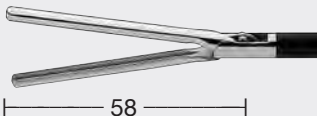
Double action jaws

Working Insert	Complete Instrument						
33710 DU	33761 DU	33762 DU	33763 DU	33766 DU	33731 DU	33746 DU	33747 DU



CLICK'line® DUVAL Grasping Forceps, with reinforced bayonet coupling,
for use with Outer Sheath 33700

33510 GF	33561 GF	33562 GF	33563 GF	33566 GF	33531 GF	33546 GF	33547 GF
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CLICK'line® Bowel Grasper,
two rows of atraumatic teeth

33510 CB	33561 CB	33562 CB	33563 CB	33566 CB	33531 CB	33546 CB	33547 CB
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CLICK'line® Bowel Grasper

Surgical Sponge Holders

Sizes 5 and 10 mm

Operating Instruments, **length 30 cm**,
for use with **trocars sizes 6 and 11 mm**



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

Spherical sponges recommended for size 5 mm:

DIN 61630/VM 20 (4 x 4 cm) or spherical sponge for similar geometry and basis weight.

Spherical sponges recommended for size 10 mm:

DIN 61630/VM 24 (8 x 8 cm) or spherical sponge for similar geometry and basis weight; compatible with 10 mm trocars.

Handle 32121 can be used with both 5 mm and 10 mm surgical sponge holders.

Components/Spare Parts see chapter 21

Grasping Forceps




dismantling, without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Dismantling instruments, consisting of:

- Metal handle with outer sheath
- Working Insert

Length	U-Spring-Handle with Outer Sheath	
	30529	
36 cm		
Working insert	Complete Instrument	
30419 FB	30435 FB	
	SEMM Grasping Forceps	
30419 KE	30435 KE	
	Grasping Forceps	

The components illustrated here can **only be used** with the **U-Spring Handle with Outer Sheath 30529**.

Please note:
For **dismantling** instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument**, as shown above against the **white** background, is not on the instrument. The color **green** indicates the working inserts.

Grasping Forceps

dismantling, insulated, with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**



Dismantling instrument consisting of:

- Handle with outer sheath, insulated
- Working Insert

Length	U-Spring-Handle with Outer Sheath	
	30535	
36 cm		
Working insert	Complete Instrument	
30420 FB	30425 FB	
	TAKE-APART® SEMM Grasping Forceps	
30420 FD	30425 FD	
	TAKE-APART® Grasping Forceps, atraumatic, fenestrated	

5 mm

The components illustrated here can **only be used** with the **U-Spring Handle with Outer Sheath 30535**.

Please note:

For **dismantling** instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument**, as shown above against the **white** background, is not on the instrument. The color **green** indicates the working inserts.

Handles and Outer Sheaths for Bipolar Forceps

TAKE-APART® – with connector pin for bipolar coagulation



Size 3 mm

TAKE-APART® bipolar instruments, consisting of:

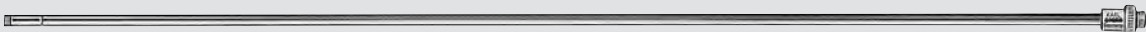
- Handle
- Outer Sheath
- Working Insert



TAKE APART® Handles

	
26184 HR TAKE APART® Bipolar Spring Handle	26184 HM TAKE APART® Bipolar Ring Handle

TAKE APART® Outer Sheaths



26184 HSS/HS/H

26184 HSS	TAKE APART® Outer Sheath , for bipolar instruments, size 3 mm, length 20 cm
26184 HS	Same , length 30 cm
26184 H	Same , length 36 cm

Working Inserts for TAKE APART® Instruments size 3 mm see page 143

Bipolar Forceps

TAKE-APART® – with connector pin for bipolar coagulation

Size 3 mm

Operating instruments, **lengths 20, 30 and 36 cm**,
for use **with trocars size 3.5 mm**



Outer Sheath	Handle	
	26184 HR	26184 HM
Length 20 cm		
Length 30 cm		
Length 36 cm		

Working Insert	Complete Instrument	
26184 HVS	26184 RCS	26184 HCS
26184 HV	26184 RC	26184 HC
26184 HVL	26184 RCL	26184 HCL



TAKE-APART® MANHES Bipolar Coagulation Forceps,
width of jaws 1 mm

26184 PTS	26184 HPS	26184 MPS
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TAKE-APART® TAN Bipolar Coagulation Forceps

26184 HTS	26184 HAS	26184 MAS
26184 HT	26184 HA	26184 MA
26184 HTL	26184 HAL	26184 MAL



TAKE-APART® Bipolar Coagulation Forceps

Please note:
For **TAKE-APART®** instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument**, as shown above against the **white** background, is not on the instrument. The color **green** indicates the working inserts.
Bipolar High Frequency Cords see accessories page 158

Bipolar Forceps with Non-Retracting Jaws

Some short remarks by M. HESSELING, M. D.

The bipolar grasping forceps is one of the most frequently used instruments in surgical laparoscopy. In previously used models (single sheath bipolar forceps), the coagulating parts retracted by about 1 cm after the forceps were closed. In order to coagulate at the desired site, the surgeon had to compensate for this

backward movement with an active forward movement (Fig. 1 – 6). This additional necessary movement made handling more difficult, especially in the “learning phase” and in a situation in which easy handling is of utmost importance for coagulating an existing hemorrhage.



Fig. 1: “Former” bipolar coagulation forceps with opened jaws



Fig. 3: While closing the jaws, the coagulating parts retract: A compensating movement of the surgeon is necessary



Fig. 5: “Former” bipolar coagulation forceps with closed jaws

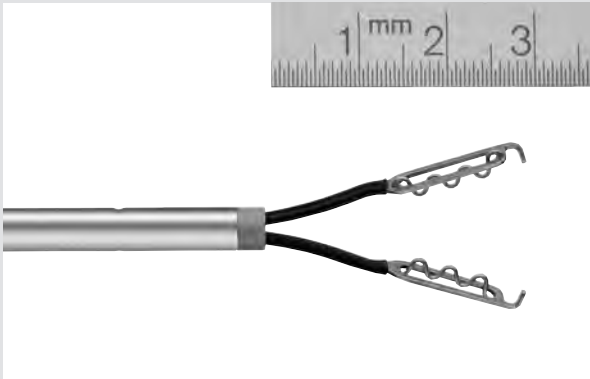


Fig. 2

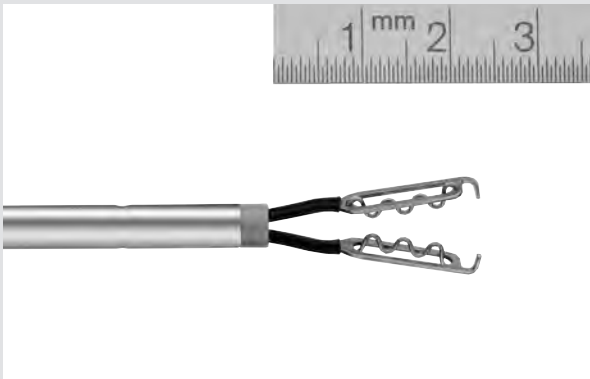


Fig. 4

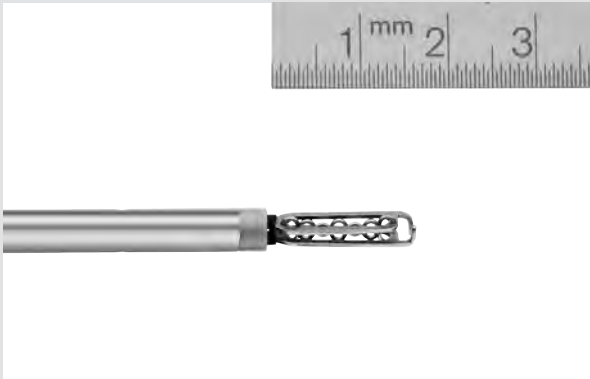


Fig. 6

Bipolar Forceps with Non-Retracting Jaws

Some short remarks by M. HESSELING, M. D.

Because of their “double tube” design, the new forceps no longer require this compensating movement. The coagulating parts remain at the point where they had been originally positioned (Fig. 7–12). This facilitates the handling of the instrument especially for less experienced surgeons. The targeted coagulation of a hemorrhage is facilitated. Interfering compensating movements are no longer necessary. A change-over to this

new system does not require complete replacement as existing inserts and cables can still be used.

Conclusion: The new bipolar coagulation forceps system should clearly facilitate handling and correct placement of the forceps, especially for beginners or surgeons having little experience with the previous system, since the compensating movement is no longer necessary.

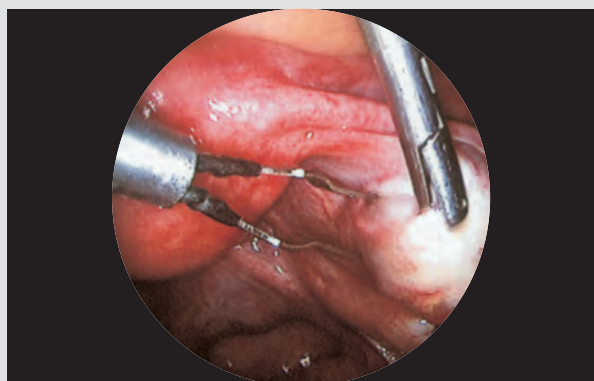


Fig. 7: New bipolar coagulation forceps with opened jaws

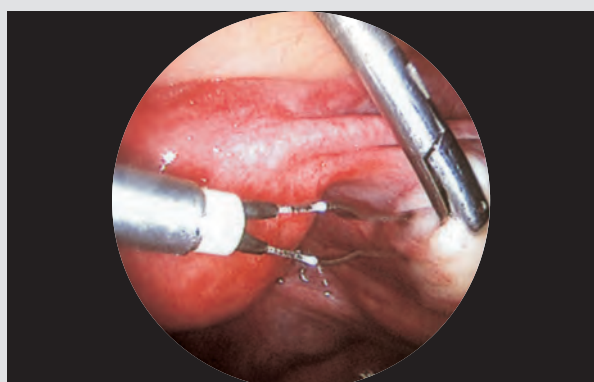


Fig. 9: New bipolar coagulation forceps: closing of the jaws without any “compensating movement” by the surgeon

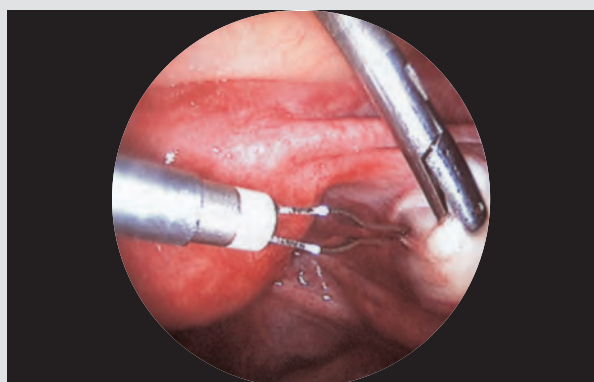


Fig. 11: New bipolar coagulation forceps closed: the coagulating parts remain in their former position

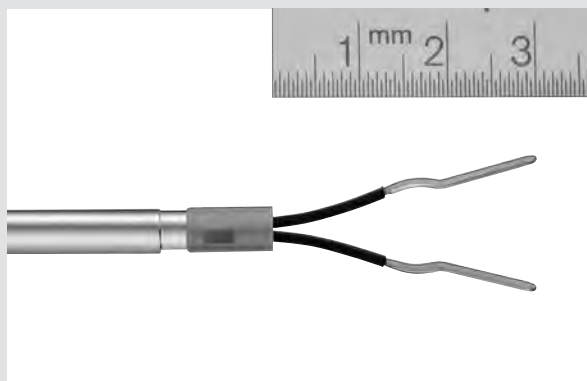


Fig. 8

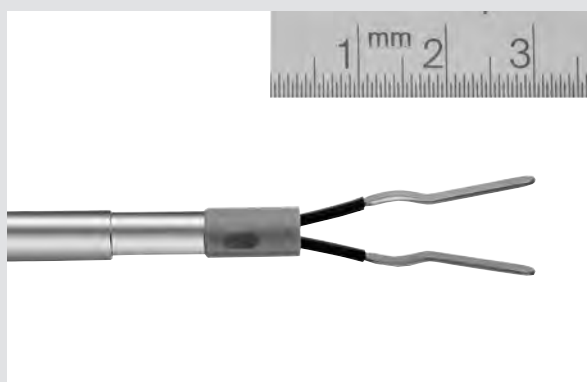


Fig. 10

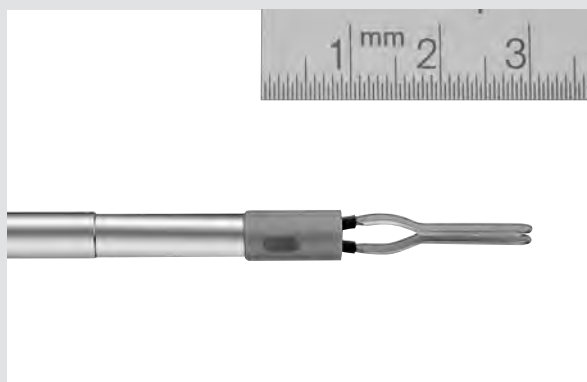


Fig. 12

Handles and Outer Sheaths for Bipolar Forceps

TAKE-APART® – with connector pin for bipolar coagulation

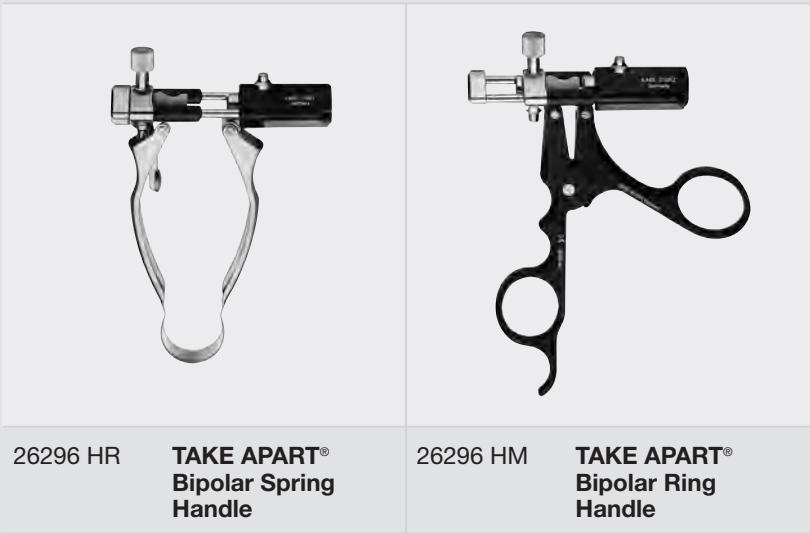


Size 5 mm

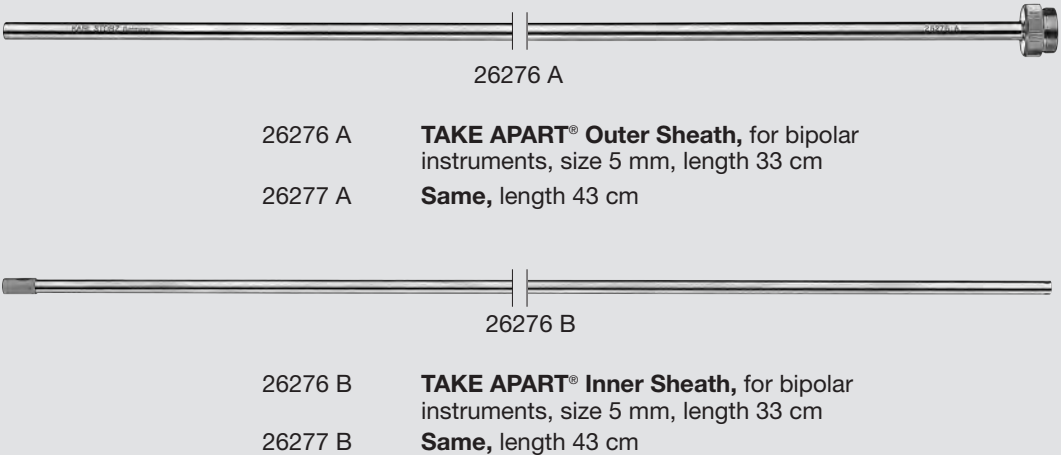
TAKE-APART® bipolar instruments, consisting of:

- Handle
- Outer sheath
- Inner sheath
- Working Insert

TAKE APART® Handles



TAKE APART® Outer and Inner Sheaths



Please note:

TAKE-APART® instruments length 43 cm, for use with HOPKINS® Straight Forward Telescopes 26034 AA, 26038 AA and HOPKINS® Wide Angle Straight Forward Telescope 26075 AA

Working Inserts for TAKE APART® Instruments size 5 mm see pages 147-149

Bipolar Forceps








with movable inner sheath and non-retracting jaws,
TAKE-APART® – with connector pin for bipolar coagulation

Size 5 mm

Operating instruments, **length 33 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm



Outer Sheath Inner Sheath	Handle	
	26296 HR	26296 HM
Length 33 cm		
Length 43 cm		
Working Insert	Complete Instrument	
26176 HT	26276 HA	26276 MA
26177 HT	26277 HA	26277 MA
	TAKE-APART® Bipolar Coagulation Forceps	
26176 HE	26276 RE	26276 ME
26177 HE	26277 RE	26277 ME
	TAKE-APART® Bipolar Coagulation Forceps, robust	
26176 DS	26276 RS	26276 MS
26177 DS	26277 RS	26277 MS
	TAKE-APART® Bipolar Coagulation Forceps	
26176 RH	26276 RA	26276 RB
	TAKE-APART® Bipolar Coagulation Forceps, 2 x 2 teeth, robust	
26176 AS	26276 RG	26276 MG
	TAKE-APART® SCAR-Blade Bipolar Knife	

Please note:

For **TAKE-APART®** instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument**, as shown above against the **white** background, is not on the instrument. The color **green** indicates the working inserts.

Bipolar High Frequency Cords see accessories page 158

5 mm

Bipolar Forceps



with movable inner sheath and non-retracting jaws,
TAKE-APART® – with connector pin for bipolar coagulation







Size 5 mm

Operating instruments, **length 33 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Outer Sheath Inner Sheath	Handle	
	26296 HR	26296 HM
Length 33 cm		
Length 43 cm		

Working insert	Complete Instrument	
26176 HN	26276 RK	26276 HK
	TAKE-APART® SCHNEIDER Bipolar Coagulation Forceps, robust jaws	
26176 KL	26276 MH	26276 MM
26177 KL	26277 MH	26277 MM
	TAKE-APART® Bipolar Coagulation Forceps, robust	
26176 HX	26276 HL	26276 ML
	TAKE-APART® Bipolar Coagulation Forceps	
26176 HU	26276 HB	26276 MB
	TAKE-APART® VANCAILLIE Bipolar Micro Forceps	

Please note:
For TAKE-APART® instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument**, as shown above against the **white** background, is not on the instrument. The color **green** indicates the working inserts.
Bipolar High Frequency Cords see accessories page 158

Bipolar Forceps

with movable inner sheath and non-retracting jaws,
TAKE-APART® – with connector pin for bipolar coagulation

Size 5 mm

Operating instruments, **length 33 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm



Outer Sheath Inner Sheath	Handle	
	26296 HR	26296 HM
Length 33 cm		
Length 43 cm		

Working Insert	Complete Instrument	
26176 HW	26276 RD	26276 HD
26177 HW	26277 RD	26277 HD
	TAKE-APART® MANHES Bipolar Coagulation Forceps, width of jaws 3 mm	
26176 HV	26276 RC	26276 HC
26177 HV	26277 RC	26277 HC
	TAKE-APART® MANHES Bipolar Coagulation Forceps, width of jaws 1 mm	
26176 HO	26276 RO	26276 MO
26177 HO	26277 RO	26277 MO
	TAKE-APART® MANHES Bipolar Coagulation Forceps, with cross serration, width of jaws 3 mm	
26176 HP	26276 RP	26276 MP
	TAKE-APART® MANHES Bipolar Coagulation Forceps, with cross serration, width of jaws 1 mm	

Please note:
For TAKE-APART® instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument**, as shown above against the **white** background, is not on the instrument. The color **green** indicates the working inserts.
Bipolar High Frequency Cords see accessories page 158

A prerequisite for successful, minimally invasive laparoscopic procedures is the selection of the correct HF instruments and units combined with the basic principles of surgery.

During a surgical procedure, the operating surgeon must be able to grasp various tissue structures, to dissect and work on the relevant organ (incision/dissection), and to control hemorrhage (suturing and/or hemostasis). Instruments that perform multiple functions means there is less need for instrument exchange. This saves the surgeon considerable time and effort.

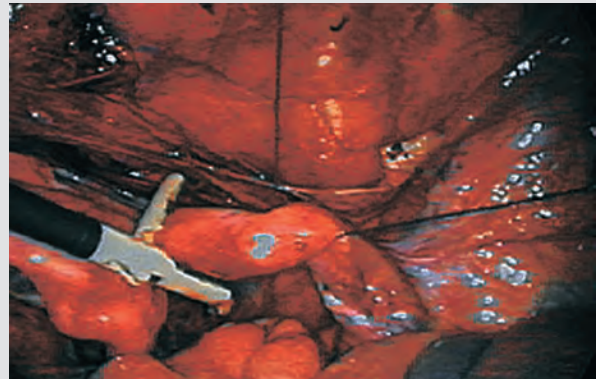
KARL STORZ set itself the task of designing instruments that meet the specific demands of minimally invasive surgery and developed the rotating, bipolar (“ROBI®”) instruments – the CLERMONT-FERRAND model – in co-operation with Prof. Wattiez (Strasbourg, France) for this purpose. Like all other instruments in the ROBI® series, they are fully rotatable by 360° and can be disassembled into a handle, sheath and insert. The instruments are autoclavable and easy to handle and clean.



ROBI® Bipolar Grasping Forceps

Grasping Function

The use of retractors in minimally invasive surgery is not always possible or useful. The surgeon, therefore, requires an instrument that is capable of grasping tissue precisely and is able to maintain the tissue at a safe distance to the operating site.



To meet various needs and requirements, the jaws of the ROBI® bipolar grasping forceps vary in regard to size and width. Jaws with rougher toothings are suitable for grasping thicker and heavier tissue whereas jaws with finer toothings are better for grasping more fragile tissue structures. Fenestrated jaws offer the advantage that even structures which are difficult to grasp can be securely gripped.

To enable optimum grasping, even from less favorable angles and positions, all instruments can be rotated 360°. This function proves to be particularly advantageous when using monoarticulate forceps in order to place the jaws in the ideal position.

Dissection Function

The identification of tissue structures via dissection is a prerequisite for minimizing risks in precision surgery.

The delicate KELLY jaws represent a standard dissection instrument without which the CLERMONT-FERRAND series would not be complete. We have also included very slender and extra-flat jaws to meet the demands of all difficult anatomical conditions. By opening the handle, the jaws can be moved and the tissue surface can be spread apart. Conventional bipolar forceps, for example, have no joint between the jaws. Closure of the jaws is effected by sliding an external tube. As a result, opening is usually passive. Instruments with an imprecise grasping function do not allow precise dissection.

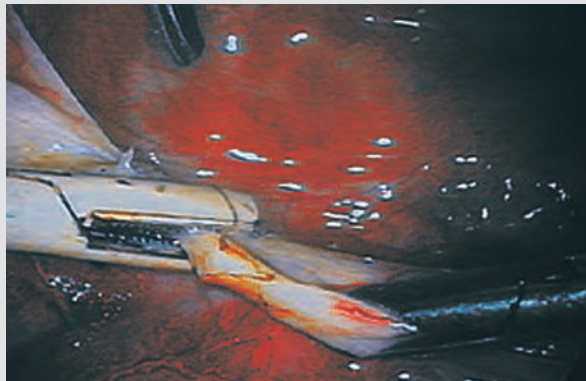
The joint mechanism of the ROBI® instruments provides the surgeon with a natural tactile feedback. The force exerted on the tissue can, therefore, be felt at the handle and thus permits a precise dose for dissection. "Tactile feedback enables optimal tissue dissection," according to Wattiez.

In addition to biarticulate jaws for easier handling of delicate tissue and vessels, the CLERMONT-FERRAND series also feature instruments with robust, monarticulate jaws which facilitate dissection in critical regions and reduce trauma to a minimum. These instruments are appropriate for oncological procedures such as, for example, lymph node dissection.

Micro instruments are being increasingly used in dissection due to their enhanced precision and advancements in high frequency technology. The delicate instruments from the CLERMONT-FERRAND series are ideal for use with bipolar energy.

The Coagulation Function

The use of bipolar energy offers significant advantages over unipolar energy. The carefully applied current flows between the branches of the utilized HF instrument and must not travel over long distances through the body of the patient via a neutral electrode. With the aim of providing maximum user safety, ROBI® instruments were designed and equipped with bipolar HF technology to ensure minimal patient discomfort.



An essential feature of ROBI® instruments is that the forceps inserts consist of two jaws that are insulated by a ceramic layer. This reduces flashover and, therefore, offers more safety during HF application.

Despite these safety precautions, it is important to observe basic rules and principles for optimum work with bipolar HF energy and to keep risks at a minimum. In general, it is important to ensure that no critical viscera is in contact with the instrument and that only the relevant tissue is grasped between the two jaws of the forceps when activating or contacting the bipolar instrument.

Coagulation occurs by means of heating the tissue. If the tissue is heated too severely or the HF application times are too long, there is a risk that burns will occur around the operating site. Heat dispersion can be restricted by selecting the appropriate HF power setting. A 30 – 50 W power setting is generally sufficient for laparoscopic interventions. In principle, the higher the selected HF power setting, the shorter the exposure time and vice versa. The longer the exposure time, the more extensive the heat dispersion. Care must be taken that HF energy has adequate penetration depth, which is not always easy for the surgeon to see or predict. After selecting the power setting, the surgeon applies the energy with as short an exposure time as possible.

The power setting used generally depends on the size of the selected jaws as the density of the energy transferred to the tissue is directly relative to the size of the jaws. With the same power setting, the narrower the jaws, the greater the energy density.

The thicker the jaws, the higher the power setting required. With thicker jaws, the operating surgeon has to choose a higher power setting (approx. 50 W) but with a shorter exposure time. With thinner jaws, a lower power setting of approximately 35 W is selected.



Tissue impedance is another important aspect that needs to be considered in order to avoid unintentional thermal damage. Through more or less heavy compression of the tissue, the surgeon can alter the tissue impedance and, thus, modify the dispersion of electrical energy. The more the tissue is compressed, the greater the impedance. Altering the electrical HF energy influences coagulation time, which then becomes shorter. In contrast to conventional bipolar forceps, grasping forceps from the ROBI® series – thanks to their tactile feedback – allow the pressure applied to the tissue to be altered and, as a result, the impedance to be changed.

During the procedure, blood and tissue may coagulate on the jaws. This may act as an insulation layer and change the distribution of energy. In extreme cases, there is no current flow and coagulation is no longer possible. To prevent soiling of the jaws, the appropriate power setting depending on the size of the jaws must be selected. Furthermore, long exposure times and coagulation in blood should be avoided. Precise, preventative coagulation is the best safety precaution.

ROBI® Bipolar Scissors

Cutting Function

To meet the different requirements of various tissue structures during the incision phase, we also added curved METZENBAUM scissors as well as serrated jaws for difficult-to-grasp tissue structures to the existing straight scissor versions in the CLERMONT-FERRAND series.

Coagulation Function

Bipolar ROBI® scissors have also been specially designed for use with HF energy and enable both coagulation and cutting in the coagulated area, the “tissue that has become white”. As soon as the tissue becomes pink again, the incision is interrupted and coagulation can be continued. Of course, the same safety precautions apply to ROBI® scissors regarding the use of bipolar HF energy as described above for grasping forceps.

Conclusion

Optimization of the minimally invasive intervention is dependent on the number and selection of functions that are possible for the surgeon. ROBI® grasping forceps offer the surgeon an instrument with grasping, dissection and coagulation functions. ROBI® scissors also offer the possibility of dissection and coagulation as well as, of course, incision. Thanks to the quick-change ROBI® system, working inserts can be rapidly exchanged during surgery and according to surgical requirements. This multifunctionality leads to an optimization of the surgical procedure which becomes easier, faster and safer as a result.

The ROBI® grasping forceps and scissors from the CLERMONT-FERRAND series feature a high degree of user-friendliness in the customary KARL STORZ tradition.

ROBI® Bipolar Grasping Forceps ^{NEW}

rotating, dismantling, with connector pin for bipolar coagulation,
CLERMONT-FERRAND model



Special Features:

- Robust joint mechanism allows safe, yet powerful grasping
- 360° rotating sheath
- New handle allows precise work and direct force transmission
- Ergonomic handle design provides enhanced user comfort
- Top mounted 45° high frequency connector pin leads the cable away from the operative field
- The instruments in sizes 3.5 mm and 5 mm can be disassembled into a handle and working insert with outer sheath
- Color coding on the working insert and handle allow easier identification of compatible components
- Handle 38151 is compatible with both the 3.5 mm and 5 mm ROBI® systems

ROBI® Handle, insulated, for sizes 3.5 and 5 mm



38151 **ROBI® Plastic Handle, without ratchet**

Size 5 mm

ROBI® Metal Outer Sheaths, insulated



38600 **ROBI® Metal Outer Sheath, insulated, with LUER-Lock irrigation connector for cleaning, size 5 mm, length 36 cm**

38700 **Same, length 43 cm**

Please note: ROBI® instruments, length 43 cm, for use with HOPKINS® Straight Forward Telescopes 26034 AA, 26038 AA and HOPKINS® Wide Angle Straight Forward Telescope 26075 AA

Working Inserts for ROBI® Instruments size 3.5 mm see page 154

Working Inserts for ROBI® Instruments size 5 mm see pages 155-156

Accessories for Outer Sheaths see page 157

NEW

STORZ
KARL STORZ — ENDOSKOPE


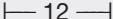




slimline



XS



Outer Sheath	Handle
	38151
Length 20 cm	
Length 36 cm	

Outer Sheath with Working Insert	Complete Instrument
38810 ON	38851 ON
38910 ON	38951 ON
 	ROBI® Grasping Forceps , CLERMONT-FERRAND model, fenestrated, with especially fine atraumatic serration
38810 MD	38851 MD
38910 MD	38951 MD
 	ROBI® KELLY Dissecting and Grasping Forceps , CLERMONT-FERRAND model, especially suitable for dissection
38810 PT	38851 PT
 	ROBI® TAN Grasping Forceps , CLERMONT-FERRAND model, especially suitable for dissection

Bipolar High Frequency Cords see accessories page 158

ROBI® Bipolar Grasping Forceps ^{NEW}

rotating, dismantling, with connector pin for bipolar coagulation,
CLERMONT-FERRAND model

Size 5 mm



Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Outer Sheath	Handle
	38151
Length 36 cm	

Single action jaws

Working insert	Complete Instrument
38610 CS	38651 CS
 16	ROBI® Grasping Forceps , CLERMONT-FERRAND model, narrow jaws, for dissection, grasping and bipolar coagulation of fine structures
38610 CL	38651 CL
 12	ROBI® Grasping Forceps , CLERMONT-FERRAND model, wide jaws, for dissection, grasping and bipolar coagulation of large vessels and tissue layers
38610 KL	38651 KL
 19	ROBI® Grasping Forceps , CLERMONT-FERRAND model, flat jaws, for dissection, grasping and bipolar coagulation
38610 KF	38651 KF
 14	ROBI® Grasping Forceps , CLERMONT-FERRAND model, flat jaws, fenestrated, for dissection, grasping and bipolar coagulation

Double action jaws

38610 OM	38651 OM
 18	ROBI® Grasping Forceps , CLERMONT-FERRAND model, with especially fine atraumatic serration, fenestrated jaws, with large proximal recess

Please note:
For the instrument only the **individual component parts** are numbered. The catalog number for the **complete instrument** is not on the instrument. Please take this number from the numbers indicated in the **red** background of the table above. The color **green** indicates the working inserts.
Bipolar High Frequency Cords see accessories page 158

5 mm

ROBI® Bipolar Grasping Forceps ^{NEW}

rotating, dismantling, with connector pin for bipolar coagulation,
CLERMONT-FERRAND model




Size 5 mm








Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Outer Sheath	Handle
	38151
Length 36 cm	
Length 43 cm	


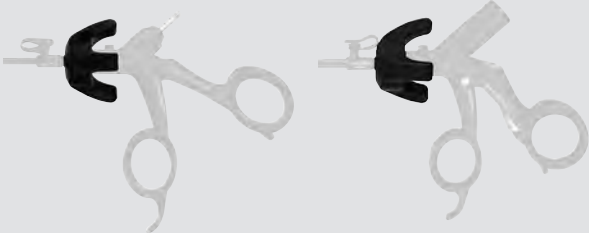


Double action jaws

Working insert	Complete Instrument
38610 ON	38651 ON
38710 ON	38751 ON
 18	ROBI® Grasping Forceps , CLERMONT-FERRAND model, fenestrated, with especially fine atraumatic serration
38610 WA	38651 WA
 19	ROBI® WATTIEZ Grasping Forceps , with multiple teeth, for atraumatic and accurate grasping
38610 MD	38651 MD
38710 MD	38751 MD
 19	ROBI® KELLY Dissecting and Grasping Forceps , CLERMONT-FERRAND model, especially suitable for dissection
38610 ML	38651 ML
 24	ROBI® KELLY Dissecting and Grasping Forceps , CLERMONT-FERRAND model, especially suitable for dissection
38610 MA	38651 MA
 24	ROBI® MALZONI Dissecting and Grasping Forceps , especially suitable for dissection

Please note:
For the instrument only the **individual component parts** are numbered. The catalog number for the **complete instrument** is not on the instrument. Please take this number from the numbers indicated in the **red** background of the table above. The color **green** indicates the working inserts.
Bipolar High Frequency Cords see accessories page 158

5 mm

Accessories for Handles and Outer Sheaths

	<div> <div>33120 G</div> <div>NEW</div> </div> <div> Rotating Wheel, for CLICKline and ROBI® handles, autoclavable, package of 5, makes rotation of outer sheath more comfortable </div> 
	<div> <div>33131 F</div> <div></div> </div> <div> Spring, for Handle 33131, autoclavable To obtain a self-retaining effect, the spring has to be manually attached to the handle. </div> <div> <div>33131 S</div> <div></div> </div> <div> Spring, for Handle 33131, autoclavable To obtain a spreading effect, the spring has to be manually attached to the handle. </div>
	<div> <div>29100</div> <div></div> </div> <div> Plug, for LUER-Lock irrigation connector for cleaning, black, autoclavable, package of 10 </div> <div> <div>29100 A</div> <div></div> </div> <div> Color-Coded Plug, for LUER-Lock irrigation connector for cleaning, red, green, black, 10 each, package of 30 </div>

Accessories

Unipolar and Bipolar High Frequency Cords

Unipolar High Frequency Cords







KARL STORZ
Instrument High Frequency
Surgery Units

	26002 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for models KARL STORZ, Erbe type T, older models and Ellman
	26004 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for use with Martin HF units
	26005 M	Unipolar High Frequency Cord , with 5 mm plug, length 300 cm, for AUTOCON® II 400 SCB system (111, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, AUTOCON® system (50, 200, 350) and Erbe type ICC
	26006 M	Unipolar High Frequency Cord , with 8 mm plug, length 300 cm, for use with AUTOCON® II 400 SCB system (112, 116) and Valleylab models

Bipolar High Frequency Cords



KARL STORZ
Instrument High Frequency
Surgery Units

	26176 LE	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (111, 113, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, Coagulator 26021 B/C/D, 860021 B/C/D, 27810 B/C/D, 28810 B/C/D, AUTOCON® series (50, 200, 350), Erbe-Coagulator, T and ICC series
	26176 LM	Bipolar High Frequency Cord , length 300 cm, for use with Martin HF units
	26176 LV	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (112, 114, 116, 122, 125), AUTOCON® II 200, AUTOCON® II 80 and Valleylab coagulators
	26176 LW NEW	Bipolar High Frequency Cord , length 300 cm, pin distance on unit side 22 mm, for use with high frequency surgical units with bipolar sockets with 22 mm pin distance

Please note: All high frequency cords of this page are delivered with a length of 300 cm. If a length of 500 cm is requested please add letter **L** to the part number, e. g. 26002 ML, 26176 LVL.

SCISSORS, PUNCHES AND FORCEPS FOR BIOPSY

Sizes 2 – 10 mm

CLICK'line® HANDLES AND OUTER SHEATHS 161-167



CLICK'line® SCISSORS, PUNCHES AND FORCEPS
Sizes 2 – 3.5 mm 168-169



CLICK'line® SCISSORS, PUNCHES AND FORCEPS
Sizes 5 and 10 mm 170-177



ROBI® BIPOLAR SCISSORS 178-183
Sizes 3.5 and 5 mm



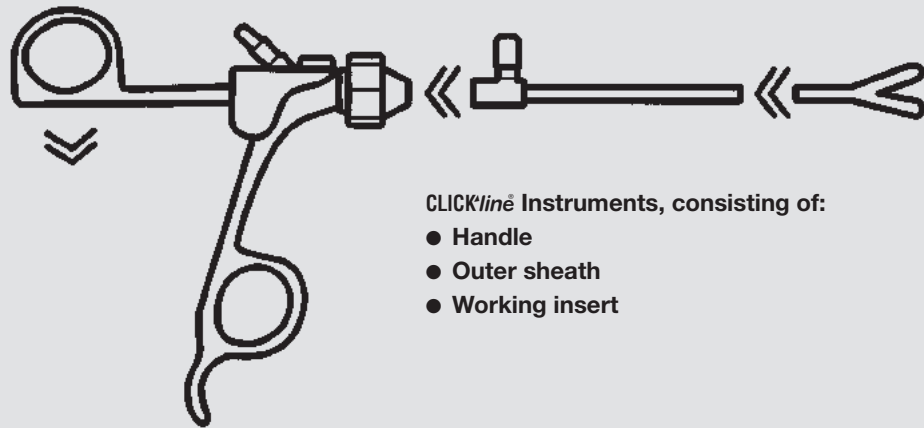
KNIVES FOR PYLOROMYOTOMY 184
Size 3 mm



ACCESSORIES 185-186



CURVED SCISSORS
FOR SINGLE-PORT SURGERY see chapter 10



CLICK^{line} Instruments, consisting of:

- Handle
- Outer sheath
- Working insert

Nothing could be simpler!

The CLICK^{line} series continues the development of instruments which have proven their value for years. The simplicity of handling and ease with which the instruments can be cleaned has been improved, in particular with respect to assembly and disassembly. When the rear handle is positioned horizontally, the

handle can be separated from the outer sheath and the working insert at the press of a button. Reassembly is equally reliable and quick. The high frequency connection is mounted in a 45° angle on the upper side of the handle, thereby ergonomically guiding the high frequency cable away from the field of operation.

Available in size 2 to 10 mm, CLICK^{line} instruments can be completely disassembled into separate components:

- Handle
- Outer sheath/outer sheath with working insert
- Working insert

This unique, reusable two/three-piece design offers the surgeon the following benefits:

- Available in sizes 2, 3, 3.5, 5 and 10 mm and lengths 20, 30, 36 and 43 cm
- Choice of handle styles
- Fully rotational 360° sheath facilitates easy access in all clinical situations
- No hidden spaces that can trap blood or tissue debris
- Can be dismantled at the press of a button – reducing instrument cleaning time considerably
- Completely autoclavable design
- Cost-effective – reusable instruments reduce O.R. costs per case and simplify inventory management, eliminating the need to store large quantities of disposable instruments
- Environmentally correct, i.e., if damage occurs, only the component with the defect needs to be replaced – not the entire instrument
- Convenient and ergonomic handling
- Cleaning port allows the instrument to be cleaned without disassembly

Due to the modular CLICK^{line} system, the user can individually assemble the desired instrument at any time.

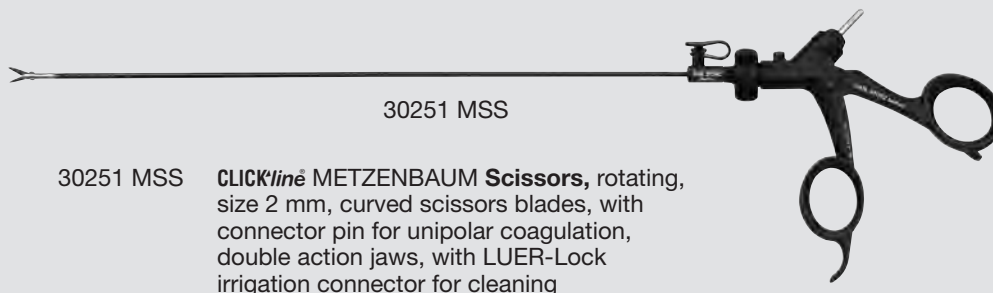
User Information

For easy location of the correct catalog number
for the required CLICK'line Instrument

How to find the required instrument:






- Select the required **instrument size** and the required **type of jaws**
- Select the required **handle style**
 - **Metal handles: without** connector pin for unipolar coagulation, against a **blue background** in the table
 - **Handles, insulated: with** connector pin for unipolar coagulation, against a **red background** in the table
- The catalog number for the fully assembled instrument can be found at the point where the horizontal line of the respective working length (see below) intersects with the vertical column of the required handle.

Example:



Scissors

CLICK'line – rotating, dismantling,
with connector pin for unipolar coagulation

Size 2 mm					
Operating instruments, length 20 cm, for use with trocars size 2.5 mm					
(a)	Length	Handle			
		33151	(b) 33121	33125	33149
	20 cm				
	Double action jaws				
	Outer Sheath with Working Insert	Complete instrument			
	30210 MSS	30251 MSS (c)	30221 MSS	30225 MSS	30249 MSS
		CLICK'line METZENBAUM Scissors, curved			
	6				
	Jaw length in mm				

Please note:

For CLICK'line instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** is **not** on the instrument. Instruments with **insulated handles with connector pin** for unipolar coagulation, are shown against the **red background**, instruments with **handles without connector pin** for unipolar coagulation are shown against the **blue background**. The color **green** indicates the **inserts**.

Special Features:

- Designed specifically for laparoscopic microsurgery – wide range of miniature jaws for full range of applications
- Unique jaw design enables sutures 6 – 0 to 8 – 0 to be held securely without tearing
- Graduated sheath improves mechanical stability and delivers unobstructed distal view of anatomy/pathology
- Ergonomic handle, available with or without ratchet

The advantages of the KOH suture system:

- Smaller incisions, less scarring
- Need for suturing during closure is reduced
- Trauma to the abdominal wall is minimized
- Reduces the incidences of trocar site hernias
- Shorter hospital stay/less postoperative pain
- Shorter convalescence
- Comparable results to open laparotomy for tubal anastomosis
- Superior results compare to thermal techniques

The KOH ultramicro series instruments are suitable for gynecological reproductive surgical procedures including:

- Tubal anastomosis
- Second look laparoscopic adhesiolysis
- Neosalpingostomy
- Ovarian closure following cystectomy
- Barrier membrane suturing to prevent postoperative adhesions
- Ureteral resection and anastomosis for infiltrative endometriosis

The KOH ultramicro series instruments are suitable for urological procedures such as:

- Ureteral resection and anastomosis
- Ureteral repair
- Vasovasostomy

Plastic and Metal Handles

for Scissors, Punches and Biopsy Forceps, insulated,
CLICK'line – rotating, with connector pin for unipolar coagulation



33151 **CLICK'line** Plastic Handle,
without ratchet, with
larger contact area
at the finger ring



33121 **CLICK'line** Plastic Handle,
without ratchet



33125 **CLICK'line** Metal Handle,
rotating, without ratchet



33149 **NEW** **CLICK'line** Plastic Handle,
axial, rotating, without
ratchet, double action
shanks

Accessories for Handles see page 185

Metal Handles

for Scissors, Punches and Biopsy Forceps,
CLICK'line – rotating, without connector pin for unipolar coagulation



33161 **CLICK'line** Metal Handle,
without ratchet, with
larger contact area at the
finger ring



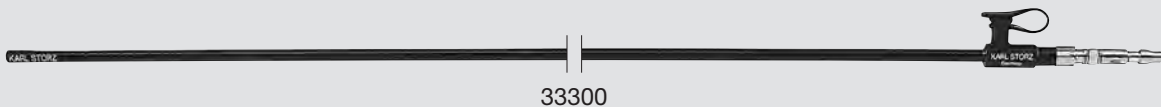
33131 **CLICK'line** Metal Handle,
without ratchet



33147 **CLICK'line** Metal Handle,
axial, without ratchet,
double action handle
shanks

Metal Outer Sheaths

for Scissors, Punches and Biopsy Forceps, CLICK'line®



Size 3.5 mm

NEW	31100	CLICK'line® Metal Outer Sheath, insulated, with Luer-Lock irrigation connector for cleaning, size 3.5 mm, length 20 cm
NEW	31300	Same, length 36 cm

Size 5 mm

33200	CLICK'line® Metal Outer Sheath, insulated, with Luer-Lock irrigation connector for cleaning, size 5 mm, length 30 cm
33300	Same, length 36 cm
33400	Same, length 43 cm



33300 CM	CLICK'line® Metal Outer Sheath, with cm-marking, insulated, with Luer-Lock irrigation connector for cleaning, size 5 mm, length 36 cm
33400 CM	Same, length 43 cm

Size 10 mm

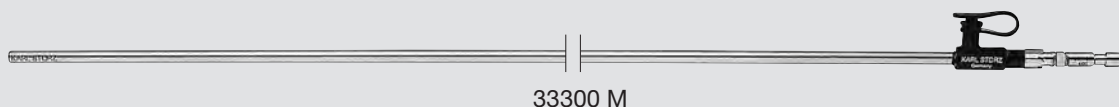


33500	CLICK'line® Metal Outer Sheath, insulated, with Luer-Lock irrigation connector for cleaning, size 10 mm, length 36 cm
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Working Inserts for CLICK'line® Instruments size 3.5 mm see page 169
 Working Inserts for CLICK'line® Instruments size 5 mm see pages 172-176
 Working Inserts for CLICK'line® Instruments size 10 mm see page 177
 Accessories for Outer Sheaths see page 185

Metal Outer Sheaths

for Scissors, Punches and Biopsy Forceps, CLICK'liné®



Size 3.5 mm

NEW	31100 M	CLICK'liné Metal Outer Sheath, with LUER-Lock irrigation connector for cleaning, size 3.5 mm, length 20 cm
NEW	31300 M	Same, length 36 cm

Size 5 mm

33200 M	CLICK'liné Metal Outer Sheath, with LUER-Lock irrigation connector for cleaning, size 5 mm, length 30 cm
33300 M	Same, length 36 cm
33400 M	Same, length 43 cm

Size 10 mm



33500 M	CLICK'liné Metal Outer Sheath, with LUER-Lock irrigation connector for cleaning, size 10 mm, length 36 cm
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33500 CM	CLICK'liné Metal Outer Sheath, with cm-marking, with LUER-Lock irrigation connector for cleaning, size 10 mm, length 36 cm
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Please note:

The metal outer sheaths may only be used in conjunction with handles without connector pin for unipolar coagulation.

Working Inserts for CLICK'liné Instruments size 3.5 mm see page 169

Working Inserts for CLICK'liné Instruments size 5 mm see pages 172-176

Working Inserts for CLICK'liné Instruments size 10 mm see page 177

Accessories for Outer Sheaths see page 185

Scissors

CLICK'line – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 2 mm

Operating instruments, **length 20 cm**,
for use **with trocars size 2.5 mm**



Length	Handle			
	33151	33121	33125	33149
20 cm				

Double action jaws

Outer Sheath with Working Insert	Complete Instrument			
30210 MSS	30251 MSS	30221 MSS	30225 MSS	30249 MSS
	CLICK'line METZENBAUM Scissors, curved			

2 mm

Scissors, Punches and Forceps for Biopsy

CLICK'line® – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 3.5 mm

Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars sizes 3.5 and 3.9 mm**



Length	Handle			
	33151	33121	33125	33149
20 cm				
36 cm				

Double action jaws

Working Insert	Complete Instrument			
31110 MW	31151 MW	31121 MW	31125 MW	31149 MW
31310 MW	31351 MW	31321 MW	31325 MW	31349 MW



CLICK'line® Scissors, serrated, curved, conical

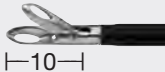
Single action jaws

31110 EH	31151 EH	31121 EH	31125 EH	31149 EH
31310 EH	31351 EH	31321 EH	31325 EH	31349 EH



CLICK'line® Micro Hook Scissors

31110 DB	31151 DB	31121 DB	31125 DB	31149 DB
31310 DB	31351 DB	31321 DB	31325 DB	31349 DB



CLICK'line® BLAKESLEY Dissecting and Biopsy Forceps

31110 SA	31151 SA	31121 SA	31125 SA	31149 SA
31310 SA	31351 SA	31321 SA	31325 SA	31349 SA



CLICK'line® KOH Ligature Scissors,
with rounded atraumatic tips

3.5 mm

Single-use Scissors ^{NEW}

CLICK*line* – rotating, dismantling

STORZ
KARL STORZ — ENDOSKOPE

The new single-use scissors from KARL STORZ can be combined with all reusable handles from the **CLICK*line*** series. This makes the new single-use scissors fully downward compatible, providing a practical solution for regular use or as a backup system.

The instrument design is based on the scissor jaws of the already available reusable **CLICK*line*** Scissor Inserts 34310 MA and 34310 MS.

Color coding at the proximal end of the instrument allows clear identification of the single-use components.



Single-use Scissors ^{NEW}

CLICK'linē – rotating, dismantling

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**



Special Features:

- Scissor blades are always sharp and/or optimal cutting effect
- Sterile packed for immediate use in the OR
- Proven scissor blade design
- Compatible with all handles from the CLICK'linē series (without ratchet)
- Packaging
- Cost-effective solution: “single-use meets reusable”



The single-use scissors are delivered in packages of 10 in a **dispenser box** with instructions for use.



Each scissors insert with outer sheath, including 3 patient labels, are sterile packed in an **individual blister pack**.



34310 MA-D



34310 MA-D **CLICK'linē Scissors Insert with Outer Sheath**, curved, double action jaws, spoon-shaped jaws, size 5 mm, length 36 cm, sterile, for single use, package of 10



34310 MS-D **CLICK'linē METZENBAUM Scissors Insert with Outer Sheath**, curved, double action jaws, size 5 mm, length 36 cm, sterile, for single use, package of 10

5 mm

Scissors

CLICK*line* – rotating, dismantling,
with and without connector pin for unipolar coagulation



Size 5 mm

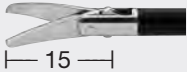
Operating instruments, **lengths 30, 36 and 43 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Length	Handle						
	33151	33121	33125	33149	33161	33131	33147
30 cm							
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
34210 MS	34251 MS	34221 MS	34225 MS	34249 MS	34261 MS	34231 MS	34247 MS
34310 MS	34351 MS	34321 MS	34325 MS	34349 MS	34361 MS	34331 MS	34347 MS
34410 MS	34451 MS	34421 MS	34425 MS	34449 MS	34461 MS	34431 MS	34447 MS



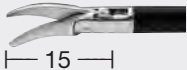
CLICK*line* METZENBAUM Scissors, curved

34210 MA	34251 MA	34221 MA	34225 MA	34249 MA	34261 MA	34231 MA	34247 MA
34310 MA	34351 MA	34321 MA	34325 MA	34349 MA	34361 MA	34331 MA	34347 MA
34410 MA	34451 MA	34421 MA	34425 MA	34449 MA	34461 MA	34431 MA	34447 MA



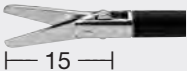
CLICK*line* Scissors, serrated blades, spoon-shaped, curved

34210 MW	34251 MW	34221 MW	34225 MW	34249 MW	34261 MW	34231 MW	34247 MW
34310 MW	34351 MW	34321 MW	34325 MW	34349 MW	34361 MW	34331 MW	34347 MW
34410 MW	34451 MW	34421 MW	34425 MW	34449 MW	34461 MW	34431 MW	34447 MW



CLICK*line* Scissors, serrated, curved, conical

34210 MD	34251 MD	34221 MD	34225 MD	34249 MD	34261 MD	34231 MD	34247 MD
34310 MD	34351 MD	34321 MD	34325 MD	34349 MD	34361 MD	34331 MD	34347 MD



CLICK*line* Scissors, straight

5 mm

Scissors and Cutting-Coagulation Forceps

CLICK'line® – rotating, dismantling,
with and without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30, 36 and 43 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm



Length	Handle						
	33151	33121	33125	33149	33161	33131	33147
30 cm							
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
34310 SA	34351 SA	34321 SA	34325 SA	34349 SA	34361 SA	34331 SA	34347 SA
	CLICK'line SHAWKI Duo, cutting-coagulation forceps, "dolphin nose"						
34310 SO	34351 SO	34321 SO	34325 SO	34349 SO	34361 SO	34331 SO	34347 SO
	CLICK'line SHAWKI Duo, cutting-coagulation forceps, right-angled jaws						

Single action jaws

34310 MT	34351 MT	34321 MT	34325 MT	34349 MT	34361 MT	34331 MT	34347 MT
	CLICK'line MANHES Scissors, serrated						
34210 EH	34251 EH	34221 EH	34225 EH	34249 EH	34261 EH	34231 EH	34247 EH
34310 EH	34351 EH	34321 EH	34325 EH	34349 EH	34361 EH	34331 EH	34347 EH
34410 EH	34451 EH	34421 EH	34425 EH	34449 EH	34461 EH	34431 EH	34447 EH
	CLICK'line Hook Scissors						
34210 EK	34251 EK	34221 EK	34225 EK	34249 EK	34261 EK	34231 EK	34247 EK
34310 EK	34351 EK	34321 EK	34325 EK	34349 EK	34361 EK	34331 EK	34347 EK
34410 EK	34451 EK	34421 EK	34425 EK	34449 EK	34461 EK	34431 EK	34447 EK
	CLICK'line Hook Scissors, jaws not crossing						

5 mm

Scissors

CLICK'linē – rotating, dismantling,
with and without connector pin for unipolar coagulation



Size 5 mm

Operating instruments, length 36 cm,
for use with trocars size 6 mm

Length	Handle						
	33151	33121	33125	33149	33161	33131	33147
36 cm							

Single action jaws

Working Insert	Complete Instrument						
34310 S	34351 S	34321 S	34325 S	34349 S	34361 S	34331 S	34347 S
	CLICK'linē Micro Dissecting Scissors						
34310 SL	34351 SL	34321 SL	34325 SL	34349 SL	34361 SL	34331 SL	34347 SL
	CLICK'linē Micro Dissecting Scissors, curved						
34310 ES	34351 ES	34321 ES	34325 ES	34349 ES	34361 ES	34331 ES	34347 ES
	CLICK'linē Micro Hook Scissors						
34310 SF	34351 SF	34321 SF	34325 SF	34349 SF	34361 SF	34331 SF	34347 SF
	CLICK'linē MANHES Micro Scissors, long jaws with rounded tips, self-sharpening						

CLICK'linē MANHES Self-Sharpening Scissors

Blades that slightly cross at the tips automatically sharpen the self-sharpening scissors each time they are opened and closed.
These single-action scissors should never be used in unipolar HF mode. The efficiency of this method of sharpening has been demonstrated over two years of use without any specific sharpening action being required.

H. MANHES, M. D.
Vichy, France

Biopsy Forceps and Punch Forceps

CLICK'line – rotating, dismantling,
with and without connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30, 36 and 43 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with operating laparoscopes
with inbuilt working channel and trocars
size 6 mm



Length	Handle						
	33151	33121	33125	33149	33161	33131	33147
30 cm							
36 cm							
43 cm							

Single action jaws

Working Insert	Complete Instrument						
34210 DB	34251 DB	34221 DB	34225 DB	34249 DB	34261 DB	34231 DB	34247 DB
34310 DB	34351 DB	34321 DB	34325 DB	34349 DB	34361 DB	34331 DB	34347 DB
34410 DB	34451 DB	34421 DB	34425 DB	34449 DB	34461 DB	34431 DB	34447 DB



CLICK'line BLAKESLEY Dissecting and Biopsy Forceps

34210 MB	34251 MB	34221 MB	34225 MB	34249 MB	34261 MB	34231 MB	34247 MB
34310 MB	34351 MB	34321 MB	34325 MB	34349 MB	34361 MB	34331 MB	34347 MB
34410 MB	34451 MB	34421 MB	34425 MB	34449 MB	34461 MB	34431 MB	34447 MB



CLICK'line MANHES Biopsy Forceps

34310 DZ	34351 DZ	34321 DZ	34325 DZ	34349 DZ	34361 DZ	34331 DZ	34347 DZ
34410 DZ	34451 DZ	34421 DZ	34425 DZ	34449 DZ	34461 DZ	34431 DZ	34447 DZ



CLICK'line Biopsy Punch Forceps, with two teeth

34310 DZL	34351 DZL	34321 DZL	34325 DZL	34349 DZL	34361 DZL	34331 DZL	34347 DZL
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CLICK'line Biopsy Punch Forceps, long, with two teeth

5 mm

Biopsy Forceps and Punch Forceps

CLICK^{liné} – rotating, dismantling,
with and without connector pin for unipolar coagulation



Size 5 mm

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

Operating instruments, **length 43 cm**,
for use with operating laparoscopes
with inbuilt working channel and trocars
size 6 mm

Length	Handle						
	33151	33121	33125	33149	33161	33131	33147
36 cm							
43 cm							

Single action jaws

Working Insert	Complete Instrument						
34310 DH	34351 DH	34321 DH	34325 DH	34349 DH	34361 DH	34331 DH	34347 DH
34410 DH	34451 DH	34421 DH	34425 DH	34449 DH	34461 DH	34431 DH	34447 DH



CLICK^{liné} Biopsy Punch, through-cutting

34310 DS	34351 DS	34321 DS	34325 DS	34349 DS	34361 DS	34331 DS	34347 DS
34410 DS	34451 DS	34421 DS	34425 DS	34449 DS	34461 DS	34431 DS	34447 DS



CLICK^{liné} FRANGENHEIM Biopsy Punch Forceps,
through-cutting

Spoon Forceps

CLICK'line® – rotating, dismantling,
without connector pin for unipolar coagulation

Size 10 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 11 mm**

Length	Handle				
	33161	33131	33144 F	33145 F	33147
36 cm					

Single action jaws

Working Insert	Complete Instrument				
34510 GS	34561 GS	34531 GS	34544 GS	34545 GS	34547 GS
	CLICK'line® Spoon Forceps				
34710 GSG	34761 GSG	34731 GSG	34744 GSG	34745 GSG	34747 GSG
	CLICK'line® Spoon Forceps, reinforced jaws, for use with Outer Sheath 33700				
34510 KS	34561 KS	34531 KS	34544 KS	34545 KS	34547 KS
	CLICK'line® Spoon Forceps, with larger grasping capacity				

10 mm

A prerequisite for successful, minimally invasive laparoscopic procedures is the selection of the correct HF instruments and units combined with the basic principles of surgery.

During a surgical procedure, the operating surgeon must be able to grasp various tissue structures, to dissect and work on the relevant organ (incision/dissection), and to control hemorrhage (suturing and/or hemostasis). Instruments that perform multiple functions means there is less need for instrument exchange. This saves the surgeon considerable time and effort.

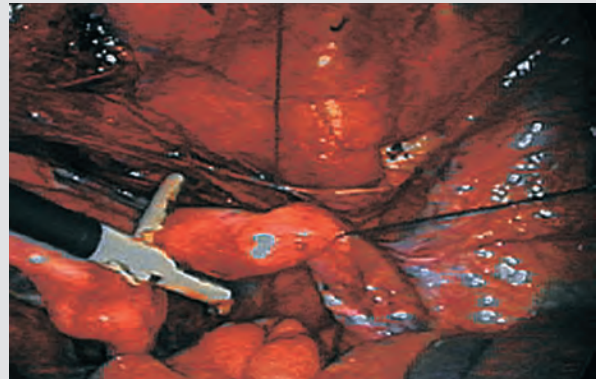
KARL STORZ set itself the task of designing instruments that meet the specific demands of minimally invasive surgery and developed the rotating, bipolar (“ROBI®”) instruments – the CLERMONT-FERRAND model – in co-operation with Prof. Wattiez (Strasbourg, France) for this purpose. Like all other instruments in the ROBI® series, they are fully rotatable by 360° and can be disassembled into a handle, sheath and insert. The instruments are autoclavable and easy to handle and clean.



ROBI® Bipolar Grasping Forceps

Grasping Function

The use of retractors in minimally invasive surgery is not always possible or useful. The surgeon, therefore, requires an instrument that is capable of grasping tissue precisely and is able to maintain the tissue at a safe distance to the operating site.



To meet various needs and requirements, the jaws of the ROBI® bipolar grasping forceps vary in regard to size and width. Jaws with rougher toothings are suitable for grasping thicker and heavier tissue whereas jaws with finer toothings are better for grasping more fragile tissue structures. Fenestrated jaws offer the advantage that even structures which are difficult to grasp can be securely gripped.

To enable optimum grasping, even from less favorable angles and positions, all instruments can be rotated 360°. This function proves to be particularly advantageous when using monoarticulate forceps in order to place the jaws in the ideal position.

Dissection Function

The identification of tissue structures via dissection is a prerequisite for minimizing risks in precision surgery.

The delicate KELLY jaws represent a standard dissection instrument without which the CLERMONT-FERRAND series would not be complete. We have also included very slender and extra-flat jaws to meet the demands of all difficult anatomical conditions. By opening the handle, the jaws can be moved and the tissue surface can be spread apart. Conventional bipolar forceps, for example, have no joint between the jaws. Closure of the jaws is effected by sliding an external tube. As a result, opening is usually passive. Instruments with an imprecise grasping function do not allow precise dissection.

The joint mechanism of the ROBI® instruments provides the surgeon with a natural tactile feedback. The force exerted on the tissue can, therefore, be felt at the handle and thus permits a precise dose for dissection. "Tactile feedback enables optimal tissue dissection," according to Wattiez.

In addition to biarticulate jaws for easier handling of delicate tissue and vessels, the CLERMONT-FERRAND series also feature instruments with robust, monarticulate jaws which facilitate dissection in critical regions and reduce trauma to a minimum. These instruments are appropriate for oncological procedures such as, for example, lymph node dissection.

Micro instruments are being increasingly used in dissection due to their enhanced precision and advancements in high frequency technology. The delicate instruments from the CLERMONT-FERRAND series are ideal for use with bipolar energy.

The Coagulation Function

The use of bipolar energy offers significant advantages over unipolar energy. The carefully applied current flows between the branches of the utilized HF instrument and must not travel over long distances through the body of the patient via a neutral electrode. With the aim of providing maximum user safety, ROBI® instruments were designed and equipped with bipolar HF technology to ensure minimal patient discomfort.



An essential feature of ROBI® instruments is that the forceps inserts consist of two jaws that are insulated by a ceramic layer. This reduces flashover and, therefore, offers more safety during HF application.

Despite these safety precautions, it is important to observe basic rules and principles for optimum work with bipolar HF energy and to keep risks at a minimum. In general, it is important to ensure that no critical viscera is in contact with the instrument and that only the relevant tissue is grasped between the two jaws of the forceps when activating or contacting the bipolar instrument.

Coagulation occurs by means of heating the tissue. If the tissue is heated too severely or the HF application times are too long, there is a risk that burns will occur around the operating site. Heat dispersion can be restricted by selecting the appropriate HF power setting. A 30 – 50 W power setting is generally sufficient for laparoscopic interventions. In principle, the higher the selected HF power setting, the shorter the exposure time and vice versa. The longer the exposure time, the more extensive the heat dispersion. Care must be taken that HF energy has adequate penetration depth, which is not always easy for the surgeon to see or predict. After selecting the power setting, the surgeon applies the energy with as short an exposure time as possible.

The power setting used generally depends on the size of the selected jaws as the density of the energy transferred to the tissue is directly relative to the size of the jaws. With the same power setting, the narrower the jaws, the greater the energy density.

The thicker the jaws, the higher the power setting required. With thicker jaws, the operating surgeon has to choose a higher power setting (approx. 50 W) but with a shorter exposure time. With thinner jaws, a lower power setting of approximately 35 W is selected.



Tissue impedance is another important aspect that needs to be considered in order to avoid unintentional thermal damage. Through more or less heavy compression of the tissue, the surgeon can alter the tissue impedance and, thus, modify the dispersion of electrical energy. The more the tissue is compressed, the greater the impedance. Altering the electrical HF energy influences coagulation time, which then becomes shorter. In contrast to conventional bipolar forceps, grasping forceps from the ROBI® series – thanks to their tactile feedback – allow the pressure applied to the tissue to be altered and, as a result, the impedance to be changed.

During the procedure, blood and tissue may coagulate on the jaws. This may act as an insulation layer and change the distribution of energy. In extreme cases, there is no current flow and coagulation is no longer possible. To prevent soiling of the jaws, the appropriate power setting depending on the size of the jaws must be selected. Furthermore, long exposure times and coagulation in blood should be avoided. Precise, preventative coagulation is the best safety precaution.

ROBI® Bipolar Scissors

Cutting Function

To meet the different requirements of various tissue structures during the incision phase, we also added curved METZENBAUM scissors as well as serrated jaws for difficult-to-grasp tissue structures to the existing straight scissor versions in the CLERMONT-FERRAND series.

Coagulation Function

Bipolar ROBI® scissors have also been specially designed for use with HF energy and enable both coagulation and cutting in the coagulated area, the “tissue that has become white”. As soon as the tissue becomes pink again, the incision is interrupted and coagulation can be continued. Of course, the same safety precautions apply to ROBI® scissors regarding the use of bipolar HF energy as described above for grasping forceps.

Conclusion

Optimization of the minimally invasive intervention is dependent on the number and selection of functions that are possible for the surgeon. ROBI® grasping forceps offer the surgeon an instrument with grasping, dissection and coagulation functions. ROBI® scissors also offer the possibility of dissection and coagulation as well as, of course, incision. Thanks to the quick-change ROBI® system, working inserts can be rapidly exchanged during surgery and according to surgical requirements. This multifunctionality leads to an optimization of the surgical procedure which becomes easier, faster and safer as a result.

The ROBI® grasping forceps and scissors from the CLERMONT-FERRAND series feature a high degree of user-friendliness in the customary KARL STORZ tradition.

ROBI® Bipolar Scissors ^{NEW}

rotating, dismantling, with connector pin for bipolar coagulation,
CLERMONT-FERRAND model



Special Features:

- Robust joint mechanism allows safe, yet powerful grasping
- 360° rotating sheath
- New handle allows precise work and direct force transmission
- Ergonomic handle design provides enhanced user comfort
- Top mounted 45° high frequency connector pin leads the cable away from the operative field
- The instruments in sizes 3.5 mm and 5 mm can be disassembled into a handle and working insert with outer sheath
- Color coding on the working insert and handle allow easier identification of compatible components
- Handle 38151 is compatible with both the 3.5 mm and 5 mm ROBI® systems

ROBI® Handle, insulated, for sizes 3.5 and 5 mm



38151 ROBI® Plastic Handle, without ratchet

Size 5 mm
ROBI® Metal Outer Sheaths, insulated



38600 ROBI® Metal Outer Sheath, insulated, with LUER-Lock irrigation connector for cleaning, size 5 mm, length 36 cm
38700 Same, length 43 cm

Please note: ROBI® instruments, length 43 cm, for use with HOPKINS® Straight Forward Telescopes 26034 AA, 26038 AA and HOPKINS® Wide Angle Straight Forward Telescope 26075 AA
Working Inserts for ROBI® Instruments size 3.5 mm see page 182
Working Inserts for ROBI® Instruments size 5 mm see page 183
Accessories for Outer Sheaths see page 185

ROBI® Bipolar Scissors

rotating, dismantling, with connector pin for bipolar coagulation,
CLERMONT-FERRAND model



Size 3.5 mm

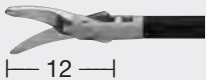


Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars sizes 3.5 and 3.9 mm**

Outer Sheath	Handle
	38151
Length 20 cm	
Length 36 cm	

Double action jaws

Outer Sheath with Working Insert	Complete Instrument
38810 MW	38851 MW
38910 MW	38951 MW



ROBI® Scissors, CLERMONT-FERRAND model, curved scissor blades

Please note:
For the instrument only the **individual component parts** are numbered. The catalog number for the **complete instrument** is not on the instrument. Please take this number from the numbers indicated in the **red** background of the table above. The color **green** indicates the working inserts.
Bipolar High Frequency Cords see accessories page 186

ROBI® Bipolar Scissors

rotating, dismantling, with connector pin for bipolar coagulation,
CLERMONT-FERRAND model

NEW

Size 5 mm



Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

Outer Sheath	Handle
	38151
Length 36 cm	
Length 43 cm	

Single action jaws

Working Insert	Complete instrument
38610 MT <div>23</div>	38651 MT <div> ROBI® Scissors, CLERMONT-FERRAND model, straight jaws, for cutting and bipolar coagulation of vessels and tissue layers </div>
38610 MZ <div>23</div>	38651 MZ <div> ROBI® Scissors, CLERMONT-FERRAND model, straight jaws, serrated, for cutting and bipolar coagulation </div>

Double action jaws

38610 MW	38651 MW
38710 MW	38751 MW
<div>20</div>	ROBI® METZENBAUM Scissors , CLERMONT-FERRAND model, curved jaws, slender scissor blades, for cutting and bipolar coagulation

Please note:

For the instrument only the **individual component parts** are numbered. The catalog number for the **complete instrument** is not on the instrument. Please take this number from the numbers indicated in the **red** background of the table above. The color **green** indicates the working inserts.

Bipolar High Frequency Cords see accessories page 186

5 mm

Knives for Pyloromyotomy



Size 3 mm

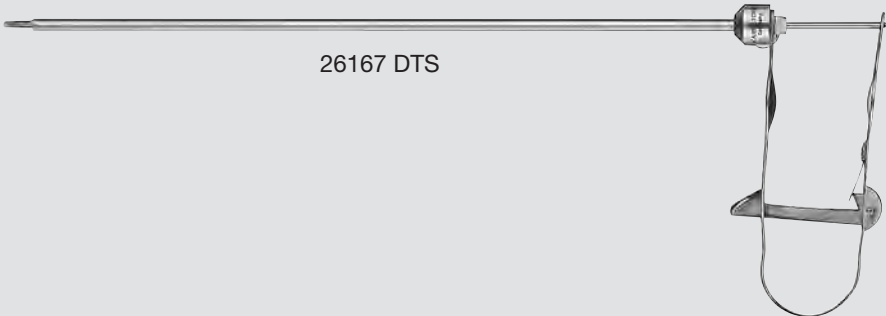
Operating instruments, **length 20 cm**,
for use **with trocars size 3.5 mm**



26167 DFS



26167 DFS ALAIN-GROUSSEAU **Pylorotome**,
distendable, size 3 mm, length 20 cm



26167 DTS



26167 DTS TAN **Endotome**, distendable, U-spring
handle with ratchet, size 3 mm,
length 20 cm, with LUER-Lock connector
for cleaning, including Knife 26167 KTS



26167 DRS



26167 DRS **Pyloric Knife**, with LUER-Lock connector for
cleaning, size 3 mm, length 10 cm
including:
Handle, with outer sheath
Knife Insert, for single use, unsterile,
package of 10







26167 KRS **Knife Insert**, for single use, unsterile,
package of 10



Components/Spare Parts see chapter 21

3 mm

Accessories for Handles and Outer Sheaths

	<div> <div>33120 G</div> <div>NEW</div> </div> <div> Rotating Wheel, for CLICKline and ROBI® handles, autoclavable, package of 5, makes rotation of outer sheath more comfortable </div> 
	<div> <div>33131 F</div> <div></div> </div> <div> Spring, for Handle 33131, autoclavable To obtain a self-retaining effect, the spring has to be manually attached to the handle. </div> <div> <div>33131 S</div> <div></div> </div> <div> Spring, for Handle 33131, autoclavable To obtain a spreading effect, the spring has to be manually attached to the handle. </div>
	<div> <div>29100</div> <div></div> </div> <div> Plug, for LUER-Lock irrigation connector for cleaning, black, autoclavable, package of 10 </div> <div> <div>29100 A</div> <div></div> </div> <div> Color-Coded Plug, for LUER-Lock irrigation connector for cleaning, red, green, black, 10 each, package of 30 </div>

Accessories

Unipolar and Bipolar High Frequency Cords



Unipolar High Frequency Cords





KARL STORZ High Frequency
Instrument Surgery Units

	26002 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for models KARL STORZ, Erbe type T, older models and Ellman
	26004 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for use with Martin HF units
	26005 M	Unipolar High Frequency Cord , with 5 mm plug, length 300 cm, for AUTOCON® II 400 SCB system (111, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, AUTOCON® system (50, 200, 350) and Erbe type ICC
	26006 M	Unipolar High Frequency Cord , with 8 mm plug, length 300 cm, for use with AUTOCON® II 400 SCB system (112, 116) and Valleylab models



Bipolar High Frequency Cords

KARL STORZ High Frequency
Instrument Surgery Units

	26176 LE	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (111, 113, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, Coagulator 26021 B/C/D, 860021 B/C/D, 27810 B/C/D, 28810 B/C/D, AUTOCON® series (50, 200, 350), Erbe-Coagulator, T and ICC series
	26176 LM	Bipolar High Frequency Cord , length 300 cm, for use with Martin HF units
	26176 LV	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (112, 114, 116, 122, 125), AUTOCON® II 200, AUTOCON® II 80 and Valleylab coagulators
	26176 LW <i>NEW</i>	Bipolar High Frequency Cord , length 300 cm, pin distance on unit side 22 mm, for use with high frequency surgical units with bipolar sockets with 22 mm pin distance

INSTRUMENTS FOR UNIPOLAR AND BIPOLAR COAGULATION, Sizes 3.5 and 5 mm

COAGULATION AND DISSECTION ELECTRODES 188-191
WITHOUT SUCTION CHANNEL, UNIPOLAR
Sizes 3.5 and 5 mm



DISSECTION NEEDLES WITHOUT SUCTION CHANNEL 192
UNIPOLAR, sizes 3.5 and 5 mm



COAGULATION AND DISSECTION ELECTRODES 193-194
WITH SUCTION CHANNEL, UNIPOLAR
Size 5 mm



COAGULATION INSTRUMENTS, BIPOLAR 195
Size 5 mm



ACCESSORIES 196



CURVED INSTRUMENTS FOR UNIPOLAR AND BIPOLAR
COAGULATION FOR SINGLE-PORT SURGERY see chapter 10

Coagulation and Dissection Electrodes

without suction channel, insulated sheath,
with connector pin for unipolar coagulation

Size 3.5 mm

Operating instruments, **lengths 20 and 36 cm**,
for use with **trocars size 3.5 mm**



Length	Instrument
20 cm	
36 cm	

Distal Tip	Instrument	
	NEW 26870 UNS	Coagulation and Dissection Electrode, L-shaped
	NEW 26870 UNL	
	NEW 26665 UNL	Coagulation and Dissection Electrode, spatula-shaped, blunt

Special Features:

- The hook electrode is suitable for resection, insulating structures as well as dissection and coagulation.
- The distal tip is semicircular: The thick outer curvature enables safe dissection.
- The thin inner curvature enables fast work with minimal coagulation.
- The striated handle allows easier gripping.
- The hook length enables ergonomic work.

Length	Instrument
36 cm	

Distal Tip	Instrument	
	NEW 25775 CNL	CADIERE Coagulation and Dissection Electrode, L-shaped, with cm-marking, distal tip tapered

Units for use with Coagulation and Dissection Electrodes see chapter 20, UNITS

Coagulation and Dissection Electrodes

without suction channel, insulated sheath,
with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use with **trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm



Length	Instrument
30 cm	
36 cm	
43 cm	

Distal Tip	Instrument	
	26772 UF	Coagulation and Dissection Electrode, L-shaped
	26775 UF	
	26778 UF	
	26775 UE	Coagulation and Dissection Electrode, spatula-shaped, blunt
	26778 UE	
	26775 S	Coagulation and Dissection Electrode, knife-shaped
	26775 R	MANGESHIKAR Coagulation Electrode, with ball end

Special Features:

- The hook electrode is suitable for resection, insulating structures as well as dissection and coagulation.
 - The distal tip is semicircular: The thick outer curvature enables safe dissection.
- The thin inner curvature enables fast work with minimal coagulation.
 - The striated handle allows easier gripping.
 - The hook length enables ergonomic work.

Length	Instrument
36 cm	
43 cm	

Distal Tip	Instrument	
	26775 C	CADIERE Coagulation and Dissection Electrode, L-shaped, with cm-marking, distal tip tapered
	26775 CL	

Units for use with Coagulation and Dissection Electrodes see chapter 20, UNITS

Coagulation and Dissection Electrodes, with Exchangeable Electrode Tips

without suction channel, insulated sheath,
with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Special Features:

- **Exchangeable electrode tips**
- **Ergonomic handling**



30775 UF

Coagulation and Dissection Electrode,
L-shaped, with connector pin for unipolar
coagulation, size 5 mm, length 36 cm
including:

Outer Sheath, insulated
Plastic Handle
Electrode, L-shaped

30775 UFE

Exchangeable Electrode Tip, L-shaped,
autoclavable, package of 6



Units for use with Coagulation and Dissection Electrodes see chapter 20, **UNITS**
Components/Spare Parts see chapter 21

Coagulation and Dissection Electrodes

without suction channel, insulated sheath,
with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**



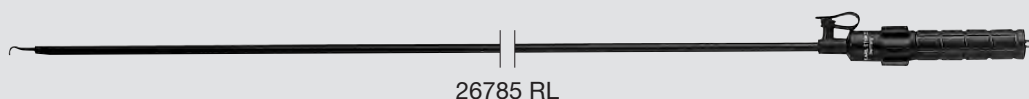
Special Features:

- Continuously articulating up to 15°
- Axial high frequency connector pin takes the cable away from the operative field
- Easy handling
- LUER-Lock connector for cleaning
- Autoclavable

One of the main problems in laparoscopy is the restricted working angle of the operating instrument which is due to the fixed position of the trocars in the abdominal wall. This problem is usually resolved by placing more trocars in order to obtain access to additional working angles.

This particular situation was the reason for developing the new unipolar angulating electrodes. These instru-

ments can continuously be articulated up to an angle of 15° and, therefore, provide several working angles through one access. Both electrode models can be used for preparation, dissection and unipolar coagulation, whereas the spatula is especially suitable for cleavage and dissection in an atraumatic way.



26785 RL



26785 RL

REMORGIDA Coagulation and Dissection Electrode, without suction channel, insulated, with connector pin for unipolar coagulation, L-shaped, distal tip can be angled up to 15°, size 5 mm, length 36 cm

Dissection Needles

without suction channel, insulated sheath,
with connector pin for unipolar coagulation



Size 3.5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 3.5 mm**



26167 NNL
NEW

KOH Ultramicro High Frequency Electrode, for splitting and coagulation, insulated, retractable, with connector pin for unipolar coagulation, size 3.5 mm, length 36 cm

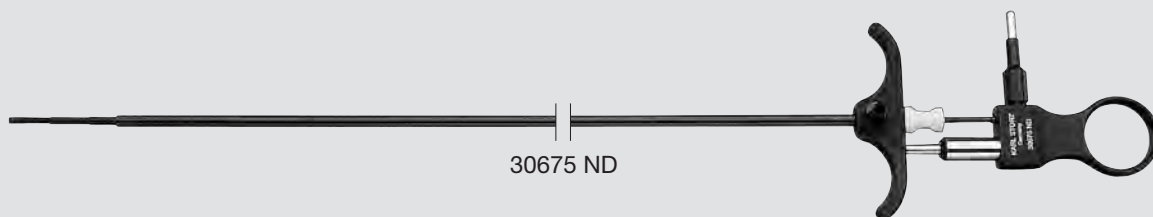
26167 NNX

Spare Needle Electrode, autoclavable, size 3.5 mm, length 36 cm, package of 5, for use with KOH Ultramicro High Frequency Electrode 26167 NNL



Size 5 mm

Operating instruments, **length 31 cm**,
for use **with trocars size 6 mm**



30675 ND

MANHES High Frequency Needle, for splitting and coagulation, insulated, retractable, with connector pin for unipolar coagulation, size 5 mm, length 31 cm



26175 NE

Spare Needle Electrode, autoclavable, diameter 0.7 mm, length 31 cm, for use with MANHES High Frequency Needle 30675 ND

26175 NL

Spare Needle Electrode, autoclavable, package of 1, diameter 1.1 mm, length 31 cm, for use with MANHES High Frequency Needle 30675 ND

26175 NS

Same, diameter 0.5 mm

Units for use with Dissection Needles see chapter 20, UNITS

Handles for Coagulation and Dissection Electrodes with Suction Channel



30803

Handle, without irrigation and suction connector, **autoclavable**, for use with 5 mm coagulating and dissecting electrodes with suction channel

For suction or irrigation



30804

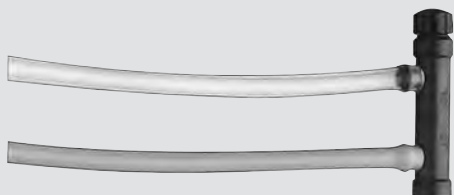
Handle with Trumpet Valve, for suction or irrigation, **autoclavable**, for use with 5 mm coagulation suction tubes, 3 and 5 mm suction and irrigation tubes

For suction and irrigation



30810

Handle, for suction and irrigation, **autoclavable**, for use with 5 mm coagulation suction tubes and 3 and 5 mm suction and irrigation tubes



30811

Silicone Tubing Set, autoclavable, for use with Handle 30810

031132-10*

Tubing Set, for single use, sterile, package of 10, for use with Handle 30810



Further Handles see chapter 9

Coagulation and Dissection Electrodes with Suction and Irrigation Channel

insulated sheath, with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel and trocars size 6 mm



Length	Instrument
30 cm	
36 cm	
43 cm	

Distal Tip	Instrument	
	37270 SC	Coagulation and Dissection Electrode, with suction channel
	37370 SC	
	37470 SC	
	37270 DB	Coagulation and Dissection Electrode, with suction channel, spatula-shaped, blunt
	37370 DB	
	37470 DB	
	37270 DL	Coagulation and Dissection Electrode, with suction channel, L-shaped
	37370 DL	
	37470 DL	
	37370 DH	CUSCHIERI Dissecting Suction Tube, with suction channel
	37370 DU	Coagulation and Dissection Electrode, with suction channel, U-shaped



39105 C

Irrigation Adaptor, for 5 mm coagulation
and dissection electrodes with suction
channel and LUER-Lock connector

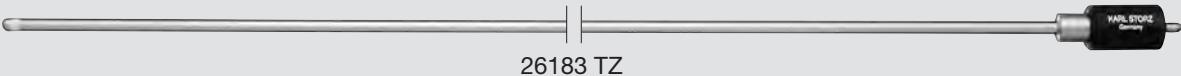
Please note:
If only coagulation is required, use Handle 30803.
Handles for Suction and Irrigation see chapter 9, pages 242-247
Units for use with Handle for Suction and Irrigation see chapter 20, UNITS

Bipolar Ball Electrode, Bipolar Needle, Bipolar Coagulation Suction Tubes

with connector pin for bipolar coagulation

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

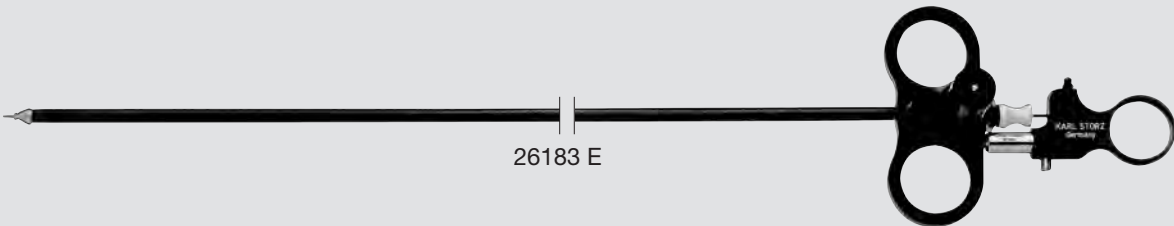


26183 TZ



26183 TZ

Bipolar Ball Electrode, size 5 mm,
length 36 cm



26183 E



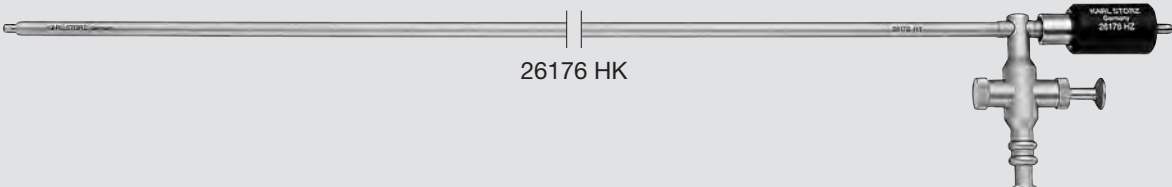
26183 E

Bipolar Needle, size 5 mm, length 36 cm

26183 EN

Spare Electrode, for use with 26183 E,
autoclavable, package of 5

Operating instruments, **lengths 33 and 36 cm**,
for use **with trocars size 6 mm**



26176 HK



26176 HK

TAKE-APART® Bipolar Coagulation Suction Tube,
with stopcock, size 5 mm, length 33 cm
including:
Suction Tube
Coagulation Electrode



37270 GC



37370 GC

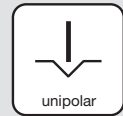
GORDTS and CAMPO Coagulation Suction and Irrigation Tube, bipolar,
diameter 5 mm, length 36 cm, for use with
suction and irrigation handles

Handles for Suction and Irrigation see chapter 9, pages 242-247
Components/Spare Parts see chapter 21


Accessories

Unipolar and Bipolar High Frequency Cords

Unipolar High Frequency Cords







KARL STORZ
Instrument High Frequency
Surgery Units

	26002 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for models KARL STORZ, Erbe type T, older models and Ellman
	26004 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for use with Martin HF units
	26005 M	Unipolar High Frequency Cord , with 5 mm plug, length 300 cm, for AUTOCON® II 400 SCB system (111, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, AUTOCON® system (50, 200, 350) and Erbe type ICC
	26006 M	Unipolar High Frequency Cord , with 8 mm plug, length 300 cm, for use with AUTOCON® II 400 SCB system (112, 116) and Valleylab models

Bipolar High Frequency Cords



KARL STORZ
Instrument High Frequency
Surgery Units

	26176 LE	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (111, 113, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, Coagulator 26021 B/C/D, 860021 B/C/D, 27810 B/C/D, 28810 B/C/D, AUTOCON® series (50, 200, 350), Erbe-Coagulator, T and ICC series
	26176 LM	Bipolar High Frequency Cord , length 300 cm, for use with Martin HF units
	26176 LV	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (112, 114, 116, 122, 125), AUTOCON® II 200, AUTOCON® II 80 and Valleylab coagulators
	26176 LW NEW	Bipolar High Frequency Cord , length 300 cm, pin distance on unit side 22 mm, for use with high frequency surgical units with bipolar sockets with 22 mm pin distance

Please note: All high frequency cords of this page are delivered with a length of 300 cm. If a length of 500 cm is requested please add letter **L** to the part number, e. g. 26002 ML, 26176 LVL.

PALPATION PROBES, RETRACTORS DISSECTORS AND EXTRACTORS

PALPATION PROBES 199
Sizes 3.5 – 5 mm



RETRACTORS AND DISSECTORS 200-204
Sizes 5 – 12 mm



**RETRACTORS FOR RECTAL SURGERY
AND DILATORS** 205-208



EXTRACTORS 209-211



Palpation Probes

Size 3.5 mm

Operating instruments, **lengths 20 and 36 cm**,
for use with **trocars size 3.5 mm**

slimline



26167 TNS



26167 TNS
NEW

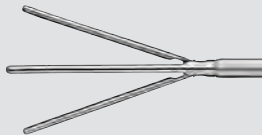
Palpation Probe, with cm-marking,
size 3.5 mm, length 20 cm

26167 TNL
NEW

Same, length 36 cm



31143 REM



31143 REM
NEW

CLICK'line Palpation Probe, dismantling,
without connector pin for unipolar
coagulation, with LUER-Lock irrigation
connector for cleaning, retractable, double
action jaws, size 3.5 mm, length 20 cm
including:

- Handle**
- Metal Outer Sheath**
- Forceps Insert**

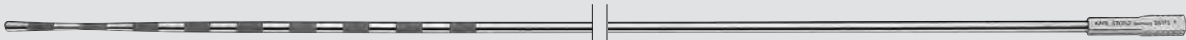
31343 REM
NEW

Same, length 36 cm

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43**,
for use with laparoscopes with inbuilt
working channel and trocars size 6 mm



26175 T



26175 T

Palpation Probe, with cm-markings,
size 5 mm, length 36 cm

26178 T

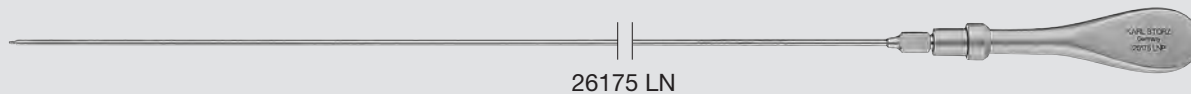
Same, length 43 cm

Components/Spare Parts see chapter 21

MOURET Needle Retractor

for percutaneous use

Size 2.8 mm



Trocar only, with pyramidal tip



Trocar only, with blunt tip

26175 LN

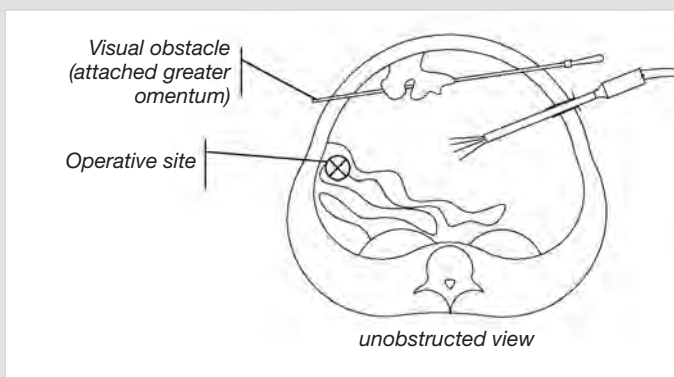
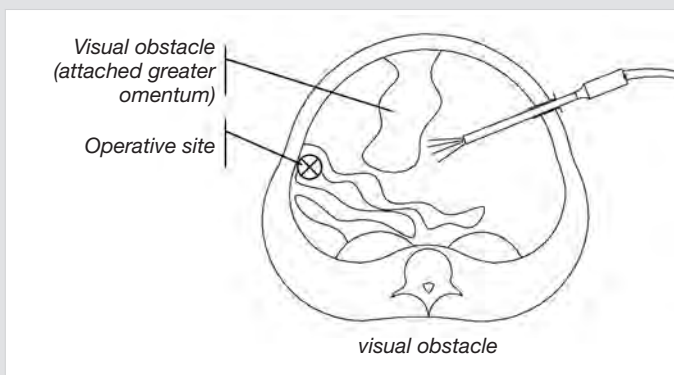
MOURET **Laparoscopic Needle Retractor**, size 2.8 mm, working length 30 cm, for percutaneous use

including:

Cannula, with LUER-Lock Connector

Trocar only, with pyramidal tip and fixed handle

Trocar only, with blunt tip and fixed handle



Components/Spare Parts see chapter 21

CUSCHIERI Sharp Dissectors

dismantling

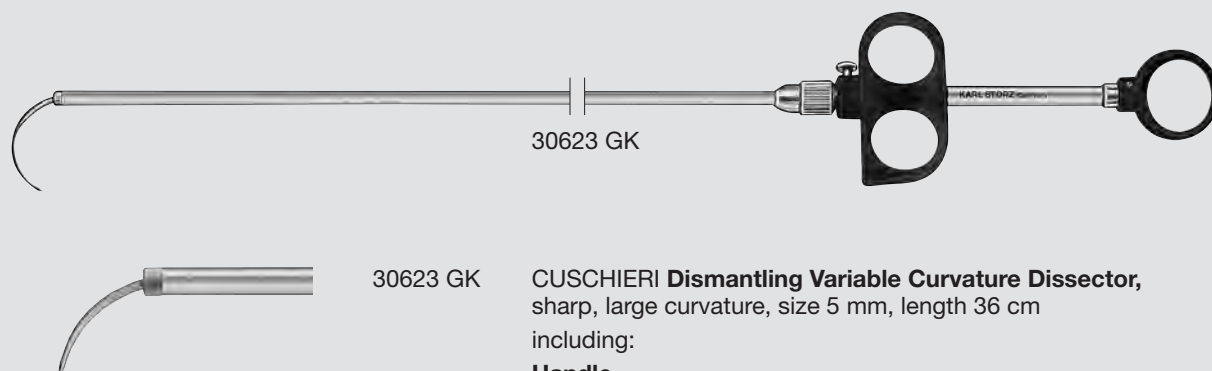
Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Dismantling Variable Curvature Dissector

When closed, the functional component of the instrument is restrained inside a straight metal outer sheath. It is introduced in the closed position through a standard 6 mm cannula. Once inside the peritoneal cavity and within the operative field, the functional end can be extended to the desired curvature to commensurate with the needs of dissection. When fully extruded, the functional tip forms a semicircle with a radius 1.5 – 3.0 cm. Only the end of the dissector has a bevelled cutting

edge, the sides are blunt. The end of the dissector can, therefore, be passed behind viscera (e. g. oesophagus) or vessels with a gentle side to side movement to emerge on the contralateral side. Once the structure has been negotiated in this way, blunt posterior mobilization is effected by a back and forth movement of the fully extruded curved functional piece. Before removal, the functional dissecting end is retracted inside the restraining outer sheath.



CUSCHIERI Dismantling Variable Curvature Dissector,
sharp, large curvature, size 5 mm, length 36 cm
including:

Handle

Outer Sheath

Insert Dissector, large curvature

Components/Spare Parts see chapter 21

The distal end of the liver retractor can be activated by rotation of the proximal part of the handle. The retractor is introduced into the peritoneal cavity in its straight, unactivated form. Once inside the abdomen, the distal end is closed with the help of forceps and slipped under the liver. The liver can be safely held clear of the operative site in this manner for extended periods of

time. The weighted handle acts as a counter-weight to the liver, making retraction more comfortable for the surgical assistant. In its closed form, the retractor can also be used for manipulation of the bowel and other anatomical structures. This instrument was developed in conjunction with Professor Sir Alfred Cuschieri and his staff at the University of Dundee.

Special Features:

- Automatic retraction of the liver for extended periods of time
- Also suitable for atraumatic manipulation of other anatomical structures
- Easy dismantling for cleaning purposes

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**



30623 U

CUSCHIERI **Retractor**, size 5 mm,
length 36 cm

Size 10 mm

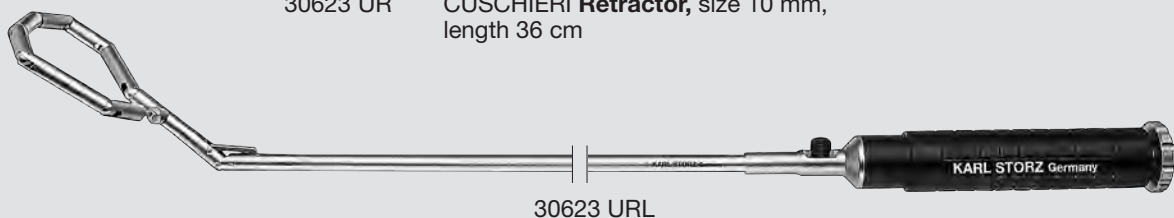
Operating instruments, **length 36 cm**,
for use **with trocars size 11 mm**



30623 UR

30623 UR

CUSCHIERI **Retractor**, size 10 mm,
length 36 cm



30623 URL

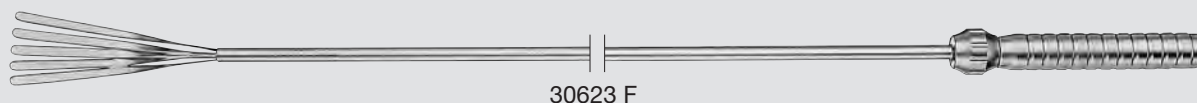
30623 URL

CUSCHIERI **Retractor**, large contact surface,
size 10 mm, length 36 cm

Retractors

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

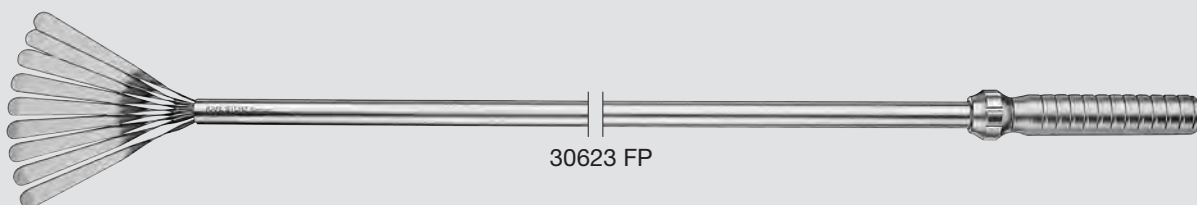


30623 F **Fan Retractor**, dismantling, distendable,
size 5 mm, length 36 cm

Simple opening of the fan by axial movement of the
outer sheath. Wide retraction area with a sturdy
platform. Easy to use and to clean.

Size 10 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 11 mm**

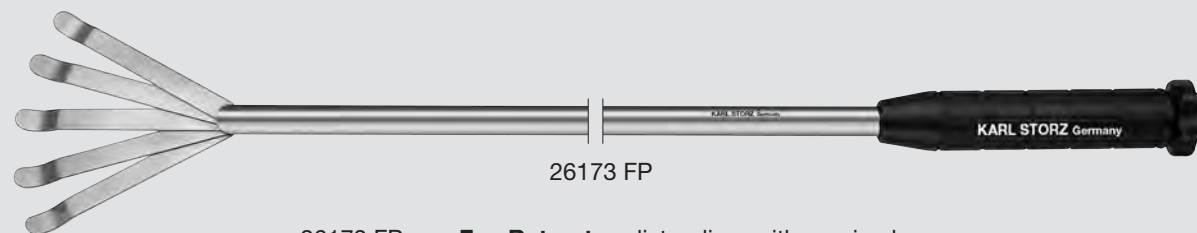


30623 FP **Fan Retractor**, dismantling, distendable,
size 10 mm, length 36 cm

Simple opening of the fan by axial movement of the
outer sheath. Wide retraction area with a sturdy
platform. Easy to use and to clean.

Size 12 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 13 mm**



26173 FP **Fan Retractor**, distending, with proximal
rotating wheel for expansion, size 12 mm,
length 36 cm

Retractors

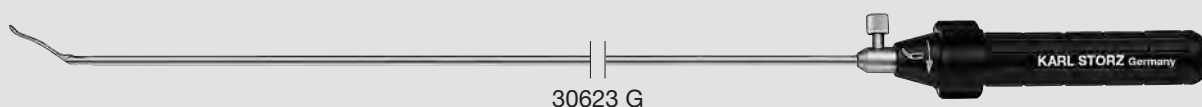
Sizes 5 and 10 mm

Operating instruments, **length 36 cm**,
for use **with trocars sizes 6 and 11 mm**

Special Features:

- Distal tip articulating up to 90°
- Blunt, atraumatic retractor working element
- Fenestrated retractor working element

The instrument is used as a blunt retractor in stomach and bowel surgery. In gastric banding, the stomach band is anchored in the fenestration and pulled around the esophagus.



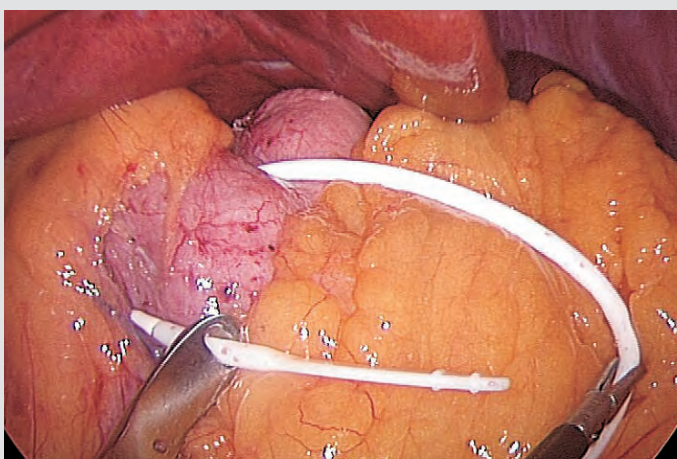
30623 G

Retractor for Gastric Banding, size 5 mm,
length 36 cm



30623 GB

Same, size 10 mm



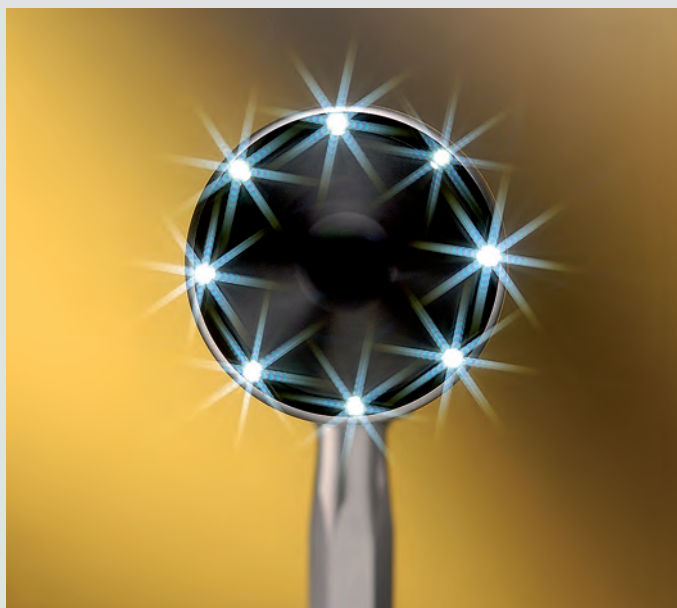
LEROY Anal Dilator

This instrument is useful for performing colorectal anastomoses on **long rectal stumps**, i.e. following sigmoidectomy or left colectomy as it enables atraumatic dilation of the anal sphincter and the introduction of a guide tube with an atraumatic stylet at the distal end. This can be easily advanced right up to the base of the rectal stump. The distal tip of the dilator (thanks to the integrated fiber optic light transmission) is illuminated, enabling its positioning under laparoscopic control. Following the removal of the dilator, the stapler is introduced and can be ideally positioned at the end

of the anal stump to prevent injuries with the stapler. The anastomosis is performed whereby the guide tube remains around the stapler. When the anastomosis is completed, the entire device is removed.

Laparoscopic positioning of the illuminating end replaces the surgeon's hand in open surgery to control the guide tube.

*Prof. J. LEROY M. D.,
Strasbourg, France*



Components/Spare Parts see chapter 21

LEROY Anal Dilator



24941 H

- 24941 H LEROY **Anal Dilator**, outer diameter 42 mm, inner diameter 35 mm, working length 15 cm, with 8 cm gap on the upper proximal end of the tube, with handle for holding system, fiber optic light transmission incorporated for distal illumination including:
Anal Dilator
Conical Obturator
Blunt Obturator

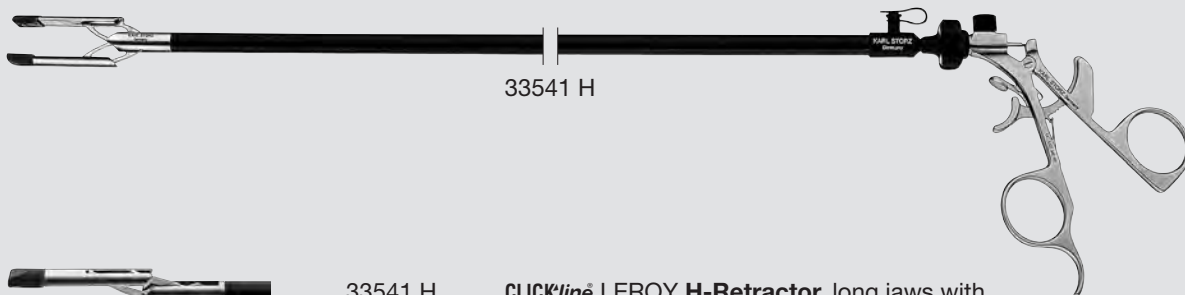
- 24941 HS **Same**, outer diameter 37 mm, inner diameter 30 mm

Further Instruments for Colorectal Surgery see catalog PROCTOLOGY
Components/Spare Parts see chapter 21

LEROY Retractors

Size 10 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 11 mm**



33541 H



33541 H

CLICKline LEROY **H-Retractor**, long jaws with silicone pads 30510 PY on the distal tip, double action jaws, jaws open in parallel, **autoclavable**, ratchet engages while handle opens, size 10 mm, length 36 cm

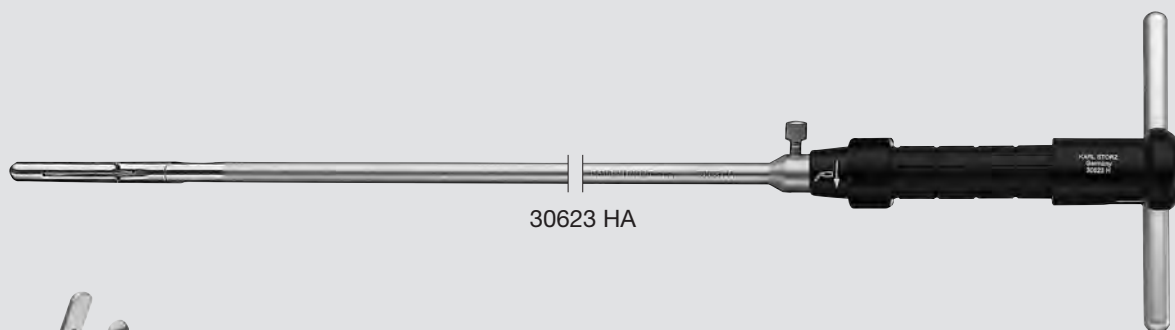
including:

Metal Handle, with disengageable ratchet

Outer Sheath, insulated

H-Retractor Insert

Silicone Pad, package of 6



30623 HA



30623 HA

LEROY **Articulating H-Retractor**, long jaws, double action jaws, jaws open in parallel, bendable to 90°, **autoclavable**, size 10 mm, length 36 cm

30623 H



30623 H

30623 H

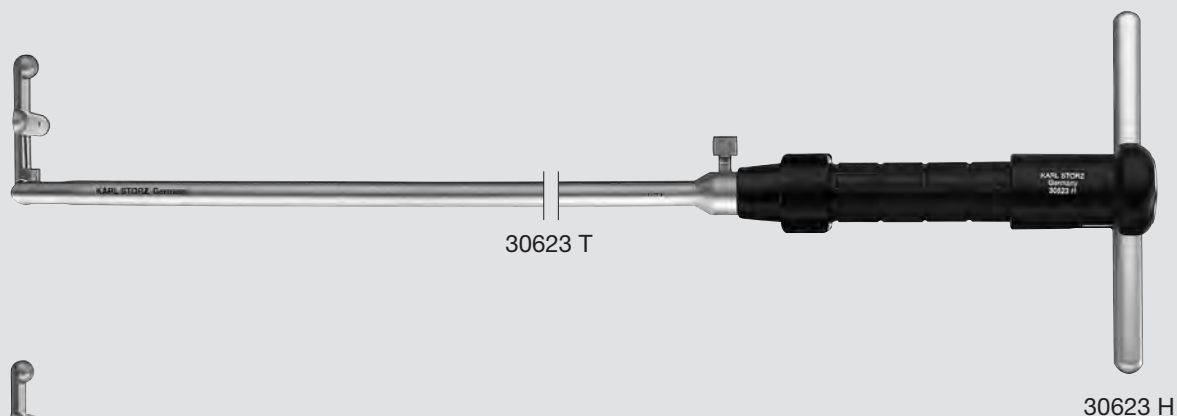
Handle Attachment, **autoclavable**, for use with LEROY retractors for secure hold

Further Instruments for Colorectal Surgery see catalog PROCTOLOGY
Components/Spare Parts see chapter 21

LEROY Retractors

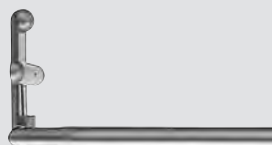
Size 10 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 11 mm**



30623 T

30623 H



30623 T

LEROY 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



30623 VL

LEROY 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



30623 I

LEROY I-Retractor, with rotation wheel for angling the distal tip, with LUER-Lock connector for cleaning, **autoclavable**, size 10 mm, length 36 cm



30623 H

30623 H

Handle Attachment, autoclavable, for use with LEROY retractors for secure hold

Further Instruments for Colorectal Surgery see catalog PROCTOLOGY

KÖCHLI Bag Extractor

A new instrument for the laparoscopic removal of intraabdominal specimens with an accurately controllable abdominal wall lesion

Current laparoscopic techniques can be used to perform a number of intra-abdominal procedures. Removing the specimen often poses a problem, however. There are principally two ways of removing tissue: vaginally or abdominally.

By using the C.C.L. vaginal extractor developed in Lausanne, a sufficient transvaginal removal is possible (cf. Endoworld GYN No. 14, 1999). In contrast, no instrument enabling a sufficient tissue recovery via an extraction bag is yet available for transabdominal tissue removal. Adnexal specimens, in particular, should be routinely removed using an extraction bag. Frequently the problem is that the specimen can be placed into the bag, but the bag cannot be readily removed from the abdominal cavity because of the size difference between the bag volume and trocar sheath or abdo-

minal opening. For this reason, an instrument had to be developed that would allow the atraumatic removal via an accurately controllable lesion in the abdominal wall or skin. After the removal under visualization the fascia or abdominal wall can be closed sufficiently. Each bag extractor comprises 3 insertable curved valves in two lengths and a spreader. For severely obese patients, longer valves were developed. When the spreader is inserted, this creates a funnel-shaped channel that prevents the bag from bursting when it is pulled. When the spreader is opened, this creates a round opening through which the bag can be easily removed. The fascia layers can be grasped with a Kocher clamp and closed under visualization. The skin lesion is closed using standard surgical techniques.

Procedure:

Step 1:

The skin incision is extended laterally in increments of 2 – 3 mm. The detached first valve is guided along the trocar sheath into the abdominal cavity.

Step 2:

The other two valves are introduced and snapped onto the spreader.

Step 3:

The trocar sheath is removed, and the bag is pulled into the funnel-shaped extractor (Fig. 1).

Step 4:

The spreader is opened as specified, and the lateral setting screw is tightened. The bag now can be removed slowly, from the abdominal cavity with a slight pull (Fig. 2).

Step 5:

The fascia layers can be grasped with a Kocher clamp under visualization. The valves are detached and removed from the spreader with a simple click. Fascia and skin is then closed.

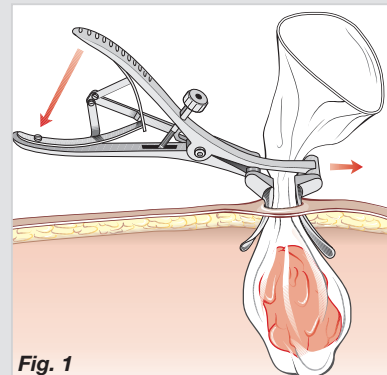


Fig. 1

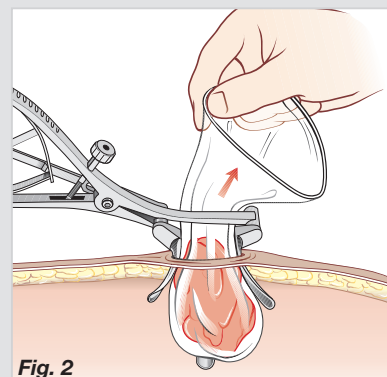


Fig. 2

Literature:

Köchli, O. R.; Schnegg, M. P.; Mueller, D. J.; Surbek, D. V.: Endobag Extractor to remove masses during laparoscopy Obstetrics & Gynecology, Volume 95, No. 2, February 2000, p. 304 – 306

KÖCHLI Bag Extractor



28090 EA

28090 EK **KÖCHLI Bag Extractor**, 3 valves, with curved interchangeable valves in two different lengths, continuously adjustable including:

Extractor, without valves

3x **Valve**, short, for normal abdominal walls

3x **Valve**, long, for adipose abdominal walls



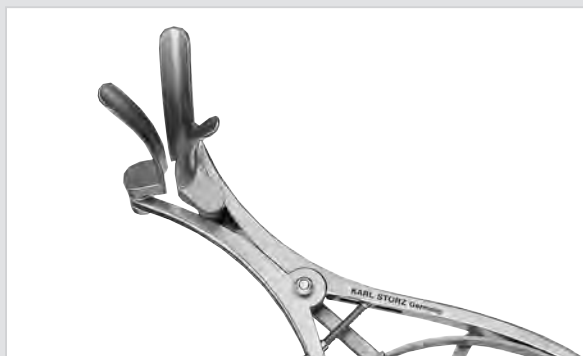
28090 VA

Valve, short, **length 7 cm**, for 28090 EK, for normal abdominal walls, 3 piece-set



28090 VB

Valve, long, **length 9 cm**, for 28090 EK, for adipose abdominal walls, set of 3 pcs



Inserted instrument, abdominal view. A funnel-shaped channel can be seen clearly, even while the instrument is still closed. This prevents the valves of the spreader from damaging the bag.



When the spreader is opened, this creates a round opening through which the tissue in the bag can be slowly removed.

Please note:

For safe and comfortable working with KARL STORZ Bag Extractors we recommend the use of bags from:



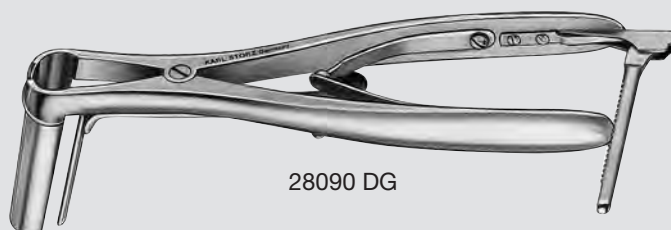
Components/Spare Parts see chapter 21

The Gall Bladder Extractor

The gall bladder extractor is very useful for removing the gall bladder from the abdominal cavity after it has been detached from the liver bed. Before cholecystectomy the extractor is slid over the central 11 mm trocar sleeve in the umbilical region until it becomes visible in the abdominal cavity. Then the freed gall bladder is drawn into the trocar sleeve with the grasping forceps. Following this, the gall bladder extractor is opened as wide as possible and at the same time the trocar

sleeve, together with the grasped gall bladder, is drawn out by the extractor.

If total cholecystectomy cannot be carried out completely at one time because too many stones or stones which are too large have lodged in the gall bladder fundus, the removal of these stones with lithotomy forceps is made much easier by opening the gall bladder extractor.



28090 DG

28090 DG **3-Blade Speculum**, for gall bladder extraction, length 6 cm



28090 SG

28090 SG **Speculum**, for gall bladder extraction, length 6 cm



28090 SM

28090 SM **MOURET 2-Blade Speculum**, outer diameter in normal position 12 mm, working length of the valves 6 cm, maximal spreading 43 mm, with a distal rim to prevent tissue from slipping



SUTURE AND LIGATURE

NEEDLE HOLDERS 214-230
Sizes 2 – 5 mm



KNOT TIERS 231-236
Sizes 3.5 – 5 mm



PERCUTANEOUS SUTURING AND FASCIAL CLOSURE 237



CLIP APPLICATORS, size 10 mm 238- 239
AND ENDO-LOOP LIGATURES



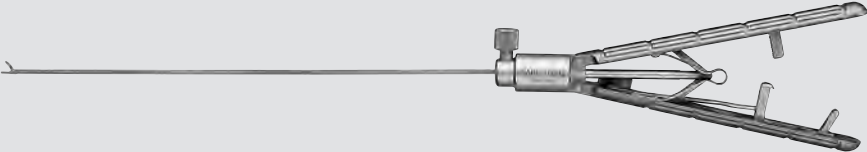

CURVED NEEDLE HOLDERS
FOR SINGLE-PORT SURGERY see chapter 10

Needle Holders

Size 2 mm

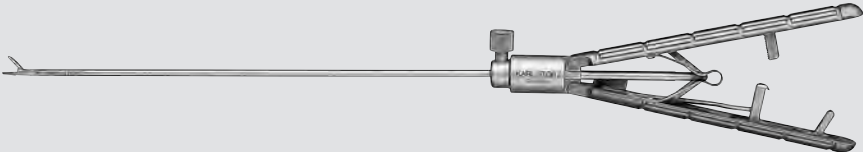


Operating instrument, **length 20 cm**,
for use **with trocars size 2.5 mm**



Length	Instrument	
20 cm		
Distal tip	Instrument	
	30200 FNS	KOH Ultramicro Needle Holder , straight handle, with disengageable ratchet

Size 3.5 mm

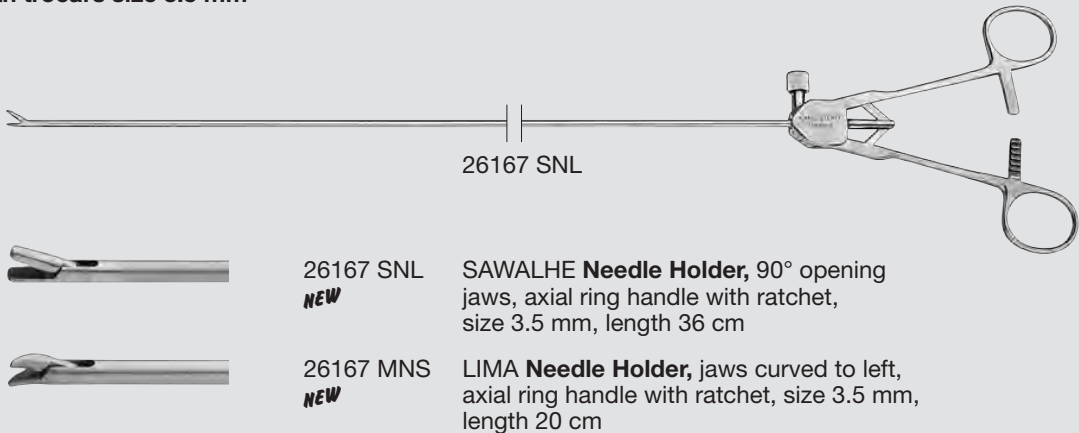
Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars size 3.5 mm**

Length	Instrument	
20 cm		
36 cm		
Distal tip	Instrument	
	NEW 26167 LNS	KOH Ultramicro Needle Holder , jaws curved to left, with tungsten carbide insert, straight handle, with disengageable ratchet
	NEW 26167 LNL	
	NEW 26167 RNS	KOH Ultramicro Needle Holder , jaws curved to right, with tungsten carbide insert, straight handle, with disengageable ratchet
	NEW 26167 RNL	

Needle Holders, Needle Holder and Suture Grasper

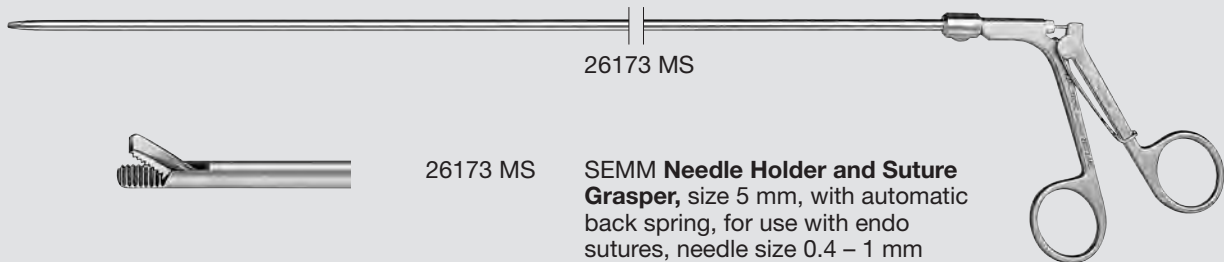
Size 3.5 mm

Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars size 3.5 mm**



Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 or 11 mm with reduction sleeves**

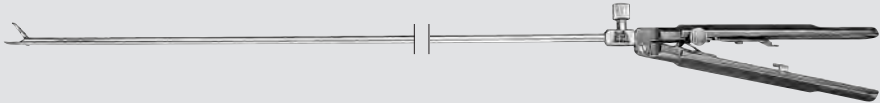






SZABO-BERCI Needle Holders

“PARROT-JAW®”

Size 5 mm

Operating instruments, length 33 cm,
for use with trocars size 6 mm

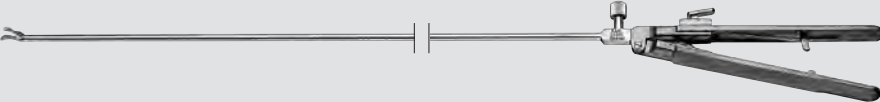
Length	Instrument
33 cm	


Distal tip	Instrument	
	26173 SC	SZABO-BERCI Needle Holder “PARROT-JAW®”, straight handle, with ratchet, for suture material 2/0 – 4/0, needle sizes SH (Ethicon), EN-S (Ski), V-20 (USSC)
	26173 SE	SZABO-BERCI Needle Holder “PARROT-JAW®”, jaws with tungsten carbide inserts, straight handle, with ratchet, for suture material 2/0 – 4/0, needle sizes SH (Ethicon), EN-S (Ski), V-20 (USSC)
	26173 CQ	SZABO-BERCI Needle Holder “PARROT-JAW®”, straight handle, with ratchet, for suture material 4/0 – 6/0, needle sizes RB (Ethicon), CV-23 (USSC)
	26173 CE	SZABO-BERCI Needle Holder “PARROT-JAW®”, jaws with tungsten carbide inserts, straight handle, with ratchet, for suture material 4/0 – 6/0, needle sizes RB (Ethicon), CV-23 (USSC)

with diamond coated jaws

Special Features:

- Diamond coating for optimum safety in securing the needle in every position
- Ease of operation, precise adjustable ratchet for easy and safe positioning of the needle

Length	Instrument
33 cm	

Distal tip	Instrument	
	26173 SP	SZABO-BERCI Needle Holder “PARROT-JAW®”, with diamond coated jaws, straight handle, with ratchet, for suture material 2/0 – 4/0, needle sizes SH (Ethicon), EN-S (Ski), V 20 (USSC)

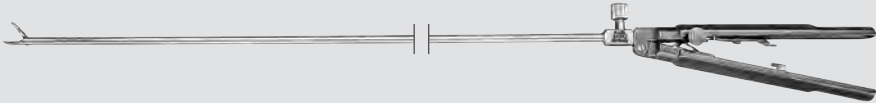
Please note:
Using the needle holder with a needle larger than recommended may result in a mechanical damage to the instrument.

SZABO-BERCI Assistant Needle Holders

“FLAMINGO-JAW®”

Size 5 mm

Operating instruments, length 33 cm,
for use with trocars size 6 or 11 mm with reduction sleeves

Length	Instrument
33 cm	

Distal tip	Instrument	
	26173 QR	SZABO-BERCI Assistant Needle Holder “FLAMINGO-JAW®”, straight handle, with ratchet, for suture material 4/0 – 6/0, needle sizes RB (Ethicon), CV-23 (USSC)
	26173 DQ	SZABO-BERCI Assistant Needle Holder “FLAMINGO-JAW®”, straight handle, without ratchet, for suture material 4/0 – 6/0, needle sizes RB (Ethicon), CV-23 (USSC)
	26173 DR	SZABO-BERCI Assistant Needle Holder “FLAMINGO-JAW®”, straight handle, with ratchet, for suture material 2/0 – 4/0, needle sizes SH (Ethicon), EN-S (Ski), V-20 (USSC)
	26173 SD	SZABO-BERCI Assistant Needle Holder “FLAMINGO-JAW®”, straight handle, without ratchet, for suture material 2/0 – 4/0, needle sizes SH (Ethicon), EN-S (Ski), V-20 (USSC)

Please note:
Using the needle holder with a needle larger than recommended may result in a mechanical damage to the instrument.

KOH Macro Needle Holders

Size 5 mm


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




The ergonomic properties of the new 5 mm KOH macro needle holder allow precise holding of the needles and the thread. The precision branches and the new locking mechanism enable easy and precise guidance of the needle with threads of thickness from 0/0 to 7/0.

The KOH ultramicro instrument set has been developed specifically to meet the high demands of laparoscopic microsurgery and is designed to suture structures as small as 0.5 mm.

Special Features:

- Tungsten carbide inserts for firm and reliable needle positioning, as well as long durability
 - Ease of operation, precise adjustable ratchet for easy and safe positioning of the needle
- Ergonomically designed handle for relaxed working

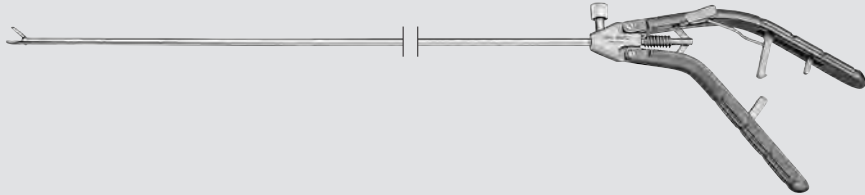
Length	Instrument
33 cm	
43 cm	





Distal tip	Instrument	
	26173 KAF	KOH Macro Needle Holder , with tungsten carbide insert, ergonomic straight handle with disengageable ratchet, ratchet position right, jaws straight
	26178 KAF	
	26173 KAL	KOH Macro Needle Holder , with tungsten carbide insert, ergonomic straight handle with disengageable ratchet, ratchet position right, jaws curved to left
	26178 KAL	
	26173 KAR	KOH Macro Needle Holder , with tungsten carbide insert, ergonomic straight handle with disengageable ratchet, ratchet position left, jaws curved to right
	26178 KAR	

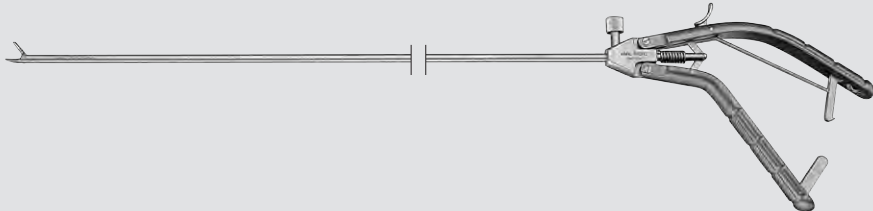
KOH Macro Needle Holders, KOH Assistant Needle Holder

Size 5 mm

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

Length	Instrument
33 cm	
43 cm	

Distal tip	Instrument	
	26173 KPF	KOH Macro Needle Holder , with tungsten carbide insert, ergonomic pistol handle with disengageable ratchet, ratchet position left, jaws straight
	26178 KPF	
	26173 KPL	KOH Macro Needle Holder , with tungsten carbide insert, ergonomic pistol handle with disengageable ratchet, ratchet position left, jaws curved to left
	26178 KPL	
	26173 KPR	KOH Macro Needle Holder , with tungsten carbide insert, ergonomic pistol handle with disengageable ratchet, ratchet position right, jaws curved to right
	26178 KPR	
	NEW 26173 KG	KOH Assistant Needle Holder , ergonomic pistol handle with disengageable ratchet, ratchet position left, straight jaws with distal hole

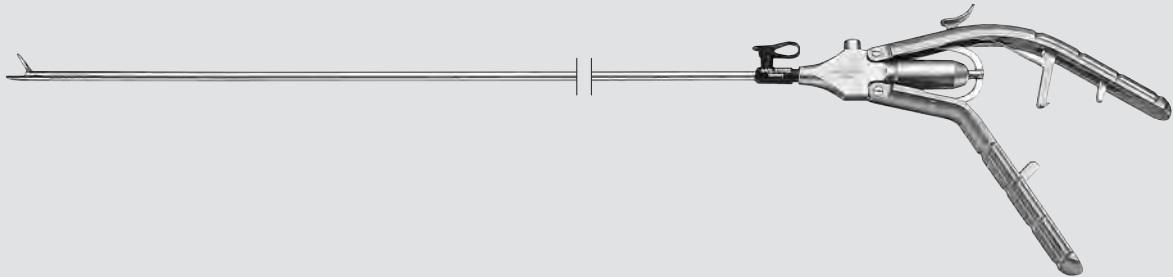
Length	Instrument
33 cm	

Distal tip	Instrument	
	26173 KL	KOH Macro Needle Holder , with tungsten carbide insert, ergonomic handle with ratchet, ratchet position on top, jaws curved left
	26173 KC	KOH Macro Needle Holder , with tungsten carbide insert, ergonomic handle with ratchet, ratchet position on top, jaws curved right

8-072

KOH Macro Needle Holders

dismantling



KOH Macro Needle Holder, size 5 mm, dismantling, consisting of:

- **Handle**
- **Outer sheath**
- **Working insert**

Cleaning and sterilization are gaining increasing importance for KARL STORZ as a manufacturer of surgical instruments.

Similar to all our surgical instruments, the cleaning and hygiene of our needle holders also play an important role. Our KOH macro needle holders feature consistent

effectiveness and precision, with significantly improved cleaning results achieved by dismantling the instrument. The handle, outer sheath and inner part can be cleaned and sterilized separately for perfect results.

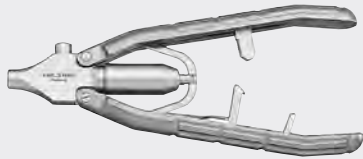
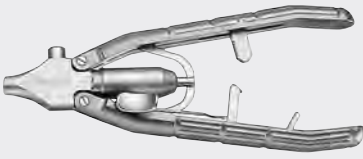
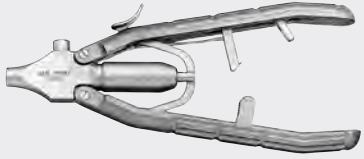
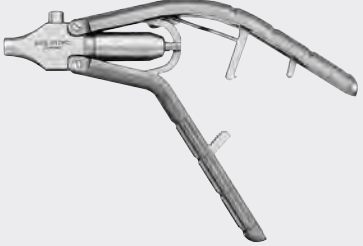


The reusable dismantling design offers the user the following benefits:

- **Can be disassembled into three separate components**
- **Fully autoclavable**
- **Cleaning connector**
- **Choice of six different handles and three different working inserts**
- **With tungsten carbide inserts**
- **Environmentally correct: In the event of damage, only the component with the defect needs to be replaced**
- **User-friendly and ergonomic handling**

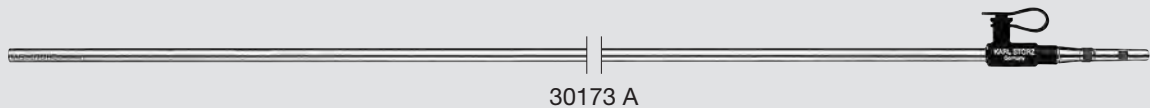
Handles and Outer Sheaths

KOH Macro Needle Holders, dismantling

Handles, axial and pistol-shaped, with disengageable ratchet

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

Metal Outer Sheaths Size 5 mm





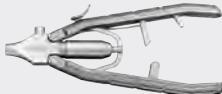
- 30173 A **Metal Outer Sheath**, with LUER-Lock connector for cleaning, size 5 mm, length 33 cm
- 30178 A **Same**, length 43 cm

KOH Macro Needle Holders

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 Macro Needle Holder, jaws curved to right,
with tungsten carbide inserts, for use with suture material size 0/0 – 7/0

30173 L	30173 LAR	30173 LAL	30173 LAO
30178 L	30178 LAR	30178 LAL	30178 LAO



KOH Macro Needle Holder, jaws curved to left,
with tungsten carbide inserts, for use with suture material size 0/0 – 7/0

30173 F	30173 FAR	30173 FAL	30173 FAO
30178 F	30178 FAR	30178 FAL	30178 FAO



KOH Macro Needle Holder, straight jaws, with tungsten carbide inserts,
for use with suture material size 0/0 – 7/0

30173 G	30173 GAR	30173 GAL	30173 GAO
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NEW



KOH Macro Assistant Needle Holder, straight jaws

KOH Macro Needle Holders





dismantling

Size 5 mm

Operating instruments, **lengths 33 and 43 cm**, with axial 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 Macro Needle Holder , jaws curved to right, with tungsten carbide inserts, for use with suture material size 0/0 – 7/0		
30173 L	30173 LPR	30173 LPL	30173 LPO
30178 L	30178 LPR	30178 LPL	30178 LPO
	KOH Macro Needle Holder , jaws curved to left, with tungsten carbide inserts, for use with suture material size 0/0 – 7/0		
30173 F	30173 FPR	30173 FPL	30173 FPO
30178 F	30178 FPR	30178 FPL	30178 FPO
	KOH Macro Needle Holder , straight jaws, with tungsten carbide inserts, for use with suture material size 0/0 – 7/0		
30173 G	30173 GPR	30173 GPL	30173 GPO
	KOH Macro Assistant Needle Holder , straight jaws		

SCARFI Needle Holder

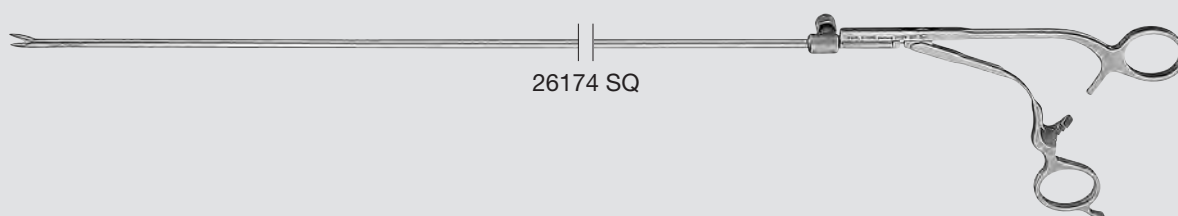
Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 or 11 mm with reduction sleeves**

SCARFI Suturing Instruments

KARL STORZ presents the SCARFI range of instruments for endoscopic sutures. These instruments are designed entirely in accordance with anatomical and functional surgical requirements. This is particularly apparent from the newly developed handle section of the needle holder and assistant needle holder. The arrangement of the handle in relation to the longitudinal axis of the instrument clearly differs from conventional

instruments and allows the needle holder to be guided similar to a direct, straight extension of the lower arm. By means of anatomically shaped ring handles the instrument is held and guided using the whole hand. The ergonomic design not only permits more precise suturing, but also prevents excessive strain to the individual muscle groups of the lower arm and consequent fatigue.



26174 SQ

SCARFI Needle Holder, straight, with tungsten carbide inserts, ergonomic CHERON handle with hemostat style ratchet, size 5 mm, length 36 cm, for use with SCARFI Spoon Needle 26173 L, with resorbable synthetic suture, sterile, package of 12, USP 2/0, length 20 cm

Please note:

Using the needle holder with a needle larger than recommended may result in a mechanical damage to the instrument.

KECKSTEIN Needle Holder ^{NEW}

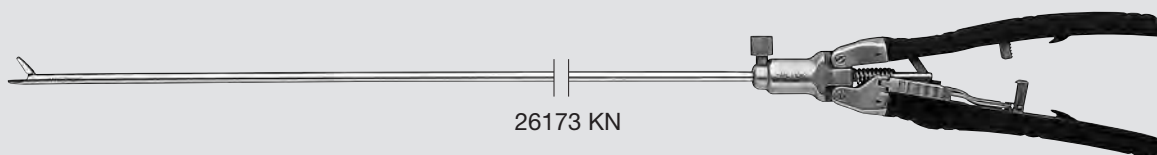
with removal handle attachments

Size 5 mm

Operating instruments, **length 33 cm**,
for use **with trocars size 6 mm**

Special Features:

- 1 needle holder, 2 different handle attachments:
small, medium
- Individual fit for different hand sizes
- Fully autoclavable
- Handle attachments easy to snap on
- Plastic handle attachments are light and fit comfortably in the hand



26173 KN

KECKSTEIN **Needle Holder**, size 5 mm,
length 33 cm, for use with Handle
Attachment Sets 26173 KNA/KNB



26173 KNA

26173 KNA

Handle Attachment Set, small,
autoclavable, for use with KECKSTEIN
Needle Holder 26173 KN

26173 KNB

Handle Attachment Set, medium,
autoclavable, for use with KECKSTEIN
Needle Holder 26173 KN

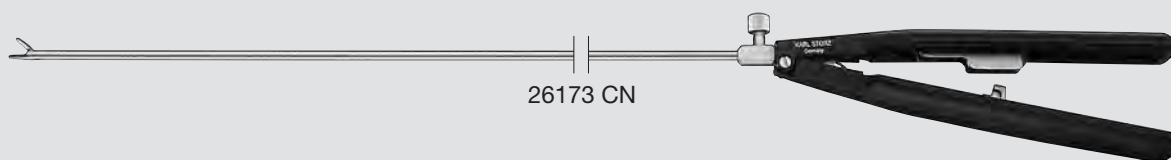
CADIERE Needle Holder

Size 5 mm

Operating instruments, **length 33 cm**,
for use **with trocars size 6 mm**

Special Features:

- Lightweight construction with plastic handles
- Large handles are also suitable for surgeons with larger hands
- Proven ratchet functionality
- Distal 2-cm marking at 5 and 10 cm
- Jaws curved to left



26173 CN

CADIERE **Needle Holder**, with tungsten carbide insert, straight handle, with ratchet and large handle attachments, size 5 mm, length 33 cm

CUSCHIERI Needle Holder ROTAGRIP

with rotating handle attachment

Size 5 mm

Operating instruments, **length 33 cm**,
for use **with trocars size 6 mm**

Product Description :

The CUSCHIERI needle holder ROTAGRIP has a size of 5 mm, a standard length of 33 cm, a straight jaw and a rotatable handle attachment.

Specific Use:

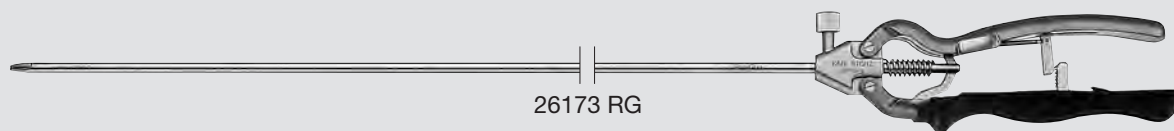
In laparoscopic surgery, the needle holder serves to execute intercorporeal suturing. We recommend using our ROTAGRIP needle holder with suture material USP 2-0 to 6-0.

Particular Handling:

The ergonomic and rotatable grip leads to less muscle strain as exertion is distributed among all five fingers when closing the handle.

Special Features:

- **Ergonomic and rotating handle attachment:**
Muscle exertion is distributed among all five fingers when closing the grip holder
- **Removable handle attachment for hygienic purposes**
- **Striated grip for a better hold**
- **Straight jaw**



26173 RG

CUSCHIERI Needle Holder ROTAGRIP,
with rotating handle, straight jaw,
size 5 mm, length 33 cm

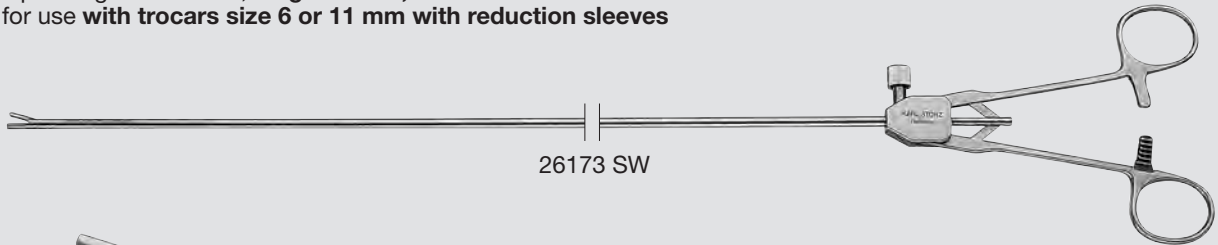
Please note:

Using the needle holder with a needle larger than recommended may result in a mechanical damage to the instrument.

SAWALHE Needle Holder, RASSWEILER Needle Holders

Size 5 mm

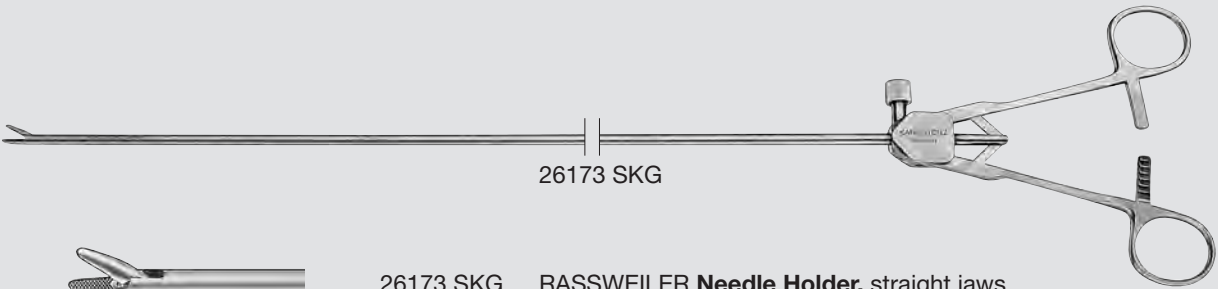
Operating instruments, **length 33 cm**,
for use **with trocars size 6 or 11 mm with reduction sleeves**



26173 SW



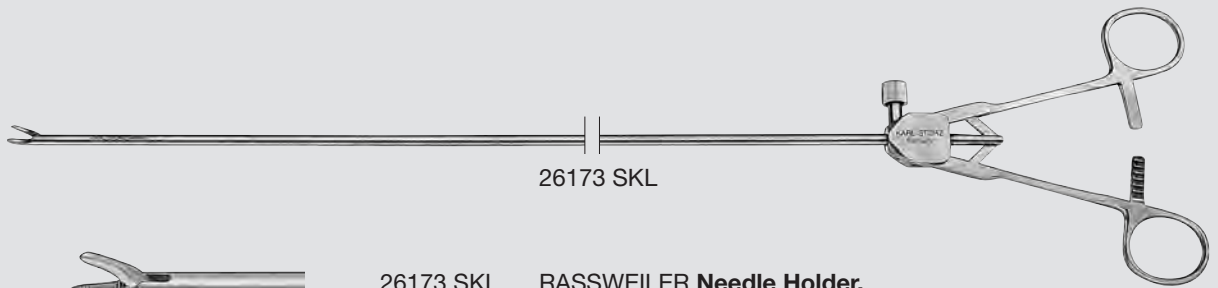
26173 SW **SAWALHE Needle Holder**, 90° opening jaws,
axial ring handle with ratchet, size 5 mm,
length 33 cm



26173 SKG



26173 SKG **RASSWEILER Needle Holder**, straight jaws,
axial ring handle with ratchet, size 5 mm,
length 33 cm, for use with suture material
2/0 – 4/0, needle size SH and RB (Ethicon)



26173 SKL

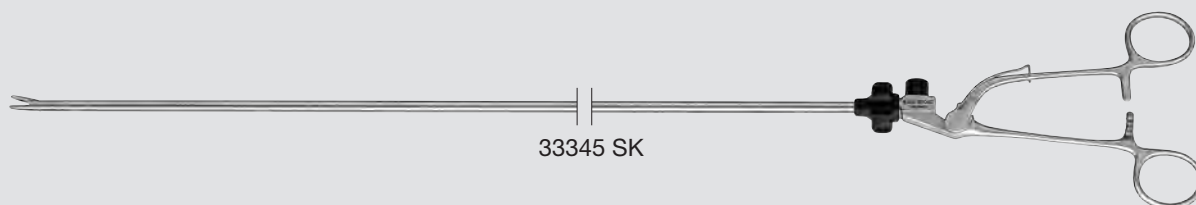


26173 SKL **RASSWEILER Needle Holder**,
convex/concave, slender jaws, curved to left,
axial ring handle with ratchet, size 5 mm,
length 33 cm, for use with suture material 3/0,
needle size LH and RB-1 (Ethicon)

MOURET Needle Holder

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 or 11 mm with reduction sleeves**



33345 SK



33345 SK

CLICK'line® MOURET Needle Holder,
with straight jaws, single action jaws,
size 5 mm, length 36 cm
including:

Axial Metal Handle,
with hemostat style ratchet

Metal Outer Sheath
Needle Holder Insert



33345 SR

CLICK'line® MOURET Needle Holder,
with straight jaws, single action jaws,
size 5 mm, length 36 cm
including:

Axial Metal Handle,
with hemostat style ratchet

Metal Outer Sheath
Needle Holder Insert, straight,
jaws with groove

Components/Spare Parts see chapter 21

DUBECQ-PRINCETEAU Articulating Needle Holder

Size 5 mm

Operating instrument, **length 33 cm**,
for use **with trocars size 6 mm**

The basic idea behind the design of this new needle holder is to compensate for the loss of two spatial degrees of freedom, which results from the fact that the instrument is located in the rigid trocar sleeve in the abdominal wall.

Advantage:

The radius of action at the site of operation is extended, both along the instrument's axis (straight ahead position) and also in the articulated state.

How it is used:

Articulation of the instrument results from a 180° rotation in the longitudinal axis of the instrument which causes the two symmetrical parts of the sheath to move toward each other. This causes an articulation of the distal end by 10° to 30°.

Design:

Instrument size 5 mm. It can be completely dismantled for cleaning and sterilization.

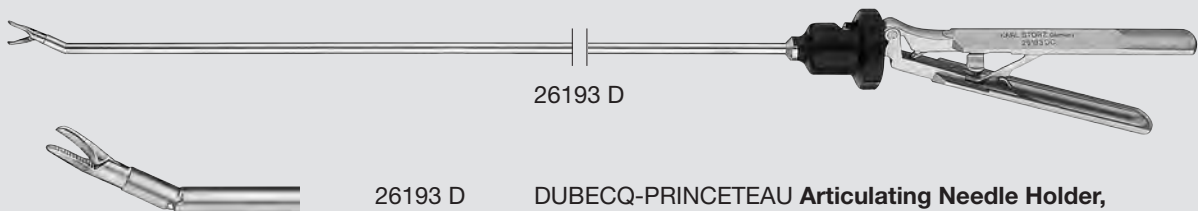
Clinical use:

Suitable for all laparoscopic interventions which require the use of a needle holder, especially if the limitations on movement imposed by a trocar impair the operation unacceptably.

Suitable applications in clinical use: colposuspension, Nissen fundoplication, laparoscopic fixation of the vaginal promontorium, restoration of tubal patency.

Special Features:

- 30° distal articulation
- Can be completely dismantled
- Autoclavable
- Easy handling
- Length 33 cm



DUBECQ-PRINCETEAU Articulating Needle Holder,
size 5 mm, length 33 cm

including:

- Outer Sheath**
- Inner Sheath**
- Handle**
- Working Insert**

Please note:

Using the needle holder with a needle larger than recommended may result in a mechanical damage to the instrument.

Components/Spare Parts see chapter 21

Knot Tiers ^{NEW}

Size 3.5 mm

Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars size 3.5 mm**



26167 KNL



26167 KNS

Knot Tier, for extracorporeal knotting,
size 3.5 mm, length 20 cm

26167 KNL

Same, length 36 cm

Special Features:

- Open and closed end within one instrument.
By turning the instrument around, the surgeon can use the form of the instrument which is best suited for each ligature, without having to request an exchange of instruments
- Open-end design reduces incidence of sutures becoming dislodged
- Small cross-section distal end
- Atraumatic, can also be used as a palpation probe



26167 DNL



26167 DNS

Knot Tier, for extracorporeal knotting,
size 3.5 mm, length 20 cm



26167 DNL

Same, length 36 cm

MOURET Knot Tier, MANGESHIKAR Endo-Knotting Device ^{NEW}

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**



33344 KM



33344 KM

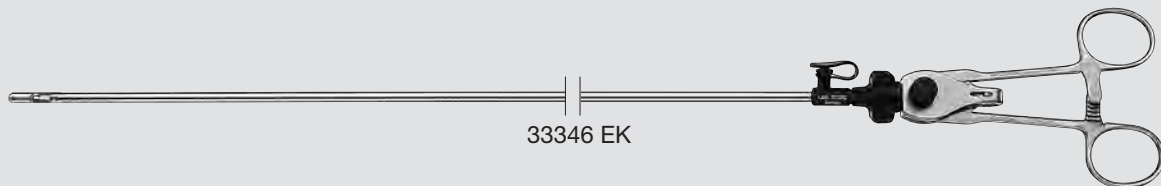
CLICK'line MOURET **Knot Tier**, rotating, dismantling, double action jaws, jaws with notch and without serration, automatic jaw closing with mounted Spring 33137 MF, closing Handle 33144 opens the jaws, size 5 mm, length 36 cm

including:

MOURET Metal Handle

Metal Outer Sheath

Knot Tier Insert



33346 EK



33346 EK
NEW

CLICK'line MANGESHIKAR **MUST Endo-Knotting Device**, rotating, dismantling, double action jaws, size 5 mm, length 36 cm

including:

Metal Handle, with ratchet

Metal Outer Sheath

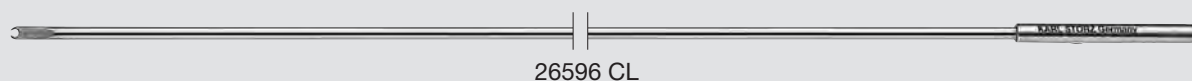
MANGESHIKAR Endo-Knotting Device Insert

Components/Spare Parts see chapter 21

Knot Tiers

Size 5 mm

Operating instruments, **lengths 36 and 46 cm**,
for use **with trocars size 6 or 11 mm with reduction sleeves**

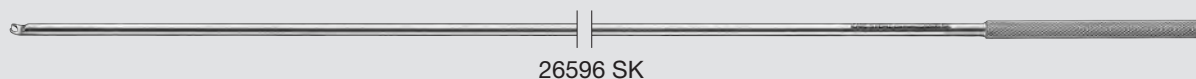


26596 CL



26596 CL

CICE Knot Tier, CLERMONT-FERRAND model,
for extracorporeal knotting, size 5 mm, length 36 cm



26596 SK

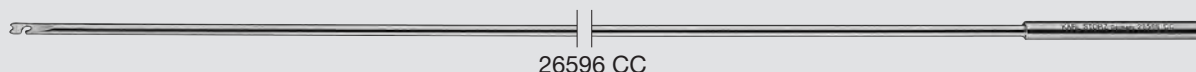


26596 SK

KÖCKERLING Knot Tier, for extracorporeal knotting,
size 5 mm, length 36 cm

26596 SKL

Same, length 46 cm



26596 CC



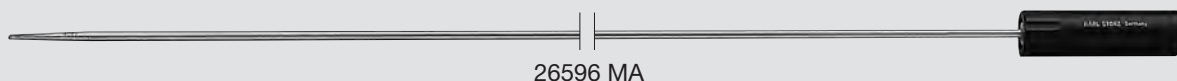
26596 CC

CIRAVOLO Knot Tier, for extracorporeal knotting,
with L-shaped fenestration at distal end, for secure
placement of simple knots, size 5 mm, length 36 cm

Knot Tiers

Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**



26596 MA

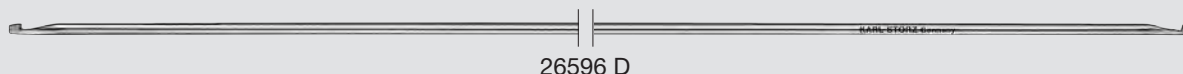


26596 MA

MANGESHIKAR Knot Tier,
for extracorporeal knotting,
size 5 mm, length 36 cm

Special features:

- Open and closed end with one instrument. By turning the instrument around, the surgeon can use the form of the instrument which is suitable for the particulars of each ligature, without having to request an exchange of instruments
- Open-end design reduces incidence of sutures becoming dislodged
- Small cross-section distal end
- Atraumatic, can also be used as a palpation probe



26596 D



26596 D



Knot Tier, for extracorporeal knotting,
with open and closed end, size 5 mm,
length 36 cm

CUSCHIERI Integral Knot Pusher and Thread Catcher

The knot-pusher/thread-catcher is intended to replace similar disposable instruments with a reusable item. The knot-pusher/thread-catcher incorporates a feature to enable the thread to be grasped automatically. The instrument incorporates inner and outer pieces as shown in Figure 1.

The end of a thread can be grasped by first ensuring that the inner piece is pressed into the outer piece until it clicks into place. Then pass approximately 10 to 15 mm of thread through the hole in the distal tip of the outer piece and withdraw the inner piece until it clicks again. The thread will now be grasped firmly in the jaws of the inner piece, and may be withdrawn.

A pair of discs at the distal end of the outer piece is provided for securing the thread: passing the thread for one turn between the discs will be sufficient to prevent the thread from working loose.

This instrument can be used with any of the 6 mm ports in the KARL STORZ range, although it is most convenient to use a port with a manually operated valve.

Instructions for use:

Introduce the end of the thread into the body using a pair of needle holders, and pass it over the structure to be ligated. Recover the end of the thread using the same needle driver and bring the thread back out. Refer to Figure 2.

Tie an extracorporeal slip knot (e.g. Roeder knot, Tayside knot, Melzer knot) in the thread and ensure that the end is cut to the desired length. Grasp the standing part of the thread in the knot-pusher/thread-catcher and then withdraw the inner piece: see Figure 3.

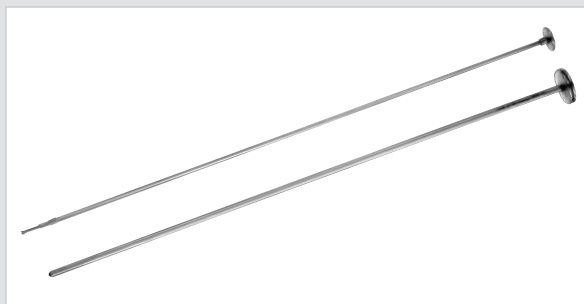


Fig. 1: Knot-pusher/thread-catcher inner (top) and outer (bottom) pieces.



Fig. 2: The thread has been passed down the port, around the vessel to be ligated and back out of the body, using a pair of needle drivers.

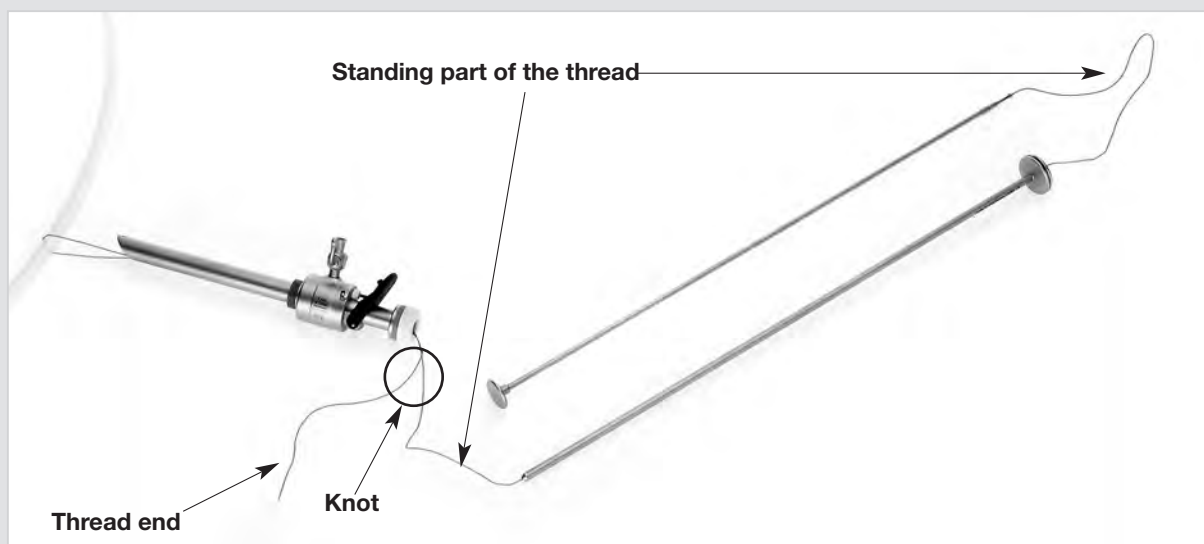


Fig. 3: The completed extracorporeal slip knot. The standing end of the knot passes through the outer piece and is shown secured in the jaws of the inner piece.

CUSCHIERI Integral Knot-Pusher

The knot can then be slipped along the thread, through the port and down to the vessel to be ligated. Ensure that the standing end of the knot is held in tension while slipping the knot. Tighten the knot by pushing it against the vessel while pulling on the standing end. The completed knot is shown in Figure 4.

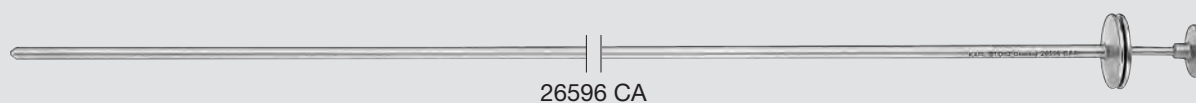
*Prof. Sir Alfred CUSCHIERI, M. D.,
University of Dundee, Scotland, GB*



Fig. 4: The completed knot, pushed into place.

Size 5 mm

Operating instruments, **length 33 cm**,
for use **with trocars size 6 or 11 mm with reduction sleeves**



26596 CA

CUSCHIERI Integral Knot-Pusher and Thread-Catcher,
size 5 mm, length 33 cm

including:

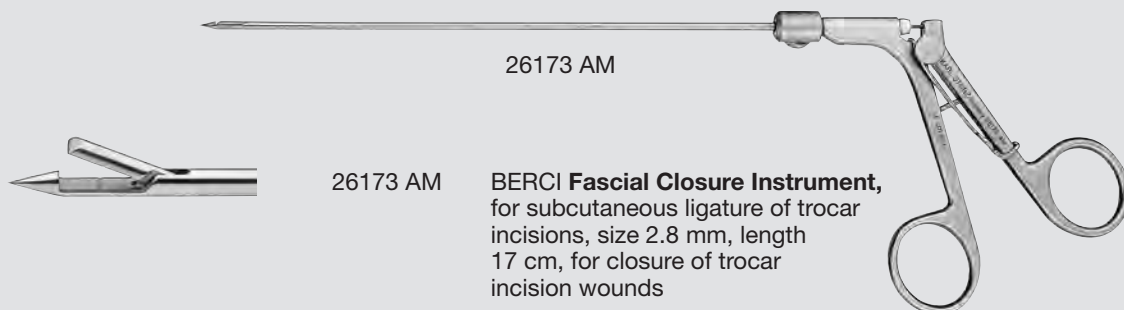
Outer Sheath

Inner Sheath

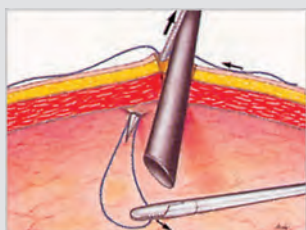
Components/Spare Parts see chapter 21

BERCI Fascial Closure Instrument

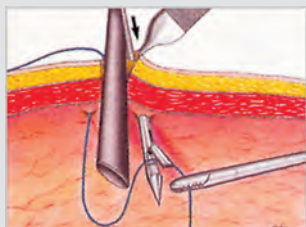
for subcutaneous fascial closure



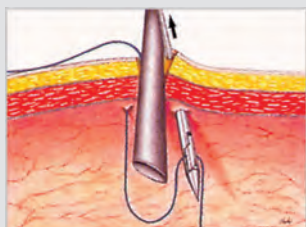
Grasp the suture in mid-length with forceps. Under direct laparoscopic vision and adequate pneumoperitoneum, place the fascial closure instrument into subcutaneous tissue directly adjacent to the trocar cannula. The instrument should incorporate all tissue layers as entry is made into the peritoneal cavity. Release suture.



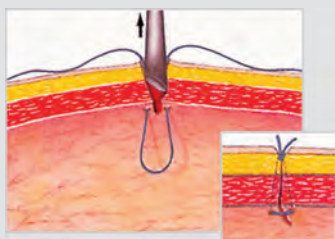
Remove instrument. Leave adequate loop of suture in the peritoneal cavity and adequate extracorporeal tails.



Again, under direct vision, reinsert the fascial closure instrument, without suture, on opposite side of trocar cannula. Place into the subcutaneous tissue incorporating all tissue layers. Grasp and retrieve the suture and instrument.



Remove instrument. The forceps will hold the suture securely upon removal.



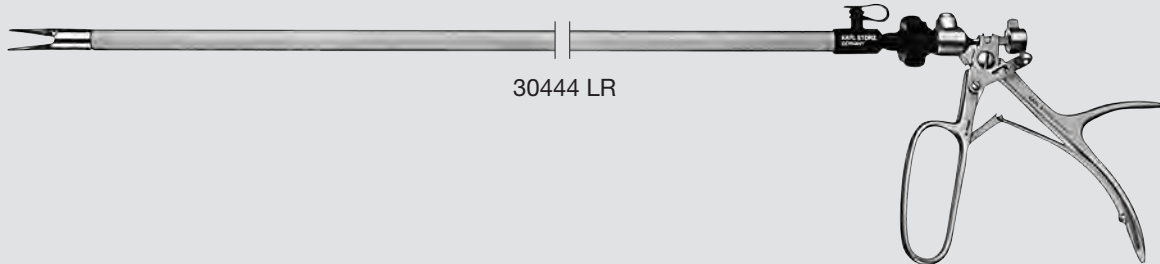
Following removal of trocar, tie suture in normal fashion. The fascial closure instrument facilitates full thickness abdominal wall closure.

Applicators for Titanium Clips

dismantling, rotating

Size 10 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 11 mm**



30444 LR



30444 LR

Clip Applicator, dismantling, rotating, size 10 mm,
length 36 cm, for PILLING-WECK Titanium Clips
30460 AL (medium-large), with ratchet to lock the
jaw holding the clip

including:

Metal Handle, with ratchet

Metal Outer Sheath

Clip Applicator Insert



actual size

30460 AL

PILLING-WECK **Titanium Clips**, medium-large,
box with 16 sterile cartridges, 10 clips each,
for use with Clip Applicator 30444 LR



30444 GA

Clip Applicator, dismantling, rotating, size 10 mm,
length 36 cm, for PILLING-WECK Titanium Clips
30460 AP (medium), with ratchet to lock the jaw
holding the clip

including:

Metal Handle, with ratchet

Metal Outer Sheath

Clip Applicator Insert



actual size

30460 AP

PILLING-WECK **Titanium Clip**, medium, box
with 10 sterile cartridges, 25 clips each, for
use with Clip Applicator 30444 GA



30444 ET

Clip Applicator, dismantling, rotating, size 10 mm,
length 36 cm, for Ethicon Titanium Clips LT-300
(medium-large), with ratchet to lock the jaw
holding the clip

including:

Metal Handle, with ratchet

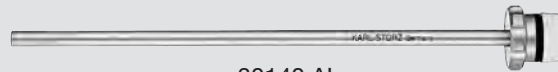
Metal Outer Sheath

Clip Applicator Insert

Caution:

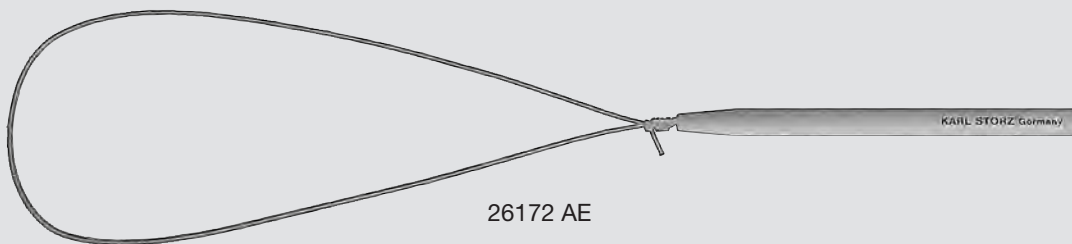
The use of clips other than those indicated can lead to damage of the jaws.

Components/Spare Parts see chapter 21



30140 AL

30140 AL **Applicator**, for endo-ligature of bleeding vessels and for application of the 3 mm Needle Holder 26173 LS in trocar size 6 mm, color code: black



26172 AE

26172 AE **Endo-Loop Ligature**, with ROEDER knot, for bleeding stumps, with absorbable synthetic suture, for single use, sterile, USP 0, size 3 mm, length 33 cm, package of 12





HANDLES AND INSTRUMENTS FOR SUCTION AND IRRIGATION

HANDLES FOR SUCTION AND IRRIGATION 242-247



SUCTION AND IRRIGATION TUBES, 248-250
PUNCTURE NEEDLES
Sizes 3 – 10 mm














NEEDLES AND INJECTION NEEDLES 251



**CURVED INSTRUMENTS FOR SUCTION AND IRRIGATION
FOR SINGLE-PORT SURGERY** see chapter 10

Handles for Suction and Irrigation

Handles	Function	Compatibility Matrix			
		Suction and Irrigation Tubes, size 3 mm	Suction and Irrigation Tubes, size 5 mm	Suction and Irrigation Tubes, size 10 mm	for use with mtp-tubing sets only
 30804	for suction or irrigation	●	●	—	—
 30805	for suction and irrigation	●	●	—	—
 30810	for suction and irrigation	●	●	—	—
 37112 A	for suction and irrigation	●	●	●	* 
 37113 A	for suction and irrigation, with central working channel	●	●	●	* 
 38112 CS	for suction and irrigation	●	●	●	* 
NEW  37112 RV	for suction and irrigation	●	●	●	* 

Please note:

Detailed descriptions of the handles see pages 243-247

10 mm suction and irrigation tubes should only be used with the handles recommended as these are the only handles that provide an adequate in-/outflow.

Handles for Suction and Irrigation



30804

Handle with Trumpet Valve, for suction or irrigation, **autoclavable**, for use with 5 mm coagulation suction tubes, 3 and 5 mm suction and irrigation tubes



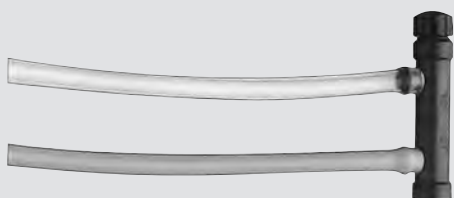
30805

Handle with Two-Way Stopcock, for suction and irrigation, **autoclavable**, for use with suction and irrigation tubes size 5 mm



30810

Handle, for suction and irrigation, **autoclavable**, for use with 5 mm coagulation suction tubes and 3 and 5 mm suction and irrigation tubes



30811

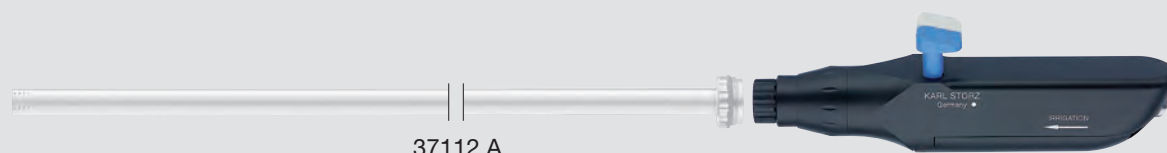
Silicone Tubing Set, autoclavable, for use with Handle 30810

031132-10*

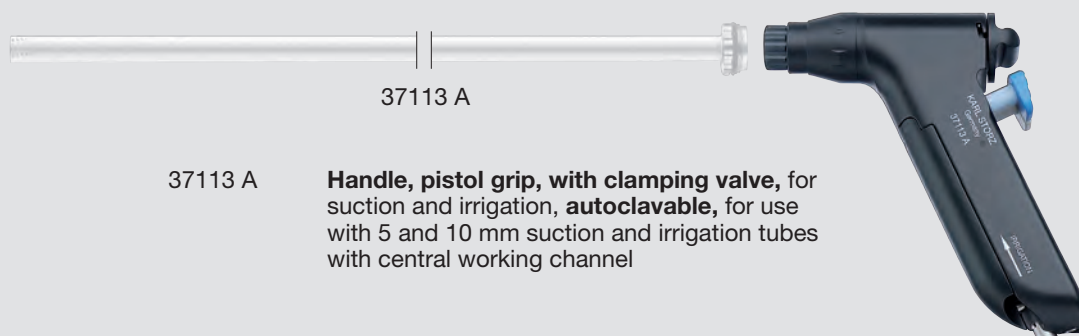
Tubing Set, for single use, sterile, package of 10, for use with Handle 30810



Handles for Suction and Irrigation



37112 A **Handle, straight, with clamping valve, for suction and irrigation, autoclavable, for use with 3 mm (in conjunction with Adaptor 26167 A) 5 and 10 mm suction and irrigation tubes**



37113 A **Handle, pistol grip, with clamping valve, for suction and irrigation, autoclavable, for use with 5 and 10 mm suction and irrigation tubes with central working channel**



NEW 37112 RV **Suction and Irrigation Handle, straight, with roller valve, for suction and irrigation, autoclavable**

Note:

Handles 37112 A, 37113 A and 37112 RV can be used with sterile tubing sets from the company mtp, see page 245

Special Suction and Irrigation Tubes, size 10 mm, length 30 cm, for use with 5 mm instruments, length 43 cm, through the central working channel of Handle 37113 A, see pages 249-251

Units for use with Handles for Suction and Irrigation see chapter 20, UNITS

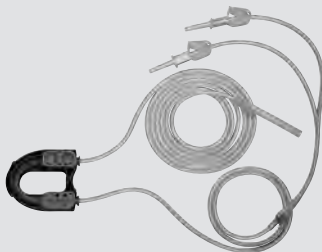
Tubing Sets

for use with Handles 37112 A, 37113 A and 37112 RV



031133-10

031133-10* **Tubing Set**, for single use, sterile, package of 10, for use with Suction and Irrigation Handles 37112 A, 37113 A and 37112 RV



031518-10

031518-10* **Cassette Tubing Set**, with two puncture needles, for single use, sterile, package of 10, for 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 from mtp.



031134-10

031134-10* **Tubing Set**, for single use, sterile, package of 10, for use with Suction and Irrigation Handles 37112 A, 37113 A and 37112 RV in combination with silicone tube inner diameter 5 mm at the patient end



031219-10

031219-10* **Complete Tubing Set**, with two puncture cannulas, for single use, sterile, package of 10, for use with Handles 37112 A, 37113 A and 37112 RV in combination with ENDOMAT® LC



Please note:

Sterile tubing sets for Handles 37112 A, 37113 A and 37112 RV can be ordered directly from mtp.

Designed to resemble a pen, the CADIERE suction and irrigation handle was specially constructed for precise and accurate suction. The handle design enables suction power to be regulated according to the user's

requirements. Consequently, intuitive use ensures precise suction. The irrigation button can easily be activated with the thumb, providing the user with a powerful irrigation function.

Benefits:

- Precise and accurate suction makes it easier to find blood foci
- Enables powerful suction and irrigation
- Ergonomic design
- Convenient handling



38112 CS



mtp*

38112 CS CADIERE **Suction and Irrigation Handle**, with adaptor, for suction and irrigation, **autoclavable**, for use with 3 mm, 5 mm and 10 mm irrigations tubes with thread on the instrument side, Tubing Sets 031118-10 or 031119-10 for irrigation and Tubing Set 031136-10 for suction as well as tubes with a LUER connector including:
Adaptor*

031135-10* **Adaptor**, for single use, sterile, with LUER-Lock connector and tube olive for suction and irrigation, package of 10, for use with Suction and Irrigation Handle 38112 C



Note:

Handle 38112 CS can be used with sterile tubing sets from the company mtp, see page 247

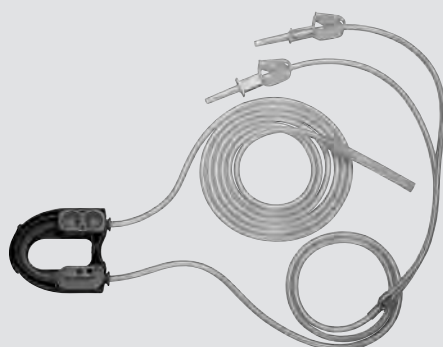
Special Suction and Irrigation Tubes, size 10 mm, length 30 cm, for use with 5 mm instruments, length 43 cm, through the central working channel of Handle 37113 A, see pages 249-251

Units for use with Handles for Suction and Irrigation see chapter 20, UNITS

Components/Spare Parts see chapter 21

Tubing Sets

for use with Handle 38112 CS



031518-10

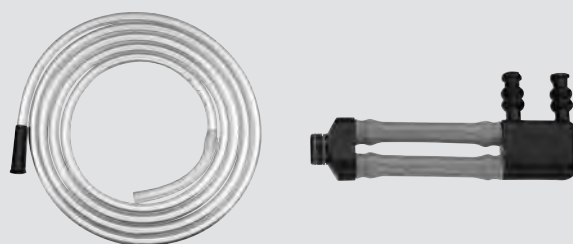
031518-10* **Cassette Tubing Set**, with two puncture needles, for single use, sterile, package of 10, for laparoscopy

Note: Tubing sets for older models are available from mtp*.



031119-10

031119-10* **Tubing Set**, with two puncture cannulas, for single use, sterile, for irrigation, package of 10, for use with ENDOMAT® LC



031136-10

031136-10* **Adaptor and Suction Tube**, with LUER-Lock connector and tube olive, for single use, sterile, package of 10, for use with Suction and Irrigation Handle 38112 C



Please note: Sterile tubing sets for Handle 38112 CS can be ordered directly from mtp.



Suction and Irrigation Tubes

slimline



Size 3.5 mm






Operating instruments, **lengths 20 and 36 cm**,
for use **with trocars size 3.5 mm**

Length	Instrument	
20 cm		
36 cm		
Distal End	Instrument	
	NEW 26167 ANS	Suction and Irrigation Tube , with lateral holes, for use with handles for irrigation and suction
	NEW 26167 ANL	

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel **and trocars size 6 mm**

Length	Instrument	
30 cm		
36 cm		
43 cm		
Distal End	Instrument	
	37260 LH	Suction and Irrigation Tube , with lateral holes
	37360 LH	
	37460 LH	
	37360 SC	Suction and Irrigation Tube
	37360 PB	Suction and Irrigation Tube , with protection basket
	37360 CP	Suction and Irrigation Tube , for punction and suction of cysts

Please note:

Handles for use with Suction and Irrigation Tubes see pages 242-247

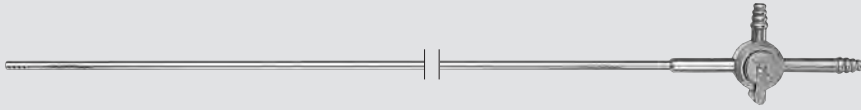



Units for use with Handles for Suction and Irrigation see chapter 20, UNITS

Suction and Irrigation Tubes

Size 5 mm



Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel **and trocars size 6 mm**

Length	Instrument	
30 cm		
36 cm		
43 cm		
Distal End	Instrument	
	26172 BN	Suction and Irrigation Tube , anti-reflex surface, with lateral holes, with two-way stopcock for single-hand control
	26173 BN	
	26174 BN	
	26173 BL	Suction and Irrigation Tube , anti-reflex surface, with two-way stopcock for single hand control, with two female LUER-lock connectors
	26173 BK	Suction and Irrigation Tube , anti-reflex surface, with protection basket, with two-way stopcock for single hand control

Size 10 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 11 mm**

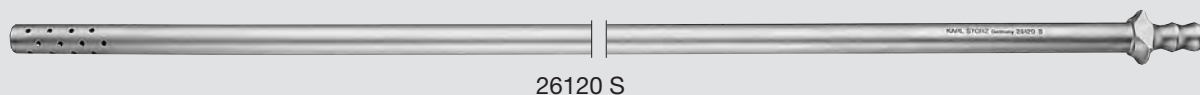
Length	Instrument	
36 cm		
Distal End	Instrument	
	37560 LH	Suction and Irrigation Tube , with lateral holes

Please note:
Handles for use with Suction and Irrigation Tubes see pages 242-247
Units for use with Handles for Suction and Irrigation see chapter 20, UNITS

Suction and Irrigation Tubes

Size 10 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 11 mm**

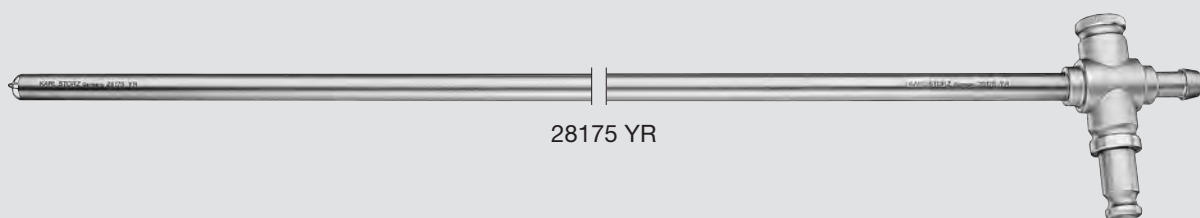


26120 S



26120 S

Ascites Suction Tube, size 10 mm,
length 36 cm



28175 YR



28175 YR

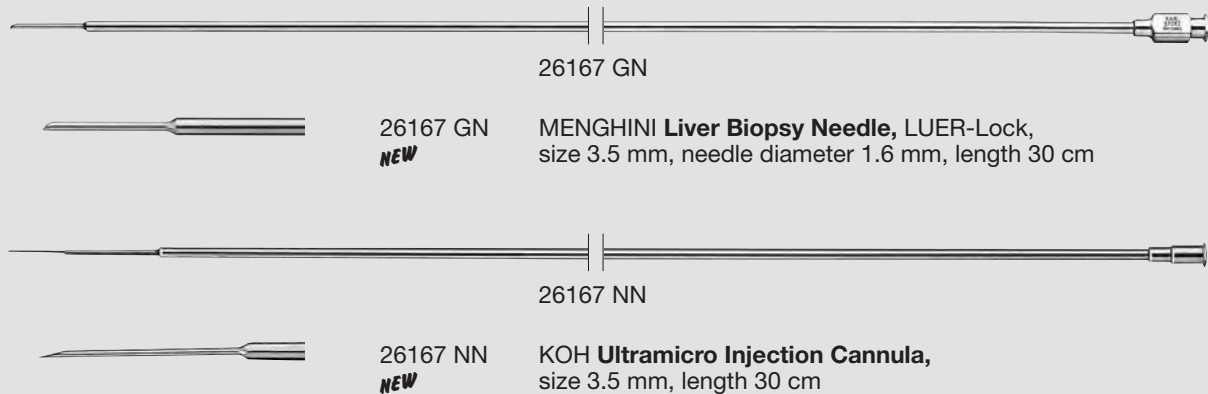
OLSEN Suction or Irrigation Tube,
with protective basket, with trumpet
valve, size 10 mm, length 36 cm

Please note:

Units for use with Handles for Suction and Irrigation see chapter 20, UNITS

Size 3.5 mm

Operating instruments, **length 30 cm**,
for use **with trocars size 3.5 mm**



Size 5 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel **and trocars size 6 mm**

Length	Instrument	
36 cm		
43 cm		

Distal End	Instrument	
	26175 G	MENGHINI Liver Biopsy Needle , LUER-Lock, diameter 1.6 mm
	26178 G	
	26175 PD	Injection Needle , LUER-Lock, diameter 0.8 mm
	26175 P	Injection Needle , LUER-Lock, diameter 1.2 mm
	26178 P	
	26175 R	Puncture Needle , LUER-Lock, diameter 1.6 mm
	26178 R	



NOTES AND ASSOCIATED PROCEDURES

S-PORTAL

RECOMMENDED HOPKINS® TELESCOPES 256-259



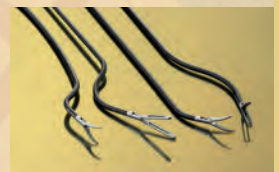
S-PORTAL

**SINGLE-PORTAL ACCESS, S-PORT®,
CUSCHIERI ENDOCONE** 260-263



S-PORTAL

CURVED INSTRUMENTS 264-273



S-PORTAL

MULTIPLE-PORT ACCESS 274-278



S-PORTAL

DAPRI DIRECT ACCESS 279-284



**INSTRUMENTS FOR TRANSVAGINAL –
TRANSUMBILICAL (HYBRID) PROCEDURES** 285-286



ACCESSORIES 287



NOTES, or Natural Orifice Translumenal Endoscopic Surgery, represents a further development in laparoscopic surgery where natural openings in the body are used for surgical access. Surgical procedures are performed i.e. via pure transvaginal, pure transgastral, etc. routes.

At KARL STORZ, “**associated procedures**” refer to alternative surgical methods such as NOTES that primarily aim to further reduce access trauma.

- Hybrid procedures
- S-PORTAL®
- Minilaparoscopy

Hybrid procedures differentiate from pure transvaginal operations in that a further port is used, i.e. via the umbilicus.

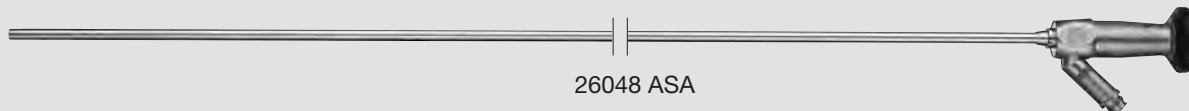
Single Port Laparoscopic Surgery (SPLS) describes a recently developed surgical technique that is considered to be a refinement of minimally invasive surgery.

Single port and single site surgery are two SPLS techniques that share the same objective: to further reduce surgical trauma and scar visibility. Both techniques exclusively use the navel as a central entry point. Whereas single port surgery uses a relatively large instrument for access, single site surgery requires up to 4 trocars. Another possibility is direct access whereby the instruments as well as the optical trocar are directly introduced via the umbilicus. KARL STORZ uses one term to refer to all these techniques: **S-PORTAL®**. As the name implies, S-PORTAL® is a single port of entry for the camera and instrumentation. S-PORTAL® can be used for natural as well as surgically created access ports (i.e., through the umbilicus). In addition to the required portal systems, KARL STORZ also offers special curved instruments. These distally and/or proximally curved working instruments facilitate maneuverability and reduce the risk of collision with instruments and the endoscope during interventions. Furthermore, an extended-length endoscope enables the camera assistant to remove his/her hands from the space required by the surgeon.

Basic Set see chapter 1

Diameter 5.5 mm, length 50 cm

S-PORTAL
SINGLE-PORTAL-ACCESS

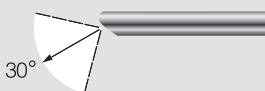


26048 ASA



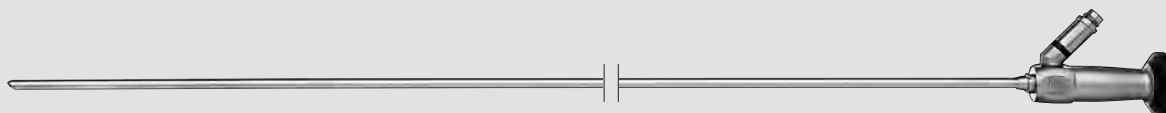
26048 ASA

HOPKINS® Straight Forward Telescope 0°, diameter 5.5 mm, length 50 cm, **autoclavable**, fiber optic light transmission incorporated, light connection offset by 180° and angled 45°, color code: green

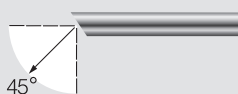


26048 BSA

HOPKINS® Forward-Oblique Telescope 30°, diameter 5.5 mm, length 50 cm, **autoclavable**, fiber optic light transmission incorporated, light connection offset by 180° and angled 45°, color code: red



26048 FSA



26048 FSA

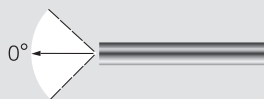
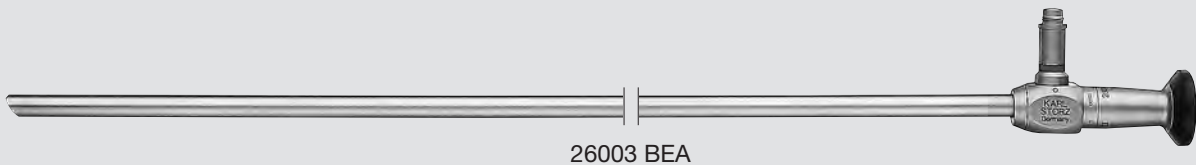
HOPKINS® Telescope 45°, diameter 5.5 mm, length 50 cm, **autoclavable**, fiber optic light transmission incorporated, light connection angled 45°, color code: black

Further Telescopes see chapter 2

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

Diameter 10 mm, length 42 cm

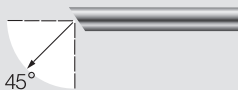
S-PORTAL
SINGLE-PORTAL-ACCESS



26003 AEA **HOPKINS® Straight Forward Telescope 0°**, enlarged view, diameter 10 mm, length 42 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



26003 BEA **HOPKINS® Forward-Oblique Telescope 30°**, enlarged view, diameter 10 mm, length 42 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red



26003 FEA **HOPKINS® Telescope 45°**, enlarged view, diameter 10 mm, length 42 cm, **autoclavable**, fiber optic light transmission incorporated, color code: black

Optional Accessories



495 EW **Light Adaptor**, angled 90°, diameter 4.8 mm, free rotatable, to connect with standard telescopes



495 NVC **Fiber Optic Light Cable**, with 90° deflection to the instrument, very narrow radius of curvature, diameter 4.8 mm, length 300 cm

Further Telescopes see chapter 2

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE



Recommended in combination with IMAGE1 S (CLARA and CHROMA modes)

Telescope with variable direction of view

Until now, surgeons had to choose in advance which telescope or direction of view to use in a procedure. Moreover, surgeons were restricted to the selected direction of view throughout the surgery or had to make an intraoperative telescope change.

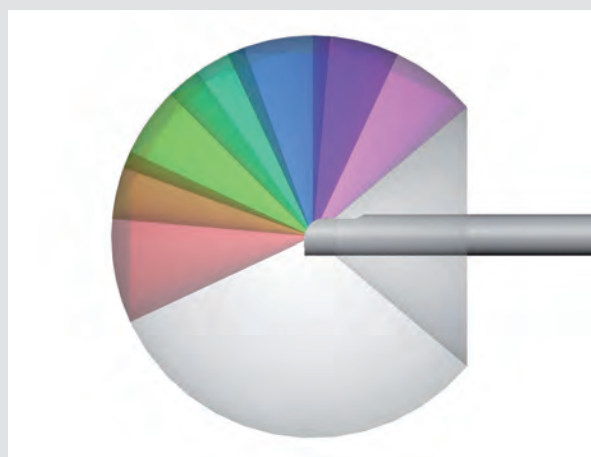
To prevent this predicament in the future, we developed the ENDOCAMELEON®: a telescope that allows you to adjust the desired direction of view – also during surgery – between 0° and 120°.

The ENDOCAMELEON® combines the user comfort of the proven HOPKINS® telescope with the advantages and potential of a telescope featuring a variable direction of view – offering you the quality you expect from KARL STORZ telescopes.

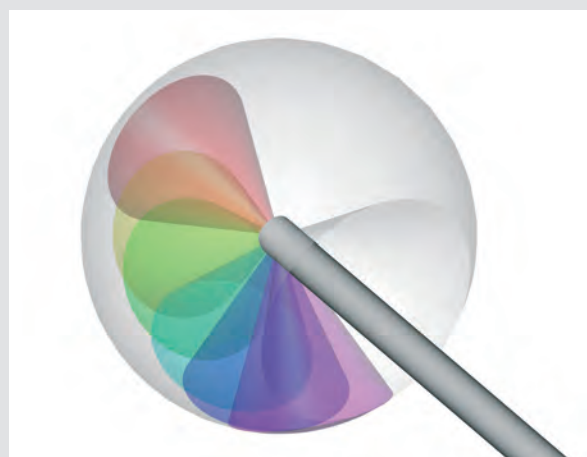
The innovative ENDOCAMELEON® technology is not difficult to use and, due to the external moving parts, does not take up extra intracorporal space. Handling remains straightforward and ergonomic. Image alignment is the same as rigid telescopes: the direction of view is selected by simply turning the adjustment knob, making the system very intuitive to use. As the ENDOCAMELEON® is equipped with a standard eyepiece, the variable direction of view benefits all standard camera systems. Thanks to the HOPKINS® rod lens system, ENDOCAMELEON® also offers image quality that enables a useful application of three-chip cameras or HD camera systems.

To have the direction of view best suited for each situation available at all times offers the surgeon a higher degree of safety. With the ENDOCAMELEON®, visual inspection of the entire surgical field is easily achieved. Instrument movement can be controlled throughout the entire procedure and hemorrhages in

previously inaccessible areas can be detected and controlled. With a simple turn of the adjusting knob, the ENDOCAMELEON® enables the user to easily select the direction of view between 0° and 120° to suit all OR requirements.



ENDOCAMELEON® with variable direction of view, lateral view



ENDOCAMELEON® with variable direction of view, isometric view



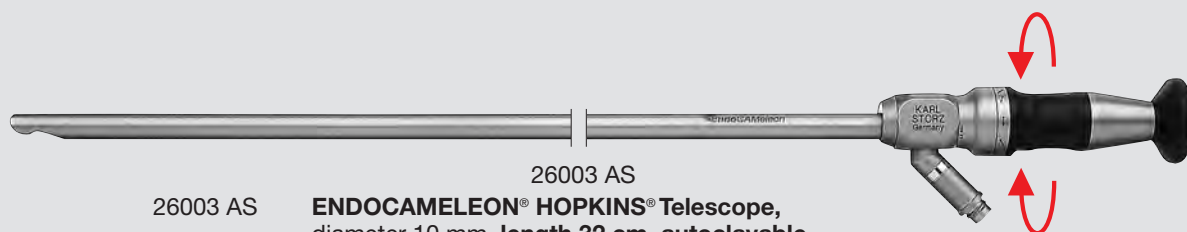
Diameter 10 mm, lengths 32 and 42 cm

Trocar size 11 mm

Recommended in combination with IMAGE1 S (CLARA and CHROMA modes)

Special Features:

- Variable direction of view 0° – 120°
- HOPKINS® telescope with unique rod lens system
- Easy-to-use adjusting knob for selecting the direction of view
- Rigid sheath with a diameter of 10 mm



26003 AS

26003 AS

ENDOCAMELEON® HOPKINS® Telescope,
diameter 10 mm, length 32 cm, autoclavable,
variable direction of view 0° – 120°, with adjusting
knob for selecting the direction of view, fiber optic
light transmission incorporated, light connection
offset by 180° and angled 45°,
color code: gold

26003 ASE

Same, length 42 cm

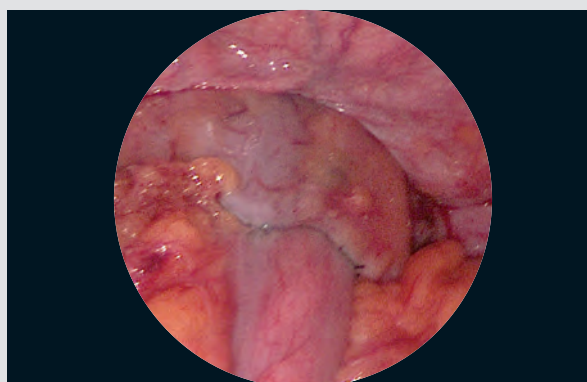


Fig. 1: Rectal anastomosis, angle of view, 30°

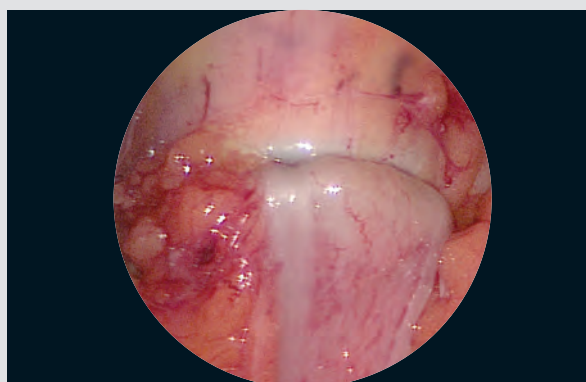
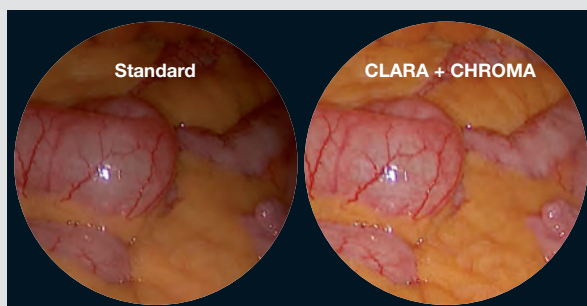
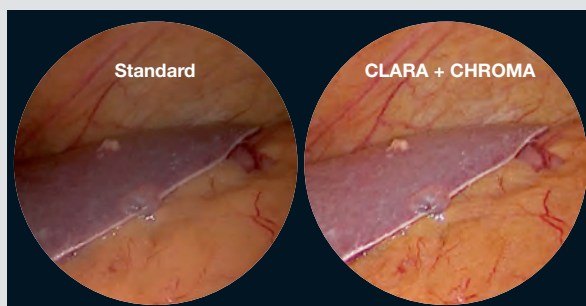


Fig. 2: Rectal anastomosis, angle of view, 80°



Figs. 3/4: Standard endoscopic image vs IMAGE1 S (CLARA and CHROMA modes)



Figs. 1 and 2: Images courtesy of Prof. Dr. Thomas Carus, Asklepios Westklinikum Hamburg, Germany

Figs. 3 and 4: Images courtesy of Prof. Luigi Boni, University of Insubria Varese, Italy

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

Single portal interventions represent a further development in minimally invasive surgery and are now increasingly used in general surgery, urology and gynecology. In addition to the existing single-portal systems, KARL STORZ has developed a new system: the S-PORT®. An outstanding feature of this system is its modular construction. The user can choose between two different sealing systems according to personal preferences. The S-PORT® also provides

greater freedom of movement which makes instrument handling considerably easier. This system is a flexible unit that allows the use of both straight and specially curved instruments. Yet another benefit is that the incision size can be adjusted according to indication. Furthermore, resected material can be removed without concern thanks to the single-use wound protector. As a reusable system the S-PORT® meets the financial demands of clinical practice.




Special Features:

- Modular system
- Great freedom of movement
- Stable platform for precise control of telescopes and instruments
- Simple extraction of resected tissue
- Variable incision size
- Compatible with all S-PORTAL® instruments
- Particularly flexible and variable with S-PORT® seals
- Cost-effective
- Reusable, with the exception of the wound protection sheet
- Compatible with all standard wound protector sheets



23030 PA

- 23030 PA LEROY **S-PORT®**, single portal surgery access system, adaptable in sizes 15 – 45 mm including:
- Port Ring**
 - S-PORT® Attachment**, for X-CONE and S-PORT® seals
 - S-PORT® Seal**
 - Wound Protector**, package of 10, sterile,  for single use
 - Insertion Aid S-PORT®**, to facilitate assembly
 - Removal Tool**, to remove the wound protector sheet and to dismantle S-PORT®

Components/Spare Parts see chapter 21

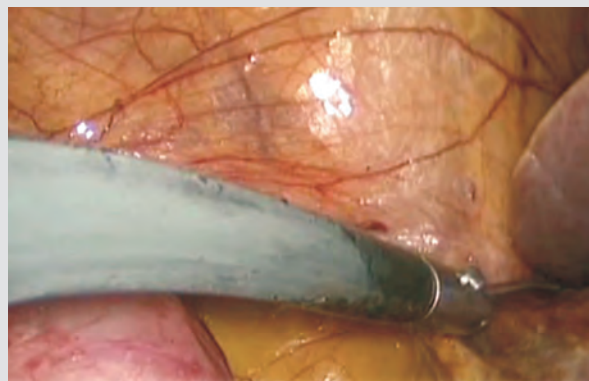
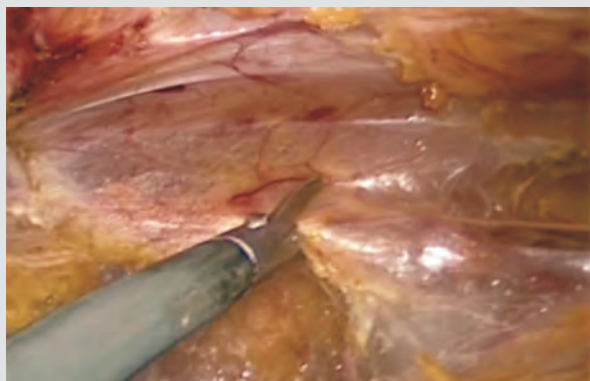
Despite potential advantages, the S-Portal technique imposes major ergonomic restrictions and limitations such that the level of difficulty in the execution of laparoscopic procedures is much higher with this approach and the surgeon needs to be experienced in traditional multi-port laparoscopic surgery. The ENDOCONE S-Portal system (Fig. 1) was developed as a holistic solution (port-instruments-retraction system) to overcome these problems and to facilitate the execution of operations with this approach.

The ENDOCONE is a reusable system for single port surgery, which is manufactured from stainless steel. It consists of a cone with an outer diameter of 34 mm and an inner diameter as channel for 30 mm instruments as well as a sealing gasket. The gasket houses 8 valved

instrument seals: two large along the midline (for instruments up to 15 mm in diameter) and 6 (three on either side) for instruments up to 5 mm in diameter). Included in the set are a reducer and a LUER-Lock connector, which can be used for vapor evacuation during the operation.

Insertion

The ENDOCONE is inserted through a 30 – 35 mm incision along the midline through the umbilicus into the peritoneal cavity. Insertion is achieved by placing the leading edge of the thread through the umbilical wound. Using a clockwise movement, the complete lip will have negotiated the full thickness of the abdominal wall into the peritoneal cavity. The fixation of the sealing gasket is also effected through a clockwise movement.



Figs. 1 – 4: Mobilization of the right colon with curved instruments

Images courtesy of Prof. Luigi BONI, Varese, Italy

CUSCHIERI ENDOCONE

for Single Port Surgery

Size 34 mm, inner diameter 30 mm

S-PORTAL
SINGLE-PORTAL-ACCESS



23010 PA

23010 PA

CUSCHIERI ENDOCONE Single Portal Surgery Access System, autoclavable, size 34 mm

including:

Port, size 34 mm

Seal Plate, with 1 x 10 mm, 1 x 10 – 15 mm and 6 x 3 – 5 mm ports

Reducer, 13/5 mm and 11/5 mm

LUER-Lock Connector, with insufflation and desufflation stopcock

Further Trocars see chapter 3

Components/Spare Parts see chapter 21

Curved Instrumentation ^{NEW}

ROTATIP®, jaw and sheath rotation, dismantling

STORZ
KARL STORZ — ENDOSKOPE

RotaTip

A new forceps and scissors system was developed for use in single-port surgery that can be dismantled into three parts. The instruments are available in size 5 mm with the familiar CUSCHIERI (O-CON/D-CON I), CARUS and LEROY sheath design.

In addition to sheath rotation, this system allows the user to rotate the jaw independent from the fixed outer sheath via a rotary wheel integrated in the handle.

The curved instruments were especially designed for use in single-port surgery in conjunction with the S-PORT® and/or ENDOCONE systems as well as flexible cannulas (size 6 mm).

Special Features:

- **Jaw rotation (endless in both directions) is independent of the outer sheath and achieved using a rotary wheel in the handle**
- **Sheath rotation (endless in both directions)**
- **Flexible working inserts**
- **Can be disassembled in three parts: Handle, outer sheath and working insert**
- **Size 5 mm**
- **Available with the familiar CUSCHIERI (O-CON/D-CON I), CARUS and LEROY sheath curves**



2-15

Curved Instrumentation ^{NEW}

ROTATIP®, jaw and sheath rotation, dismantling



Sheath curves

CARUS sheath curve



Due to the curve at the distal end, the jaws are offset 45° on the (virtual) axis of the sheath. This provides a good view of the jaws. The position of the jaw tips on the axis enables atraumatic rotation and manipulation of the tissue with the aid of the control wheel on the handle. As a rule, a curved holding instrument and a straight standard instrument can be used simultaneously.

CUSCHIERI sheath curve

O-CON®



Instruments with an O-CON sheath curve feature a distal sheath curve.

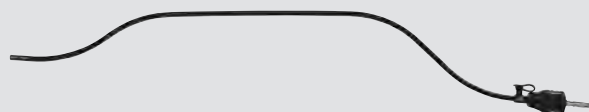
Instruments with D-CON I sheath curve, however, feature both distal and proximal sheath curves.

D-CON I



A distal curve provides greater working space between the hands. Jaws and handles are parallel to the axes which enables intuitive work. Consequently, the curved design permits convenient intracorporeal adjustment and comfortable, ergonomic positioning without the camera assistant having to enter the working area.

LEROY sheath curve



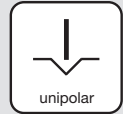
Instruments featuring a LEROY sheath curve are double curved so that the surgeon can work in triangulation without crossing hands. The handle and the distal end of the instrument form a line. This enables intuitive use based on natural movement and working positions.

Plastic Handle ^{NEW}

for dissecting and grasping forceps and scissors, insulated,
ROTATIP® – rotating, with connector pin for unipolar coagulation

Special Features

- Rotary wheel integrated into the handle achieves jaw rotation (continuous, double-sided) independent from the outer sheath
- Can be dismantled into three parts: Handle, outer sheath and working insert
- Greater stability in the sheath area



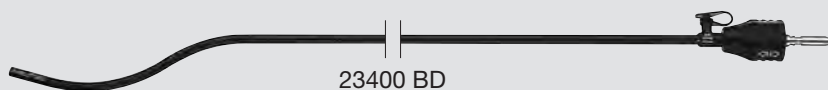
23151 **ROTATIP® Plastic Handle,**
without ratchet, **with**
larger contact area
at the finger ring

Unipolar High Frequency Cords see page 287

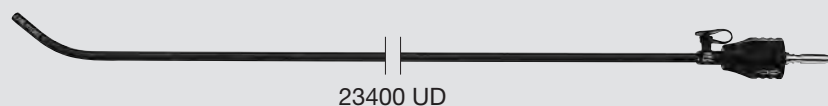
Outer Sheaths ^{NEW}

for dissecting and grasping forceps and scissors, insulated,
ROTATIP® – rotating, with connector pin for unipolar coagulation

Size 5 mm



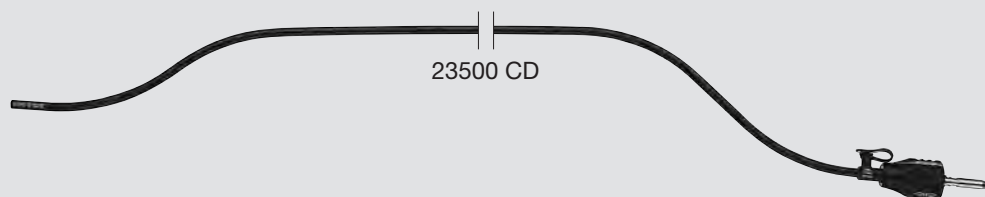
23400 BD **ROTATIP® Outer Sheath**, insulated, with LUER-Lock connector for cleaning, with CARUS sheath curve, size 5 mm, length 36 cm



23400 UD **ROTATIP® Outer Sheath**, insulated, with LUER-Lock connector for cleaning, with CUSCHIERI O-CON sheath curve, size 5 mm, length 36 cm



23400 AD **ROTATIP® Outer Sheath**, insulated, with LUER-Lock connector for cleaning, with CUSCHIERI D-CON I sheath curve, size 5 mm, length 36 cm



23500 CD **ROTATIP® Outer Sheath**, insulated, with LUER-Lock connector for cleaning, with LEROY sheath curve, size 5 mm, length 50 cm

Instrumentation ^{NEW}

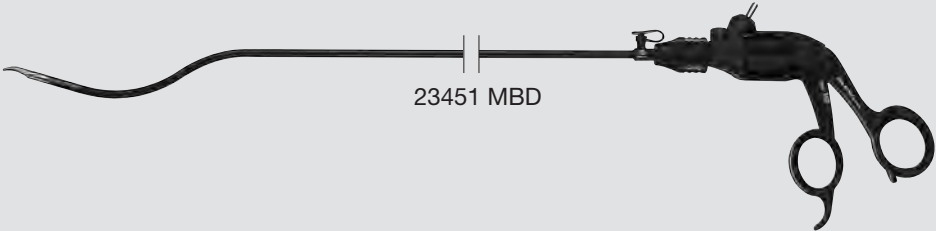
Dissecting and Grasping Forceps – ROTATIP®, rotating, dismantling, insulated, with rotating jaws, with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **length 36 cm**,
for use with S-PORTAL® ports and flexible cannulas size 6 mm



CARUS sheath curve



Outer Sheath, length 36 cm	Handle
23400 BD	23151

Single action jaws

Working Insert	Complete instrument
23410 ON	23451 OBD
	ROTATIP® Grasping Forceps , with especially fine atraumatic serration, fenestrated, CARUS sheath curve

Double action jaws

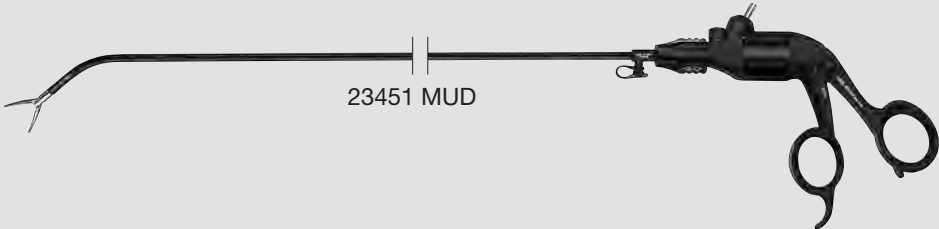
23410 AF	23451 ABD
	ROTATIP® Grasping Forceps , atraumatic, fenestrated, CARUS sheath curve
23410 ML	23451 MBD
	ROTATIP® KELLY Dissecting and Grasping Forceps , long, CARUS sheath curve
23410 MS	23451 MSBD
	ROTATIP® METZENBAUM Scissors , curved, CARUS sheath curve

Size 5 mm

Operating instruments, **length 36 cm**,
for use with S-PORTAL® ports and flexible cannulas size 6 mm




CUSCHIERI O-CON sheath curve

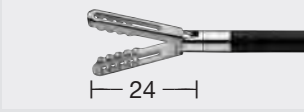

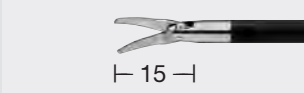


Outer Sheath, length 36 cm	Handle
23400 UD	23151
	

Single action jaws

Working Insert	Complete instrument
23410 ON	23451 OUD
	ROTATIP® Grasping Forceps , with especially fine atraumatic serration, fenestrated, CUSCHIERI O-CON sheath curve, coaxially curved downwards

Double action jaws

23410 AF	23451 AUD
	ROTATIP® Grasping Forceps , atraumatic, fenestrated, CUSCHIERI O-CON sheath curve, coaxially curved downwards
23410 ML	23451 MUD
	ROTATIP® KELLY Dissecting and Grasping Forceps , long, CUSCHIERI O-CON sheath curve, coaxially curved downwards
23410 MS	23451 MSUD
	ROTATIP® METZENBAUM Scissors , curved, CUSCHIERI O-CON sheath curve, coaxially curved downwards

Instrumentation

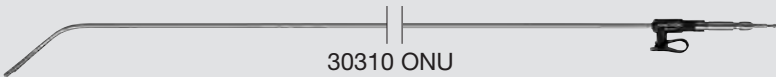
Dissecting and Grasping Forceps – CLICK'line®, rotating, dismantling, without connector pin for unipolar coagulation



Size 3 mm

Operating instruments, **lengths 36 and 40 cm**, for use with S-PORTAL® ports

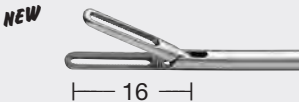
CUSCHIERI **O-CON** sheath curve



Length	Handle			
	33161	33162	33163	33166
36 cm		NEW 	NEW 	NEW
40 cm				

Single action jaws

Outer Sheath with Working Insert	Complete instrument			
30310 ONU	30361 ONU	30362 ONU	30363 ONU	30366 ONU
30410 ONU	30461 ONU	30462 ONU	30463 ONU	30466 ONU



CLICK'line® Grasping Forceps, with especially fine atraumatic serration, jaws opening upwards, with CUSCHIERI O-CON sheath curve

Further CLICK'line® Metal Handles see chapter 4

Instrumentation ^{NEW}

Dissecting and Grasping Forceps – ROTATIP®, rotating, dismantling, insulated, with rotating jaws, with connector pin for unipolar coagulation

Size 5 mm

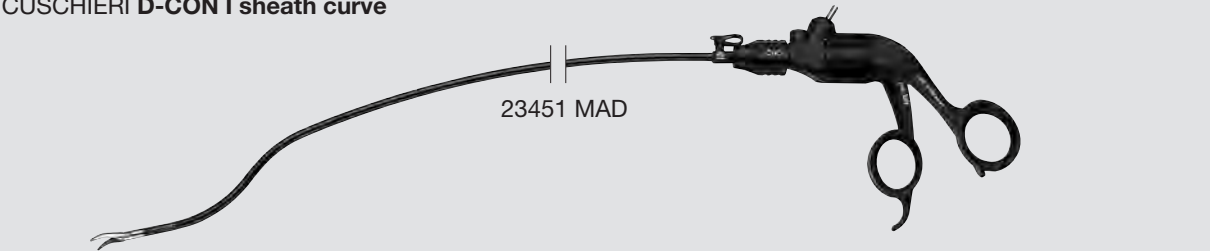
Operating instruments, **length 36 cm**,
for use with S-PORTAL® ports and flexible cannulas size 6 mm

D-CON® I

RotaTip®



CUSCHIERI D-CON I sheath curve



Outer Sheath, length 36 cm	Handle
23400 AD	23151

Single action jaws

Working Insert	Complete instrument
23410 ON	23451 OAD
	ROTATIP® Grasping Forceps , with especially fine atraumatic serration, fenestrated, CUSCHIERI D-CON I sheath curve

Double action jaws

23410 AF	23451 AAD
	ROTATIP® Grasping Forceps , atraumatic, fenestrated, CUSCHIERI D-CON I sheath curve
23410 ML	23451 MAD
	ROTATIP® Dissecting and Grasping Forceps , long, CUSCHIERI D-CON I sheath curve
23410 MS	23451 MSAD
	ROTATIP® METZENBAUM Scissors , curved, CUSCHIERI D-CON I sheath curve

Instrumentation ^{NEW}

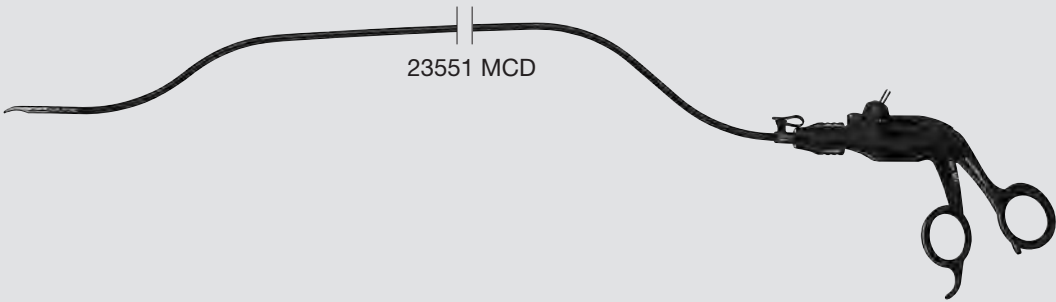
Dissecting and Grasping Forceps – ROTATIP®, rotating, dismantling, insulated, with rotating jaws, with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, **length 50 cm**,
for use with S-PORTAL® ports and flexible cannulas size 6 mm



LEROY sheath curve



Outer Sheath, length 50 cm	Handle
23500 CD	23151

Single action jaws

Working Insert	Complete instrument
23510 ON	23551 OCD
	ROTATIP® Grasping Forceps , with especially fine atraumatic serration, fenestrated, LEROY sheath curve

Double action jaws

23510 ML	23551 MCD
	ROTATIP® KELLY Dissecting and Grasping Forceps , long, LEROY sheath curve
23510 MS	23551 MSCD
	ROTATIP® METZENBAUM Scissors , curved, LEROY sheath curve

Coagulation and Dissection Electrodes

without suction channel, insulated sheath

Size 5 mm

Operating instruments, **lengths 40 and 42 cm**,
for use with S-PORTAL® ports and flexible cannulas size 6 mm



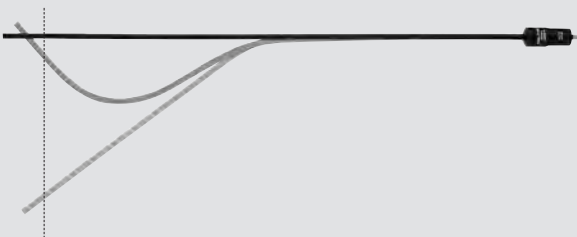
LEROY sheath curve

Length	Instrument
42 cm	

Distal Tip	Instrument
	23870 UFC Coagulation and Dissection Electrode, L-shaped tip, LEROY sheath curve

The bendable coagulation and dissection electrode offers the possibility to bend the instrument sheath in the desired position. The instrument can be shaped into the required form within the marked area.

This instrument is especially useful for single-port surgery as it enables the electrode to be individually adjusted for various interventions.



Length	Instrument
40 cm	

Distal Tip	Instrument
	23870 UFZ Coagulation and Dissection Electrode, L-shaped tip, sheath bendable within the marked area

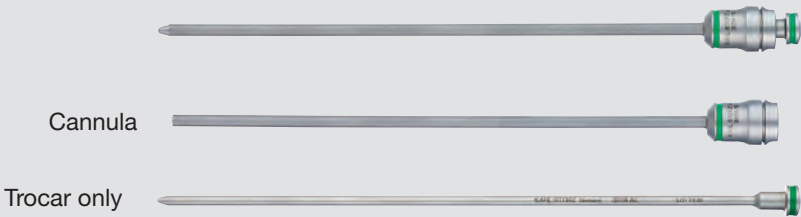
As in single-port surgery, access is also gained through the navel in multiple-port surgery. Here up to four or five trocars are inserted transumbilically through a multiport access site whereas one large entry point is used for single-port access. Standard rigid and flexible trocars from KARL STORZ can be used for the multiple-port approach. KARL STORZ now offers new trocars that are well-suited for multiple-port access and, in conjunction with

standard trocars, provide an optimal solution. In multiple-port surgery, the cannulas are placed closely together. Large trocar housing can, therefore, cause restricted maneuverability. The new trocars from KARL STORZ feature a smaller housing to enable greater freedom of movement. This modification helps to eliminate the risk of instrument collision and offers better intra-abdominal visualization of the distal end of the cannula.


Special Features:

- Small trocar heads (under diameter 2 cm)
- Without insufflation adaptor
- Greater freedom of movement for instrument manipulation
- Available in 3.5 and 6 mm

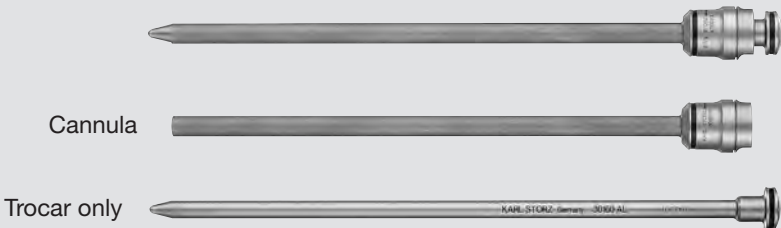
Size 3.5 mm
for use with instruments sizes 3 and 3.5 mm




with sealing cap, with valve, for use with instruments size 3 mm

Size:		3.5 mm
Working length:		15 cm
Color code:		green
	CURCILLO-KING Trocar, with blunt tip including:	30114 PAL
	Very Low Profile Cannula, without LUER-Lock connector	30114 P3
	Trocar only	30114 AL

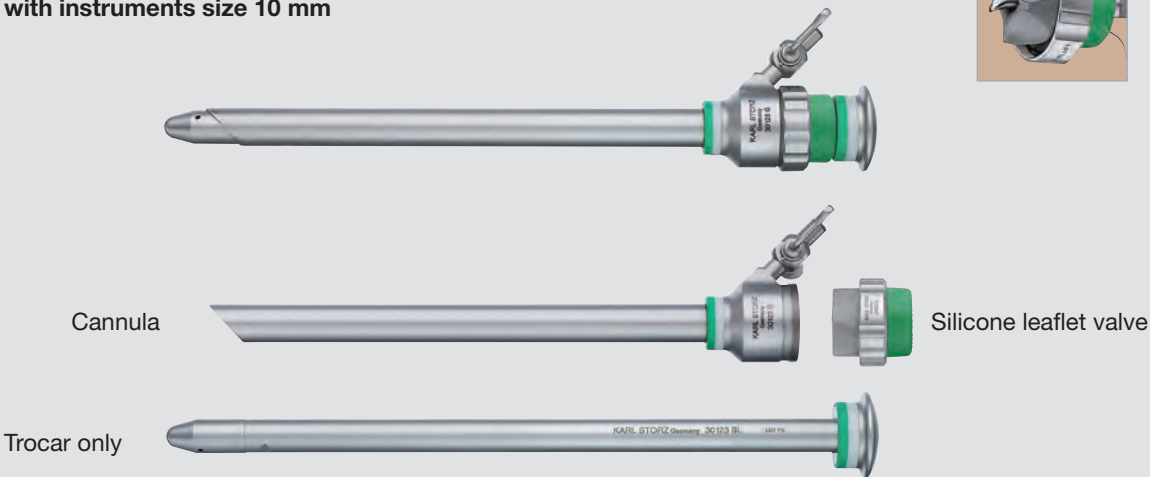
Size 6 mm
for use with instruments size 5 mm



with sealing cap, with valve, for use with instruments size 5 mm

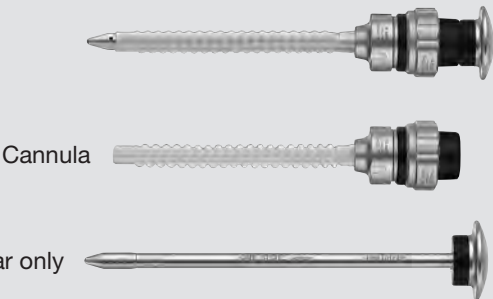
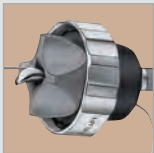
Size:		6 mm
Working length:		15 cm
Color code:		black
	CURCILLO-KING Trocar , with blunt tip	30160 PAL
	including: Very Low Profile Cannula , without LUER-Lock connector	30160 P3
	Trocar only	30160 AL




Size 11 mm
for use with instruments size 10 mm



Size:		11 mm
Working length:		15 cm
Color code:		green-white
	Trocar , with blunt tip	30123 GBL
	including:	
	Cannula	30123 G
	Trocar only	30123 BL
	Silicone Leaflet Valve	30123 L1

Size 6 mm
for use with curved operating instruments



Size:		6 mm
Working length:		8.5 cm
Color code:		black
	Trocar , with pyramidal tip including: Cannula , flexible, with thread and silicone leaflet valve Trocar only	30120 NKL 30120 NL 30120 NK
	Trocar , with blunt tip including: Cannula , flexible, with thread and silicone leaflet valve Trocar only	30120 NOL 30120 NL 30120 NO
Accessories	Plastic Cannula, autoclavable, for flexible trocars, package of 5 	30120 X

Trocars with flexible cannulas, size 11 mm see chapter 3, page 66



Minilaparoscopy is the natural development of minimally invasive surgery. It was first presented in 1996, proposing to diminish surgical trauma by reducing the diameter of the standard conventional laparoscopic instruments. However, minilaparoscopy as originally described in the '90s did not become popular because it was so complicated. Having available only disposable trocars or reusable ones with high friction forces, expensive mini-scopes that were very fragile and offered very poor vision as well as mini instruments that were too flimsy made minilaparoscopy unpopular and limited for laparoscopic surgeons.

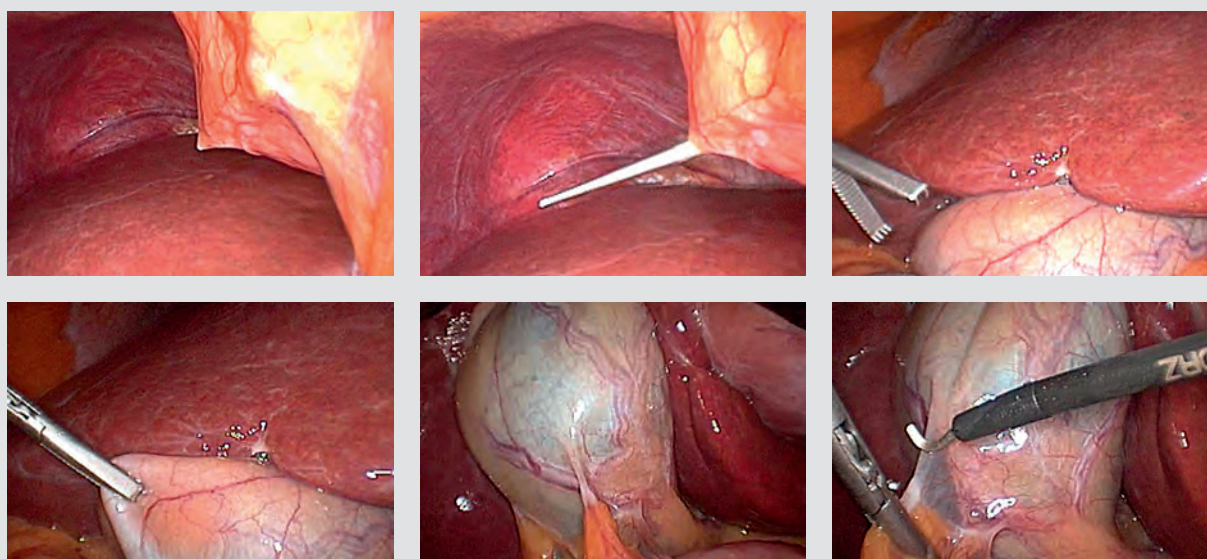
KARL STORZ now offers a new rubber-seal-free mini trocar. In order to increase the precision of movement and decrease surgical stress during mini procedures, no seal is used, minimizing usual friction forces between trocar and instrument. KARL STORZ has registered this principle under the trademark LOWFRIX. The special trocar was designed to resemble a long needle, with very little technical tolerances and matching exactly the diameter of the corresponding instrument. In this trocar system, free left lumen is minimal, therefore eliminating the need for additional rubber sealing or a valve system to prevent gas loss (gas loss < 0.15 l/min per trocar).

The outer part of the rubber seal-free trocar system resembles a needle but is longer than traditional mini trocars. Its insert with a progressive dilating tip and minimal gap causes less damage during insertion to muscle layers and skin than traditional trocars. To facilitate insertion, its insert fits very firmly with a LUER Lock

connector type which can also be used for suction or gas inflation, being especially useful for creating the retro-peritoneal space for TEP Hernia and lumbar sympathectomies. By noticeably reducing the friction forces between the trocar and the mini instruments, the precisely engineered device significantly diminishes trocar movement and dislocation of the trocar in the skin, consequently improving wound healing and cosmetic results. A great improvement is also found in the precision of movements during dynamic surgical tasks (e. g. suturing), resulting in less stress to the surgeon.

Minilaparoscopy nowadays is perfectly seen as a great refinement of laparoscopy, because it not only retains the same principles of instrument triangulation and access to anatomical structures but also offers the same ergonomics and safety. In many cases, through the use of the newest mini no-rubber trocars, mini can increase the surgeon's dexterity and precision necessary for the development of modern minilaparoscopic surgery. In operations such as TEP inguinal hernia repair or lumbar sympathectomy, where surgical space is very narrow and precision highly desired, the use of no-rubber mini trocars leads to a significant decrease in operating time. Other advantages of mini are better aesthetic results, as well as less pain, a shorter hospital stay, and quicker return to work.

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University Hospital Oswaldo Cruz,
Pernambuco University, Recife, Brazil



CARVALHO Trocars

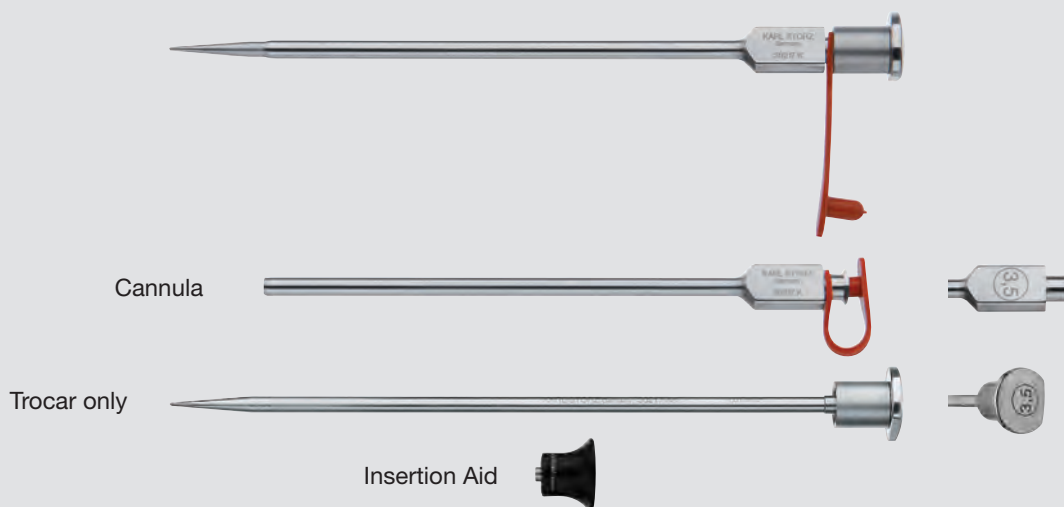
Sizes 3 and 3.5

slimline

LowFrix
Low Friction Trocars®

Special Features:

- Trocar features long, flat tapered design and, therefore, extremely atraumatic trocar tip
- LUER-Lock connects trocar to cannula, preventing dislocation of the trocar
- LUER-Lock connector at the proximal end of the cannula allows use solely as insufflation port
- Flat trocar head allows secure placement on the OR tray
- No friction
- Insertion aid for smooth instrument changeover
- Available for instruments in sizes 3 mm and 3.5 mm
- Labeling on trocar sleeve and trocar for identification of compatible instrument size



for use with instruments size 3 mm

Size:		3
Working length:		15 cm
Color code:		green
	CARVALHO Trocar, with blunt tip including:	30214 KAK
	Low Friction Cannula	30214 K
	Trocar only	30214 AK
	Insertion Aid	30214 K1

for use with instruments size 3.5 mm

Size:		3.5
Working length:		10 cm
Color code:		red
	CARVALHO Trocar, with blunt tip including:	NEW 30217 KAK
	Low Friction Cannula	30217 K
	Trocar only	30217 AK
	Insertion Aid	30214 K1

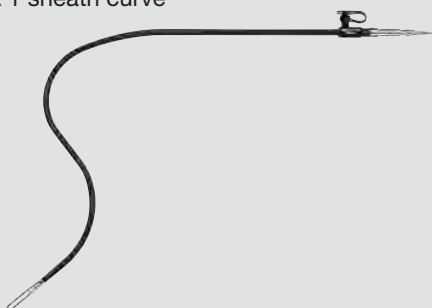
One of the principles of laparoscopy is that work in the operating field can be viewed on a video monitor whereby the operative field and the surgeon's head are on the same axis. A further rule is that the axis of the the operating trocar is located perpendicular to the axis of the laparoscope. Consequently, curved instruments had to be developed that would enable the application of these principles to single access surgery. The sheath bending achieves the right angle outside the abdomen, at the umbilicus and in the abdominal cavity close to the organ. This eliminates the need for the insertion of

further trocars. Another advantage of the special sheath construction is that the handles do not collide as easily with the laparoscope so that the operating surgeon can work in an ergonomic position with angled arms as in standard laparoscopy.

The laparoscope is inserted in the abdomen through a 11-mm trocar placed in the umbilicus. Other operating instruments can be introduced without additional trocars. The instruments are directly inserted through the abdomen just beside the cannula in the umbilicus for the laparoscope or other devices.

● **Curved Grasping Forceps I** (for Single-Portal Appendectomy)

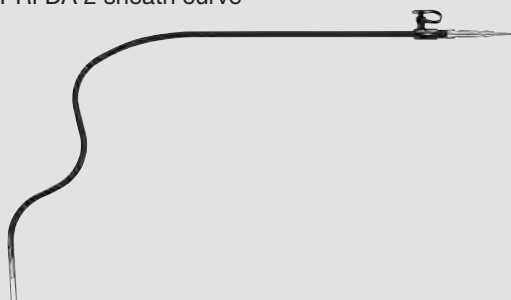
DAPRI DA 1 sheath curve



The sheath of grasping forceps I has an S-shaped curve to enable work in the target area without colliding with the axis of the laparoscope. Thanks to the curved sheath, the forceps tip is the only part of the instrument to reach the distal end of the endoscope.

● **Curved Grasping Forceps II** (for Single-Portal Cholecystectomy)

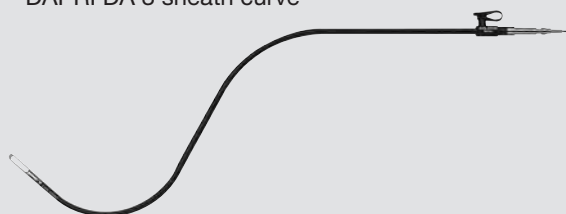
DAPRI DA 2 sheath curve



Grasping forceps II has a triple curve to enable work in the target area without colliding with the axis of the laparoscope. Thanks to the curved sheath, the forceps tip is the only part of the instrument to reach the distal end of the endoscope.

● **Curved Grasping Forceps III** (for Single-Portal Nissen Fundoplication, other interventions such as, for example, splenectomy)

DAPRI DA 3 sheath curve



The sheath features two curves: one is inserted via a port in the abdomen so that it does not collide with the laparoscope. The other curve near the jaws obtains a working triangulation with a curved grasping forceps. Similar to the sheath bending, the jaws are curved 45° to facilitate intracorporeal suturing.

● **Monocurved Instruments**

DAPRI DA 4 sheath curve



CLICKline® and **ROBI**® scissors, coagulating and dissecting electrodes as well as suction and irrigation tubes feature a single curve to prevent collision with other instruments or telescopes placed in the umbilicus.

● **Curved Needle Holders I and II**

DAPRI DA 5 sheath curve



Needle Holder I features a monocurve to prevent collision with other instruments or telescopes placed in the umbilicus. Similar to the sheath bending, the jaws are curved 45° to facilitate intracorporeal suturing.

DAPRI DA 6 sheath curve



Needle Holder II features two curves: one is inserted via a port in the abdomen so that it does not collide with the laparoscope. The other curve near the jaws obtains a working triangulation with a curved grasping forceps. Similar to the sheath bending, the jaws are curved 45° to facilitate intracorporeal suturing.

*Giovanni DAPRI, M. D.,
European School of Laparoscopic Surgery,
Saint-Pierre University Hospital, Brussels, Belgium*

Basic Set see chapter 1

A description of procedure can be found on our homepage www.karlstorz.com

DAPRI Instruments

Dissecting and Grasping Forceps – CLICK'linē, non-rotating, dismantling, insulated, connector pin for unipolar coagulation



Size 5 mm

Operating instruments, for use for direct access

DAPRI DA 1 sheath curve

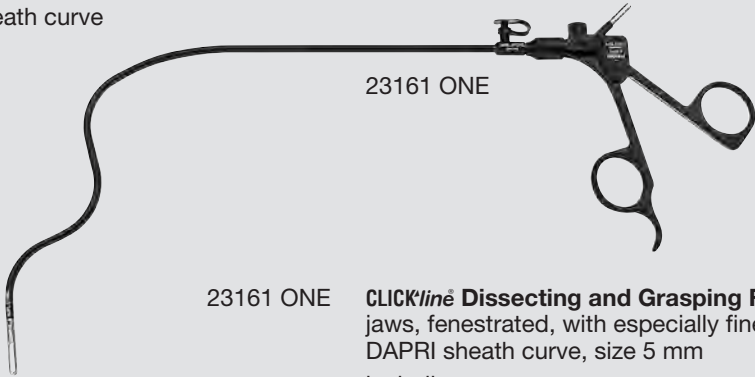


23161 ONF

CLICK'linē Dissecting and Grasping Forceps, single action jaws, fenestrated, with especially fine atraumatic serration, DAPRI sheath curve, size 5 mm including:

Metal Handle, insulated, without ratchet, with 4 locking positions
Outer Sheath with Working Insert

DAPRI DA 2 sheath curve

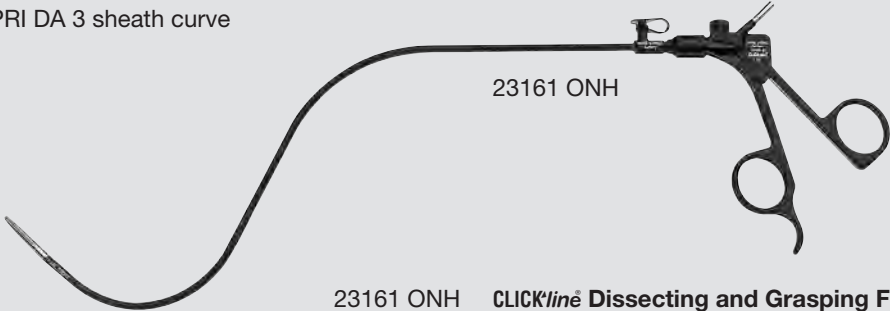


23161 ONE

CLICK'linē Dissecting and Grasping Forceps, single action jaws, fenestrated, with especially fine atraumatic serration, DAPRI sheath curve, size 5 mm including:

Metal Handle, insulated, without ratchet, with 4 locking positions
Outer Sheath with Working Insert

DAPRI DA 3 sheath curve



23161 ONH

CLICK'linē Dissecting and Grasping Forceps, single action jaws, fenestrated, with especially fine atraumatic serration, DAPRI sheath curve, size 5 mm including:

Metal Handle, insulated, without ratchet, with 4 locking positions
Outer Sheath with Working Insert

Components/Spare Parts see chapter 21

DAPRI Instruments

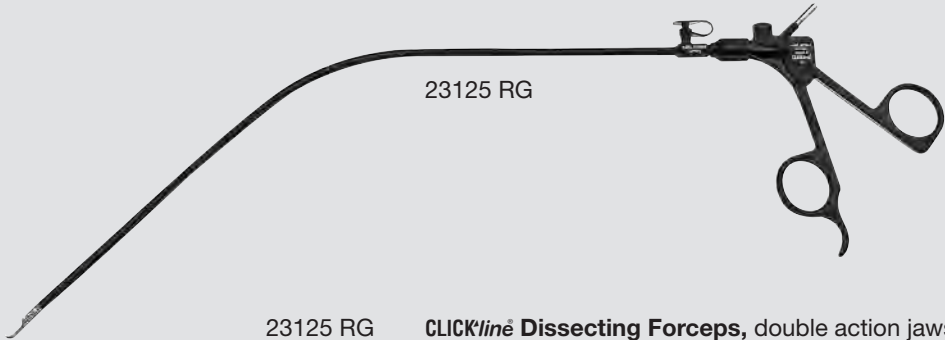
Dissecting Forceps, Grasping and Dissecting Forceps, Scissors,
Coagulation and Dissection Electrodes – CLICK^{line}, non-rotating, dismantling,
insulated, with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, for use for direct access

DAPRI DA 4 sheath curve



23125 RG

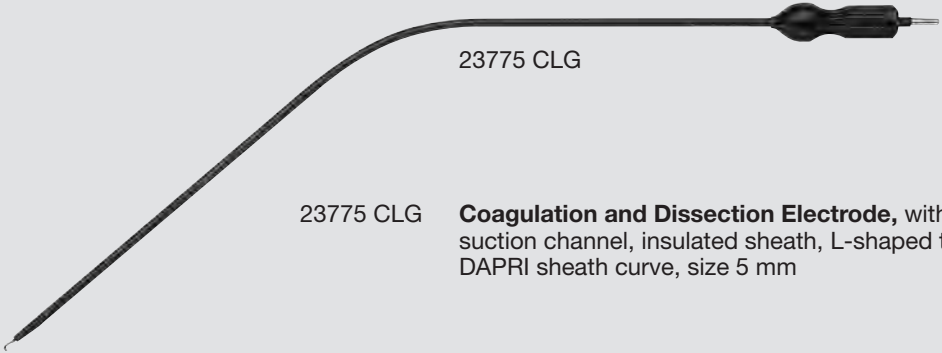
CLICK^{line} Dissecting Forceps, double action jaws, right-angled, DAPRI sheath curve, size 5 mm including:
Metal Handle, insulated, without ratchet, with 4 locking positions
Outer Sheath with Working Insert

NEW 23125 ONG

CLICK^{line} Dissecting and Grasping Forceps, single action jaws, fenestrated, with especially fine serration, DAPRI sheath curve, size 5 mm including:
Metal Handle, insulated, without ratchet, with 4 locking positions
Outer Sheath with Working Insert

23262 MSG

CLICK^{line} METZENBAUM Scissors, double action jaws, curved, DAPRI sheath curve, size 5 mm including:
Metal Handle, insulated, without ratchet, with 4 locking positions
Outer Sheath with Working Insert



23775 CLG

23775 CLG

Coagulation and Dissection Electrode, without suction channel, insulated sheath, L-shaped tip, DAPRI sheath curve, size 5 mm



Components/Spare Parts see chapter 21

DAPRI Instruments

ROBI® Grasping Forceps and Scissors,
Suction and Irrigation Tube

Size 5 mm

Operating instruments, for use for direct access

DAPRI DA 4 sheath curve



NEW 38752 ONG **ROBI® Grasping Forceps**, CLERMONT-FERRAND model, dismantling, with connector pin for bipolar coagulation, double action jaws, fenestrated, with especially fine atraumatic serration, DAPRI sheath curve, size 5 mm
including:
ROBI® Plastic Handle, without ratchet, with 4 locking positions
ROBI® Outer Sheath with Forceps Insert

NEW 38752 MWG **ROBI® METZENBAUM Scissors**, CLERMONT-FERRAND model, dismantling, with connector pin for bipolar coagulation, double action jaws, curved slender scissor blades, DAPRI sheath curve, size 5 mm
including:
ROBI® Plastic Handle, without ratchet, with 4 locking positions
ROBI® Outer Sheath with Scissors Insert



23460 LHG **Suction and Irrigation Tube**, with lateral holes, curved, DAPRI sheath curve, size 5 mm

Handles for use with Suction and Irrigation Tubes see chapter 9, pages 242-247
Components/Spare Parts see chapter 21

DAPRI Instruments

KOH Macro Needle Holder, dismantling

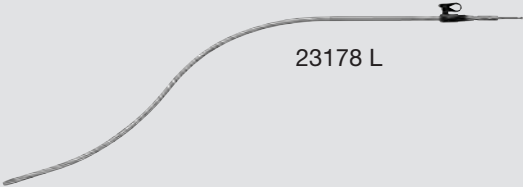
Size 5 mm

Operating instruments, for use for direct access

DAPRI DA 5 sheath curve



DAPRI DA 6 sheath curve:



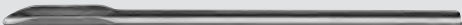
	Handle		
	30173 AR	30173 AL	30173 AO
DA 5 DA 6			

Single action jaws

Outer Sheath with Working Insert	Complete Instrument		
23178 K	23178 KAR	23178 KAL	23178 KAO
23178 L	23178 LAR	23178 LAL	23178 LAO



KOH **Macro Needle Holder**, dismantling, straight jaws, with tungsten carbide inserts, DAPRI sheath curve, for use with suture material size 0/0 to 7/0

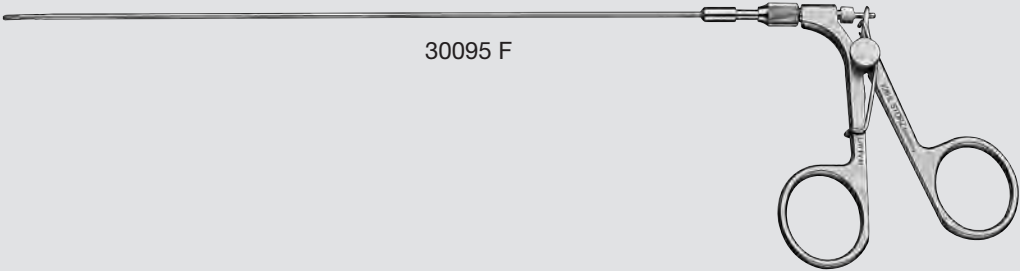


30090 NH

NEW

30090 NH

Suture Aid, DAPRI model, for placing a purse-string suture during a laparotomy



30095 F

NEW

30095 F

Needle Grasping Forceps, percutaneous, DAPRI model, size 1.8 mm, length 20 cm

Instruments for Transvaginal – Transumbilical (Hybrid) Procedures

BURGHARDT Recommended Set

One of the problems encountered in transvaginal laparoscopic surgery is that multiple ports must be placed in order to access areas that are not easily visible. This gave rise to the idea of using the primary vaginal approach as a guide for further trocars. KARL STORZ now offers a new system for the transvaginal technique that aids the transvaginal placement of individual trocars.

The BURGHARDT double trocar system consists of the following components:

1. Trocar, size 10 mm with SCARFI trocar tip
2. A connector for insufflation for the 10 mm cannula at 45° to prevent collision with other trocars
3. Flexible cannulas, size 5 mm with small trocar housing to enable less distance between trocars
4. Double trocar for secure placement of flexible 6 mm cannulas

System Placement:

Safe transvaginal placement of the 11 mm trocar is possible under laparoscopic view. The use of mini-laparoscopic techniques are helpful if vision of the Douglas pouch is poor.

Following placement of the 11 mm cannula with the help of the double trocar, secure placement of the flexible cannula is possible (while viewing the primary trocar as guide).

The use of curved instruments through flexible cannulas increases freedom of movement.

In addition to hybrid procedures, the double trocar can be used in standard laparoscopic procedures regarding single-site and/or multiple-port techniques so that these methods can also benefit from the safe placement of cannulas with an optimal distance.

*Dr. med. Jens BURGHARDT,
Freikirchliches Krankenhaus und Poliklinik Rüdersdorf,
Germany*

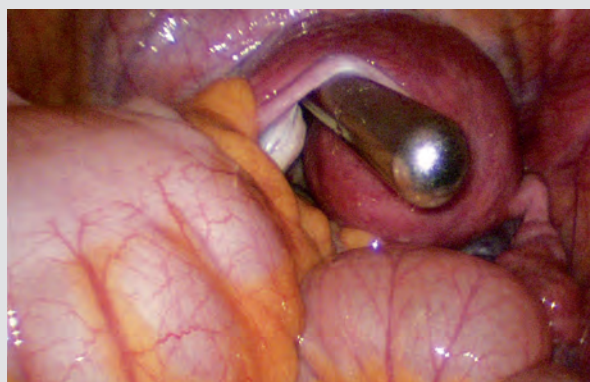


Fig. 1: Introduction of the double trocar



Fig. 2: Placement of the flexible 6 mm cannula

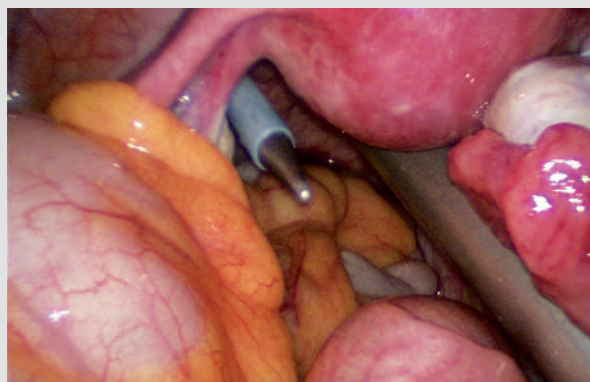


Fig. 3: Placement of the flexible 6 mm cannula



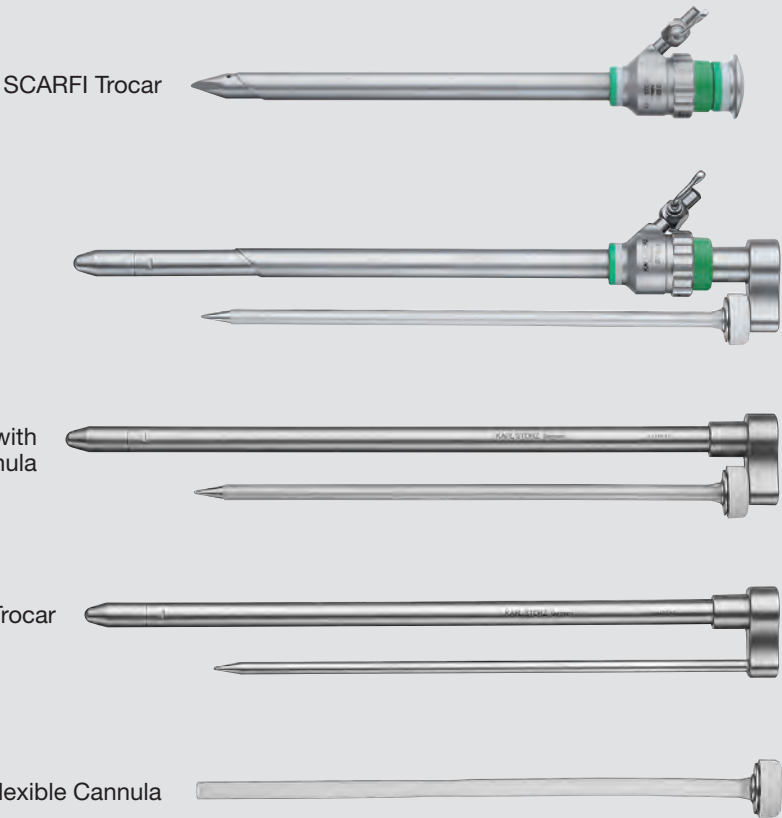
Fig. 4: Inserted double trocar system

Basic Set see chapter 1

Instruments for Transvaginal –
Transumbilical (Hybrid) Procedures

BURGHARDT Recommended Set

Instruments for the transumbilical approach



Size:	6/11 mm
Working length:	15 cm
BURGHARDT Double Trocar including: SCARFI Trocar , size 11 mm Double Trocar , with two trocars, size 11 mm with blunt tip and size 5.5 mm with atraumatic conical tip Flexible Cannula , size 6 mm	30123 GDL 30123 GFL 30123 DD 30120 DL

Basic Set see chapter 1

Accessories

Unipolar and Bipolar High Frequency Cords

Unipolar High Frequency Cords







KARL STORZ
Instrument High Frequency
Surgery Units

	26002 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for models KARL STORZ, Erbe type T, older models and Ellman
	26004 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for use with Martin HF units
	26005 M	Unipolar High Frequency Cord , with 5 mm plug, length 300 cm, for AUTOCON® II 400 SCB system (111, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, AUTOCON® system (50, 200, 350) and Erbe type ICC
	26006 M	Unipolar High Frequency Cord , with 8 mm plug, length 300 cm, for use with AUTOCON® II 400 SCB system (112, 116) and Valleylab models

Bipolar High Frequency Cords



KARL STORZ
Instrument High Frequency
Surgery Units

	26176 LE	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (111, 113, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, Coagulator 26021 B/C/D, 860021 B/C/D, 27810 B/C/D, 28810 B/C/D, AUTOCON® series (50, 200, 350), Erbe-Coagulator, T and ICC series
	26176 LM	Bipolar High Frequency Cord , length 300 cm, for use with Martin HF units
	26176 LV	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (112, 114, 116, 122, 125), AUTOCON® II 200, AUTOCON® II 80 and Valleylab coagulators
	26176 LW <i>NEW</i>	Bipolar High Frequency Cord , length 300 cm, pin distance on unit side 22 mm, for use with high frequency surgical units with bipolar sockets with 22 mm pin distance

Please note: All high frequency cords of this page are delivered with a length of 300 cm. If a length of 500 cm is requested please add letter **L** to the part number, e. g. 26002 ML, 26176 LVL.

Mechanical Holding Systems

with KSLOCK



The mechanical holding systems from KARL STORZ offer a versatile, convenient and cost-effective possibility for the secure positioning of instruments and telescopes.

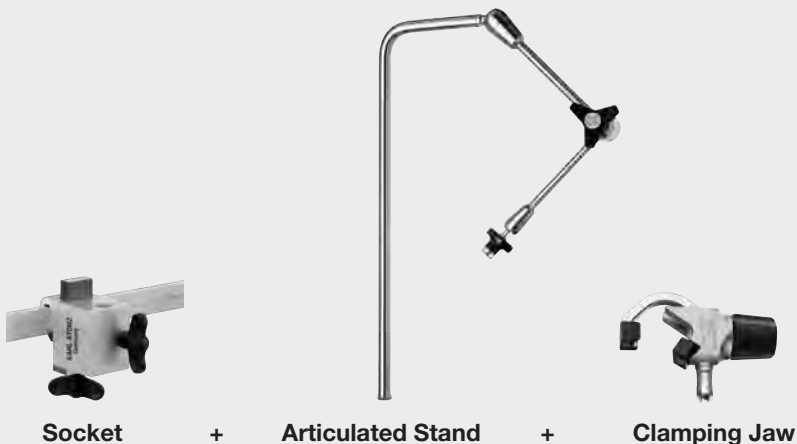
Special Features:

- Simple, fast and accurate positioning
- Many fields of application possible thanks to various articulated stands and a wide range of accessories
- Flexible positioning enables a large number of different positions
- All joints can be easily released or fixed by means of the central clamp
- Socket for use with European and United States standard rails of OR table
- Variable height adjustment by using the socket
- Extension Rod 28172 HM for the adjustment of particularly large working distances, for example, the VITOM® system
- Ergonomical positioning at the operating table
- Eases the work routine of the assistant
- Instruments and telescopes are clamped securely
- Steady imaging of the operation field
- Maintenance-free solid construction
- Autoclavable
- KSLOCK rapid coupling for mounting clamping jaws, instruments and accessories with KSLOCK pins



Mechanical Holding Systems

with KSLOCK



Socket

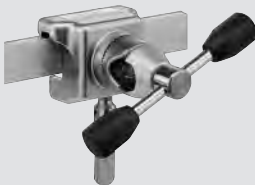
Standard Socket

28172 HK



Rotation Socket

28172 HR



Articulated Stand

straight

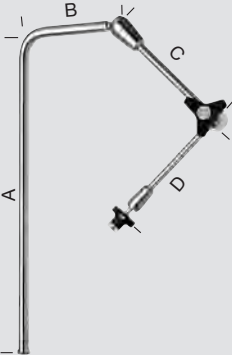
28272 HA



A 30 cm	B –
C 20 cm	D 17 cm

L-shaped

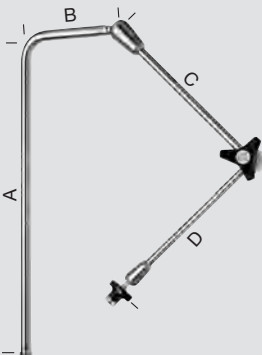
28272 HB



A 48 cm	B 15 cm
C 20 cm	D 17 cm

L-shaped, long

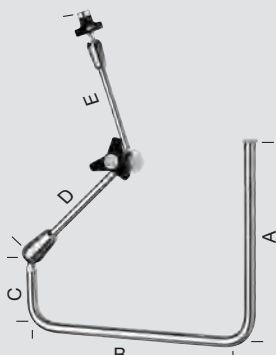
28272 HC



A 48 cm	B 15 cm
C 27 cm	D 24 cm

U-shaped

28272 HD



A 25 cm	B 31 cm
C 10 cm	D 20 cm
E 17 cm	

To complete the mechanical holding system, a clamping jaw is required.
Clamping Jaws for the Mechanical Holding System see page 293



Holding Systems

Recommended clamping jaws and accessories

Clamping Jaws

	28272 UGN	Clamping Jaw , metal, clamping range 16.5 up to 23 mm, with quick release coupling KSLOCK (male), for use with all square-headed HOPKINS® telescopes
	28272 UKN	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
	28272 UGK	Clamping Jaw , with ball joint, large, clamping range 16.5 to 23 mm, with quick release coupling KSLOCK (male), for use with all square-headed HOPKINS® telescopes
	28272 UKK	Clamping Jaw , with ball joint, small, metal, clamping range 4.8 to 12.5 mm, with quick release coupling KSLOCK (male), for use with instrument and telescope sheaths
	28272 UL	Clamping Jaw , universal, clamping range 0 to 18 mm, with quick release coupling KSLOCK (male)
	28272 UF	Clamping Jaw , for use with all KARL STORZ polymer housing fiberscopes, with quick release coupling KSLOCK (male)

Accessories

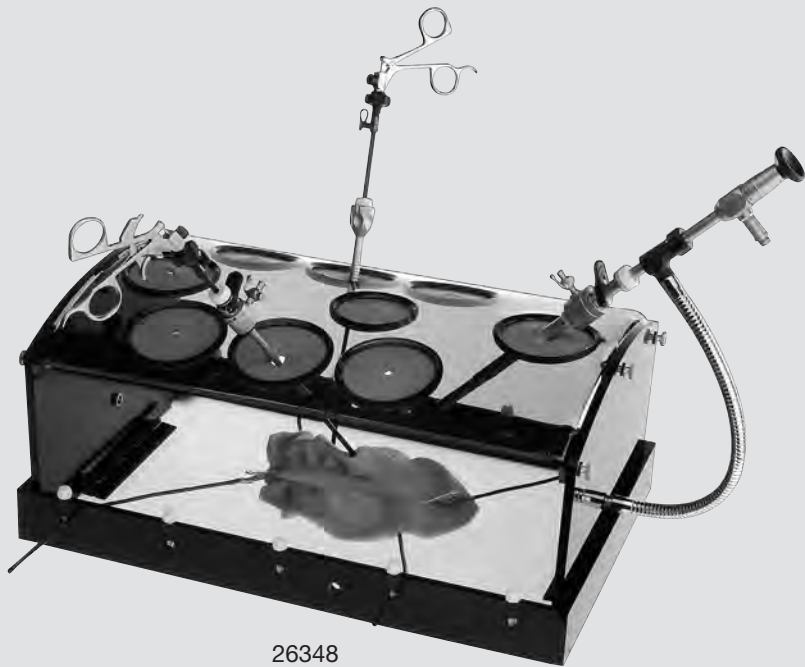
	28272 CN	Clamping Cylinder , folding, for flexible mounting of 10 mm telescopes on the telescope sheath, autoclavable . The clamping cylinder allows vertical movement and rotation of the telescope.
	28172 HM	Extension Rod , 50 cm, with lateral clamp for height adjustment of the articulated stand, for use with Articulated Stands 28272 HA/HB/HC and Sockets 28172 HK/HR
	041150-20*	Cover , elasticated, package of 20



SZABO-BERCI-SACKIER Laparoscopic Trainer

The SZABO-BERCI-SACKIER laparoscopic trainer is designed to simulate laparoscopic procedures, especially the different suturing techniques. It contains diaphragms at the typical puncture sites and a flexible endoscope holder that provides the surgeon with the

ability to manipulate instruments with both hands. The SZABO-BERCI-SACKIER laparoscopic trainer can be used to practice the surgical skills necessary to complete a successful laparoscopic procedure.



26348 SZABO-BERCI-SACKIER Laparoscopic Trainer

BITTNER Training Model

for hernia surgery

Pre-operating room training using training models or computer simulation is gaining increasing importance, not least due to reduced working time.

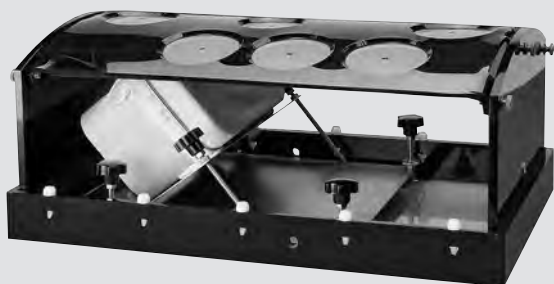
The hernia training model illustrated here was developed on the basis of a pelvis specimen cast during cadaver surgery following full dissection of the entire pelvic region. Consequently, the training model represents the exact anatomical size of the human pelvis. All important anatomical landmarks (epigastric vessels, iliac vessels, symphysis and Cooper's ligament, inguinal nerves, ileopubic tract, internal inguinal ring) are represented in a schematic diagram.

This model is ideal for the practice training of the following surgical stages in both laparoscopic (TAPP) and endoscopic (TEP, steps 2 and 3) hernioplasty:

1. Opening the peritoneum
2. Implantation of a mesh size 10 x 15 cm
3. Fixation of the mesh
4. Closure of the peritoneum through suturing

Furthermore, the training model enables a test run to be performed in order to evaluate the user-friendliness of various meshes and fixation techniques.

Prof. Dr. R. BITTNER, M. D.



BITTNER hernia training model, with SZABO-BERCI-SACKIER laparoscopic trainer



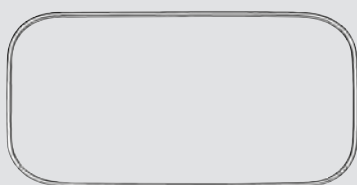
26342 M



26342 U



26342 P



26342 B

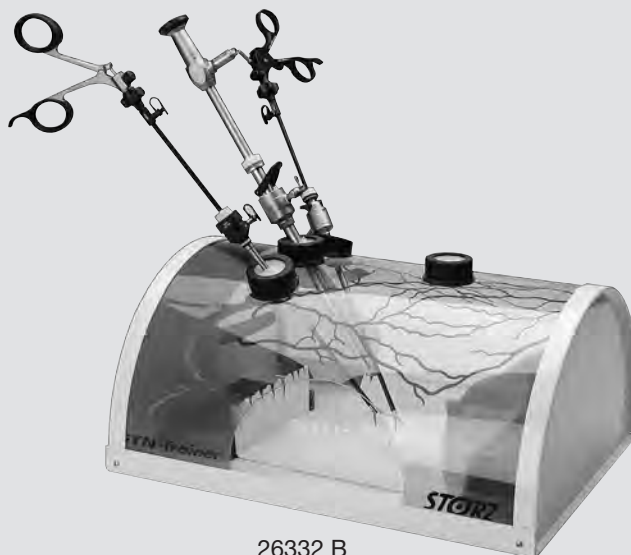
- 26342 M **BITTNER Hernia Model**, silicone model for training of mesh fixation in laparoscopic inguinal hernia repair (TAPP/TEP method)
- 26342 P **Peritoneal Model**, package of 50
- 26342 U **Support Frame**, for positioning Hernia Model 26342 M in Laparoscopic Trainer 26348
- 26342 B **Fixation Aid**, for fixating Peritoneal Model 26342 P to BITTNER Hernia Model 26342 M

Endoscopic Surgery Trainer

Endoscopic Surgery Trainer is available in two different types meeting the requirements of both general surgery and gynecology. Since gynecological and surgical laparoscopy usually requires different puncture sites for trocar insertion, the two models are supplied with different top plates. Foam rubber diaphragms are inserted into the four puncture sites to guide the trocars.

Both models are equipped with a working plate to which a training module or other appropriate training objects can be attached.

The Endoscopic Surgery Trainer is supplied in a case and can be disassembled easily. Worn parts can, of course, be reordered individually.



26332 A Endoscopic Surgery Trainer "SURGERY" Model

including:

Base Plate

"SURGERY" Top Plate

Working Plate

Training Module

Fixation Clamps, package of 2

Silicone Insert, package of 4

Case

Drape

26332 B Endoscopic Surgery Trainer "GYNECOLOGY" Model

including:

Base Plate

"GYNECOLOGY" Top Plate

Working Plate

Training Module

Fixation Clamps, package of 2

Silicone Insert, package of 4

Case

Drape

Components/Spare Parts see chapter 21

Training Model for Laparoscopic Surgery ^{NEW}

European Academy of Gynecological Surgery (EAGS) Model



26332 N

26332 N

Training Model for Laparoscopic Surgery,
EAGS model

including:

Base Plate

Top Plate, EAGS model

Foam Rubber Insert, package of 8

Case

Drape

Please note:

The LASTT (The Laparoscopic Skills Testing and Training model) wooden models are available from EAGS (www.theacademyhouse.org)

Components/Spare Parts see chapter 21

SZINICZ Laparoscopic Trainer

Simulation Trainer with Pulsating Organ Perfusion (P.O.P.)

Pulsating Organ Perfusion (P.O.P.)

Pulsating organ perfusion was developed for simulation of operations in minimally invasive surgical techniques and opens up new perspectives in laparoscopy/thoracoscopy training.

Following interventions can be practised with the P.O.P. Simulation Trainer under most realistic conditions on animal organs or organ complexes:

- **Laparoscopic operations (liver, gallbladder, small intestine, colon, spleen, etc.)**
- **Thoracic surgery (heart, lungs, aorta)**
- **Anastomosis of the gastro-intestinal tract (both laparoscopic and open surgery)**
- **Urological minimally invasive surgery (kidney, ureter, adrenal, etc.)**
- **Gynecological minimally invasive surgery (adnexae, cysts, etc.)**
- **Mastering complications**
- **Team training**

Perfect Surgery as a Result of Optimal Training

Up to now, animal experiments were the only adequate means of practising clinical operations. In contrast, P.O.P. offers significant advantages. P.O.P. simulates all types of hemorrhages (parenchymatous, capillary, venous) without the time limitations associated with test animals. It is thereby not only possible to learn standard interventions, but also to master (hemorrhagic) complications. In contrast to animal experiments, the exercises can be repeated as often as desired and almost without any time limitations.

Furthermore, P.O.P. is also very suitable for experimenting with new techniques and enables the results to be checked immediately. All technologies familiar from clinical work such as high frequency surgery techniques (unipolar, bipolar), laser, ultrasound dissection, aquadissection, tissue sealing and adhesion can be applied in the P.O.P. simulation trainer.

Prof. Gerhard Szinicz, M. D. and his staff were awarded the "1993 Felix Wankel Animal Protection Research Prize" (Ludwig Maximilian University of Munich) for the concept and idea of this innovative method of training.

Functional Principle:

The central artery of animal organs or organ complexes is catheterized and connected to the pump of the P.O.P. simulation trainer. The perfusion medium (colored tap water) in the pelvitrainer is conveyed into the organ by the pump. The pump works with an electronically controlled frequency of approximately (65 lifts per minute) and is pressure-controlled (maximum pressure approximately 140 mmHg). The organs are supported on a perforated metal grid. The perfusion fluid passes back into the simulation trainer via side branches of the arteries, veins and parenchymal lesions.

The above-mentioned organs and organ complexes are available deep-frozen and can be preserved at -20 °C for up to a year. You can order online at www.optimist.at



The P.O.P. Trainer DOCK SYSTEM offers the possibility to extend the areas of application for pulsating organ perfusion in the simulation of endoscopic, proctological and endourological OR techniques. The rotating and tilting ball joint enables changing adapters with a diameter of 10 mm to 40 mm.

SZINICZ Laparoscopic Trainer

Simulation Trainer with Pulsating Organ Perfusion (P.O.P.)



26342 KB

26342 KB **SZINICZ Laparoscopic Trainer,**
DOCK SYSTEM, with pulsating organ
perfusion, complete, with mains
adaptor 230 VAC, 50/60 Hz

LYRA Laparoscopic Simulator

ProDelphus Laparoscopy Trainer

Laparoscopy trainers are now being used throughout the world to teach minimally invasive surgical skills as the use of human and animal cadavers is restricted in many countries for ethical and financial reasons.

The ProDelphus trainer is made of Neoderma. "Surgical Neoderma" is a malleable, cost-effective, atoxic and moldable material. Furthermore, it does not compromise the quality of instruments (telescopes, forceps etc.).

If the trainer is used at moderate temperatures (between 18 and 32 °C) in a dry room, the material can last up to 2 years. A mixture of various polymers enabled the creation of 36 different materials that can be used to replicate almost all human organs. This is why the ProDelphus trainer is considered to be one of the best pelvic trainers available.

The elastic and resilient material in various colors enables dissection of structures recreated to resemble the human body. When subjected to ultrasound or tomography, Neoderma images are similar to reality.

The material can be used to replicate any part of the human anatomy (abdomen, pelvis, head etc.) as well as diverse pathologies.

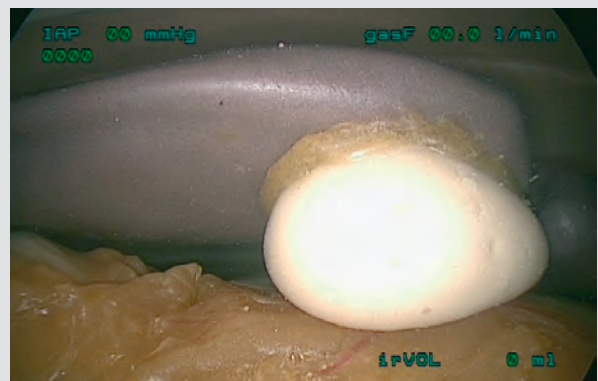
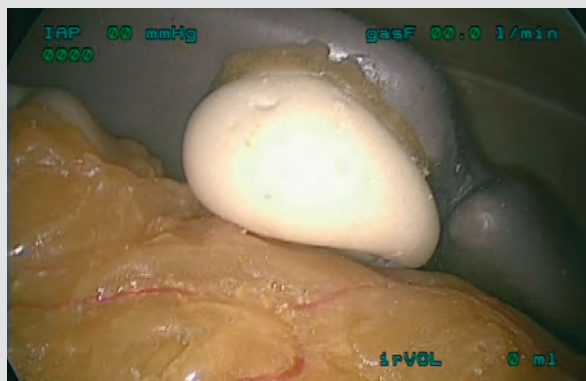
This trainer enables users to learn dissecting and suturing techniques and to simulate laparoscopic and laparotomic OR procedures.

*Prof. Luca MENCAGLIA,
Oncological Center of Florence, Italy*



The LYRA laparoscopic simulator offers the following training possibilities:

- The trainer consists of a body simulator and several organs made of surgical Neoderma, providing a feeling of authenticity.
- The replicated peritoneum and abdominal wall allows for training with instruments and “patients” under realistic conditions.
- Enables the training of appendectomies, bowel dissection and suturing, adhesiolysis, general gynecological interventions, urethral dissection, etc.
- Exchangeable elements, according to requirements



Figs. 1 – 6: Tightening the gall bladder and dissection

LYRA Laparoscopic Simulator



26344 L2

26344 L2 LYRA **Laparoscopic Simulator**, for laparoscopic and robot-assisted surgery, including the urinary tract, complete including:

LYRA **Body Laparoscopic Simulator**

Neoderm Organ, liver

Neoderm Organ, spleen

Neoderm Organ, stomach

Neoderm Organ, peritoneum

Neoderm Organ, bowel

Neoderm Organ, abdominal wall

Neoderm Organ, cul-de-sac

Neoderm Organ, vaginal block

Neoderm Organ, uterus

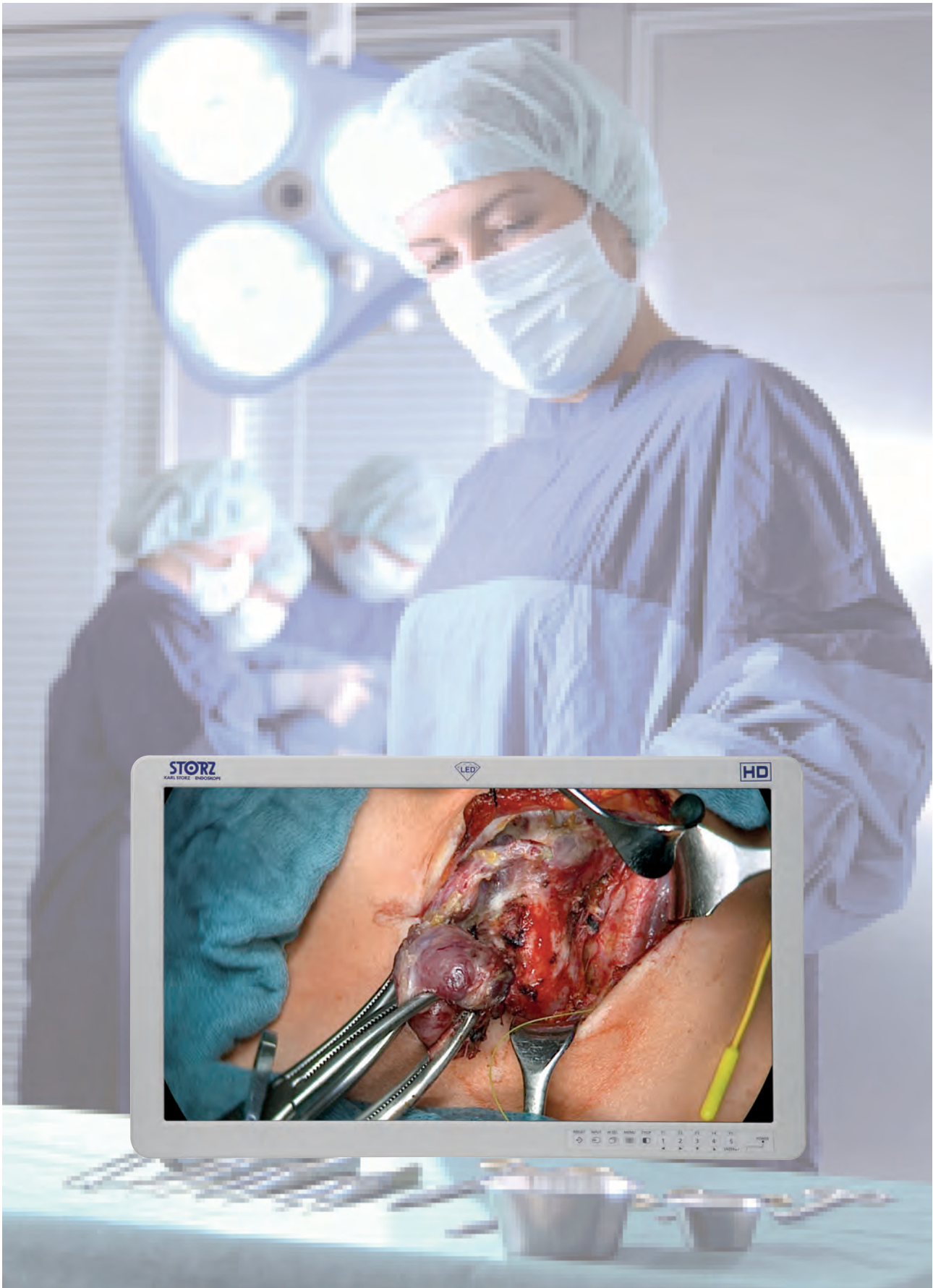
Neoderm Organ, suturing model

Optional Accessories

26344 LF **Neoderm Organ Set**, with bowels and organs, for use with LYRA Laparoscopic Simulator 26344 L2

Components/Spare Parts see chapter 21

The background consists of several overlapping circles and arcs in shades of orange, yellow, and brown. These shapes contain various Latin words, some of which are mirrored or repeated. Visible words include "IGNIS" (fire), "TERRA" (earth), "AQUA" (water), "HOMO" (man), "ANNUS" (year), "MUNDVS" (world), "calidus" (hot), "humidus" (moist), "frigidus" (cold), "siccus" (dry), "dur" (hard), "molens" (milling), "inclinatus" (inclined), "ver" (truth), "sanguis" (blood), "humilis" (lowly), "copia" (abundance), "Nelans" (possibly a name or place), "gus", "am", "Frigidus", "Pridus", "TERRA", "Annus", "Nclans", "cobia", "MVNDVS", "ANNVS", "HOMO". The overall aesthetic is reminiscent of a historical manuscript or a celestial chart.



2-15

Today, most surgical procedures still involve open surgery, while a steadily growing proportion is performed endoscopically. As a full-range supplier in minimally invasive surgery, KARL STORZ takes account of this fact with the new HAVE 1™ concept. In conjunction with the innovative VITOM® system, KARL STORZ camera and documentation systems can be used for visualizing

and documenting open surgeries as well. Combining technologies for minimally invasive procedures with those for open surgery is efficient, economic, and improves the workflow in the operating room. HAVE 1™ – the visualization and documentation solution for minimally invasive and open surgery from a single source.

Benefits of HAVE 1™:

- Only KARL STORZ offers the VITOM® system, which allows visualizing and documenting open surgeries in all medical specialties
- Excellent FULL HD image quality
- Great depth of field
- Large working distance
- Ergonomic work via the monitor
- Compact design requiring minimal space in the OR
- Use of existing KARL STORZ FULL HD endoscopy system

Brilliant Visualization in FULL HD

KARL STORZ HAVE 1™:

- H** IMAGE1 S
- A** AIDA™ compact NEO HD
- V** VITOM®
- e** Endoscopy
- 1** The complete solution from a single source

FULL HD camera platform

Medical Data Management System

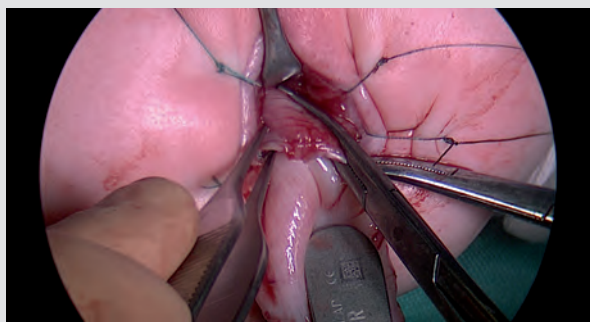
Brilliant visualization of open surgeries

The diamond standard in minimally invasive surgery

Your contact for imaging and documentation



HAVE 1™ Video



Brilliant Visualization in FULL HD

The IMAGE1 S FULL HD camera system provides optimal support for all interventions in minimally invasive and open surgery.

The VITOM® system provides excellent depth of field, optimal magnification as well as good contrast and excellent color reproduction, which are the ideal prerequisites for the best possible visualization of interventions in open surgery.



Documentation

The VITOM® system is perfectly suited for the documentation of interventions in open surgery with minimal access.



Ergonomic Work

Enhanced images of the open surgical procedure can be observed via a FULL HD monitor from a convenient distance by the surgeon, the assistant as well as the entire OR team. The system offers everyone present in the OR an optimal view of the surgical field.



Teaching and Training

The VITOM® system is an excellent tool for teaching and training purposes as the system offers an unrestricted and magnified view of the surgical site both inside and outside the OR.



Fields of Application

The VITOM® system offers an innovative way of displaying open surgical procedures with minimal access and has been successfully used in open thyroidectomy. It is also suitable for pediatric surgery. Moreover, the VITOM® system is an excellent teaching and training aid and an ideal tool for documentation.

There are different surgical procedures for thyroidectomies. Despite the tendency towards minimally invasive surgeries such as MIVAT (Minimally Invasive Video-assisted Thyroidectomy – Prof. Paolo Miccoli, University of Pisa, Italy) and ABBA (Axillo Bilateral Breast Approach – Prof. Martin W. Strik, HELIOS Hospital, Berlin, Germany), open thyroidectomy procedures are still performed to a very large extent. During these open procedures, most surgeons operate with a loupe or the unaided eye. So far there has been no solution for documenting these cases or for teaching and training of residents and scrub nurses. The innovative VITOM® system from KARL STORZ offers a solution for both problems. It is positioned 25 to 75 cm above the surgical field and allows the documentation

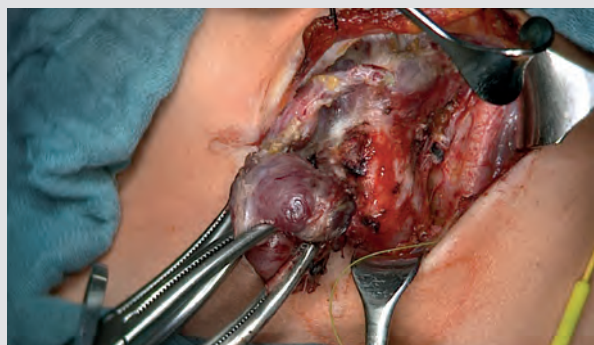
of surgical interventions by capturing still images and FULL HD videos.

In addition, FULL HD images can be displayed within the OR to any available monitor.

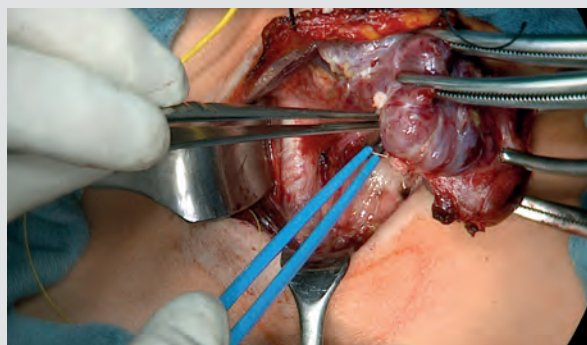
As the VITOM® system is based on endoscopic components from KARL STORZ, it is also a very economical solution.

We have tested the VITOM® system in open thyroidectomies and have achieved very satisfying results.

*Prof. Dr. med. H. DRALLE and Dr. med. P. N. THANH,
General Surgery, University Hospital Halle (Saale), Germany*



Open thyroidectomy



Video

Images courtesy of:
Prof. Dr. med. Henning Dralle, General Surgery, University Hospital Halle (Saale), Germany

Many conditions such as anal atresia, Hirschsprung's disease, hypospadias, genital ambiguities as well as interventions in the digestive tract and urological interventions frequently concern our newborn patients. Corrective surgery is performed with open surgery or combined with the endoscopic approach.

The VITOM® system is used to display open surgical procedures with minimal access. In pediatric surgery, the VITOM® can be used for the following procedures:

- Anorectal malformations
- Congenital mega colon (Hirschsprung's disease)

- Hypospadias repair
- Epispadias repair
- Genital ambiguities
- Digestive and urological surgery in newborn patients

*Prof. M. LIMA,
Head of Pediatric Surgery and the
Minimally Invasive Pediatric Surgery Center,
University of Bologna, S. Orsola Clinic, Italy*



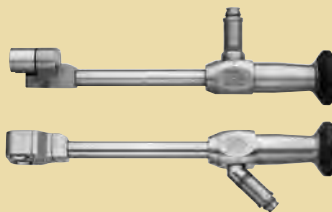
Video 1



Video 2

Images courtesy of:
Prof. Mario Lima M.D., Minimally Invasive Pediatric Surgery Center, Policlinico S. Orsola Malpighi, Bologna, Italy

VITOM® Telescope 0° and 90°
with Integrated Illuminator



20916025 AA/DA

Clamping Cylinder



28272 CN

Fiber Optic Light Cable



495 TIP

Mechanical Holding Arm

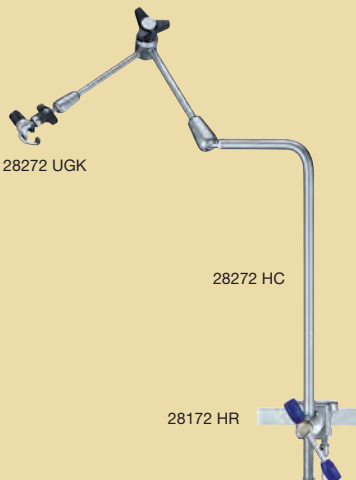


IMAGE1 S H3-Z Three-Chip FULL HD
Camera Head



TH 100

Cold Light Fountain XENON 300 SCB



20 1331 01-1

IMAGE1 S Camera System



TC 200EN
TC 300

26" FULL HD Monitor

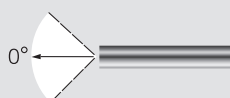


9826 NB

Exoscopes and Illumination – VITOM® Telescope with Integrated Illuminator
Length 11 cm



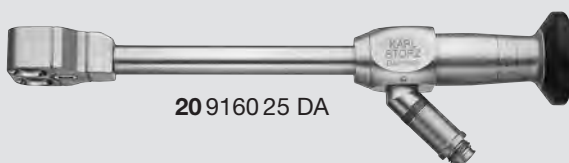
20 9160 25 AA



20 9160 25 AA VITOM® Telescope 0° with Integrated Illuminator, VITOM® HOPKINS® straight forward telescope 0°, working distance 25 – 75 cm, length 11 cm, **autoclavable**, with fiber optic light transmission incorporated and condensor lenses, color code: green

Optional:






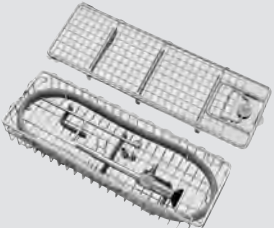
20 9160 20 VITOM® 25 Telescope 0°, VITOM® 25 HOPKINS® straight forward telescope 0°, working distance 25 – 75 cm, diameter 10 mm, length 11 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



20 9160 25 DA



20 9160 25 DA VITOM® Telescope 90° with Integrated Illuminator, VITOM® HOPKINS® telescope 90°, working distance 25 – 75 cm, length 11 cm, **autoclavable**, with fiber optic light transmission incorporated and condensor lenses, color code: blue

		VITOM® Scope 0° with Integrated Illuminator	VITOM® Scope 90° with Integrated Illuminator	VITOM® 25 Scope 0°
		20 9160 25 AA	20 9160 25 DA	20 9160 20
495 TIP	 Fiber Optic Light Cable , with straight connector, extremely heat-resistant, enhanced light transmission, diameter 4.8 mm, length 300 cm	●	●	●
495 NVC	 Fiber Optic Light Cable , with 90° deflection to the instrument, very narrow radius of curvature, diameter 4.8 mm, length 300 cm	●	—	●
20 9170 00	  20 9170 00 495 UV VITOM® 25 Illuminator , with 2 adjustable lenses and holding device for VITOM® 25 telescopes, autoclavable , for use with VITOM® 25 telescopes (20 9160 20 and equivalent models) and Y-Fiber Optic Light Cable 495 UV, not suitable for use with VITOM® telescopes of the 2nd generation with integrated illuminator	—	—	●
495 UV	Y-Fiber Optic Light Cable , 2x diameter 3.5 mm, length 230 cm, for simultaneous connection of two instruments			
20 9180 20	 VITOM® 25 Distance Rod , length 25 cm	—	—	●
39501 A2	 Wire Tray for Cleaning, Sterilization and Storage of two rigid endoscopes and one light cable, including holder for light post adaptors, silicone telescope holders and lid, external dimensions (w x d x h): 352 x 125 x 54 mm, for rigid endoscopes up to diameter 10 mm and working length 20 cm	●	●	●

Working distance:	25 – 75 cm		
Depth of view at working distance of: Depth of view:	25 cm approx. 3.5 cm	50 cm approx. 7 cm	75 cm approx. 10 cm
Field of view at working distance of: IMAGE1 S H3-Z camera zoom 1x IMAGE1 S H3-Z camera zoom 2x	25 cm 5 cm 3.5 cm	50 cm 10 cm 7 cm	75 cm 15 cm 10.5 cm
Reproduction scale at working distance of:	25 cm	50 cm	75 cm
26" Monitor: H3-Z camera zoom 1x H3-Z camera zoom 2x	approx. 8x approx. 16x	approx. 4x approx. 8x	approx. 3x approx. 6x
42" Monitor: H3-Z camera zoom 1x H3-Z camera zoom 2x	approx. 14x approx. 28x	approx. 7x approx. 14x	approx. 5x approx. 10.5x
52" Monitor: H3-Z camera zoom 1x H3-Z camera zoom 2x	approx. 17x approx. 34x	approx. 8x approx. 16x	approx. 6x approx. 12x

MORCELLATORS

UNIDRIVE® S III SCB 314



Rotocut G2 ^{NEW} 315-319



SuperCut MORCELLATOR SAWALHE II 320-323



SAWALHE FORCEPS 324



CHARDONNENS MORCELLATION KNIFE 325-326



For use with electronic morcellators SuperCut Morcellator SAWALHE II and Rotocut G2

Special Features:

- Continuously variable revolution range
- Maximum number of revolutions can be preset
- Consistently high motor performance over the entire range of revolutions
- Processor controlled number of revolutions and motor torque
- Optimized user control
- Operating elements are simple and clear to read
- Automatic handpiece recognition
- Integrated control connection for KARL STORZ pump systems in combination mode
- For use with:
 - Rotocut G2
 - SuperCut Morcellator SAWALHE II
- With connection possibilities to the KARL STORZ Communication Bus (KARL STORZ-SCB)



26 7010 01-1 UNIDRIVE® S III SCB, power supply
100 – 240 VAC, 50/60 Hz
including:
Mains Cord
One-Pedal Footswitch, two-stage
SCB Connecting Cable, length 100 cm

Specifications:

Operation mode	- oscillating (shaver) - clockwise (morcellator)	Dimensions w x h x d	305 x 165 x 233 mm
Max. rotations	40,000 rpm (EC motor)	Weight	5 kg
Power supply	100-240 VAC, 50/60 Hz	Certified to	IEC 601-1, CE acc. to MDD

Set Configuration Accessories see pages 317 and 323
Components/Spare Parts see chapter 21

Rotocut G2 – Another Step Towards Perfection

Rotocut G2 sets new standards for morcellators in gynecological laparoscopy. Combining ease of operation with maximum performance, Rotocut G2 offers an efficient and time-saving alternative to previous systems. The consistent further development of the proven Rotocut G1 hollow shaft motor provides optimal functionality combined with enhanced user-friendliness, for example, the morcellator can be directly placed on the patient's abdominal wall.

Some important features of the Rotocut G1 have been optimized for Rotocut G2 in close cooperation with the users.

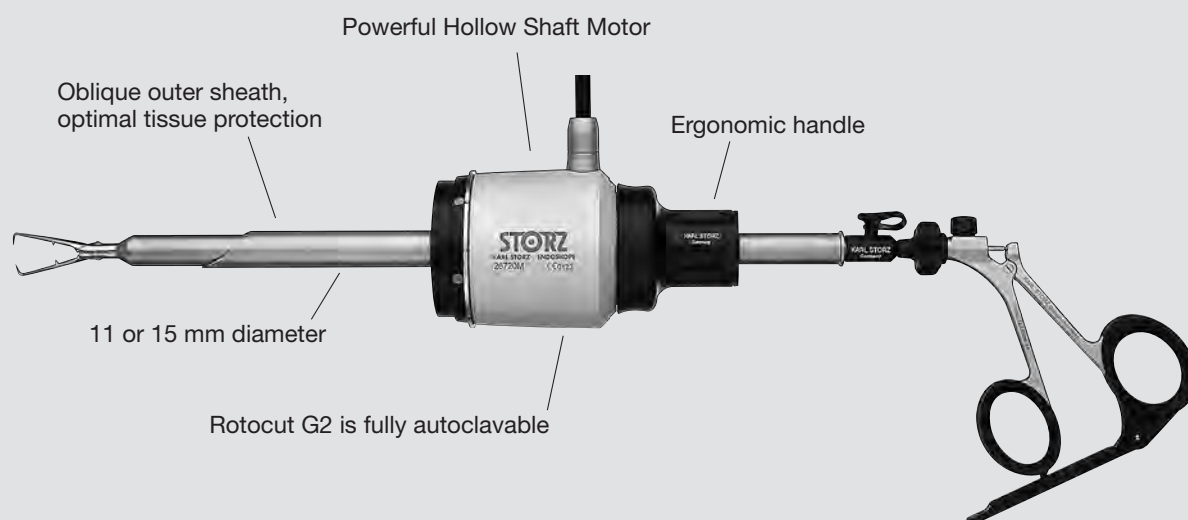
The new Rotocut G2 generation is equipped with a stand-alone trocar that can be coupled with the motor

components. Consequently, the morcellator can be introduced into the abdominal cavity without the motor during initial access. This new feature simplifies handling of the system. The rotatable trocar allows variable positioning of the trocar tip in order to maintain an optimal view of the knife and to facilitate tangential morcellation ("peeling"). After morcellation, the stand-alone trocar without motor serves as an additional port for instruments, for example, for retrieving morcellated tissue from the abdomen.

The fully enclosed motor housing meets the highest reprocessing standards. No additional cleaning adaptors are necessary and the motor does not require lubrication.

Special Features:

- Powerful, gearless hollow shaft motor
- Initial abdominal access without motor
- Time savings achieved through quick-lock mechanism connecting the motor and trocar
- Peeling function for rapid morcellation
- Rotating trocar for variable positioning of the trocar tip
- Stand-alone trocar serves as an additional access after morcellation
- Enclosed motor housing

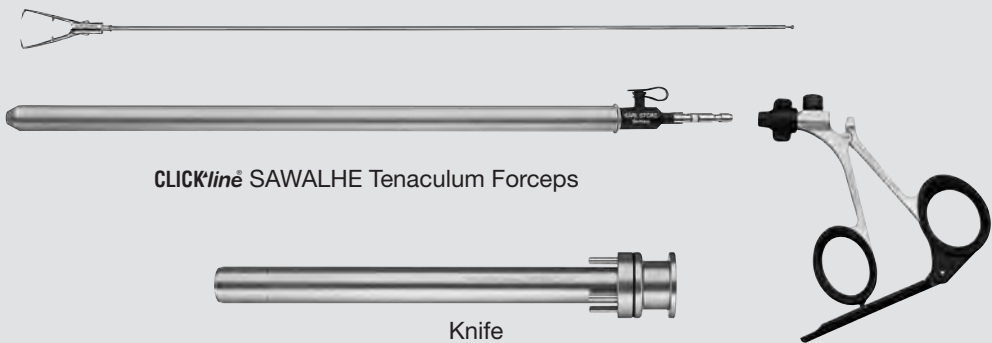


Rotocut G2 ^{NEW}

for laparoscopic applications,
sizes 11 and 15 mm

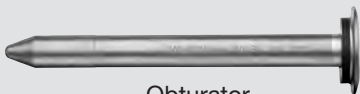


26723 RC/26721 RC/26725 RC

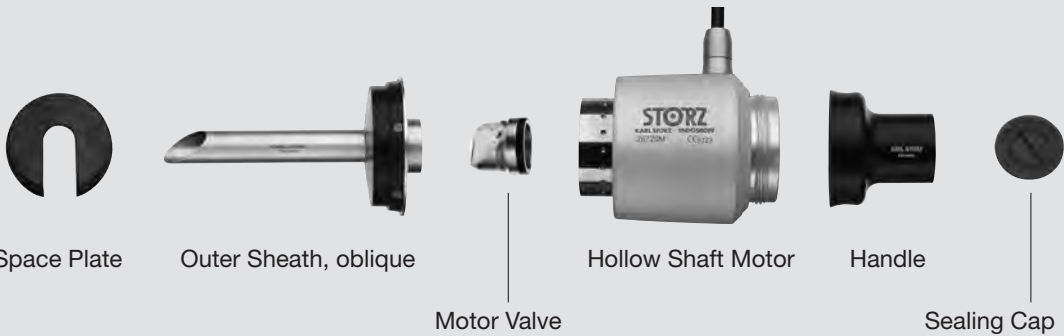


CLICK'line SAWALHE Tenaculum Forceps

Knife



Obturator



Space Plate

Outer Sheath, oblique

Motor Valve

Hollow Shaft Motor

Handle

Sealing Cap

Rotocut G2 ^{NEW}

for laparoscopic applications,
sizes 11 and 15 mm

Size 11 mm

- 26721 RC **Rotocut G2**, standard, diameter 11 mm, morcellator for laparoscopic applications, for use with UNIDRIVE® S III 20 7010 20-1
including:
Hollow Shaft Motor Rotocut G2
Handle, 11/15 mm
Trocar, standard, diameter 11 mm, oblique
Obturator, standard, diameter 11 mm, blunt
Sealing Cap, package of 10
Valve, diameter 11 mm
Space Plate Set, package of 5
Valve Plate, package of 10, unsterile
CLICK'line SAWALHE Tenaculum Forceps, size 11 mm
Knife, laparoscopic, diameter 11 mm
Tray, for 10 Valve Plates 26720 P1

Size 15 mm

- 26725 RC **Same**, diameter 15 mm

Size 11/15 mm

- 26723 RC **Rotocut G2**, diameter 11/15 mm, morcellator for laparoscopic applications, for use with UNIDRIVE® S III 20 7010 20-1
including:
Hollow Shaft Motor Rotocut G2
Handle, 11/15 mm
Trocar, standard, diameter 11 mm, oblique
Trocar, standard, diameter 15 mm, oblique
Obturator, standard, diameter 11 mm, blunt
Obturator, standard, diameter 15 mm, blunt
Sealing Cap, package of 10
Valve, diameter 11 mm
Valve, diameter 15 mm
Space Plate Set, package of 5
Valve Plate, package of 10, unsterile
CLICK'line SAWALHE Tenaculum Forceps, size 11 mm
CLICK'line SAWALHE Tenaculum Forceps, size 15 mm
Knife, laparoscopic, diameter 11 mm
Knife, laparoscopic, diameter 15 mm
Tray, for 10 Valve Plates 26720 P1

For use with SAWALHE Forceps see page 324
Components/Spare Parts see chapter 21

Optional Accessories

for Rotocut G2



26 7130 39

Space Plate Set, maximum height compensation 10 mm, package of 5 Space Plates **26 7130 38**, for use with instruments up to diameter 16.5 mm



When operating on thinner patients, one or more space plates placed on top of each other can be used to reduce the penetration depth of the sheath. Space plates can be added even when the Rotocut G2 handpiece has been inserted by using the lateral slot.

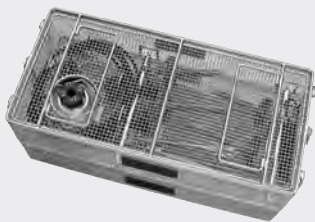
26720 HA

Handle, 90°

Wire Tray System 39510 G for Rotocut, recommended for cleaning, sterilization, storage and transport of a Rotocut G2 morcellator system for laparoscopic applications

39510 G

Wire Tray System for Rotocut, for cleaning, sterilization and storage of a Rotocut morcellator system, consisting of a lower level, upper level with lid, external dimensions (w x d x h): 535 x 250 x 210 mm



Product Description:

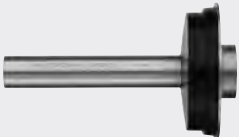




- **Upper Tray**, for components with standard or adipose lengths, also in combination
Following assembly possible:
1x Motor, with connecting cable
2x Knives, 11 or 15 mm
1x Motor Handle, 11/15 mm
4x Sheaths, 11 or 15 mm
2x Valves, 11 or 15 mm
1x Handle 90°
- **Lower Tray**, for components with standard or adipose lengths, also in combination
Following assembly possible:
2x Forceps Handles
2x Forceps Sheaths, 11 or 15 mm
2x Forceps Inserts
2x Obturator, 11 or 15 mm
5x Spacers
1x Sealed Box, for small parts
- **Lid**, for closing tray system or either lower or upper tray, with opening for mounting irrigation adaptor to motor

Please note: The instruments displayed are not included in the wire tray system.

Optional Accessories

for Rotocut G2

Further Accessories for laparoscopic applications, working length 9.5 cm

	26721 TS	Trocar , straight, diameter 11 mm	
	26725 TS	Same , diameter 15 mm	
	26721 OP	Obturator , with pyramidal tip, diameter 11 mm	
	26725 OP	Same , diameter 15 mm	
	26721 OC	Obturator , with conical tip, diameter 11 mm	
	26725 OC	Same , diameter 15 mm	
	091112-05*	Knife , sterile, for single use, diameter 11 mm, working length 9.5 cm, package of 5	
	091115-05*	Same , diameter 15 mm	

Further Accessories for laparoscopic applications for obese patients, working length 12.5 cm

	26721 TOO	Trocar , oblique, diameter 11 mm	
	26725 TOO	Same , diameter 15 mm	
	26721 TSO	Trocar , straight, diameter 11 mm	
	26725 TSO	Same , diameter 15 mm	
	26721 OBO	Obturator , with blunt tip, diameter 11 mm	
	26725 OBO	Same , diameter 15 mm	
	26721 OCO	Obturator , with conical tip, diameter 11 mm	
	26725 OCO	Same , diameter 15 mm	
	26721 OPO	Obturator , with pyramidal tip, diameter 11 mm	
	26725 OPO	Same , diameter 15 mm	
	26 7134 50	Knife , diameter 11 mm	
	26 7135 50	Same , diameter 15 mm	
	091122-05*	Knife , sterile, for single use, diameter 11 mm, working length 12.5 cm, package of 5, color code: red	
	091125-05*	Same , diameter 15 mm	

* 

SuperCut Morcellator SAWALHE II

The SAWALHE II SuperCut Morcellator implements the most recent innovations so that the instrument offers a greater degree of safety, extensive flexibility, ease of use and smooth ergonomics combined with maximum power.

1. Ergonomic Functionality

The SuperCut handle features a recessed grip so that it fits comfortably and ergonomically in the surgeon's hand.

The oblique line of the handle to the working element blade is harmoniously balanced for convenient and functional use.

The motor is inserted in the handle and locked into place. This locking mechanism ensures a safe hold of the motor during use.

2. Safety

The newly designed obturator features a conical, atraumatic tip so that the morcellator can be introduced through the abdominal wall by a dilation/diffraction mechanism with minimal damage of tissue.

Benefits:

- Risk of vascular injuries and bleeding considerably reduced
- Better adaptation of abdominal layers
- Abdominal entry with minimized risk
- Use is straightforward and easy to learn

3. Safety of the SuperCut Tip

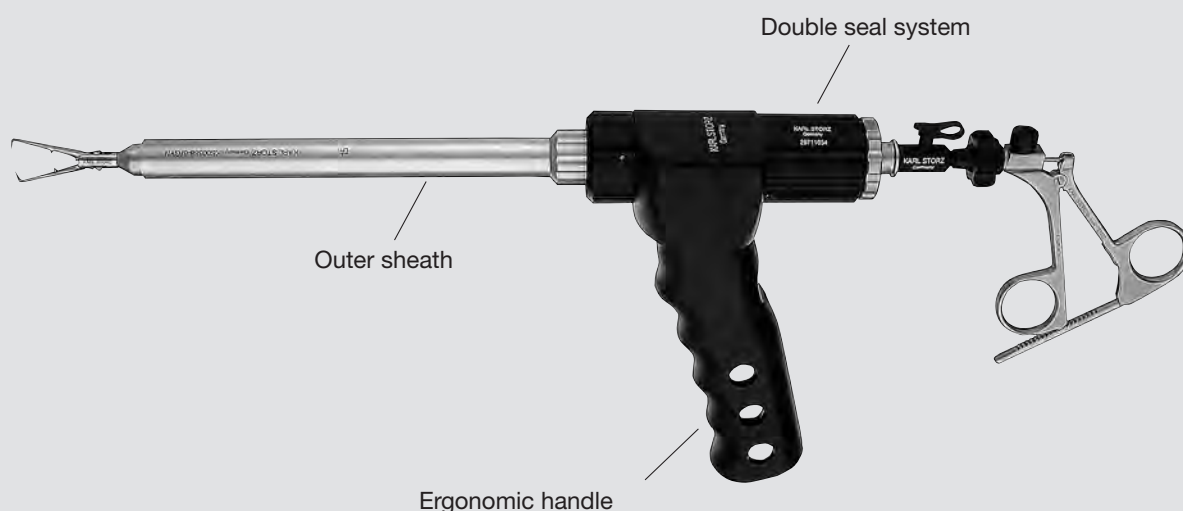
The blade is secured in a protective tube which is introduced into the abdomen in a safe and secure manner.

Benefits:

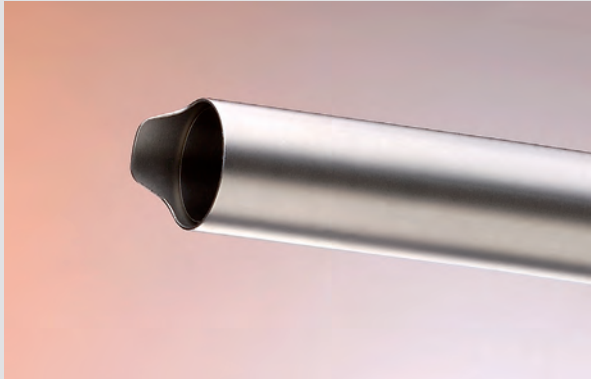
- Minimizes the risk of tissue and nerve lesions to the abdominal wall
- Minimizes the risk of visceralization in the abdomen
- Enables the morcellator to penetrate the abdominal wall without the need for excessive pressure or force

Special Features:

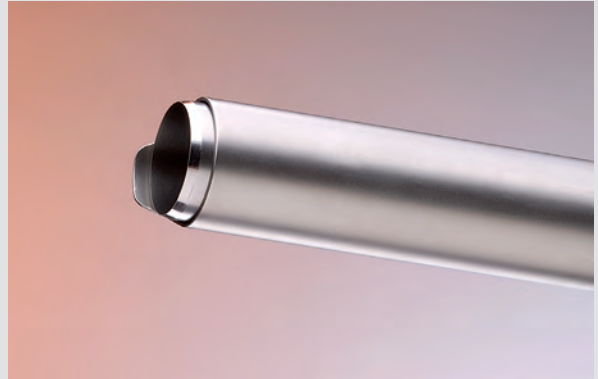
- Handle with high ergonomic functionality
- Powerful high-performance EC motor
- Lightweight construction
- Spiral obturator with conical, atraumatic tip
- Effective peeling effect due to sheath with tip
- Hardened blade edge
- Autoclavable



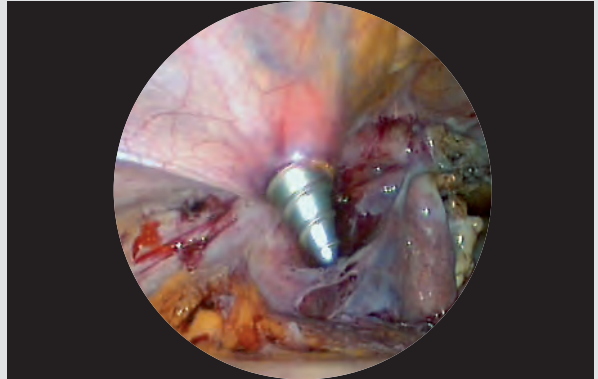
SuperCut Morcellator SAWALHE II



The knife is introduced into the protective tube in a secure manner. This prevents any accidental vascular or even bowel lesions. The morcellator can thus be used like a trocar.



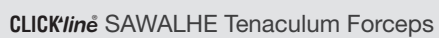
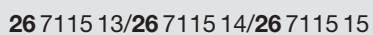
To ensure maximum safety, the knife can be extended and activated manually by withdrawing the protective tube.



The new obturator design features a conical atraumatic spiral for safe abdominal entry.

for laparoscopic applications,
sizes 12 and 15 mm

STORZ
KARL STORZ — ENDOSKOPE



Obturator, with thread

Outer Sheath

Knife

High-Performance EC Motor

SuperCut Handpiece

SuperCut Morcellator SAWALHE II

for laparoscopic applications,
sizes 12 and 15 mm

Size 12 mm

- 26 7115 13** **SAWALHE II SuperCut Set**, diameter 12 mm, electromechanical morcellator, for use with UNIDRIVE® S III **20 7010 20-1** including:
- SuperCut Handpiece**
 - Handle**
 - High-Performance EC Motor**
 - Connecting Cable**, for connecting EC motor to control unit UNIDRIVE® S III
 - CLICK'line® SAWALHE Tenaculum Forceps**, diameter 12 mm
 - 2x Knife**, diameter 12 mm
 - Obturator**, with thread, diameter 12 mm
 - Sheath**, with tip, diameter 12 mm
 - Sealing Cap**, diameter 12 mm

Size 15 mm

- 26 7115 14** **Same**, diameter 15 mm

Size 12/15 mm

- 26 7115 15** **SAWALHE II SuperCut Set**, diameter 12/15 mm, electromechanical morcellator, for use with UNIDRIVE® S III **20 7010 20-1** including:
- SuperCut Handpiece**
 - Handle**
 - High-Performance EC Motor**
 - Connecting Cable**, for connecting EC motor to control unit UNIDRIVE® S III
 - CLICK'line® SAWALHE Tenaculum Forceps**, diameter 12 mm
 - CLICK'line® SAWALHE Tenaculum Forceps**, diameter 15 mm
 - 2x Knife**, diameter 12 mm
 - 2x Knife**, diameter 15 mm
 - Obturator**, with thread, diameter 12 mm
 - Obturator**, with thread, diameter 15 mm
 - Sheath**, with tip, diameter 12 mm
 - Sheath**, with tip, diameter 15 mm
 - Sealing Cap**, diameter 12 mm
 - Sealing Cap**, diameter 15 mm

Optional Accessories

- 280053 B** **Universal Spray**, 500 ml bottle, – HAZARDOUS GOODS – UN 1950, for use with Spray Nozzle 280053 C for INTRA drill handpieces
- 280053 C** **Spray Nozzle**, for the reprocessing of INTRA burr handpieces, for use with Universal Spray 280053 B

Note:

Maintenance of the motor-driven components (SuperCut high-performance EC motor) must be performed with Universal Spray 280053 B/C (not included in delivery).

For use with SAWALHE Forceps see page 324

Components/Spare Parts see chapter 21

CLICK'line® SAWALHE Forceps,
Extraction Bag

Sizes 11 and 15 mm



- 33593 UM **CLICK'line SAWALHE Tenaculum Forceps**, rotating, dismantling, without connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, size 11 mm, length 36 cm including:
Metal Handle, with MANHES style ratchet
Outer Sheath
Forceps Insert
- 33553 UM **Same**, size 15 mm



- 040141-05* **Extraction Bag**, sterile, for single use, opening diameter 11 cm, volume 1500 ml, package of 5, for use with trocars size 10 mm



Note: In case of suspected malignant tissue or any suspicious tissue that could lead to contamination of a body cavity, the use of an extraction bag is indicated whereby the tissue is to be removed en bloc.

Components/Spare Parts see chapter 21

CHARDONNENS Morcellation Knife

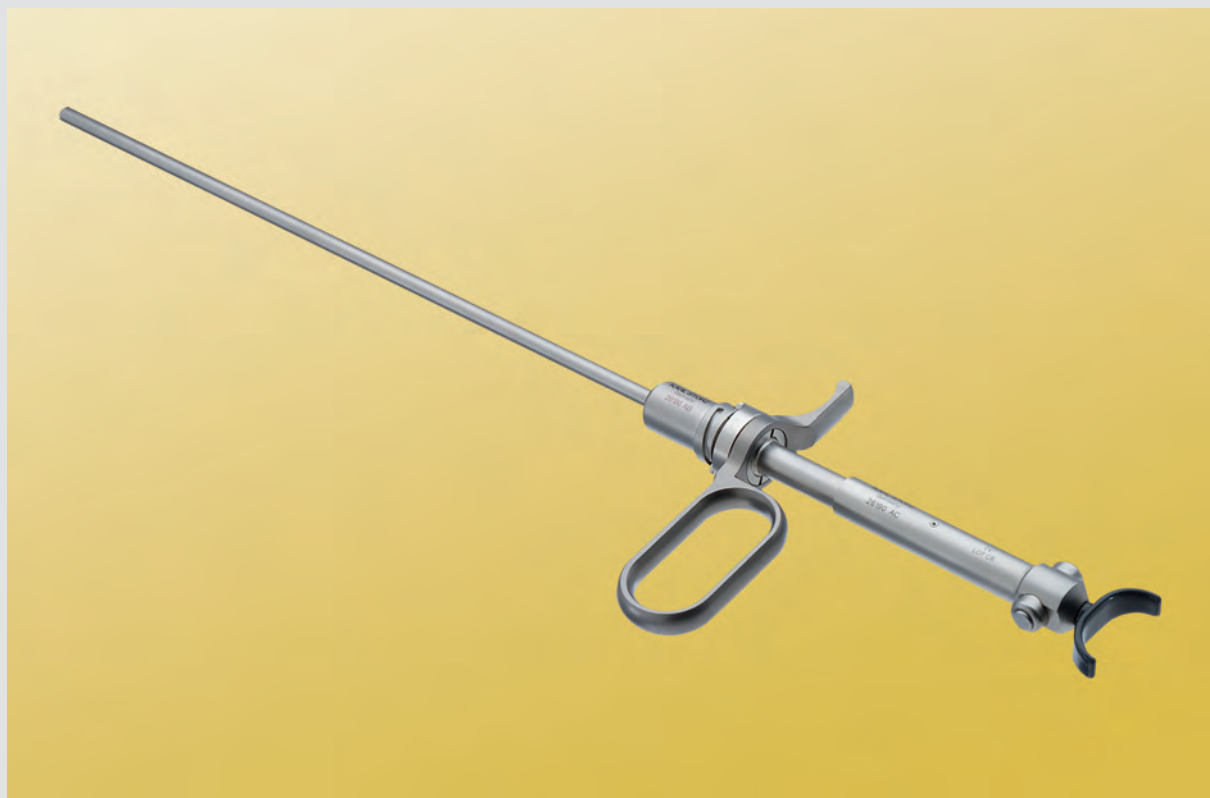
for laparoscopic surgery

A new laparoscopic instrument for supracervical hysterectomy and morcellation of large tissue masses

Sectioning the cervix, morcellation, and extraction of the uterus or myomata remain major problems in endoscopic surgery. Several morcellators have been developed, but the difficulties are still numerous, especially when dealing with large tissue masses, such as a myomatous uterus or a myoma. Considering these points, we have developed a safe, efficient, sterilizable and low-cost instrument to section the cervix and morcellate the uterus and myomata. After the cervix is sectioned, the uterus can be extracted using a STEINER morcellator, or morcellated with a morcellation knife or removed through the rectovaginal pouch using the C.C.L. Vaginal Extractor. The morcellation knife consists of a classical lancet with an interchangeable 10 mm blade for microsurgery. It can be transformed into a laparoscopic instrument which is

easily inserted through an 11 mm diameter trocar. The 10 mm blade is attached to the knife insert, which is fitted with a retraction system. This mechanism ensures a perfectly safe endoscopic application as the sharp blade is automatically retracted into the outer sheath. To section the cervix, it is recommended holding the tissue under tension with two grasping forceps to enable effortless morcellation under continuous visual control. This instrument has been subjected to long-term tests during laparoscopic subtotal hysterectomies and myomectomies. Like any other minimally invasive surgical instrument, this morcellation knife is designed for surgeons skilled in laparosurgery.

*E. CHARDONNENS, M. D.,
Lausanne, Switzerland*

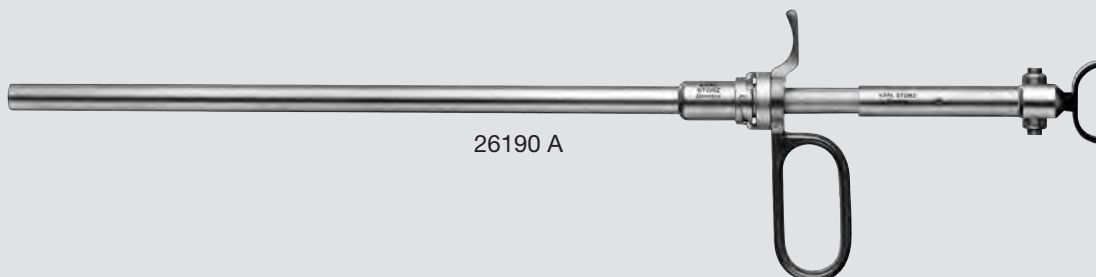


CHARDONNENS Morcellation Knife

for laparoscopic surgery

Size 10 mm

Operating instrument, **length 22 cm**
for use with trocars size 11 mm



26190 A



26190 A

CHARDONNENS **Morcellation Knife**,
dismantling, size 10 mm, length 22 cm
including:

Knife Insert

Outer Sheath

Handle

Protection Cap



208010

Blade, Fig. 10, non-sterile,
package of 100

208210

Same, sterile

Components/Spare Parts see chapter 21

**INTRAOPERATIVE CHOLANGIOGRAPHY
CHOLEDOCHOSCOPY, MICRO KNIVES**

Intraoperative Cholangiography

Instruments for Catheter Placement

Size 5 mm

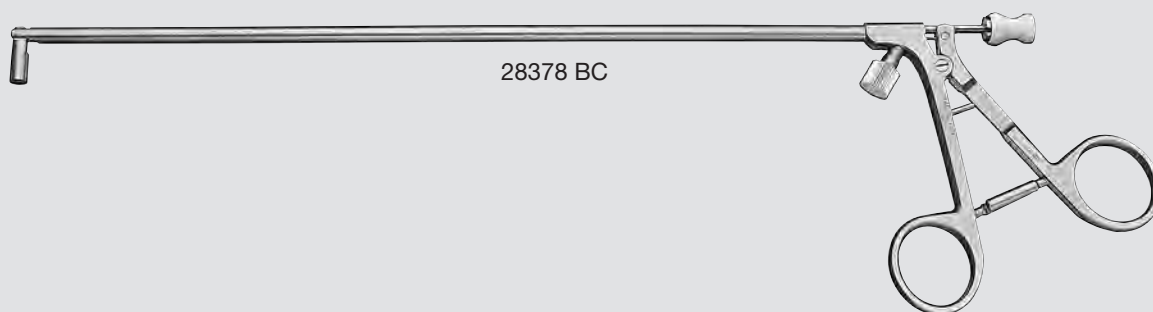
Operating instrument, **length 28 cm**,
for use with trocars size 6 mm

Of the approx. 750,000 laparoscopically assisted cholecystectomies performed annually in the USA, around 10% present gallstones. Unfortunately, only a small amount can be removed during a laparoscopic intervention so that the patient has to undergo a second operation (ERCP).

Catheterization of the cystic duct can be time-consuming and, in many cases, several attempts are necessary. This is frustrating for the surgeon and prolongs the OR

time unnecessarily. For this reason, a new cholangiography catheter guide was developed that can be used with various catheter sizes. The tip is movable and can, therefore, be precisely adapted to the anatomy of the bile ducts. This simplifies catheterization of the cystic duct and also decreases surgery time.

Prof. Dr. med. G. BERCI
Cedars-Sinai Medical Center, Los Angeles, USA



NEW 28378 BC

Cholangiography Catheter Guide, for catheters with max. size 2.4 mm, with distal angulation 90° downwards

Size 10 mm

Operating instrument, **length 50 cm**,
for use with trocars size 11 mm

For cholangiography, the metal trocar inserted through the upper midline incision interferes (metal shadow) with the display of the biliary ductal system filled with contrast medium. This disturbing phenomenon can be avoided if:

- The plastic stylet is introduced under visual control after the cystic duct has been cannulated.
- The metal trocar is withdrawn over the stylet.
- The cholangiogram is performed without interfering metal shadows.
- The metal trocar is reinserted over the plastic (guide) stylet into the abdomen under visual control.
- The stylet is removed.



26020 XR

26020 XR

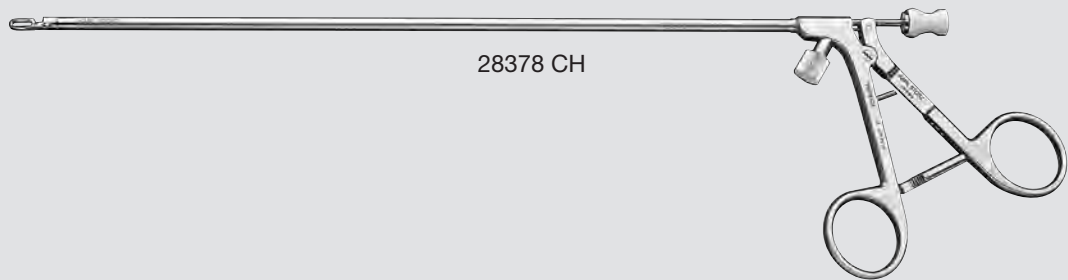
BERCI Plastic Stylet

Intraoperative Cholangiography

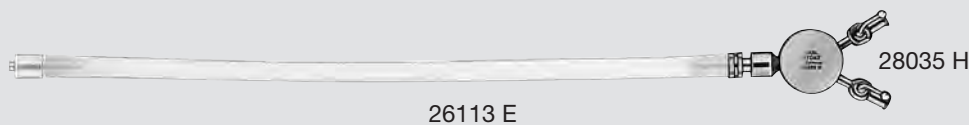
Instruments for Catheter Placement

Size 5 mm

Operating instrument, **length 27 cm**,
for use with trocars size 6 mm



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



28035 H **Two-Way Stopcock**, with 2 valves, for
contrast medium and saline solution

26113 E **Tubing**, flexible, with 2 LUER-Lock
connectors

Intraoperative Choledochoscopy, Video Choledochoscope

KARL STORZ, the pioneer of endoscopy, once more revolutionizes treatment options in choledochoscopy.

Video Choledochoscope, 2.8 mm

Special Features:

- Excellent image quality due to CMOS technology
- Homogenous illumination thanks to LED technology
- Atraumatic tip
- Lightweight design
- Direct transmission of hand movements through to the distal end thanks to high torque stability
- Video choledochoscope for use with IMAGE1 S and IMAGE 1 HUB™ HD



Video Choledochoscope, 5.3 mm

Special Features:

- Excellent image quality due to CCD technology
- Atraumatic tip
- Ergonomic handle due to its lightweight design
- Better overview due to full-screen display
- Video choledochoscope for use with IMAGE1 S, IMAGE 1 HUB™ HD, TELE PACK and TELECAM SL II



Intraoperative Choledochoscopy, Video Choledochoscope

Intuitive Deflection Mechanism

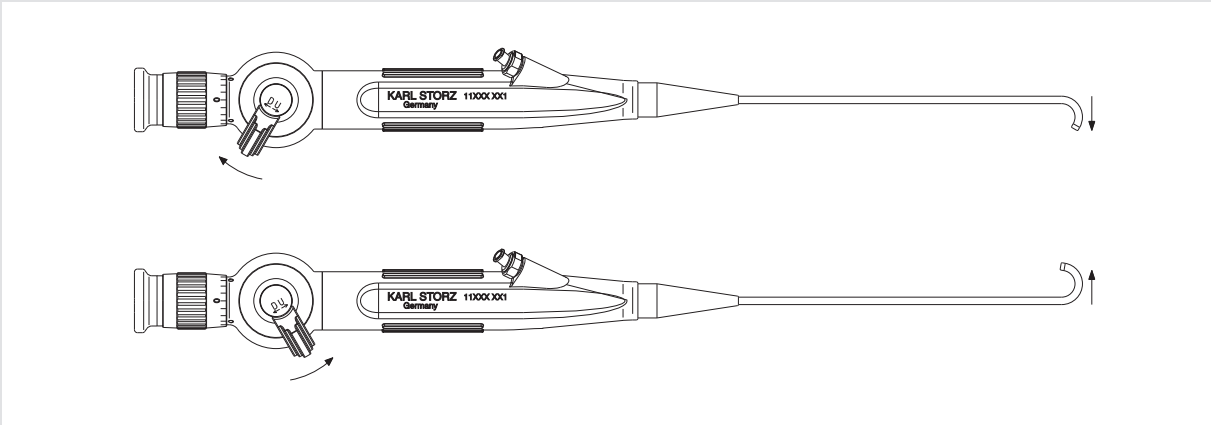
You wouldn't force someone who is left-handed to write with his right hand. Yet many flexible endoscopes impose exactly this type of limitation by forcing their operators to use counter-intuitive deflection mechanisms.

KARL STORZ answers this challenge by offering a choice of deflection mechanisms: either positive or contrapositive. With positive (or "logical") deflection, a downward movement of the lever mechanism causes

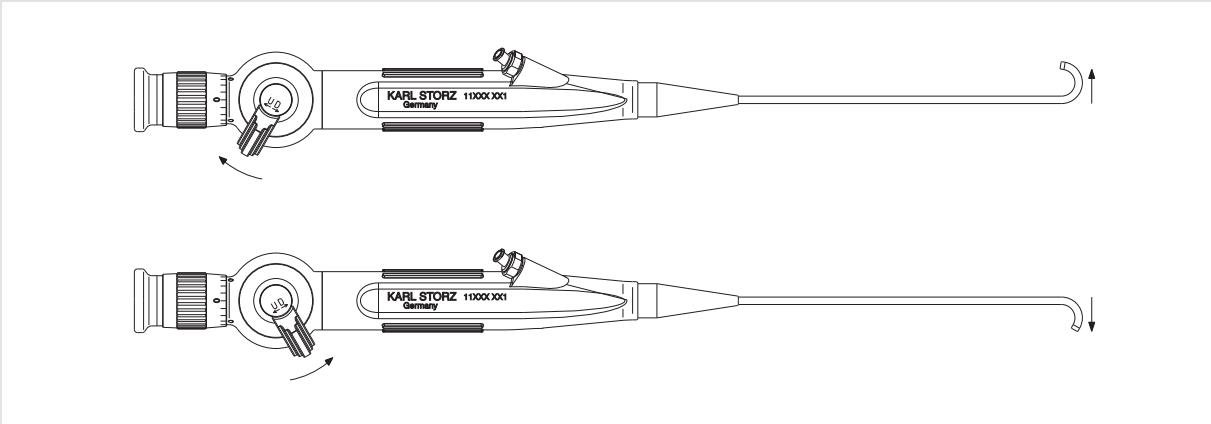
a upward movement of the endoscope tip, and vice versa. Reverse this orientation by choosing the contrapositive mechanism: a downward movement of the lever mechanism now causes an downward movement of the endoscope tip.

Either way, a simple flexion of the thumb on the deflection lever sweeps the endoscope tip into some of the most challenging areas of the anatomy.

Choose the active tip deflection mechanism, your are most comfortable with.



Positive deflection mechanism



Contrapositive deflection mechanism

Video Choledochoscopes ^{NEW}

Recommended for the transcystic approach (cystic duct)



11292 VSK

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 **Flexible Video Choledochoscope IMAGE1 S, steerable,**
 with contrapositive deflection mechanism
 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

Please note:

The following video endoscope adaptor is required to connect Video Choledochoscopes 11292 VSK/VSUK to the digital IMAGE1 Camera Control Unit:

TC 002 **IMAGE 1 HUB™ FLEX-X^C Adaptor**, video endoscope adaptor,
 for use with IMAGE 1 HUB™ and FLEX-X^C IMAGE1 S

The following accessories are included in the delivery of Video Choledochoscopes 11292 VSK/VSUK
 see pages 334-335

Recommended for the choledochal approach (choledochal duct)



11292 VP

11292 VP	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 VPU	Flexible Video Choledochoscope, PAL, with contrapositive deflection mechanism
	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




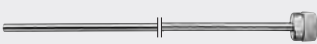
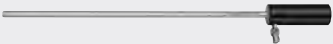

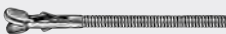



Please note:

One of the following video endoscope adaptors is required to connect Video Choledochoscopes 11292 VP/VPU to the IMAGE1 S Camera Control Unit, the digital IMAGE1 Camera Control Unit or to TELE PACK/TELECAM:

TC 001	IMAGE1 S Video Endoscope Adaptor , color systems PAL/NTSC, length 60 cm, for use with IMAGE1 S X-LINK TC 301
22 2000 77	Video Endoscope Adaptor , color systems PAL/NTSC, length 90 cm
20 2130 70	Video Connecting Cable , for use between KARL STORZ video endoscopes and TELECAM Camera Control Units (CCU) or TELE PACK video units

The following accessories are included in the delivery of Video Choledochoscopes 11292 VP/VPU
see pages 334-335










The following accessories are included in the delivery of video choledochoscopes:

			11292 VSK/VSUK	11292 VP/ VPU
	27677 VC	Case	●	●
	11025 E	Pressure Compensation Cap , for ventilation during gas and plasma sterilization	●	●
	13242 XL	Leakage Tester , with bulb and manometer	●	●
	11293 F	Applicator and Guide Tube , for use with trocars size 6 mm	●	—
	11272 X	Applicator and Guide Tube , for use with trocars size 7 mm	—	●
	28172 GE	Applicator , for use with Guide Tube 11272 X and trocars size 11 mm	—	●
	11003 KD	Biopsy Forceps , flexible, double action jaws, 3 Fr./1 mm, length 75 cm	●	—
	11003 KC	Grasping Forceps , flexible, double action jaws, 3 Fr./1 mm, length 75 cm	●	—
	11001 SL	Biopsy Forceps , flexible, double action jaws, oval, 5 Fr./1.67 mm, length 60 cm	—	●
	11002 SS	Grasping Forceps , flexible, double action jaws, 5 Fr./1.67 mm, length 60 cm	—	●

Accessories

for Video Choledochoscopes

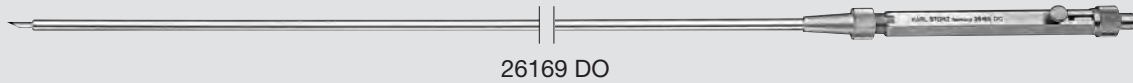
The following accessories are included in the delivery of video choledochoscopes:

				11292 VSKVSUK	11292 VP/ VPU
	27023 VB	Stone Basket , sterile, for single use, 2.5 Fr./0.83 mm, length 120 cm		●	-
	27023 VK	Stone Basket , 5 Fr./1.67 mm, length 60 cm		-	●
	27014 Y	LUER-Adaptor , with seal		●	●
	27550 N	Seal , for instrument ports, package of 10, single use recommended		●	●
	6002000	LUER Cone Set		-	●
	27001 RA	Cleaning Adaptor		●	●
	27651 AL	Cleaning Brush , round, flexible, outer diameter 2 mm, for working channel diameter 1.2 – 1.8 mm, length 150 cm		●	-
	27651 B	Cleaning Brush , round, flexible, outer diameter 3 mm, for working channel diameter 1.8 – 2.6 mm, length 100 cm		-	●

Accessories

for Intraoperative Choledochoscopy

Operating instruments **length 31 cm**,
for use with trocars size 6 mm



26169 DO



26169 DK

Micro Knife, straight, retractable,
size 5 mm, length 31 cm

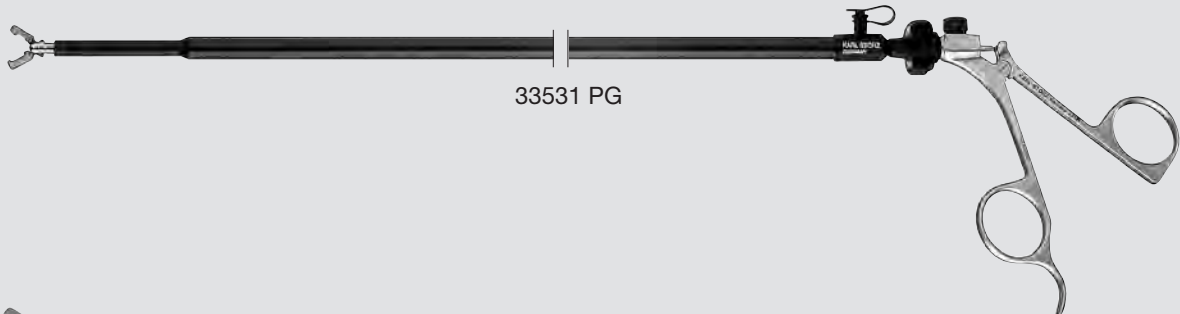


26169 DO

BERCI Micro-Knife, pointed, retractable,
size 5 mm, length 31 cm

Size 10 mm

Operating instruments **length 36 cm**,
for use with trocars size 11 mm



33531 PG



33531 PG

CLICK'line Berci Grasping Forceps, double action
jaws, with silicone pads, for introduction of the
choledochoscope in the biliary duct, size 10 mm
including:

Metal Handle, without ratchet

Outer Sheath, insulated

BERCI Forceps Insert, with silicone pads

30510 PX

Silicone Pad, for Berci forceps insert,
package of 10

Components/Spare Parts see chapter 21

FLEXIBLE ENDOSCOPES IN SURGERY



Flexible Video Endoscopy System in HD Technology

The KARL STORZ SILVER SCOPE® series unifies state-of-the-art technology, ergonomics, and durability in one videoscope to set new standards. The elegant design underscores the high-tech character of the control unit, which is equipped with a special 'silk touch' surface to allow precise introduction of the endoscopes, even when managing difficult conditions. An excellent grip combined with a light weight ensures fatigue-free, relaxed working – even on long examination days.

The graduated rigidity of the colonoscope insertion tube optimizes advancement and improves patient comfort.

The supply plug acts as a central connection between the new IMAGE1 S, the light source, and the endoscope

to ensure precision and safety in endoscopy. The design of the plug allows the connection of the latest electronics to the endoscope for quick and precise processing of the control and video signals in real time. In combination with the new KARL STORZ monitors, this permits optimal brilliance and color fidelity in diagnostics and treatment. The integrated port for the leakage test 'pressure cap system' was developed to prevent the possibility of liquid entering the endoscope – yet another plus in terms of durability for the KARL STORZ endoscopes.

The highly flexible supply tube is made of new 'intelligent' plastics and reduces the force applied in examinations to a minimum and protects the material.



Special Features:

- The flexible rectoscope generally offers all the benefits of flexible endoscopes:
 - Optimal visualization, i.e. magnification
 - Sharp imagery
 - Possibility of observation with a video system
 - Optimal control
 - Documentation
- The decisive advantage of this instrument is the possibility, despite extreme flexion, i.e. to pass the injection cannula through the working channel without difficulty.
- Inversion increases visualization and, consequently, diagnostic and therapeutic possibilities, through pro- and retrograde viewing.
- Combined short size and inversion increases practicality
- The reduced size and/or length ensures easy handling (high practicality) in diagnosis and therapy.
- The short instrument length facilitates and/or enables injection of the tenacious sclerosis agent. A major benefit.
- This results in less traumatic treatment for the patient and less discomfort in a particularly sensitive area. A decisive advantage!



13912 PKS/NKS

13912 PKS	TROIDL Rectoscope , 11.8 mm x 40 cm, flexible, color system PAL
	Direction of view: 0°
	Sheath diameter: 11.8 mm
	Working channel diameter: 3.4 mm
	Deflection up/down: 210°/100°
	Deflection left/right: 120°/120°
	Field of view: 140°
	Working length: 40 cm
	Depth of field: 2 – 200 mm
13912 NKS	Same , color system NTSC

Insufflator and Suction-Irrigation Unit for use with TROIDL Rectoscope see chapter 20, UNITS
Accessories for TROIDL Rectoscope see catalog PROCTOLOGY

SILVER SCOPE® Gastrosopes ^{NEW}

Special Features:

- High resolution
 - Unique, aesthetic and ergonomic handle
 - Great depth of field
 - Homogeneous image brightness, even under difficult lighting conditions
 - Powerful 140° wide-angle telescope
 - Advanced, straightforward control
 - Optimal placement of control functions
 - Graduated, torsion-proof insertion sheath
- Optimal instrument access, even at extreme angles
 - Robust supply tube with standard connectors
 - 8x magnification for optimal diagnostics
 - S-Technologies CLARA, CHROMA, SPECTRA
 - Excellent deflection
 - Three individually programmable remote control buttons
 - Excellent image quality with IMAGE1 S, XENON 100 SCB and CO₂mbi LED



13820 PKS/NKS

SILVER SCOPE®	Order No.		Sheath Outer Diameter	Working Channel Diameter	Working Length	Deflection		Field of View
	PAL	NTSC				up/down	left/right	
Slimline Gastroscope	13820 PKS	13820 NKS	5.9 mm	2 mm	1100 mm			140°
Standard Gastroscope	13821 PKS	13821 NKS	9.3 mm	2.8 mm	1100 mm			140°

Insufflator and Suction-Irrigation Unit for use with SILVER SCOPE® Gastrosopes see chapter 20, UNITS
 Accessories for SILVER SCOPE® Gastrosopes see catalog GASTROENTEROLOGY

SILVER SCOPE® Colonoscopes ^{NEW}

Special Features:

- High resolution (HR)
 - Great depth of field
 - 8x magnification for optimal diagnostics
 - Fatigue-free working with an ergonomically formed control unit
 - Excellent deflection
 - 3 programmable control buttons
- Powerful 160° wide-angle telescope
 - Advanced, straightforward control
 - Optimal placement of control functions
 - Torsion-proof 3-step insertion sheath with active and passive sections for optimal handling
 - Optimal instrument access, even at extreme angles



13924 PKS/NKS

SILVER SCOPE®	Order No.		Sheath Outer Diameter	Working Channel Diameter	Working Length	Deflection		Field of View
	PAL	NTSC				up/down	left/right	
Standard Colonoscope	13924 PKS	13924 NKS	12.9 mm	3.8 mm	1400 mm			160°
Standard Colonoscope, with water jet channel	13925 PKS	13925 NKS	12.9 mm	3.8 mm	1600 mm			160°

Insufflator and Suction-Irrigation Unit for use with SILVER SCOPE® Colonoscopes see chapter 20, UNITS
 Accessories for SILVER SCOPE® Colonoscopes see catalog GASTROENTEROLOGY

Laparoscopic Aortic Surgery

Patients with abdominal aortic aneurysms are increasingly being treated using endovascular techniques. However, due to the long-term problems related to endografts and migrating prostheses, laparoscopic aortic surgery is emerging as a minimally invasive alternative, especially for younger patients. Thus, in addition to conventional and endoluminal surgery, a third approach has become established.

Indications for laparoscopic aortic surgery:

Laparoscopic techniques can be offered to patients with aorto-iliac diseases or abdominal infrarenal aortic aneurysms. A further indication, which is gradually emerging, is related to patients with failing endografts or graft migrations following stent implants. In these cases, laparoscopy is used to occlude the lumbar artery or to fix prostheses.

A distinction is made between total laparoscopic procedures and laparoscopy assisted techniques:

1. A total laparoscopic approach offers the patient all the benefits of a video endoscopic procedure but requires laparoscopic suturing of the aortic anastomosis and a certain degree of patient selection. Long-term results are excellent and the side-effects of a conventional laparotomy can be avoided, i.e., incisional hernia can thus be prevented.
2. Laparoscopy assisted aortic procedures involve a mini-laparotomy between 7 and 10 cm with conventional instruments still being utilized to suture the aortic anastomosis. Postoperative pain and the incidence of incisional hernias is certainly greater than that of a total laparoscopic approach. However, the laparoscopy assisted technique has the advantage that it can be offered to most patients.

3. Hand-assisted laparoscopy is now established as a third approach. The advantage of this procedure is that the surgeon can insert one hand into the abdomen during laparoscopic surgery without losing the pneumoperitoneum. The so-called handport is inserted through a mini-incision of 7 cm and all the essential steps of the operation are performed under pneumoperitoneum. This procedure can also be offered to the majority of patients. If the working incision for the handport is made in the lower abdomen, post-operative pain and the incidence of incisional hernia is as low as in a total laparoscopic approach.

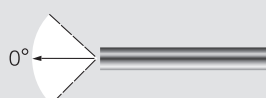
The laparoscopic treatment of complications caused by endoluminal stent implants will play an increasing role in the future. In this case, total laparoscopy can be used, for example, to open the aneurysmal sac, to remove a thrombus, or to repair a lumbar artery feeding an endoleak. Graft migration can also be prevented by applying special suturing techniques.

Vascular surgery now avails of the special instrumentation required to offer laparoscopic techniques to patients with aortoiliac occlusive disease or infrarenal aneurysms. It can be concluded that, with these minimally invasive techniques, postoperative recovery of patients is faster as compared to conventional surgery.

*Prof. R. KOLVENBACH M. D.,
Augusta Krankenhaus Düsseldorf,
Germany*

Basic Set see chapter 1

Diameter 10 mm, length 31 cm



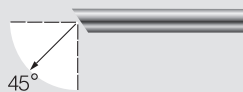
49003 AA

HOPKINS® Straight Forward Telescope 0°,
enlarged view, diameter 10 mm, length 31 cm,
autoclavable, fiber optic light transmission incorporated,
color code: green



49003 BA

HOPKINS® Forward-Oblique Telescope 30°,
enlarged view, diameter 10 mm, length 31 cm,
autoclavable, fiber optic light transmission incorporated,
color code: red



49003 FA

HOPKINS® Telescope 45°, enlarged view,
diameter 10 mm, length 31 cm, **autoclavable**, fiber optic
light transmission incorporated,
color code: black

Fiber Optic Light Cables 495 NB/NCS/NE recommended

Fiber Optic Light Cables for use with HOPKINS® Telescopes see chapter 2, page 42

Holding Systems for use with Telescopes see chapter 11, HOLDING SYSTEMS AND TRAINING MODELS

Units and Accessories see chapter 20, UNITS

Container for Sterilization and Storage of Telescopes see catalog HYGIENE



Recommended in combination with IMAGE1 S (CLARA and CHROMA modes)

Telescope with variable direction of view

Until now, surgeons had to choose in advance which telescope or direction of view to use in a procedure. Moreover, surgeons were restricted to the selected direction of view throughout the surgery or had to make an intraoperative telescope change.

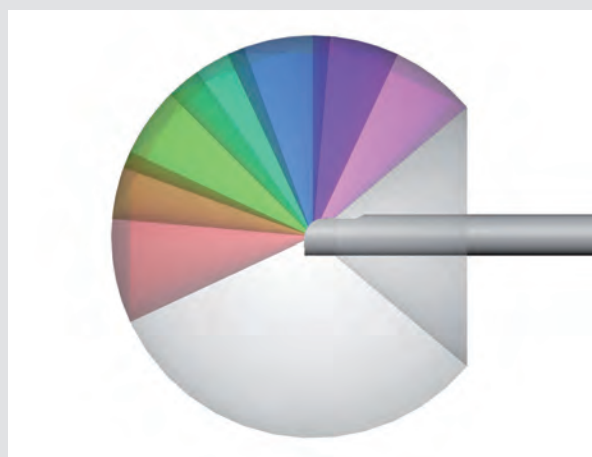
To prevent this predicament in the future, we developed the ENDOCAMELEON®: a telescope that allows you to adjust the desired direction of view – also during surgery – between 0° and 120°.

The ENDOCAMELEON® combines the user comfort of the proven HOPKINS® telescope with the advantages and potential of a telescope featuring a variable direction of view – offering you the quality you expect from KARL STORZ telescopes.

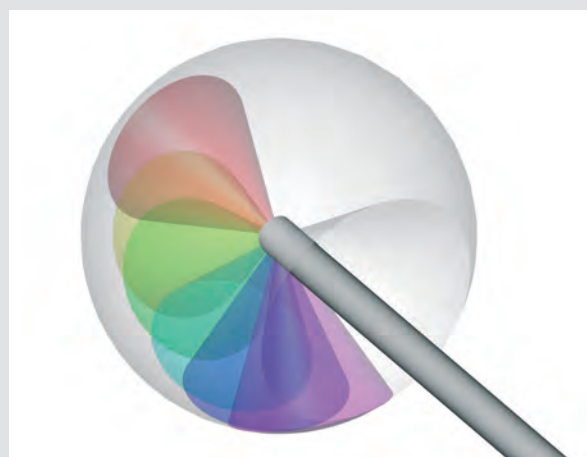
The innovative ENDOCAMELEON® technology is not difficult to use and, due to the external moving parts, does not take up extra intracorporal space. Handling remains straightforward and ergonomic. Image alignment is the same as rigid telescopes: the direction of view is selected by simply turning the adjustment knob, making the system very intuitive to use. As the ENDOCAMELEON® is equipped with a standard eyepiece, the variable direction of view benefits all standard camera systems. Thanks to the HOPKINS® rod lens system, ENDOCAMELEON® also offers image quality that enables a useful application of three-chip cameras or HD camera systems.

To have the direction of view best suited for each situation available at all times offers the surgeon a higher degree of safety. With the ENDOCAMELEON®, visual inspection of the entire surgical field is easily achieved. Instrument movement can be controlled throughout the entire procedure and hemorrhages in

previously inaccessible areas can be detected and controlled. With a simple turn of the adjusting knob, the ENDOCAMELEON® enables the user to easily select the direction of view between 0° and 120° to suit all OR requirements.



ENDOCAMELEON® with variable direction of view, lateral view



ENDOCAMELEON® with variable direction of view, isometric view

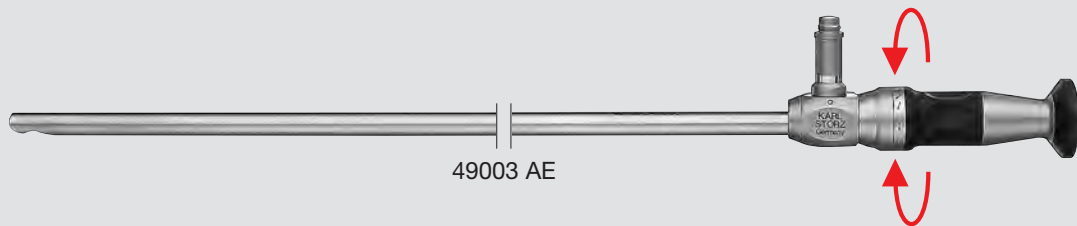
Diameter 10 mm, length 32 cm



Recommended in combination with IMAGE1 S (CLARA and CHROMA modes)

Special Features:

- Variable direction of view 0° – 120°
- HOPKINS® telescope with unique rod lens system
- Easy-to-use adjusting knob for selecting the direction of view
- Rigid sheath with a diameter of 10 mm



49003 AE

ENDOCAMELEON® HOPKINS® Telescope, diameter 10 mm, length 32 cm, **autoclavable**, variable direction of view 0° – 120°, with adjusting knob for selecting the direction of view, fiber optic light transmission incorporated, color code: gold

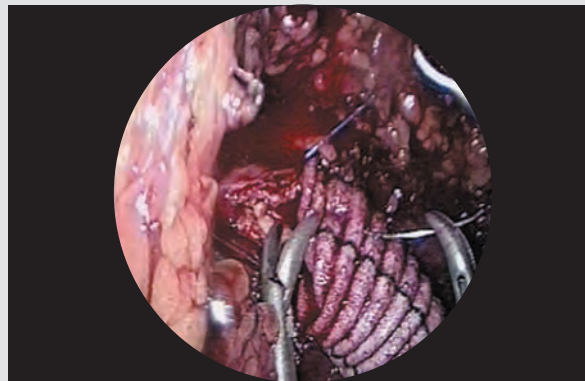





Fig. 1: Laparoscopic aortic surgery

Fiber Optic Light Cables 495 NB/NCS/NE recommended
Container for Sterilization and Storage of Telescopes see catalog HYGIENE

For use with telescopes and instruments size 10 mm

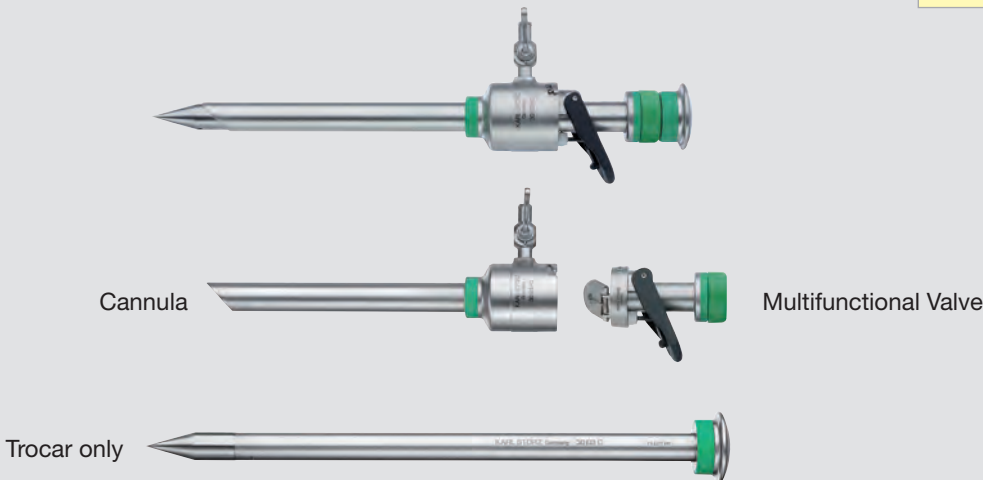




Size:		11 mm
Working length:		10 cm
Color code:		green
	Trocar, with pyramidal tip including: Cannula, with LUER-Lock connector Trocar only Valve Seal, for single use, package of 10	30103 GZG 30103 G6 30103 ZG 30103-XV10
	Trocar, with blunt conical tip including: Cannula, with LUER-Lock connector Trocar only Valve Seal, for single use, package of 10	30103 GNG 30103 G6 30103 NG 30103-XV10
	Trocar, with conical tip including: Cannula, with LUER-Lock connector Trocar only Valve Seal, for single use, package of 10	30103 GYG 30103 G6 30103 YG 30103-XV10

For **KARL STORZ trocars** only the individual components are numbered. The catalog number for the **entire assembled trocar**, as shown above in **bold print**, does not appear on the instrument.

Trocar and Reduction Sleeve

Size 11 mm



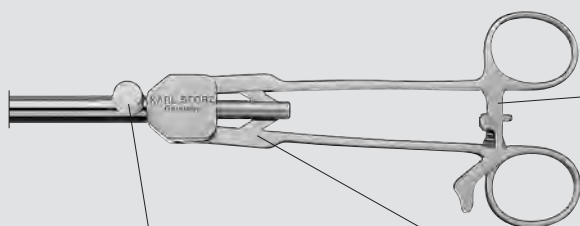
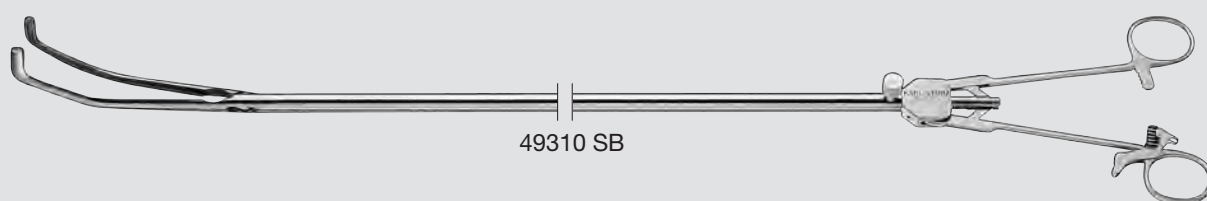
Size:		11 mm
Working length:		10.5 cm
Color code:		green
	Trocar , with conical tip including:	30103 MC
	Cannula , without valve, with insufflation stopcock	30103 H2
	Trocar only	30103 C
	Multifunctional Valve	30103 M1
Accessories	Reduction Sleeve , reusable, instrument diameter 5 mm, trocar cannula outer diameter 11 mm, color code: green 	30140 DB

For **KARL STORZ** trocars only the individual components are numbered. The catalog number for the **entire assembled trocar**, as shown above in **bold** print, does not appear on the instrument.

Endoscopic Vascular Clamps

Special Features:

- All vascular clamps are available as straight versions.
- The conical shape of the instruments and the round sheath enable problem-free percutaneous insertion.
- A maximum incision of max. 5 mm is necessary for inserting the vascular clamps.
- Gas loss during insertion is minimal so that the surgical workflow is hardly disturbed.
- The outer diameter of the sheath is 10 mm.



All the handles are equipped with a simple, but efficient securing mechanism to prevent unintentional opening of the clamps during the intervention.

The irrigation port on the sheath enables perfect hygienic preparation of the instruments.

Safety is the objective of every intervention. Safety is the reason for the robust design of the handle.

Endoscopic Vascular Clamps

Size 10 mm, length 30 cm



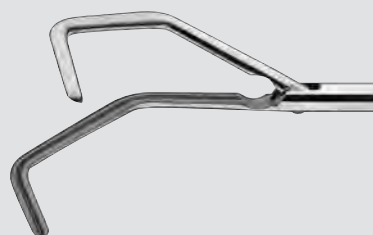
49310 VC

Vascular Clamp, jaws slightly curved, length of jaws 5 cm, straight sheath, with axial ring handle, ratchet with safety locking device, size 10 mm, length 30 cm



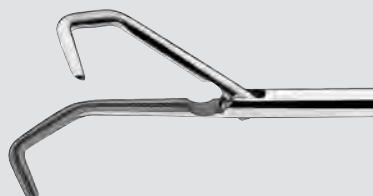
49310 SS

Vascular Clamp, straight jaws, length of jaws 7 cm, straight sheath, with axial ring handle, ratchet with safety locking device, size 10 mm, length 30 cm



49310 SB

SATINSKY Laparoscopic Vascular Clamp, long version, length of jaws 10 cm, depth of jaws 2.5 cm, straight sheath, with axial ring handle, ratchet with safety locking device, size 10 mm, length 30 cm



49310 SC

SATINSKY Laparoscopic Vascular Clamp, short version, length of jaws 8 cm, depth of jaws 2 cm, straight sheath, with axial ring handle, ratchet with safety locking device, size 10 mm, length 30 cm

This instrument was specially developed for clamping of calcified aortae.

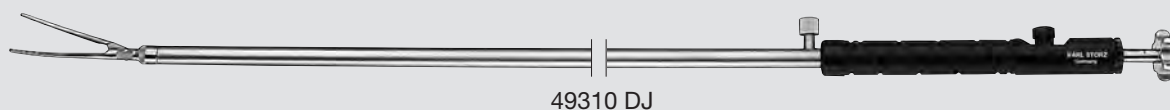
Endoscopic Vascular Clamps

Deployable Vascular Clamps

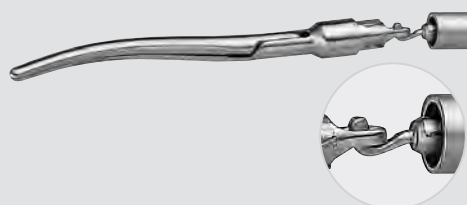
Size 10 mm
for use with trocars size 11 mm

A deployable vascular clamp has been specially developed by KARL STORZ for occluding the aorta. The clamp has atraumatic, detachable jaws that can be applied to the aorta with the help of a vascular clamp applicator. The hook-and-eye combination of jaw and applicator enables easy retrieval of the jaws without the

need for additional instruments. In addition to easy handling and secure vascular clamping, the instrument provides the surgeon with greater freedom of movement during the entire endoscopic procedure. The trocar that introduces the vascular clamp can be freely used once the jaws are positioned.



49310 DJ



49310 DJ

Vascular Clamp Applicator, size 10 mm, length 32 cm, for use with Deployable Vascular Clamps 49310 DH, 49310 DI and 49310 DM

including:

Inner Rod

Outer Sheath



49310 DH

Deployable Vascular Clamp, single action jaws, length of jaws 5 cm, size 10 mm, for use with Vascular Clamp Applicator 49310 DJ

49310 DI

Same, length of jaws 6 cm



49310 DM

Deployable Vascular Clamp, parallel-action jaws, length of jaws 7 cm, size 10 mm, for use with Vascular Clamp Applicator 49310 DJ

Components/Spare Parts see chapter 21

Endoscopic Vascular Clamps

CLICK'line® Grasping Forceps

Size 10 mm

Optional accessory for use with the deployable vascular clamp to hold the deployable vascular clamp firmly inside the abdominal cavity while the clamp

applicator is detached during introduction and deployment, or attached during clamp retrieval.



49531 DD

CLICK'line® Grasping Forceps,
rotating, double action jaws, for
grasping of deployable vascular
clamps, size 10 mm, length 36 cm
including:

Metal Handle, without ratchet

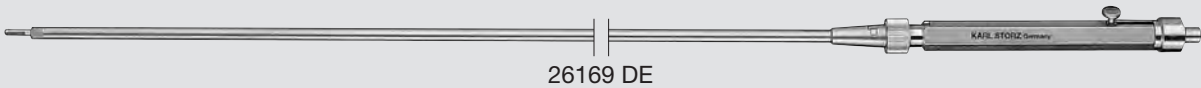
Metal Outer Sheath

Forceps Insert



Components/Spare Parts see chapter 21

Scalpel, Knife, Palpation Hook and Retractors



26169 DE



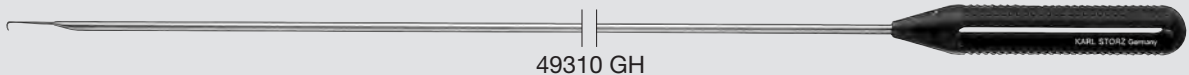
26169 DE

Laparoscopic Scalpel, round, including miniature blade, distendable and exchangeable, size 5 mm, length 30 cm



26169 DO

BERCI Micro Knife, pointed, retractable, size 5 mm, length 31 cm

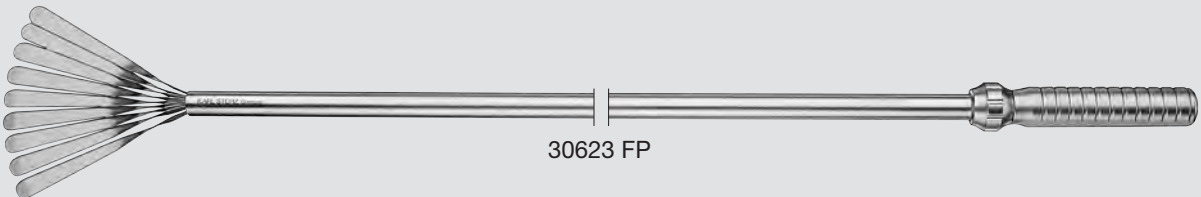


49310 GH



49310 GH

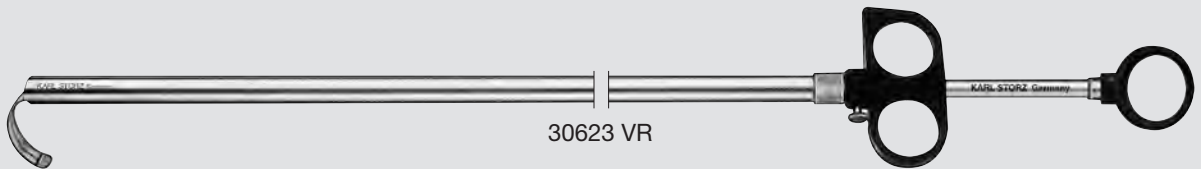
Palpation Hook, hook angled 90°, blunt, diameter 5 mm, working length 36 cm



30623 FP

30623 FP

Fan Retractor, dismantling, retractable, size 10 mm, length 36 cm



30623 VR

30623 VR

Retractor, dismantling, with variable curvature, blunt, size 10 mm, length 36 cm
including:
Handle
Outer Sheath
Insert

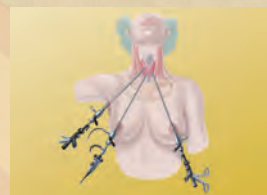
Components/Spare Parts see chapter 21

INSTRUMENTS FOR ENDOSCOPICALLY ASSISTED THYROIDECTOMY AND PARATHYROIDECTOMY

MICCOLI INSTRUMENTS FOR VIDEO-ASSISTED 357-362
THYROIDECTOMY AND PARATHYROIDECTOMY



STRIK INSTRUMENTS FOR THE EXTRACERVICAL 363-368
APPROACH FOR THYROID SURGERY,
ABBA METHOD

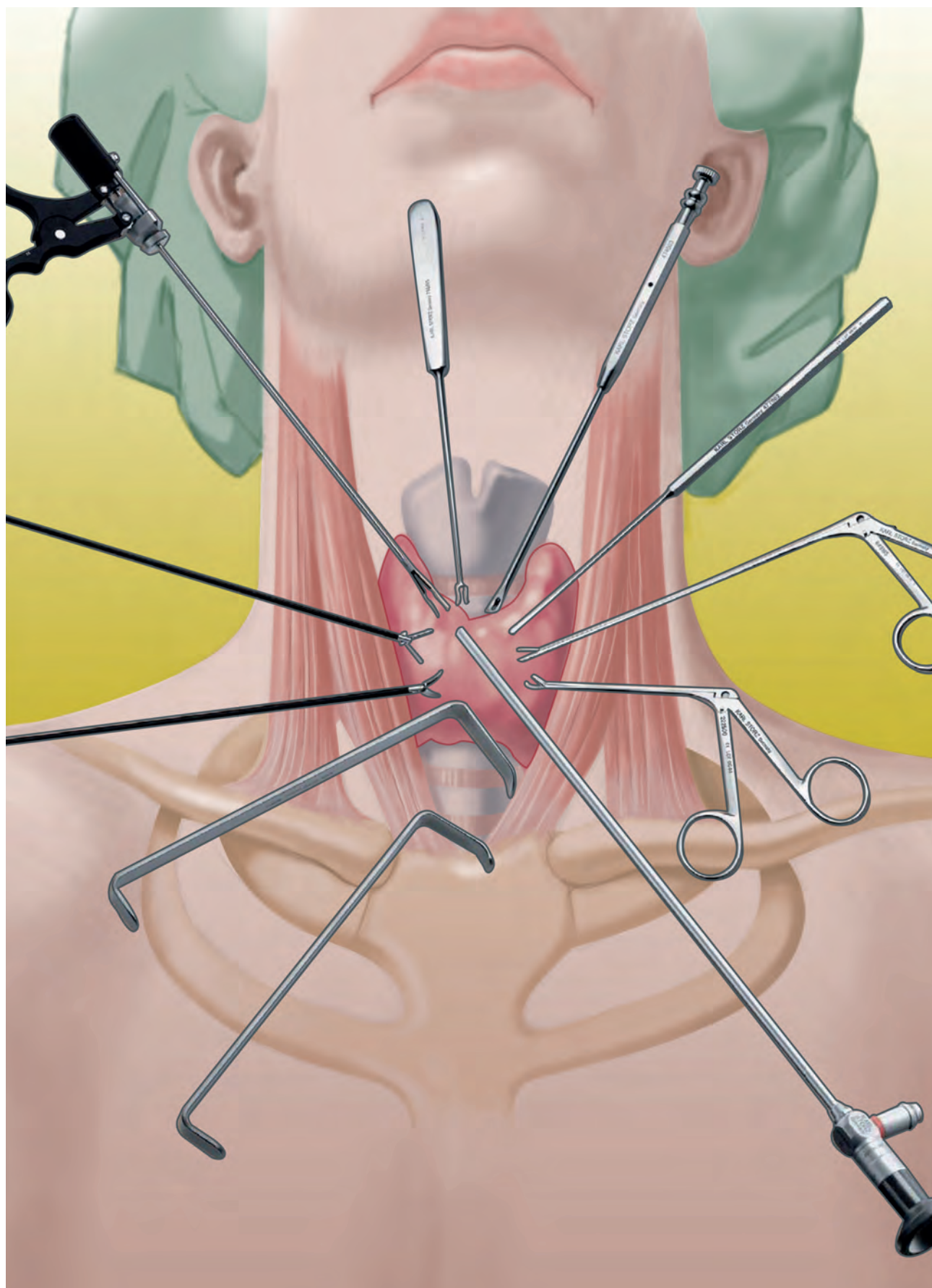


ACCESSORIES 369-370



MICCOLI Instruments for Video-Assisted Thyroidectomy and Parathyroidectomy

STORZ
KARL STORZ — ENDOSKOPE



Preparation of the Patient

The patient, under general endotracheal anesthesia, is placed in the supine position; the neck is not hyper-extended. The operative field is prepared in the same way as in conventional surgery. A sterile drape is positioned to protect the skin.

Preparation of the operative space

A 15 mm horizontal incision is performed about 2 cm above the sternal notch. Subcutaneous fat and platysma are carefully dissected to minimize bleeding.

The cervical linea alba is then identified and divided longitudinally at least 3 cm. The strap muscles are separated from the thyroid lobe by blunt dissection and then gently retracted with one small conventional retractor (order no. 801910 or 801911). A second retractor of this type is placed directly on the thyroid lobe following blunt dissection. Subsequently, both retractors are gently retracted medially and lifted up.

Dissection of the lobe from the strap muscles is performed completely through the skin incision using gentle retraction and conventional instruments.

Both of the retractors are used to maintain the operative space, facilitating insertion of a 30° 5 mm endoscope through the skin incision. Under direct endoscopic vision, dissection of the thyrotracheal groove is completed using small instruments (2 mm in diameter), including atraumatic elevators (order no. 477002 or 474002), a suction dissector (order no. 474003) and appropriate grasping forceps and scissors.

Ligature of the middle thyroid vein

It is particularly important to avoid both bipolar and monopolar electrocautery prior to exposing the inferior laryngeal nerve. Hemostasis is then achieved by means of small (3 mm) conventional vascular clips applied with a reusable applicator. The first vessel to be ligated is the middle vein, if present, or the small veins between the jugular vein and the thyroid capsule.

Complete retraction of the thyroid lobe is now possible, leaving the operative field ready for both video-assisted thyroid and parathyroid procedures.

Ligature of vascular pedicle

Retracting the superior pole inferiorly with a malleable hook (order no. 786505) and preparing the vessel with a spatula (order no. 477002/474004) exposes the upper pedicle of the thyroid. Vessels are then ligated by means of clips.

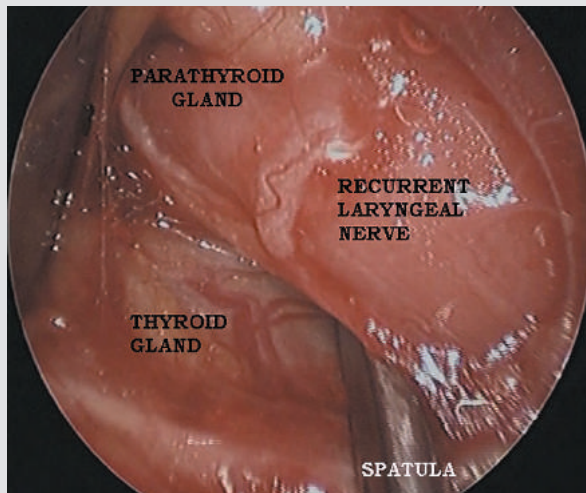
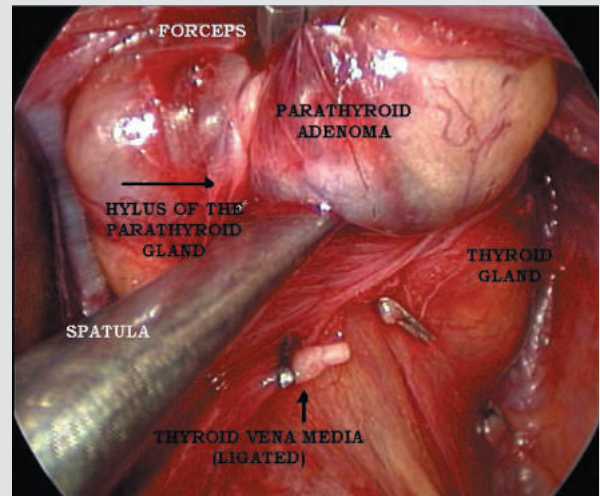
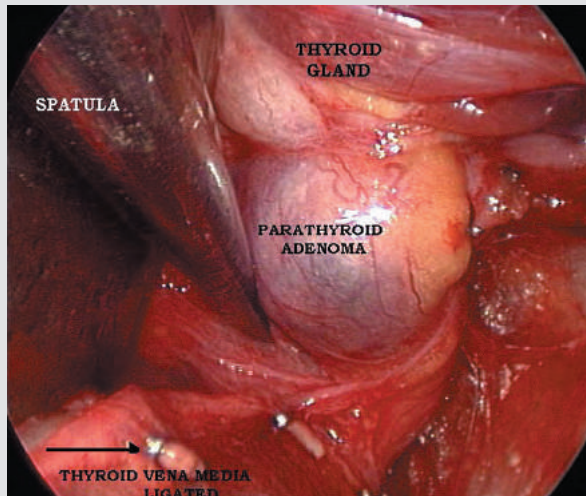
Preparation of the parathyroid hilus can also be obtained by loading the parathyroid adenoma on a hook (order no. 786505), thereby exposing the vessels for clip ligation.

*Prof. P. MICCOLI
University of Pisa, Italy*

Basic Set see chapter 1

A description of the procedure can be found on our homepage www.karlstorz.com

MICCOLI Instruments for Video-Assisted Thyroidectomy and Parathyroidectomy

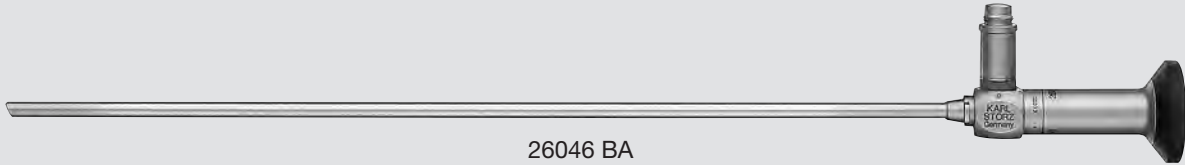


Prof. Paolo Miccoli,
U.O. Chirurgia Generale II
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Università di Pisa
Via Roma, 67 – Ospedale Santa Chiara
56100 Pisa – Italy

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Fax: 0039 050 331369
E-Mail: p.miccoli@dc.med.unipi.it
www.med.unipi.it/endochir/

MICCOLI Instruments for Video-Assisted Thyroidectomy and Parathyroidectomy

Diameter 5 mm, length 29 cm



26046 BA



26046 BA

HOPKINS® Forward-Oblique Telescope 30°, diameter 5 mm, length 29 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red



474003



474003

MICCOLI Suction Dissector, blunt, with stylet and cut-off hole, width 2 mm, length 19 cm (2 items recommended)



477002

477002 **HALLE-MICCOLI Elevator**, blunt, width 2 mm, length 19 cm (2 items recommended)

477004 **HALLE Elevator**, blunt, width 4 mm, length 19 cm

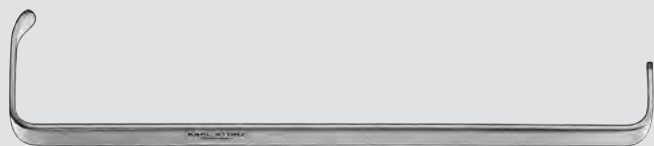
VITOM® system for open surgery with minimal access and further information on the use of the **VITOM®** system for open thyroidectomy see chapter 12

Container for Sterilization and Storage of Telescopes see catalog **HYGIENE**



786505

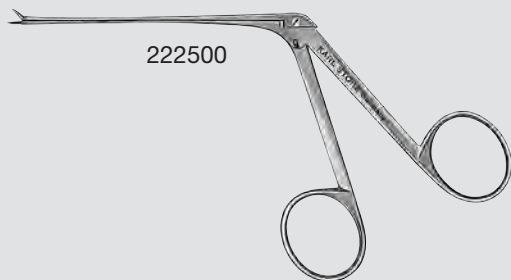
786505 MICCOLI **Vessels Suspend Hook**,
malleable, length 21 cm



801910

801910 MICCOLI **Retractor**, double-ended,
size 35 x 10 mm and 21 x 10 mm,
length 16 cm, (2 items recommended)

801911 **Same**, size 45 x 10 mm and
21 x 10 mm



222500



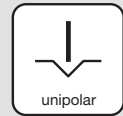
222500 BELLUCCI **Scissors**, incision length 8 mm,
working length 8 cm



649165 **Grasping Forceps**, rough serrated,
working length 15 cm

MICCOLI Instruments for Video-Assisted Thyroidectomy and Parathyroidectomy

Size 3.5 mm, length 20 cm



31151 MW



31151 UL

CLICK'line® REDDICK-OLSEN Dissecting and Grasping Forceps, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, robust, size 3.5 mm, length 20 cm including:

Plastic Handle, without ratchet

Outer Sheath, insulated

Forceps Insert



31151 MW

CLICK'line® Scissors, 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 20 cm including:

Plastic Handle, without ratchet

Outer Sheath, insulated

Scissors Insert



38851 ON



38851 ON

ROBI® Grasping Forceps, CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, with especially fine atraumatic serration, fenestrated, double action jaws, size 3.5 mm, length 20 cm, color code: light blue including:

ROBI® Plastic Handle

ROBI® Outer Sheath with Forceps Insert

Components/Spare Parts see chapter 21

**Instruments for the Extracervical
Approach for Thyroid Surgery**

STRIK ABBA Method



Instruments for the Extracervical Approach for Thyroid Surgery

STRIK ABBA Method

Introduction

Thyroid surgery has undergone a series of developments in recent years. Alongside the importance of correct medical indications and operative procedures, the recurrent nerve and the prevention of injury to this nerve remain in focus. Cosmesis is another aspect that is gaining increasing importance. The extracervical approach has been developed as an alternative procedure over a number of years. The relocation of the approach to a region that is less problematic cosmetically leads to a more widespread acceptance of this intervention.

Existing instrument sets for minimally invasive surgery can, to a large extent, be used for the ABBA method.

Method

The extracervical approach for the ABBA method is selected to the right of the anterior axillary line and bilaterally perimammarily (Fig. 1). The patient is positioned supine with both arms away from the body.

First a working channel is passed subcutaneously from the right axillary margin along the pectoral fascia as far as the platysma. A 6 mm trocar with a length of 20 cm is introduced just below the skin via a right perimammary incision, without injuring the mammary gland, and advanced over the clavicle into the prepared space under the platysma. Following the detachment of the platysma lobe from the larynx, a further trocar (6 mm) is introduced via the left perimammary approach. Whereas the right perimammary approach is utilized for the 5 mm HOPKINS® rod lens telescope, the axillary and the left perimammary approaches are used as working channels.

Detachment of the thyroid lobe usually starts at the inferior pole. The attached connective tissue is deflected bluntly and the vessels dissected using ultrasound as close to the organ as possible. Care must be taken not to compromise the blood supply when atraumatically displacing the parathyroid glands. Dissection can gradually be continued caudally and laterally along the rami of the inferior thyroid.

The superior parathyroid must be located in the orifice of the rami of the inferior thyroid and also bluntly deflected without compromising the blood flow. After

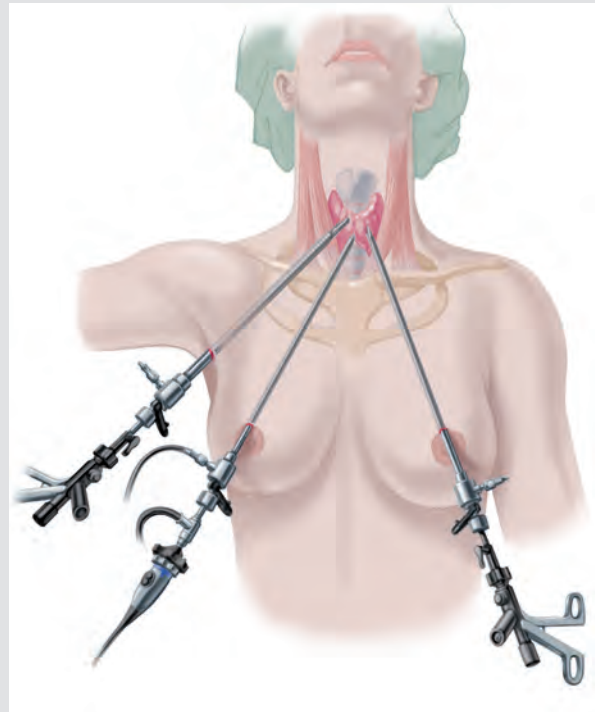


Fig. 1: Approaches

identifying the nerve, the thyroid gland can be detached from its tracheal attachment site. From the caudal direction, the superior pole can then be mobilized following detachment of the thyroid lobe. Once the thyroid lobe has been completely excised, it is generally removed via the axillary approach.

Indications

The indication spectrum is the same as that for standard thyroid surgery. In addition to nodular goiters, indications also include adenomata and cold nodules requiring an histological examination.

A conventional procedure is still recommended for cytological proof of malignancy. Indications such as Basedow's disease or Hashimoto's thyroiditis are, however, also suitable for this technique.

Basic Set see chapter 1

A description of the procedure can be found on our homepage www.karlstorz.com

Instruments for the Extracervical Approach for Thyroid Surgery

STRIK ABBA Method

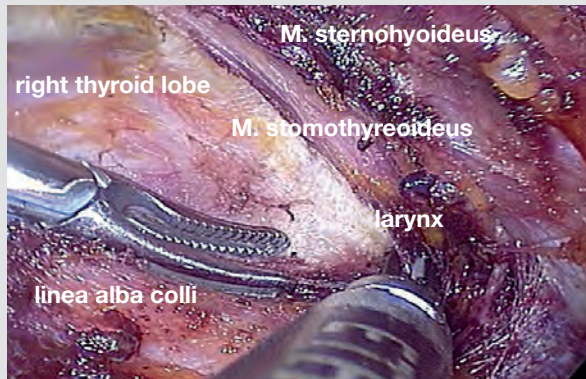


Fig. 2: Detachment of the neck muscles up to the larynx and bilaterally to the sternocleidomastoid muscles



Fig. 3: Removal of the excised thyroid lobe via the axillary approach

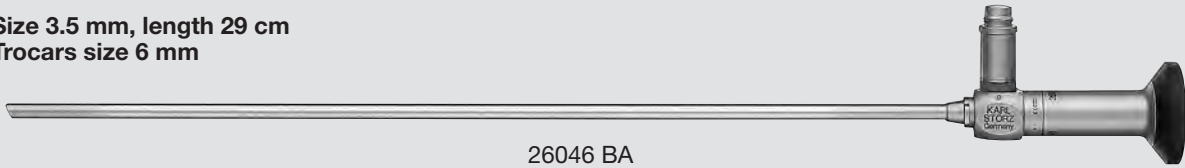


Fig. 4: Bimamillary and axillary approach. Cosmetic results 14 days postoperative: approach incisions are now barely visible

Instruments for the Extracervical Approach for Thyroid Surgery

STRIK ABBA Method

Size 3.5 mm, length 29 cm
Trocars size 6 mm



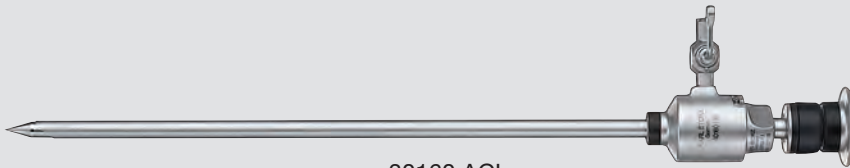
26046 BA



26046 BA

HOPKINS® Forward-Oblique Telescope 30°, diameter 5 mm, length 29 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red

Size 6 mm



30160 ACL



30160 ACL

Trocar, with conical tip, size 6 mm, working length 20 cm, color code: black

including:

Cannula, without valve, with insufflation stopcock

Trocar only

Automatic Valve

30160 MCL

Trocar, with conical tip, size 6 mm, working length 20 cm, color code: black

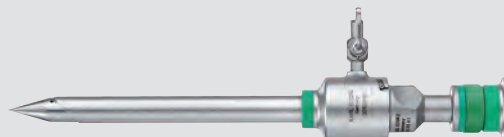
including:

Cannula, without valve, with insufflation stopcock

Trocar only

Multifunctional Valve

Size 11 mm



30103 AC



30103 AC

Trocar, with conical tip, size 11 mm, working length 10.5 cm, color code: green

including:

Cannula, without valve, with insufflation stopcock

Trocar only

Automatic Valve

30103 MC

Trocar, with conical tip, size 11 mm, working length 10.5 cm, color code: green

including:

Cannula, without valve, with insufflation stopcock

Trocar only

Multifunctional Valve

Container for Sterilization and Storage of Telescopes see catalog HYGIENE
Components/Spare Parts see chapter 21

Instruments for the Extracervical Approach for Thyroid Surgery

STRIK ABBA Method



30140 DB

- 30140 DB **Reduction Sleeve**, reusable, instrument diameter 5 mm, trocar cannula outer diameter 11 mm, color code: green
- 30140 KA **Reduction Sleeve**, reusable, instrument diameter 3 mm, cannula outer diameter 6 mm, color code: black

Size 3.5 mm, length 20 cm



31151 MW



- 31151 MD **CLICK'line® KELLY Dissecting and Grasping Forceps**, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, size 3.5 mm, length 20 cm including:
Plastic Handle, without ratchet
Outer Sheath, insulated
Forceps Insert



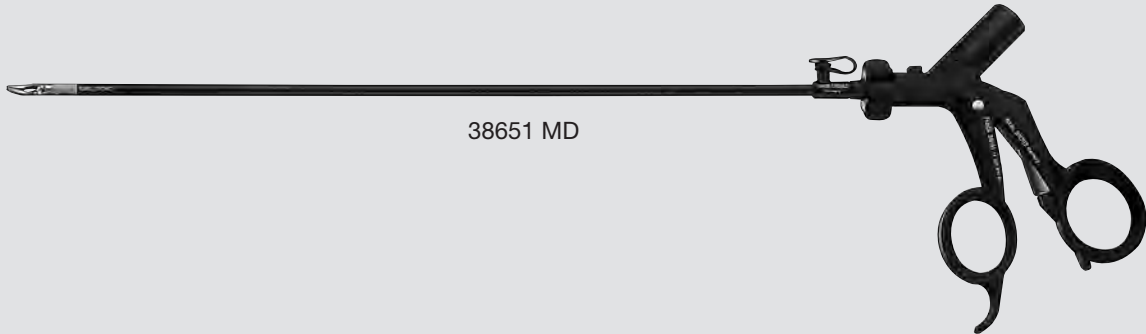
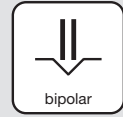
- 31151 MW **CLICK'line® Scissors**, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, serrated, curved, conical, size 3.5 mm, length 20 cm including:
Plastic Handle, without ratchet
Outer Sheath, insulated
Scissors Insert

Components/Spare Parts see chapter 21

Instruments for the Extracervical Approach for Thyroid Surgery

STRIK ABBA Method

Size 5 mm, length 36 cm



38651 MD



38651 MD

ROBI® KELLY Dissecting and Grasping Forceps, CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, double action jaws, especially suitable for dissection, size 5 mm, length 36 cm, color code: light blue

including:

ROBI® Plastic Handle, without ratchet

ROBI® Metal Outer Sheath

ROBI® Forceps Insert



38651 ON

ROBI® Grasping Forceps, CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, double action jaws, with especially fine atraumatic serration, fenestrated jaws, size 5 mm, length 36 cm, color code: light blue

including:

ROBI® Plastic Handle, without ratchet

ROBI® Metal Outer Sheath

ROBI® Forceps Insert



38651 MW

ROBI® METZENBAUM Scissors, CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, double action jaws, curved jaws, slender scissor blades, for cutting and bipolar coagulation, size 5 mm, length 36 cm, color code: light blue

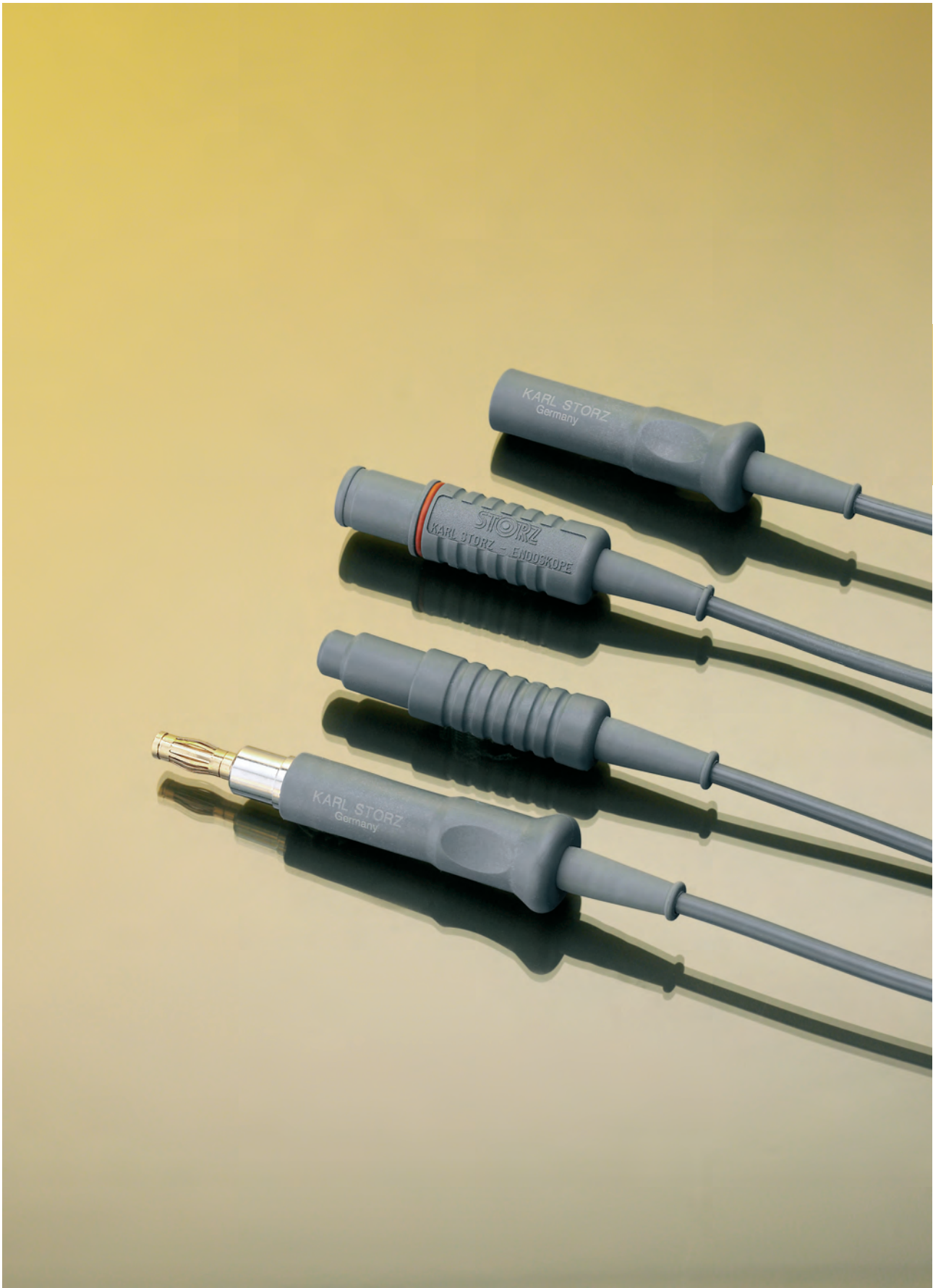
including:

ROBI® Plastic Handle, without ratchet

ROBI® Metal Outer Sheath

ROBI® Scissors Insert

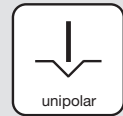
Components/Spare Parts see chapter 21



Accessories

Unipolar and Bipolar High Frequency Cords

Unipolar High Frequency Cords







KARL STORZ
Instrument High Frequency
Surgery Units

	26002 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for models KARL STORZ, Erbe type T, older models and Ellman
	26004 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for use with Martin HF units
	26005 M	Unipolar High Frequency Cord , with 5 mm plug, length 300 cm, for AUTOCON® II 400 SCB system (111, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, AUTOCON® system (50, 200, 350) and Erbe type ICC
	26006 M	Unipolar High Frequency Cord , with 8 mm plug, length 300 cm, for use with AUTOCON® II 400 SCB system (112, 116) and Valleylab models

Bipolar High Frequency Cords



KARL STORZ
Instrument High Frequency
Surgery Units

	26176 LE	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (111, 113, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, Coagulator 26021 B/C/D, 860021 B/C/D, 27810 B/C/D, 28810 B/C/D, AUTOCON® series (50, 200, 350), Erbe-Coagulator, T and ICC series
	26176 LM	Bipolar High Frequency Cord , length 300 cm, for use with Martin HF units
	26176 LV	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (112, 114, 116, 122, 125), AUTOCON® II 200, AUTOCON® II 80 and Valleylab coagulators
	26176 LW <i>NEW</i>	Bipolar High Frequency Cord , length 300 cm, pin distance on unit side 22 mm, for use with high frequency surgical units with bipolar sockets with 22 mm pin distance

Please note: All high frequency cords of this page are delivered with a length of 300 cm. If a length of 500 cm is requested please add letter **L** to the part number, e. g. 26002 ML, 26176 LVL.

GYNECOLOGY

UTERINE CANNULAS, UTERINE GRASPING FORCEPS 372



UTERINE MANIPULATORS 373-389



VAGINAL AND RECTAL PLUGS 390



C.C.L. VAGINAL EXTRACTORS 391-393



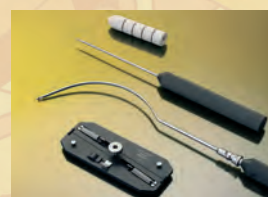
UNIPOLAR LOOPS FOR LAPAROSCOPIC SUPRACERVICAL HYSTERECTOMY (LASH) AND BIPOLAR LOOPS 394-399



ACCESSORIES FOR LAPAROSCOPY 400-403



INSTRUMENT SET FOR LAPAROSCOPICALLY ASSISTED CREATION OF A NEOVAGINA 404-406



Uterine Cannula, Uterine Grasping Forceps

for laparoscopy and pertubation

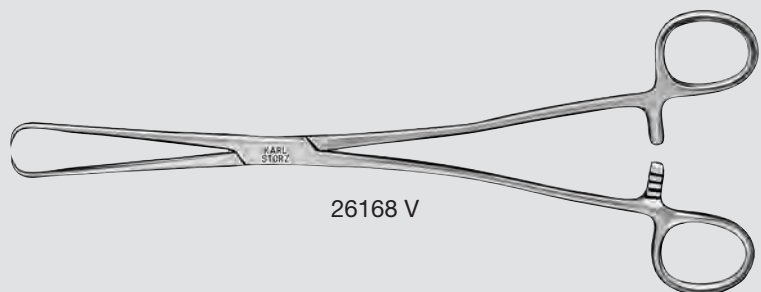


26168 UN



26168 UN

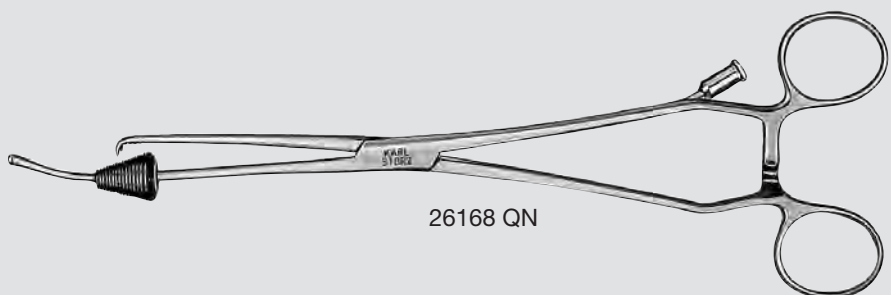
COHEN Uterine Cannula, with 1 large cone
26168 UL and small cone 26168 US, spring-
loaded fixation for Uterine Tenaculum Forceps
26168 V, with LUER-Lock adaptor for cleaning



26168 V

26168 V

Tenaculum Forceps, length 22 cm



26168 QN



26168 QB

QUINONES Uterine Grasping Forceps,
blunt jaws, with 1 large and small cone, with
channel for pertubation, length 24 cm



26168 QN

QUINONES-NEUBÜSER Uterine Grasping Forceps,
toothed jaws, with 1 large and small cone,
with channel for pertubation, length 24 cm

Uterine Manipulators

Laparoscopic hysterectomy is becoming increasingly common in gynecology. The uterine manipulator is a key instrument in this procedure, providing the correct amount of tissue tension needed for any anatomical surgery. Furthermore, it can be used to mobilize the uterus and to prevent injury to adjoining organs, such as the bowel, bladder or ureter by moving them away safely. Moving the uterine manipulator in the cranial direction distances the uterine artery away from the ureter, allowing subsequent transection and bipolar coagulation of the artery.

With the aid of the integrated cap, the manipulator can be used visualize the fornix in Total Laparoscopic Hysterectomy (TLH). This allows the operating surgeon to visually and palpably identify the site of the vaginal opening.

The uterine manipulator also proves useful for organ-sparing laparoscopic or reproductive surgical procedures such as, for example, chromopertubation.

Thanks to some new innovations, the KARL STORZ range of uterine manipulators now includes six different models. Each model has its own particular features and functions.

Each uterine manipulator is equipped with caps as well as spiral and working inserts in various sizes and can thus be adapted to suit various anatomical structures.



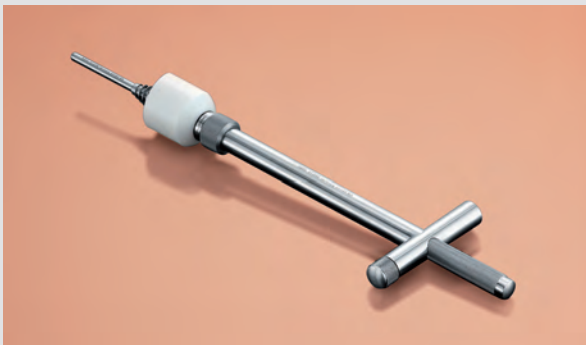
Uterine Manipulators

Overview



Uterine Manipulator, CLERMONT-FERRAND model

The uterine manipulator, CLERMONT-FERRAND model, can be used for **all gynecological laparoscopic interventions**. During TLH, the manipulator allows exact delineation of the fornix while opening the vagina. A special sealing system with silicone rings prevents the leakage of distension gas and maintains pneumoperitoneum. Various lock-in positions on the handle ensure precise deflection between 0° and 90°.



HOHL Uterine Manipulator

The HOHL uterine manipulator was specially developed for use in Total Laparoscopic Hysterectomy (TLH). It can be screwed in and securely attached to the cervix using a special spiral insert. An appropriate cap is subsequently placed over the cervix to delineate the fornix and to seal the vagina while it is opened.



DONNEZ Uterine Manipulator

The DONNEZ uterine manipulator can be used for total laparoscopic or supracervical hysterectomy. The narrow atraumatic probe tip eliminates the need for dilation of the cervical canal which reduces trauma to the cervix. Handling and cleaning is very simple as the manipulator only comprises three parts.

Uterine Manipulators

Overview



KECKSTEIN Uterine Manipulator

The KECKSTEIN uterine manipulator can be used for all gynecological laparoscopic interventions, including chromopertubation. This manipulator allows an anteversion of 95° and a retroversion of 30°, whereas the angulation is locked steplessly. Thanks to its unique function, the cap can be angled together with the spiral insert and working insert.



MANGESHIKAR Uterine Manipulator

The MANGESHIKAR uterine manipulator can be used for all gynecological laparoscopic procedures. The rotary wheel (proximal) can be used to open the integrated forceps and to attach it to the portio. During TLH, an appropriate cap is pushed forward distally to delineate the fornix when removing the uterus.



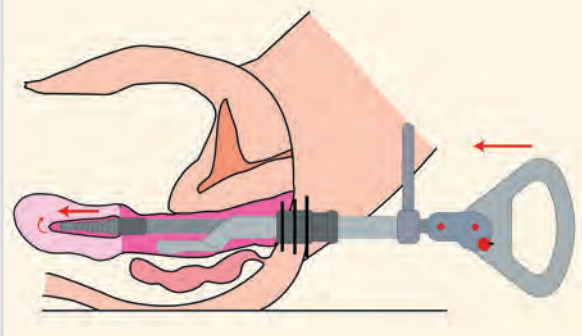
TINTARA Uterine Manipulator

Atraumatic inserts make the TINTARA uterine manipulator ideal for organ-sparing surgery. The manipulator can be used for all indications in gynecological laparoscopy, except TLH, and for chromopertubation. Antelexion, retroflexion and lateral mobilization of the uterus up to 90° is possible by sliding the control knob. The manipulator is fixed in place with a tenaculum forceps that is hooked to the portio and can be operated with one hand.

Uterine Manipulator

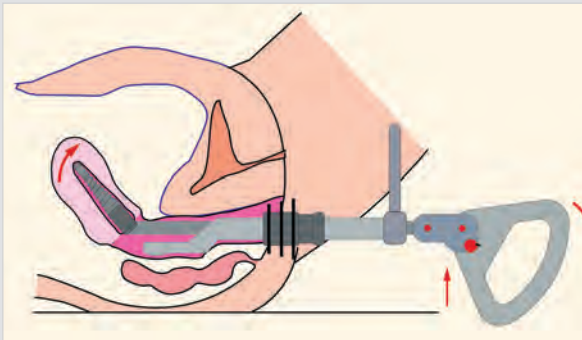
CLERMONT-FERRAND Model

For mobilization of the uterus, identification of the vaginal fornices and sealing of the vagina during hysterectomy



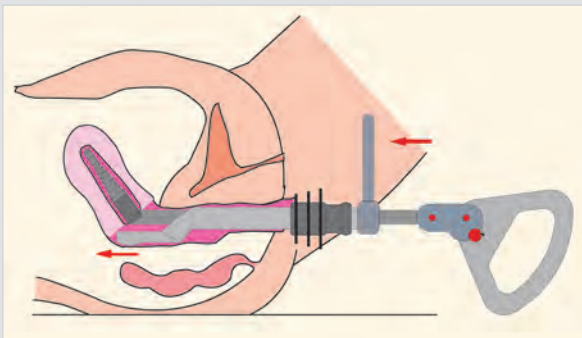
Insertion of the instrument

After the patient has been prepared (drapes positioned and the vagina disinfected) and the cervix has been dilated up to bougie no. 9, the instrument is aligned, after being locked in the axial position with the snap-in mechanism (intra-uterine rod in instrument axis). The manipulator is inserted into the cervix and then the intrauterine rod is turned clockwise until the hinge head gently touches the cervix.



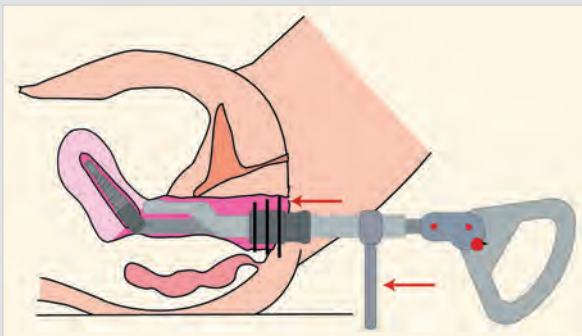
Mobilization of the uterus

When the instrument has been locked, pulsion and lateroversion movements are possible in the axial position or by using the curvature of the intra-uterine rod. A graduated snap-in mechanism enables the manipulator to be locked in 5 different positions (0°, 30°, 45°, 60° and 90°). Unrestricted motion of the uterus manipulator is possible by shifting the snap-in release button which is mounted on the handle.



Identification of the vaginal fornices

The uterus is held in the desired position by the manipulator handle and, if necessary, locked with the snap-in mechanism. Identification of the fornix can be carried out by pushing the manipulator rod forward. This rod is located on the side opposite the anatomical blade. In order to identify the posterior fornix, for example, the uterus has to be brought into the anteversion position and the manipulator rod, pointing vertically upwards, has to be pushed forward.



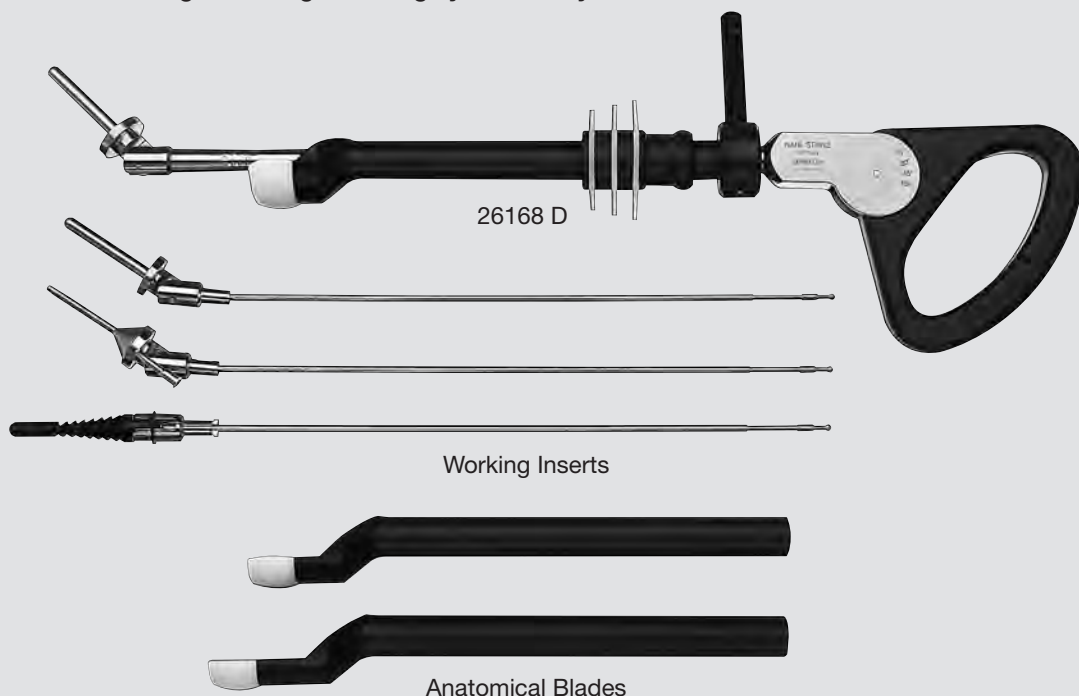
Sealing

The escape of CO₂ has to be prevented when opening the fornix. For this purpose, the silicone seals are inserted into the vagina by pushing them along the axis of the instrument. In this way, pneumostasis is ensured.

Uterine Manipulator

CLERMONT-FERRAND Model

For mobilization of the uterus, identification of the vaginal fornices and sealing of the vagina during hysterectomy



26168 D Uterine Manipulator, CLERMONT-FERRAND model

including:

Handle, with fixation screw

Manipulator Rod

Sealing Cylinder

Silicone Seal, package of 3 (3 sizes)

Sheath

Working Insert, conical, with thread, medium

Working Insert, atraumatic, diameter 7 mm, length 50 mm

Working Insert, with connector for chromopertubation, atraumatic, diameter 4 mm, length 40 mm

Anatomical Blade, short, diameter 36 mm, length 48 mm

Cleaning Adaptor

Recommended Accessories

	26168 DF	Working Insert , conical, with thread, short
	26168 DH	Same , long
NEW	26168 DO	Working Insert , atraumatic, diameter 7 mm, length 60 mm
NEW	26168 DQ	Working Insert , with connector for chromopertubation, atraumatic, diameter 4 mm, length 60 mm
NEW	26168 DJ	Attachment with Cap , diameter 28 mm, length 43 mm
	26168 DM	Anatomical Blade , medium, diameter 36 mm, length 58 mm
	26168 DL	Anatomical Blade , long, diameter 36 mm, length 68 mm

Components/Spare Parts see chapter 21

HOHL Uterine Manipulator

In recent years, we developed a technique for endoscopic hysterectomy that fulfills the requirements for a reliable, atraumatic procedure with reduced blood loss. Since we believe hybrid surgery (laparoscopically assisted vaginal hysterectomy) makes the procedure more complicated, our goal has been to perform the surgery using only laparoscopic techniques. Additionally, hybrid procedures are not a true alternative to time-proven vaginal hysterectomies. The key instrument for our procedure is the HOHL uterine manipulator (Figs. 1, 2). We developed this device so it can be tightly screwed into the uterine cervix, providing the correct amount of tissue stretching needed for any anatomical surgery. Additionally, any adjoining organs in danger of being injured, such as the bladder or ureter, can be moved safely away.

Cranial displacement of the uterus eliminates the need for bladder dissection, ensuring the bladder remains neurologically intact (Fig. 2).

This cranial displacement permits a true intrafascial hysterectomy without destroying the fascia ring (fascia endopelvina), thereby preventing postoperative enteroceles and prolapse of the vaginal stump. Located exactly at the transition between the vagina and cervix, the cap permits the reliable, bloodless dissection of the

vagina through bicoagulation and electrical dissection of the ligamenta cardinalia and sacrouterina (Figs 3, 4). Even after the vagina has been dissected, the cap continues to provide a seal, preventing intraabdominal CO₂ gas loss through the vagina. Once the vagina has been completely dissected, the uterus can be withdrawn into the vagina where it continues to act as a seal until laparoscopic closure. If the uterus is very large, preliminary laparoscopic morcellation must be performed using a device such as the STEINER electromechanical morcellator. In most cases, residual morcellation can be performed vaginally once the vagina has been dissected and all ligaments and vessels severed. Three cervical portio caps of different sizes allow the HOHL uterine manipulator to be used not only in women with a narrow vagina and small cervix but also in women with a very large uterine cervix. The manipulator can be fixed in place in both narrow and wide cervical channels using three different spiral threads. Different probe sizes accommodate the full range of potential uterine sizes.

*Prof. Dr. med. M. HOHL,
Baden, Switzerland*

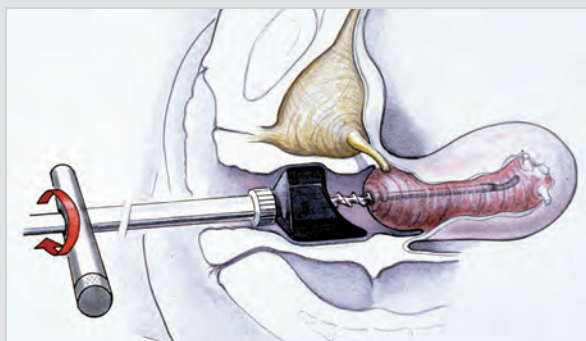


Fig. 1: With its worm-like thread, the HOHL uterine manipulator screws tightly into the cervix.



Fig. 2: Tightening the uterus moves the bladder and ureters out of the way. The tissue is then stretched.

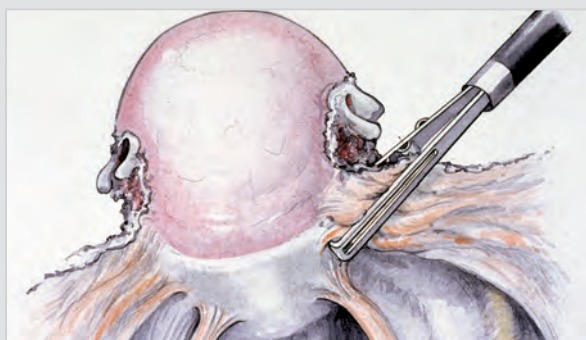


Fig. 3: Reliable bicoagulation of vascularized ligaments on the cervical portio cap.

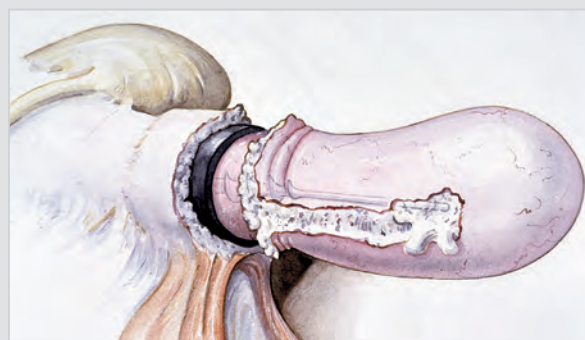
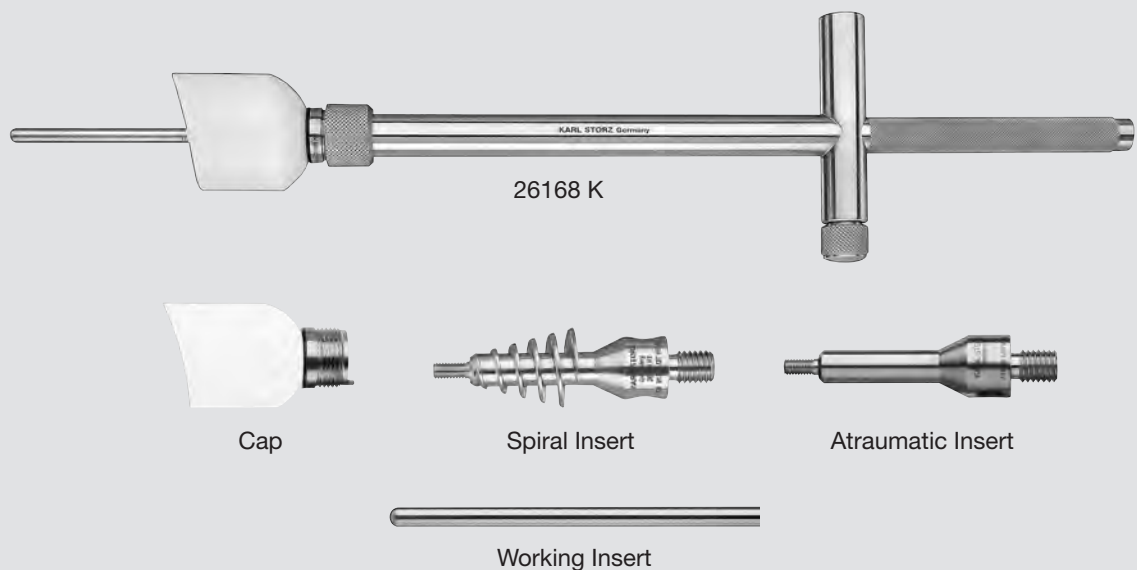


Fig. 4: Electrosurgical, bloodless dissection of ligaments and vaginal tissue on the cervical portio cap. Intrafascial hysterectomy fully preserves the fascia ring.

HOHL Uterine Manipulator



26168 K

HOHL Uterine Manipulator

including:

Handle

Manipulator Rod

Cap, diameter 40 mm, length 30 mm

Cap, diameter 35 mm, length 30 mm

Cap, diameter 32 mm, length 30 mm

Spiral Insert, diameter 20 mm

Spiral Insert, diameter 15 mm

Working Insert, diameter 6 mm, length 60 mm

Working Insert, diameter 6 mm, length 80 mm

Working Insert, diameter 6 mm, length 100 mm

Key, for spiral insert

Recommended Accessories

26168 KP

Spiral Insert, large, diameter 25 mm

26168 KH

Working Insert, diameter 6 mm, length 40 mm

26168 KN

Working Insert, diameter 6 mm, length 30 mm

NEW

26168 KQ

Atraumatic Insert, diameter 8 mm, length 45 mm

Components/Spare Parts see chapter 21

HOHL Uterine Manipulator

**Grasper with atraumatic insert
for use with HOHL uterine manipulator**

Model for subtotal hysterectomy and cervical carcinoma

In the case of cervical cancer, it is difficult or often not possible to firmly apply the HOHL manipulator to the cervix with a spiral insert for technical reasons. This is why another fixation system was developed which, similar to a bullet forceps, firmly grasps the outer surface of the cervix. This ensures a secure and stable connection between the manipulator and the uterus.

Short and atraumatic inserts avoid perforation of the uterus and also allow the use of instruments for subtotal hysterectomy.

*Prof. Dr. med. M. HOHL,
Baden, Switzerland*



26168 KO



Working Inserts



Hand Wheel

NEW 26168 KO

Manipulator Probe, with atraumatic working insert and grasper

including:

Working Insert, diameter 4 mm, length 3 cm

Working Insert, diameter 4 mm, length 4 cm

Working Insert, diameter 4 mm, length 6 cm

Hand Wheel

Components/Spare Parts see chapter 21

DONNEZ Uterine Manipulator

Uterine manipulators have several fields of application:

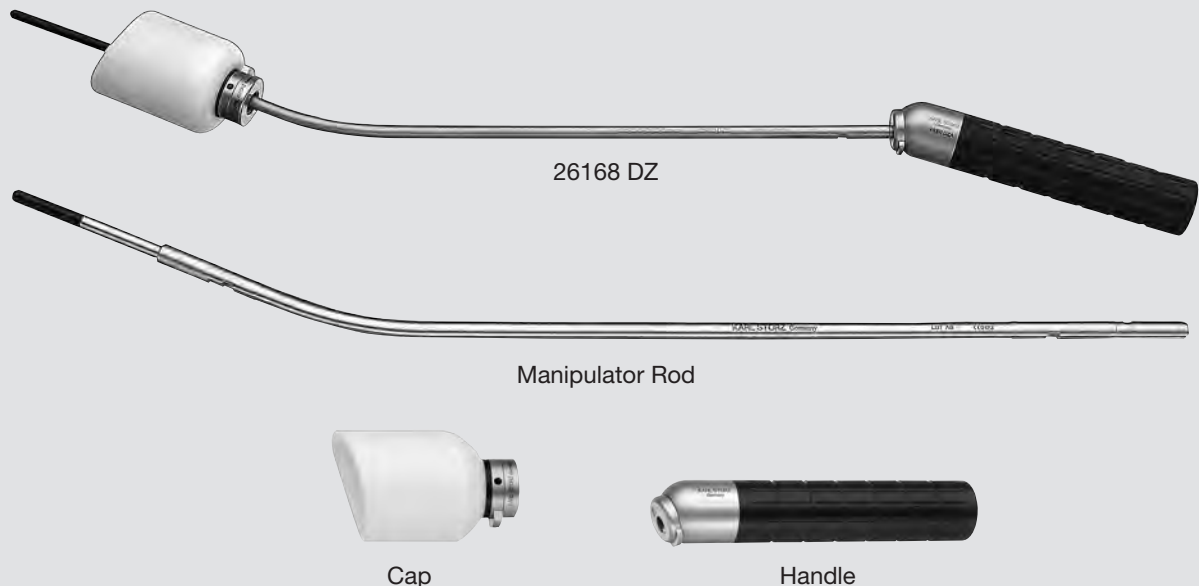
- Uterine mobilization (anteversion, retroversion and lateral movement) for optimal exposure of the surgical field
- Visualization of the vagina and the cervix to allow separation during laparoscopic hysterectomy

The most important requirements when designing the new uterine manipulator was to obtain an instrument that would:

- Clearly expose the vaginal fornix
- Be easy to handle and allow the use of unipolar current.

The new DONNEZ uterine manipulator was designed to be safer, more convenient and more cost-effective than previous models. This innovative uterine manipulator was specifically developed for use during total or subtotal laparoscopic hysterectomy to enable sectioning the vagina or cervix, i.e., using unipolar scissors.

*Prof. J. DONNEZ,
Brussels, Belgium*



26168 DZ DONNEZ Uterine Manipulator

including:

Handle

Manipulator Rod, including Working Inserts 6290495 (diameter 4 mm, length 22 mm), 7821391 (diameter 5.5 mm, length 42 mm) and 7904791 (diameter 4 mm, length 52 mm)

Cap, diameter 34 mm, length 36 mm

Cap, diameter 24 mm, length 36 mm

Cap, diameter 42 mm, length 36 mm

Components/Spare Parts see chapter 21

The use of a uterine manipulator can considerably simplify laparoscopic surgery in the lesser pelvis. Complex surgical sites, deep infiltrating endometriosis or large uteri often make access to the operative field difficult. This results in more complex procedures (long operating times, conversion to laparotomy etc.) as well as greater surgical risks. The versatile and relatively light KECKSTEIN uterine manipulator makes gynecological surgery in the lesser pelvis easier and safer.

Presentation of the operative field during hysterectomy as well as conservative surgery is greatly enhanced in comparison to conventional manipulators thanks to the special configuration of the movable part at the instrument tip (applicator). Individually configurable inserts, including hysterectomy caps, offer the operating surgeon completely new surgical possibilities, especially "if it proves difficult".

Benefits:

- Suitable for all interventions in gynecological laparoscopy
- Maximum mobility (95° anteflexion/30° retroflexion): Cap can also be inserted at an angle to allow precise surgical steps
- Various accessories enable adjustment to various anatomical structures
- Easy to use due to fewer components
- Ergonomic handle design
- Lightweight

Using the manipulator for conservative surgery

Adhesions and deep infiltrating endometriosis

The manipulator can also be used with an atraumatic insert – with or without a cap – for conservative surgery and particularly to treat adhesions and deep infiltrating endometriosis. Moreover, the uterine manipulator considerably simplifies visualization of the Douglas pouch and the posterior uterine wall as well as the posterior and anterior vaginal fornices. It also provides a clearer view of the ligamentous structures of the uterus and the vagina during surgery, especially in the case of endometriosis. The KECKSTEIN uterine manipulator can also be used to remove deep infiltrating endometriosis in the extraperitoneal space as well as the uterus (adenomyosis).

The wide range of options for "uterus mobilization" is very useful for both radical and organ-preserving procedures.

Presentation and exposure of adjacent organs such as the bowel, ureter and bladder is enhanced so that these can be distanced from the operative field, thus minimizing risk of injury during surgery.

Procedures for determining sterility

A special, atraumatic insert with the option for chromopertubation enables the uterine manipulator to be used to establish sterility or for organ-preserving surgical procedures on the uterus or the adnexa (optional). The uterine manipulator is fixated to the anterior lip of the external uterine orifice via a spring mechanism with a bullet forceps to ensure good maneuverability of the instrument tip.

Handling

Hysterectomy

A screw mechanism enables the insert to be introduced into the cervix and fixed into place. A ceramic cap in conjunction with a sheath can be pushed over the rod of the instrument and inserted into the vagina where it is directly positioned and attached to the portio. By turning the manipulator handle, the cap can be deflected towards the ventral (95 degrees) and dorsal (30 degrees) directions and fixed in any position. This manipulation enables the uterus to be brought into a vertical, strong anteversion or a retroversion position. Simultaneously tilting the manipulator handle (dorsal, ventral, right and left) utilizes all degrees of freedom in the pelvis.

Access to the operative field (circular vaginal fornix, uterine vessels, etc.) is greatly improved. This is a decisive advantage, particularly in the case of adhesions and severe endometriosis as well as large uteri.

The cap size and type can be individually selected to adequately prevent a loss of pneumoperitoneum (see illustration) after opening the vagina during total laparoscopic hysterectomy).

The KECKSTEIN uterine manipulator can be used on its own with an atraumatic tip for laparoscopic supracervical hysterectomy without a cap.

*Prof. Dr. J. KECKSTEIN,
Primarius Landeskrankenhaus Villach, Austria*

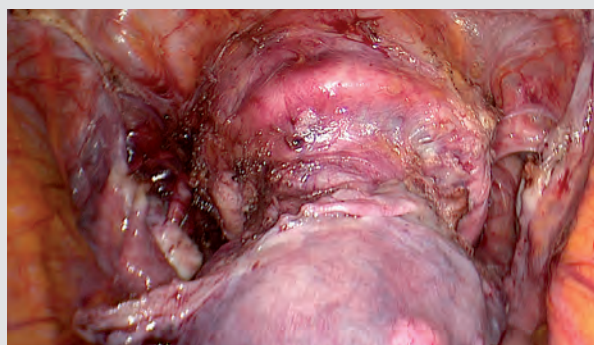


Fig. 1: Visualization of the fornix

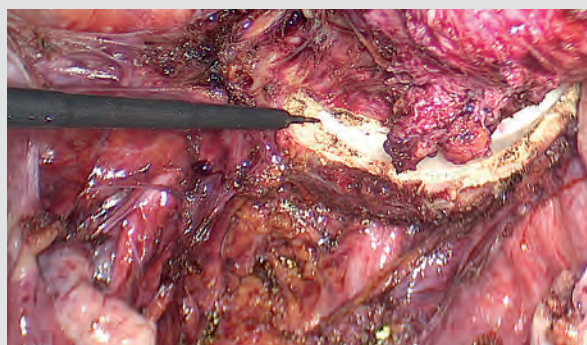


Fig. 2: Opening the anterior vaginal vault

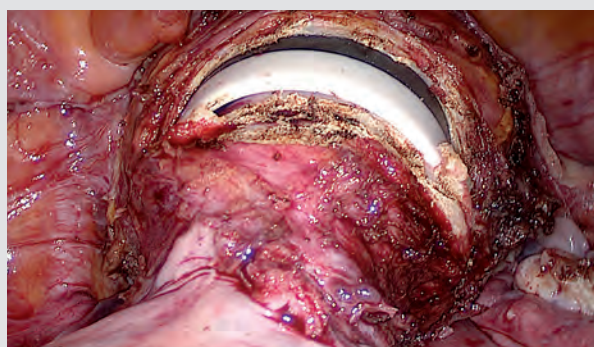


Fig. 3: Opening the posterior vaginal vault

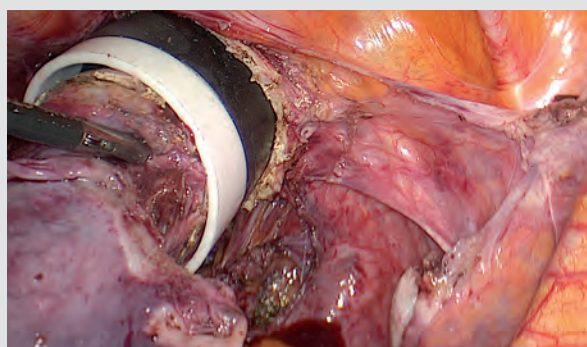
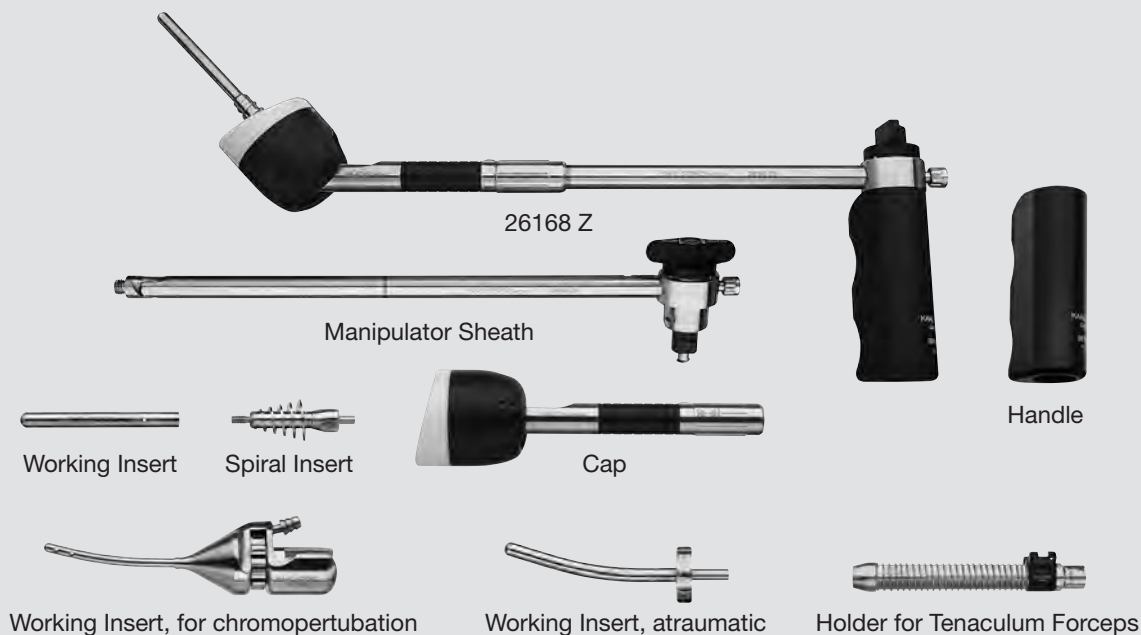


Fig. 4: Fully detached uterus

KECKSTEIN Uterine Manipulator ^{NEW}



- 26168 Z

KECKSTEIN Uterine Manipulator
including:

Handle

Manipulator Sheath

Cap, diameter 37 mm, length 30 mm

Cap, diameter 42 mm, length 30 mm

Spiral Insert, diameter 15 mm

Spiral Insert, diameter 20 mm

Working Insert, diameter 6 mm, length 60 mm

Working Insert, diameter 6 mm, length 40 mm

Seal

Working Insert, for chromoperturbation, diameter 3 mm, length 30 mm

Working Insert, atraumatic, diameter 5 mm, length 60 mm

Tenaculum Forceps

Holder for Tenaculum Forceps

2x **LUER-Lock Tube Connector**

Pertubation Tube

Y-Tube

Recommended Accessories

- 26168 ZE

Cap, diameter 47 mm, length 30 mm
- 26168 ZF

Spiral Insert, diameter 12 mm
- 26168 ZK

Working Insert, diameter 6 mm, length 80 mm
- 26168 ZS

Working Insert, diameter 6 mm, length 30 mm
- 26168 ZN

Working Insert, for chromoperturbation, diameter 3 mm, length 50 mm
- 26168 ZO

Working Insert, atraumatic, diameter 5 mm, length 40 mm
- 26168 ZR

Working Insert, atraumatic, diameter 5 mm, length 90 mm

Components/Spare Parts see chapter 21

For Total Laparoscopic Hysterectomy

The MANGESHIKAR uterine manipulator is used for Total Laparoscopic Hysterectomy. Covers of various sizes can be screwed onto the sleeve. The cover is pushed over the instrument sheath and moved cranially to visualize the fornix when removing the uterus. The rotary wheel at the back can be used to

distend the forceps and attach it to the portio. The entire manipulator must be mobilized as the inserts cannot be moved separately. Inserts are available in various lengths which can be adapted to the size of the uterus.

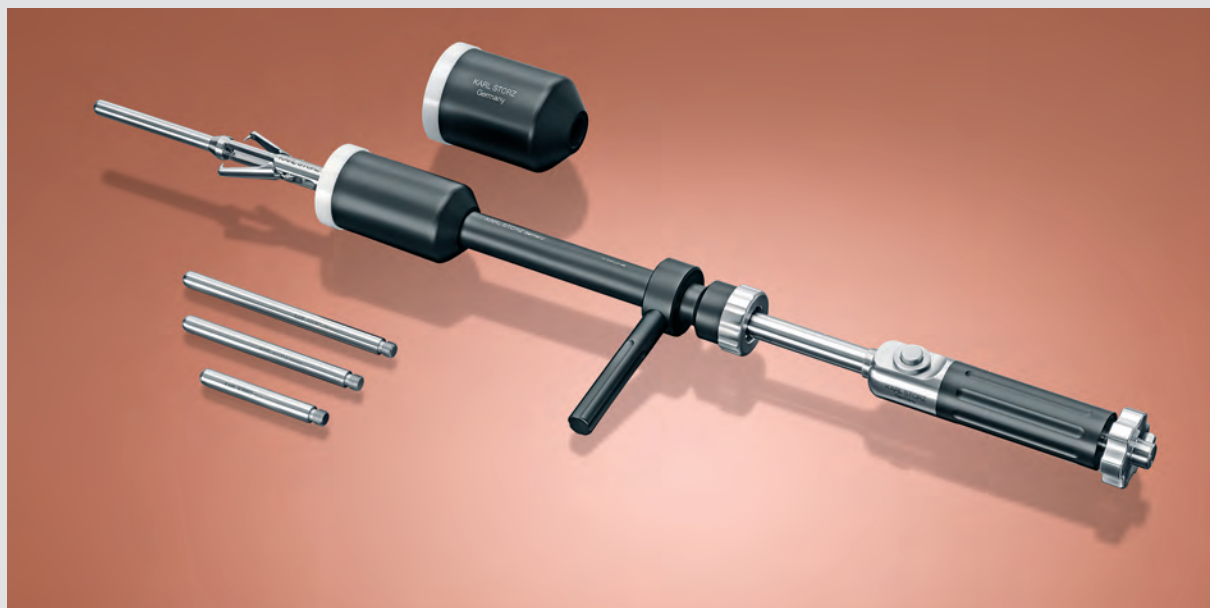
The MANGESHIKAR uterine manipulator can be used for the following interventions:

- for Total Laparoscopic Hysterectomy (TLH)
- for Laparoscopic Supracervical Hysterectomy (LASH)
- for Laparoscopy-Assisted Vaginal Hysterectomy (LAVH)
- Hysterectomies in oncological procedures

Recommended Set

The following recommended set is suitable for all the indications described above.

The set usually includes three covers for visualizing the fornix, which is essential in Total Laparoscopic Hysterectomy. The set also includes eight different inserts in various lengths in atraumatic form.



Optional Accessories

In addition to the recommended set, two further covers (one small and one large) are available for the operating surgeon. The corresponding sterilization container

ensures the optimal processing of the MANGESHIKAR uterine manipulator.

MANGESHIKAR Uterine Manipulator

For Total Laparoscopic Hysterectomy (TLH)

Three caps in various sizes are available for Total Laparoscopic Hysterectomy to help visualize the fornix when removing the uterus. The forceps with a

proximally mounted rotary wheel is distended and attached to the portio.

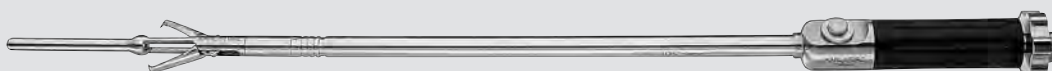


For Laparoscopic Supracervical Hysterectomy (LASH)

The MANGESHIKAR uterine manipulator can also be used for the LASH procedure without the sheath with cap.

Benefits:

- Lightweight construction
- Several uterine inserts for various uterus lengths
- Reusable



MANGESHIKAR Uterine Manipulator

Special Features:

- For Total Laparoscopic Hysterectomy (TLH)
- For Laparoscopic Supracervical Hysterectomy (LASH)
- For Laparoscopy-Assisted Vaginal Hysterectomy (LAVH)
- Five different caps (three included in the set and two optional)
- Eight different inserts



26168 J MANGESHIKAR Uterine Manipulator including:

Handle

Outer Sheath

Forceps Attachment

Cap, diameter 28 mm, length 66 mm

Cap, diameter 33 mm, length 66 mm

Cap, diameter 38 mm, length 66 mm

Working Insert, diameter 8 mm, length 50 mm

Working Insert, diameter 8 mm, length 60 mm

Working Insert, diameter 8 mm, length 70 mm

Working Insert, diameter 8 mm, length 80 mm

Working Insert, diameter 8 mm, length 90 mm

Working Insert, diameter 8 mm, length 100 mm

Working Insert, diameter 8 mm, length 110 mm

Working Insert, diameter 8 mm, length 120 mm

Manipulator Sheath

5x **Seal**

5x **Silicone Leaflet Washers**

Recommended Accessories

26168 JD	Cap , diameter 23 mm, length 66 mm
26168 JH	Cap , diameter 43 mm, length 66 mm
26168 JS	Working Insert , for chromopertubation, diameter 8 mm, length 50 mm
26168 JT	Working Insert , for chromopertubation, diameter 8 mm, length 60 mm
26168 JR	Handle , screw-on type
26168 JU	Working Insert , curved, diameter 8 mm, length 50 mm
26168 JW	Working Insert , curved, diameter 8 mm, length 60 mm
26168 JX	Working Insert , curved, diameter 8 mm, length 70 mm
26168 JY	Forceps Attachment , for curved Inserts

Components/Spare Parts see chapter 21

TINTARA Uterine Manipulator

TINTARA Uterine Manipulator for Laparoscopic Surgery and Perturbation

Laparoscopic adnexal surgery and diagnostic laparoscopy are the most frequently performed procedures in gynecologic surgery. A small, hand-held uterine manipulator is necessary for both purposes.

The TINTARA uterine manipulator was designed for surgical procedures on uteri of various sizes and for chromoperturbation. The small perturbation inserter (4 mm in diameter and 5 cm in length) is suitable for small infertile uteri. The tube adaptor at the pivoting head prevents dye leakage from any rotating joints.

The easy and ergonomic operation of the locking lever enables the surgeon to adjust the uterus and to fix it in any position. The instrument is easy to clean and sterilize.

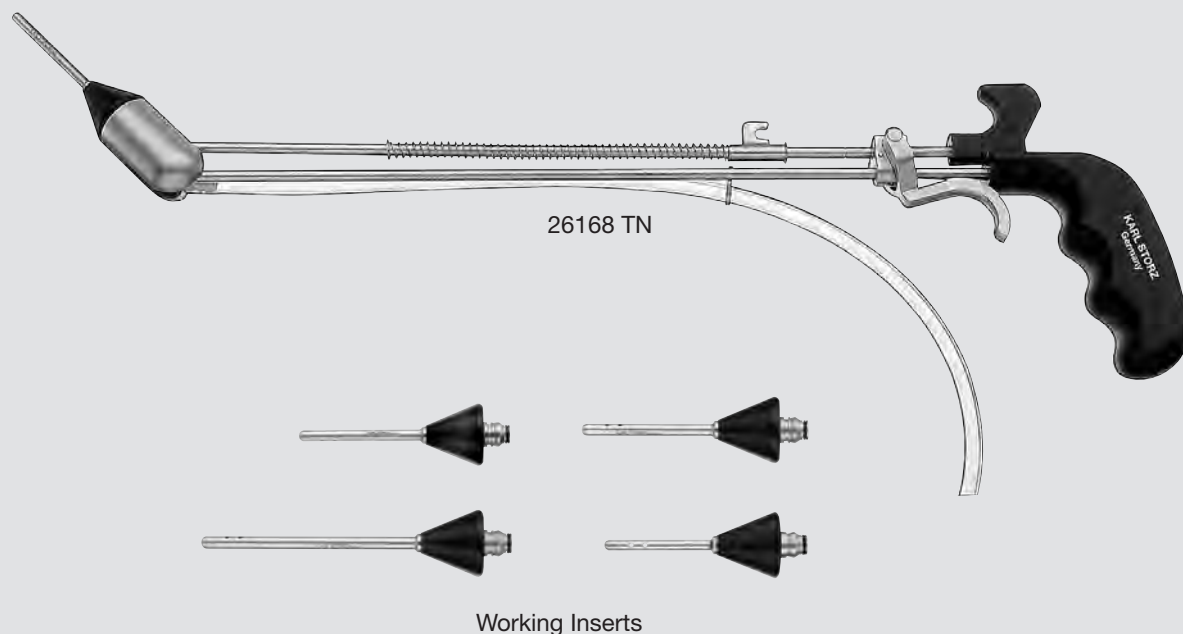
*H. TINTARA, M. D.,
Songkhla, Thailand*

Special features and advantages:

For laparoscopic surgery of small uteri and perturbation

- Enables anteflexion and lateral deviation of the uterus inside the pelvis during the course of gynecological laparoscopic surgery, including hysterectomy
- Anteflexion of the uterus up to 90°, as well as elevation of the uterus to identify the posterior vaginal fornix and posterior vaginal wall as required for laparoscopically assisted vaginal hysterectomy or resection of rectovaginal pathology
- Interchangeable intrauterine inserts, suitable for various uterine sizes from 6 to 10 cm
- Small intrauterine inserts seldom require cervical dilation
- Graduation marks indicate the uterine angulation
- Retains the cervix via spring-action fixation for the tenaculum
- New locking mechanism makes it easy to operate; pulling the lever locks the manipulator and pushing the lever back unlocks it
- Lightweight with ergonomic handle for single-handed operation
- No sealing O-ring is needed; the tube adaptor at the pivoting head prevents dye leakage from any rotating joints and is easy to maintain

TINTARA Uterine Manipulator



- 26168 TN **TINTARA Uterine Manipulator**
including:
Handle
Working Insert, diameter 4 mm, length 50 mm
Working Insert, diameter 4.5 mm, length 50 mm
Working Insert, diameter 4.8 mm, length 80 mm
Tube Support

Recommended Accessories

- | | |
|-----------|--|
| 26168 TNF | Working Insert , diameter 4 mm, length 40 mm |
| 26168 TNG | Working Insert , diameter 8 mm, length 50 mm |
| 26168 TNH | Working Insert , curved, diameter 8 mm, length 80 mm |
| 26168 TNK | Working Insert , curved, diameter 10 mm, length 100 mm |
| 26168 TNS | Pertubation Tube , with LUER-Lock Tube Connector 600008 |
| 26168 V | Tenaculum Forceps , length 22 cm |

Components/Spare Parts see chapter 21

Vaginal and Rectal Plugs

CLERMONT-FERRAND Model

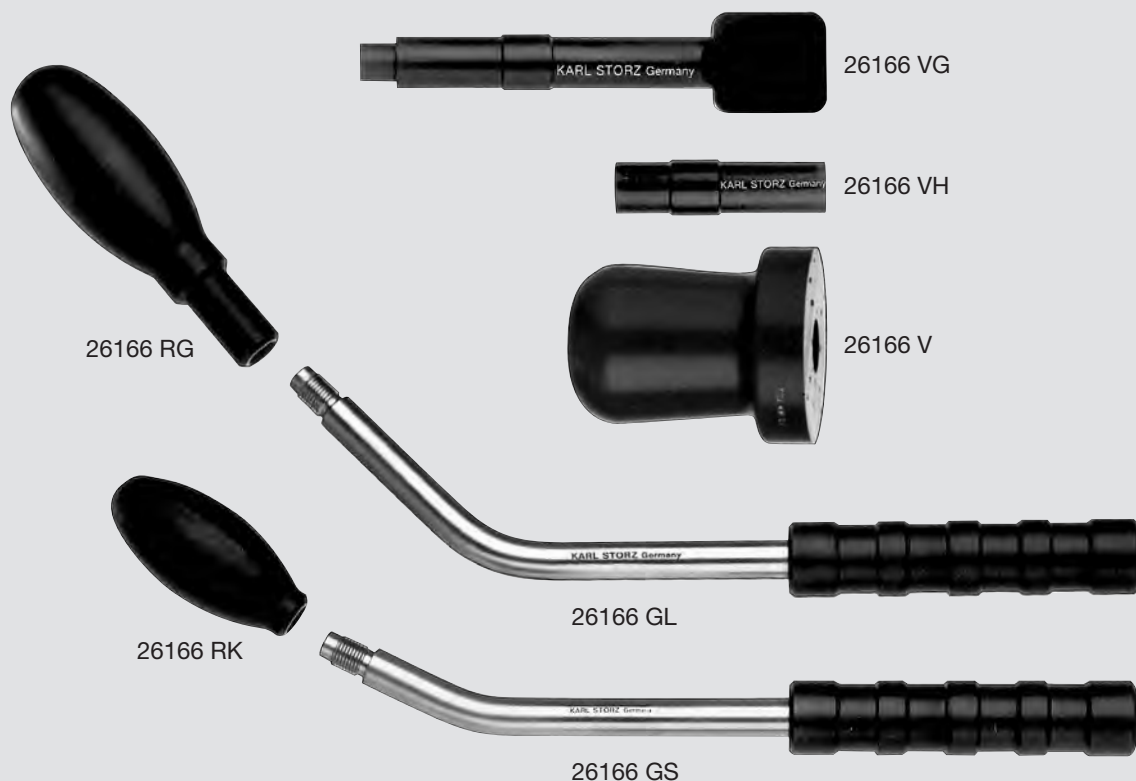
The vaginal plug ensures an airtight closure of the vagina following extraction of the uterus. It is placed in the vagina with an exchangeable handle immediately following the removal of small uteri which can be extracted without morcellation.

Some uteri are too large to be extracted directly after the vaginal separation, however. In such cases the uterus must first be morcellated, for example with the 10 mm CHARDONNENS Morcellation Knife (order no. 26190 A). The uterus is morcellated under visualization of the surgical field through the cannula which is put in

the vaginal plug in place of the handle. After morcellation, a 10 mm forceps is inserted through the cannula to remove the uterus fragments.

As soon as all fragments have been extracted, the cannula is again replaced with the handle and the plug is positioned. Because of its distally flared shape, the vaginal stumps are optimally visualized for suturing and closure of the vagina.

*Prof. med. A. WATTIEZ,
Hopital Hautepierre, Strasbourg, France*



- | | |
|----------|--|
| 26166 V | Vaginal Plug , diameter 45 mm, length 49 mm |
| 26166 VG | Handle , for Vaginal Plug 26166 V |
| 26166 VH | Cannula , for vaginal plug, for use with instruments up to diameter 10 mm |
| 26166 RG | Rectal Plug , large, diameter 35 mm, length 71 mm |
| 26166 RK | Rectal Plug , small, diameter 30 mm, length 62 mm |
| 26166 GL | Handle , for rectal plugs, strongly curved |
| 26166 GS | Handle , for rectal plugs, slightly curved |

Progress in laparoscopic surgery has been hindered by difficulties encountered during the extraction of tissue masses exceeding the diameter of conventionally used trocars. Transabdominal methods require larger incisions while transvaginal extractions are associated with CO₂ leakage. These technical difficulties are overcome by the C.C.L. vaginal extractor which enables removal of tissue masses as large as 6 to 7 cm without loss of gas. The C.C.L. vaginal extractor consists of a trocar fitted with a ball-shaped head at one extremity.

The round surface of the sphere adapts well into the posterior vaginal fornix and has a midline horizontal groove on one side that guides the surgeon during the intra-abdominal peritoneal incision.

After culdotomy is performed, tissue is seized with a grasping forceps introduced through the trocar. Tissue masses may be placed in a tied plastic pouch prior to extraction in order to prevent dissemination and to facilitate passage through the incision. The entire procedure is safe because of continuous endoscopic control. This procedure has been used for the extraction of ovaries, organic cysts, tubal pregnancies and myomas, and takes an average of 10 to 15 minutes. No postoperative complications have been observed.

S. SPUHLER, M. D. and E. CHARDONNENS, M. D.,
Lausanne, Switzerland

Procedure

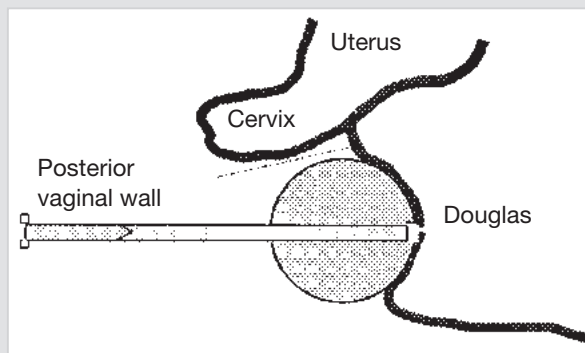


Fig. 1: Introduction of the C.C.L. extractor into the posterior vaginal fornix

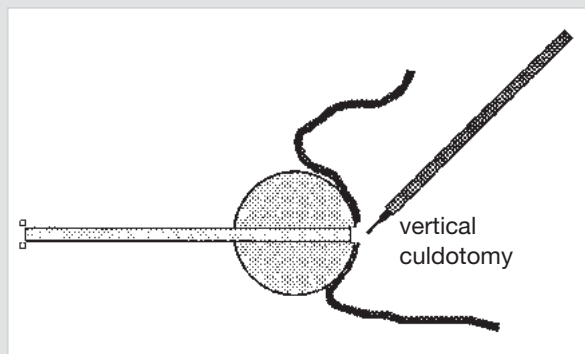


Fig. 2: Culdotomy by unipolar or bipolar section

Step 1:

The C.C.L. Extractor is introduced into the posterior vaginal fornix without the grasping forceps. The extractor has to be directed medially and posteriorly for correct placement. This step is performed by an assistant positioned between the patient's legs which are positioned at a 90° angle. The location of the C.C.L. sphere has to be between the uterosacral ligaments. This is visually controlled through the laparoscope.

Step 2:

Once the sphere has been correctly applied against the posterior vaginal fornix, a horizontal incision is performed endoscopically at the level of the Douglas pouch using unipolar section, CO₂ LASER, or ideally, bipolar section through the suprapubic abdominal incision, which avoids burns. A second assistant facing the operator aids visualization by displaying the rectum and the sigmoid colon. Culdotomy induces no CO₂ leakage, as long as the sphere is in close contact with the posterior vaginal fornix.

C.C.L. Vaginal Extractor

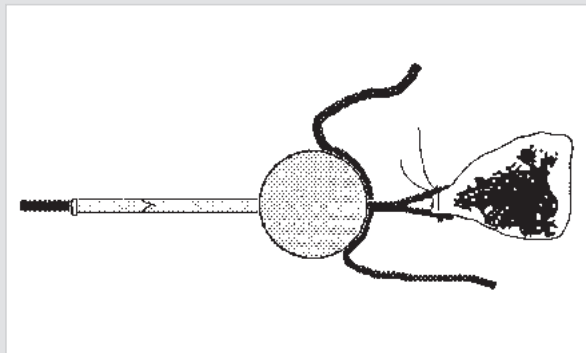


Fig. 3: Grasping forceps is introduced through the C.C.L. extractor

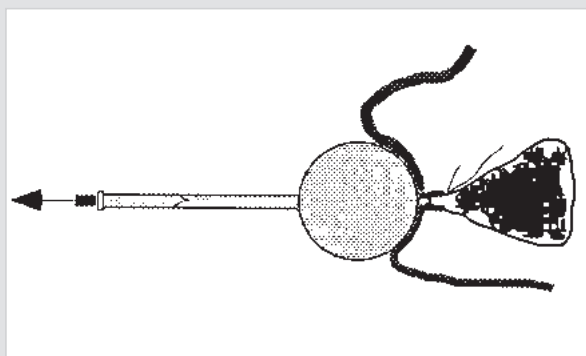


Fig. 4: The grasping forceps are withdrawn.

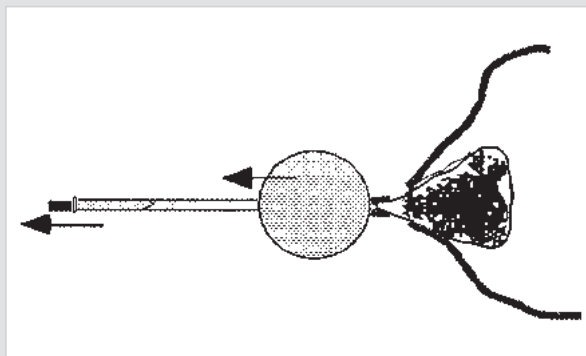


Fig. 5: The tissue specimen is extracted together with the entire C.C.L. extractor unit.

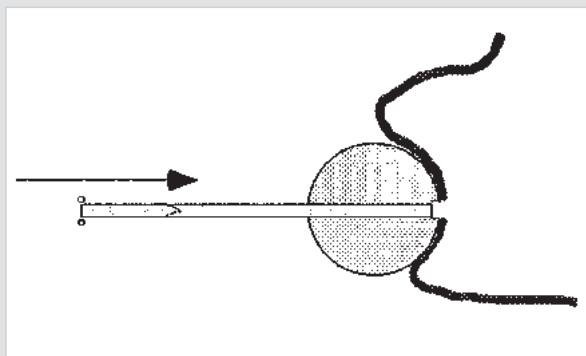


Fig. 6: The C.C.L. extractor without the extracting forceps is once again introduced, preventing the escape of CO₂.

Step 3:

The grasping forceps is passed through the C.C.L. extractor previously placed in the vagina. The excised tissue is grasped between the tongs of the forceps under direct vision. Material suspected of malignancy and dermoid cysts are placed into a plastic extraction bag prior to extraction, in order to avoid the risk of parietal contamination.

Step 4:

The grasping forceps are withdrawn until the mass is brought into contact with the C.C.L. sphere.

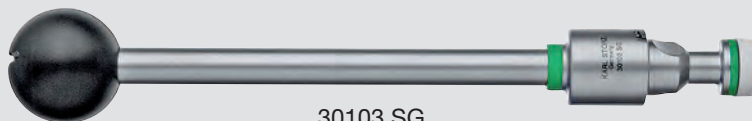
Step 5:

In order to take advantage of the large culdotomic incision, as compared to the relatively small trocar diameter, the tissue specimen is extracted in one movement together with the entire C.C.L. extractor unit. This procedure allows removal of tissue sizes up to 6 to 7 cm in diameter.

Step 6:

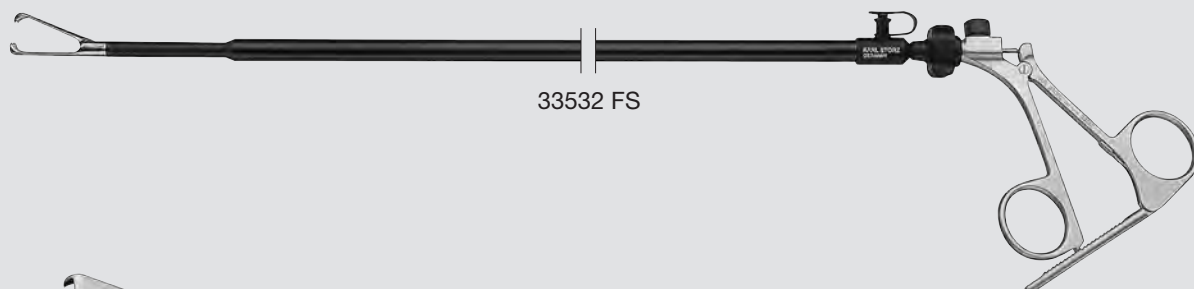
After removal of tissue has been performed, the C.C.L. Extractor without the extracting forceps is once again introduced into the posterior vaginal fornix under endoscopic vision in order to prevent the escape of CO₂ during the rest of the operation (hemostasis, revision, irrigation etc.).

C.C.L. Vaginal Extractor



30103 SG

- 30103 SG **C.C.L. Vaginal Extractor**, diameter 11 mm, with insulated ball-shaped sphere, diameter 40 mm including:
Automatic Valve, size 11 mm
Cannula
 30103 SK **Same**, diameter 35 mm



33532 FS



- 33532 FS **CLICKline®-Claw Forceps**, rotating, dismantling, without connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, single action jaws, 2 x 3 teeth, size 10 mm, length 36 cm including:
Metal Handle, with MANHES style ratchet
Outer Sheath, insulated
Forceps Insert

Components/Spare Parts see chapter 21

BRUCKER/MESSROGHLI SupraLoop Unipolar Loop

Supracervical hysterectomy is gaining increasing importance as it offers the patient a wide range of benefits:

- Preservation of anatomical structures (vagina, portio, uterosacral ligaments)
- Organ-preserving measures (only diseased tissue is removed)

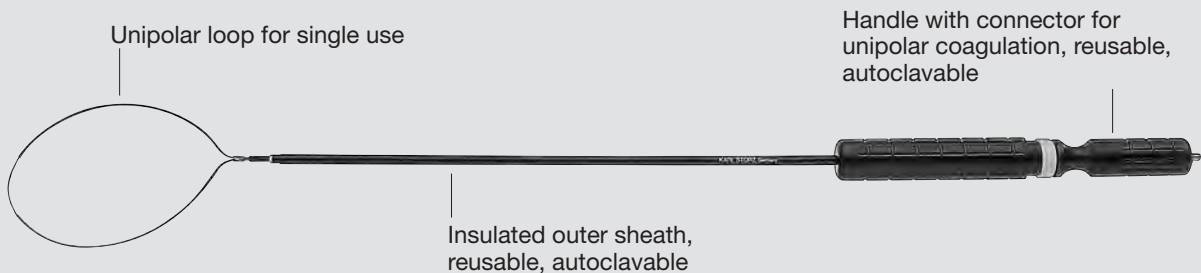
- Lower postoperative incidence of pelvic organ prolapse
- Preservation of sexual feeling following surgery

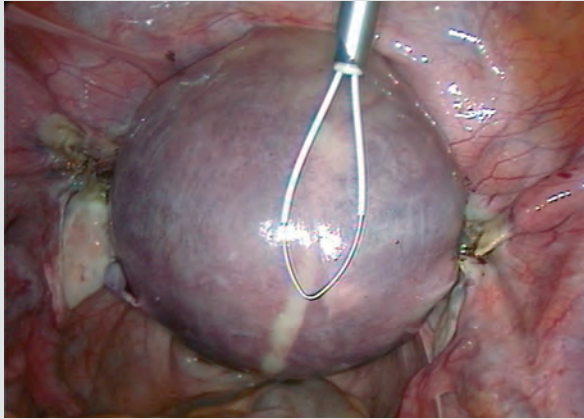
The new BRUCKER/MESSROGHLI SupraLoop was developed to enable this procedure to be performed more effectively by allowing faster, safer supracervical removal of the uterus.

Benefits for the user:

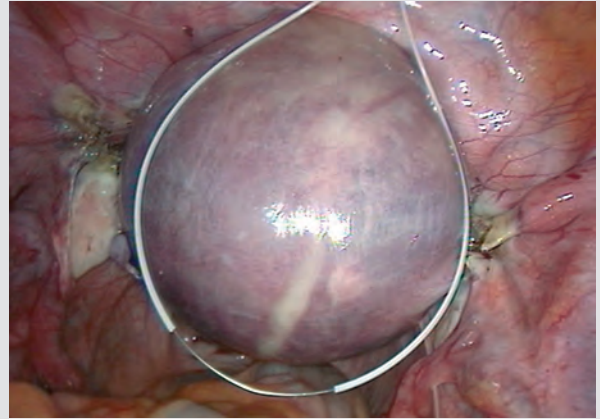
- Simplest, safest operation in laparoscopic supracervical hysterectomy
- Reduction of operating times thanks to quick separation of the uterus from the cervix
- Additional cost savings thanks to the reusable handle and outer sheath; both parts are autoclavable
- Only the loop itself must be changed after each intervention

*Dr. S. Brucker,
Universitätsfrauenklinik Tübingen, Germany*

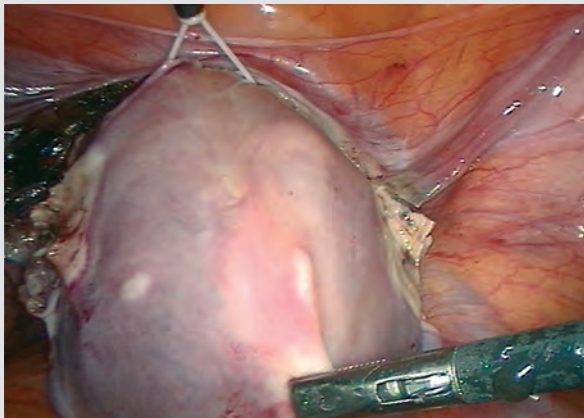




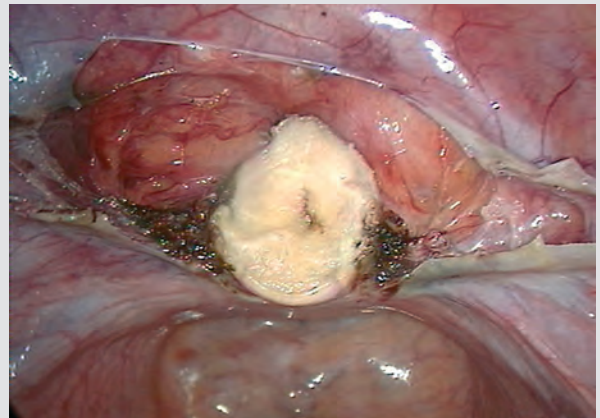
The SupraLoop is inserted into the abdominal cavity via a 6 mm trocar.



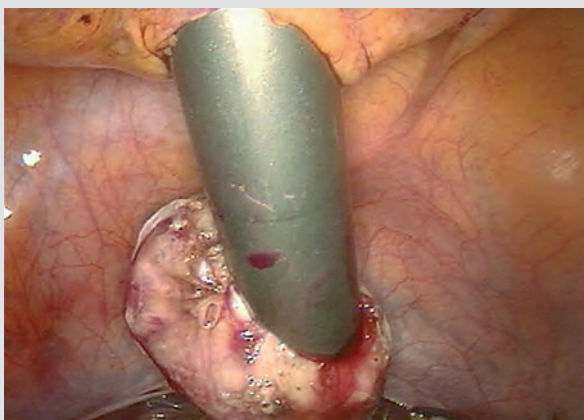
The loop is then positioned around the uterus,...



...after carefully checking the correct positioning, the loop is retracted...

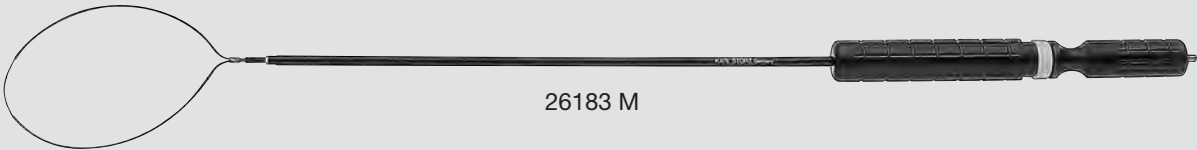


...and the uterus is removed with unipolar current...



... and morcellated with the proven Rotocut G1.

BRUCKER/MESSROGHLI
SupraLoop Unipolar Loop



- 26183 M **BRUCKER/MESSROGHLI SupraLoop**,
size 5 mm, length 30 cm
including:
Handle, with connector pin for unipolar coagulation,
autoclavable
Outer Sheath, insulated, size 5 mm, length 30 cm
Spare Loop, size 120 x 85 mm, for single use, unsterile
- 26183 MD **Spare Loop for SupraLoop**, size 200 x 150 mm,
for single use, unsterile, for use with Handle
26183 MA and Outer Sheath 26183 MB



Recommended Accessories

- 26005 M **Unipolar High Frequency Cord**, with 5 mm plug,
length 300 cm, for AUTOCON® II 400 SCB system
(111, 115, 122, 125), AUTOCON® II 200,
AUTOCON® II 80, AUTOCON® system (50, 200, 350)
and Erbe type ICC
- 26006 M **Unipolar High Frequency Cord**, with 8 mm plug,
length 300 cm, for use with AUTOCON® II 400 SCB
system (112, 116) and Valleylab models

Components/Spare Parts see chapter 21

Unipolar Resection Loops ^{NEW}

Laparoscopically assisted supracervical hysterectomy (LASH) has gained in incidence in patients with benign diseases of the uterus undergoing hysterectomy. Besides the multiple clinical benefits of this procedure for the patient, the remaining cervical stump may cause problems, which may reduce patient satisfaction and, in some cases, even necessitate further surgical intervention.

One of the major problems of LASH is postoperative bleeding from the remaining cervical stump. The cause of this complication is not completely understood but is likely, but not always, due to remaining endometrial tissue in the preserved cervix. The incidence ranges from <1% to 25%.

To prevent postoperative bleeding following LASH, different measures have been suggested. The length of the remaining cervix shall be short, bipolar coagulation of the endocervical canal is performed routinely in most centers, excision of the endocervix in some.

To minimize the incidence of post-operative bleeding after LASH, we developed a newly designed resection electrode. This electrode is inserted through one of the existing 5 mm trocar sites and connected to unipolar

current. The tip of the electrode is inserted into the abdominal part of the endocervical canal where the depth of insertion is marked on the instrument. The loop shape of the abdominal resection tool (ALEEP) is designed to secure sufficient tissue gain in either vertical or horizontal direction. The harvested tissue cylinder is sent separately to histology.

Although there are some reports that show cervical bleeding even after complete resection of the endocervix, it is our understanding that use of this newly developed resection tool offers some distinct advantages as compared to other procedures in order to further reduce post-operative bleeding. The resection is performed under direct vision as compared to blind bipolar coagulation; histology of the endocervix is gained; and there is little thermal damage to the cervix. The resection is quick and requires no further equipment besides the electrode.

*R. DECKARDT M. D. and
Dr. med. Dr. h.c. Dipl.-Ing. A. ROTH,
Gynäkologische Tagesklinik München
Munich, Germany*



26183 MP

Resection Loop, for laparoscopic conization following supracervical hysterectomy, diameter 5 mm

including:

Handle, with connector pin for unipolar coagulation, autoclavable

Outer Sheath, insulated, size 5 mm, length 30 cm

Resection Loop, for single use



26183 MR

Spare Resection Loop, for laparoscopic conization following supracervical hysterectomy, diameter 5 mm, for single use, for use with Handle 26183 MA and Outer Sheath 26183 MB



Recommended Accessories

26005 M

Unipolar High Frequency Cord, with 5 mm plug, length 300 cm, for AUTOCON® II 400 SCB system (111, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, AUTOCON® system (50, 200, 350) and Erbe type ICC

26006 M

Unipolar High Frequency Cord, with 8 mm plug, length 300 cm, for use with AUTOCON® II 400 SCB system (112, 116) and Valleylab models

Components/Spare Parts see chapter 21

SupraLoop Bipolar Loop ^{NEW}

Supracervical hysterectomy is gaining increasing importance as it offers the patient a wide range of benefits:

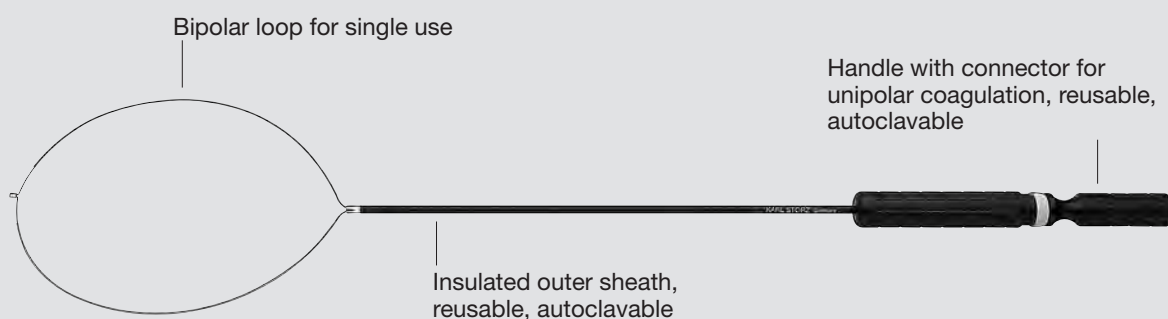
- Preservation of anatomical structures (vagina, portio, uterosacral ligaments)
- Organ-preserving measures (only diseased tissue is removed)

- Lower postoperative incidence of pelvic organ prolapse
- Preservation of sexual feeling following surgery

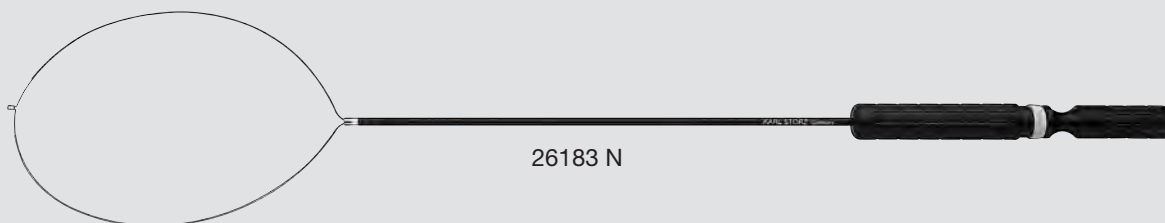
Special instruments were developed to enable this procedure to be performed more effectively by allowing fast and safe removal of the uterus.

Benefits for the user:

- Easy and safe application
- Reduction of operating time due to quick separation of the uterus from the cervix
- Cost-savings due to reusable handle and outer sheath
- Only the loop itself needs to be exchanged after each intervention



SupraLoop Bipolar Loop ^{NEW}



- 26183 N **SupraLoop**, bipolar, size 5 mm, length 30 cm
including:
Handle, with connector pin for bipolar coagulation,
autoclavable
Outer Sheath, insulated, size 5 mm, length 30 cm
Spare SupraLoop, size 120 x 85 mm, for single use,
unsterile
- 26183 ND **Spare Loop for SupraLoop**, bipolar, size
200 x 150 mm, for single use, unsterile, for
use with Handle 26183 NA and Outer Sheath
26183 MB



Recommended Accessories

- 26176 LE **Bipolar High Frequency Cord**, length 300 cm, for
AUTOCON® II 400 SCB system (111, 113, 115,
122, 125), AUTOCON® II 200, AUTOCON® II 80,
Coagulator 26021 B/C/D, 860021 B/C/D,
27810 B/C/D, 28810 B/C/D, AUTOCON® series
(50, 200, 350), Erbe-Coagulator, T and ICC series

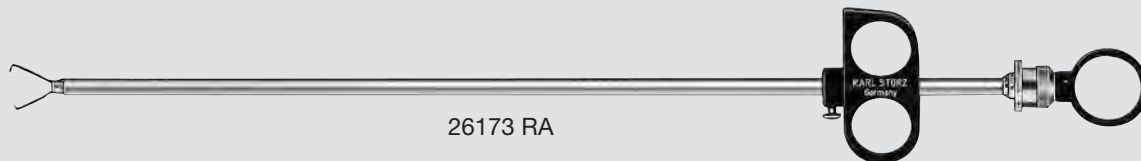
Components/Spare Parts see chapter 21

Ring Applicators

for use with 2 silastic rings

Multiple puncture approach

Operating instruments,
for use with trocars size 7 mm



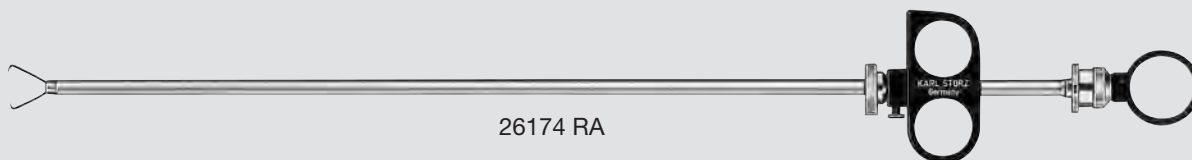
26173 RA

26173 RA

Ring Applicator, may be fitted with
2 silastic rings

Single puncture approach

Operating instruments,
for use with Telescopes 26034 AA and 26038 AA with inbuilt working channel



26174 RA

26174 RA

Ring Applicator, may be fitted with
2 silastic rings

26173 R

Silastic Rings, for ligation, **autoclavable**,
package of 50

26173 RSY

Silastic Rings, for ligation, **autoclavable**,
package of 8



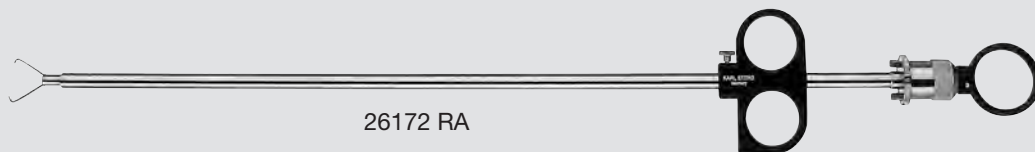
Trocars size 7 mm see page 402

Ring Applicators

for use with 4 silastic rings

Multiple puncture approach

Operating instruments,
for use with trocars size 7 mm



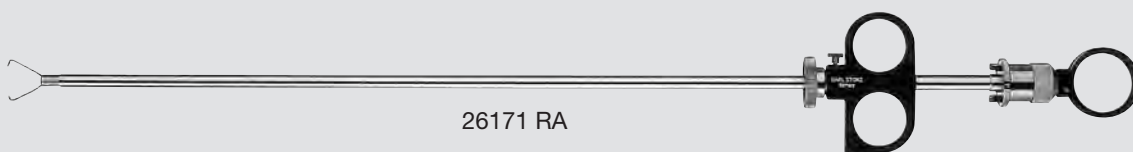
26172 RA

26172 RA

Ring Applicator, may be fitted with
4 silastic rings

Single puncture approach

Operating instruments,
for use with Telescopes 26034 AA and 26038 AA with inbuilt working channel



26171 RA

26171 RA

Ring Applicator, may be fitted with
4 silastic rings

26173 R

Silastic Rings, for ligation, **autoclavable**,
package of 50

26173 RSY

Silastic Rings, for ligation, **autoclavable**,
package of 8

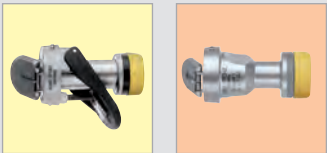
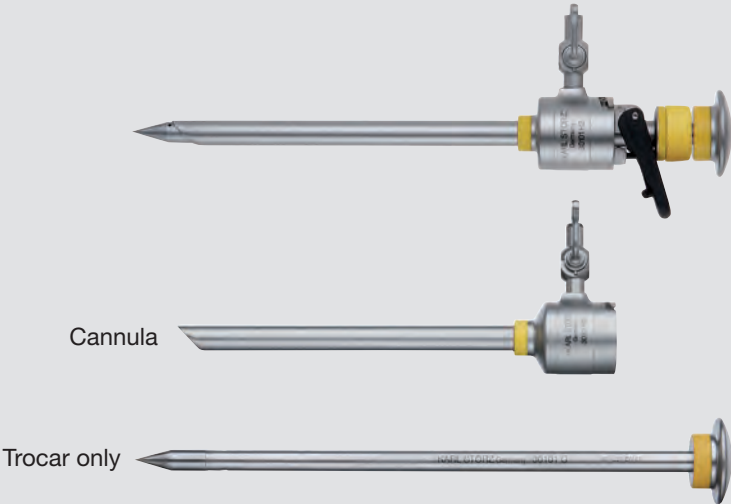


Trocars size 7 mm see page 402

Trocars

Size 7 mm

For use with Ring Applicators





Multifunctional Valve



Automatic Valve

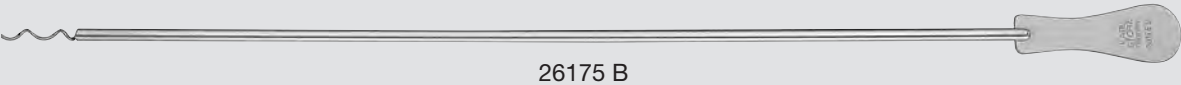


Size:		7 mm	
Working length:		10.5 cm	10.5 cm
Color code:		yellow	yellow
		Multifunctional Valve	Automatic Valve
	Trocar, with conical tip including: Cannula Trocar only Valve	30101 MC	30101 AC
		30101 H2	30101 H2
		30101 C	30101 C
		30101 M1	30101 A1
	Trocar, with pyramidal tip including: Cannula Trocar only Valve	30101 MP	30101 AP
		30101 H2	30101 H2
		30101 P	30101 P
		30101 M1	30101 A1

HEINKEL-SEMM **Dilation Set** see chapter 3, page 78, **Accessories for Trocars** see chapter 3, pages 76-77
Ring Applicators see pages 400-401

Myoma Fixation Instruments

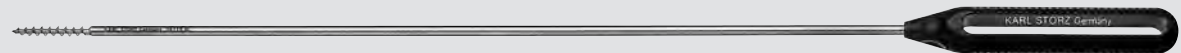
Operating instruments,
for use with trocars size 6 or 11 mm



26175 B



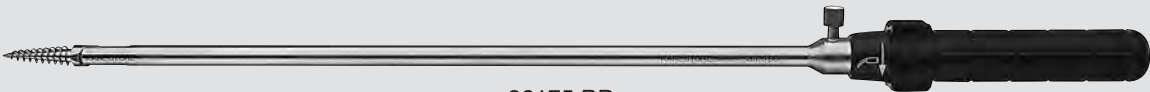
26175 B **Myoma Fixation Instrument,**
with spiral tip, size 5 mm
26175 BA **Same,** size 10 mm



26175 BL



26175 BL **Myoma Fixation Instrument,**
screw-shaped, size 5 mm



26175 BB



26175 BB **CIRAVOLO Myoma Fixation Instrument,**
NEW bendable, with threaded tip, diameter 10 mm

Instrument Set for Laparoscopically Assisted Creation of a Neovagina

BRUCKER/WALLWIENER Recommended Set

STORZ
KARL STORZ — ENDOSKOPE

Laparoscopy-assisted neovaginoplasty for the operative correction of vaginal aplasia, especially in the case of Mayer-Rokitansky-Küster-Hauser syndrome and in certain cases of testicular feminization, could become a standard procedure thanks to the benefits offered by minimally invasive methods.

The Mayer-Rokitansky-Küster-Hauser syndrome, with an incidence of approx. 1:5000 in female neonates, is caused by inhibition malformation that results in aplasia of the uterus or vagina. In the majority of cases, primary amenorrhea is the first indication of such malformations. Owing to the fully developed, functional ovaries, development of the secondary sexual characteristics is normal and therefore leads to a normal female phenotype.

The surgical creation of a neovagina is carried out if the woman expresses a wish to be able to have intercourse. Should this be the case, it is essential for the surgeon to have a profound knowledge of the anatomical changes associated with the different types of aplasia syndrome. Mayer-Rokitansky-Küster-Hauser syndrome is accompanied in approx. 30% of cases by malformations of the kidneys.

In order to achieve optimal operative results with the shortest possible operation and recuperation times and to minimize technical and surgical complications, new application instruments, including a new mechanical traction device, have been developed and optimized for laparoscopy-assisted neovagina creation.

Operative technique

The operative principle is based on stretching the vaginal membrane intra-abdominally. Pressure is exerted continuously on the vaginal dimple via a pluggable segmented dummy connected to two threads to form a neovagina within a matter of days. Using the Wallwiener vagino-abdominal perforation method, the two threads are drawn intra-abdominally from the vaginal dimple using the straight single-prong thread guide, by means of which the vaginal dimple is perforated and then pulled outside the abdominal wall with a large curved thread guide that is positioned retroperitoneally from cranial to caudal. Outside the abdominal wall, the threads are held taut by a traction device and tightened daily so that a constant stretching pressure is exerted on the vaginal dimple. The vesicorectal tunnel does not have to be dissected laparoscopically.

Applicators

The following applicators are part of the set:

- Straight thread guide for vagino-abdominal perforation according to WALLWIENER; curved thread guides in two different versions with various curvatures for peritonealization
- Pluggable segmented dummy

- Dummies: smaller preoperative dummy for stretching and a postoperative dummy available in various sizes to meet individual requirements

All applicators are equipped with ergonomic handles. The curvature of the thread guide has been optimized to enable the surgeon to apply different surgical variants. This modified curvature also facilitates the positioning of the traction device as cranially as possible while allowing the execution of a complete peritonealization. Positioning the device as far toward cranial as possible enables a precisely cranioventral tensile direction, thus ensuring greatest dilation potential of the neovagina as regards maximizing length.

This correct position prevents an excessively ventral tensile direction which tends to result in too short neovaginas or even bladder lesions due to luxation of the pluggable segmented dummy intravaginally.

The bore holes of the thread guide have been optimally adjusted to the recommended threads (Terylene USP 4, Serag Wiessner).

Alongside optimal imaging, intra-laparoscopic simultaneous cystoscopy for the purpose of diaphanoscopy-laparoscopic visualization of the exact localization of the bladder site before the vaginal perforation of the rectovaginal septum is just as essential as ruling out, by means of cystoscopy, a bladder and ureter lesion, or the intraoperative introduction of suprapubic urinary drainage to prevent urethral necrosis.

The rectum dilator, also recommended for use with the set (Clermont-Ferrand model), serves to distance the rectum from the rectovaginal septum, base of the bladder and path of the ureters, if digital distancing is insufficient.

The postoperative dummy is inserted into the vagina immediately after removing the traction device and pluggable segmented dummy. It must be worn for several months post-surgery in conjunction with copious applications of estrogen-containing cream. It is to be worn continuously in the first 3 – 4 weeks after the operation and thereafter worn at least at night. Initial coitus can take place as soon as 3 weeks after surgery. The dummies can be cleaned with conventional soap or disinfecting solution.

It should be noted that failure of the first surgical intervention diminishes the chances of the expected or anticipated results. This must be considered in the light of the great importance the neovagina and its proper functioning undoubtedly bears for the woman.

In principle, this surgical technique is a complex surgical-endoscopic procedure and requires the surgical team to have the corresponding skills.

*Prof. Dr. med. D. WALLWIENER and S. BRUCKER, M.D.
Tübingen, Germany*

Instrument Set for Laparoscopically Assisted Creation of a Neovagina

BRUCKER/WALLWIENER Recommended Set

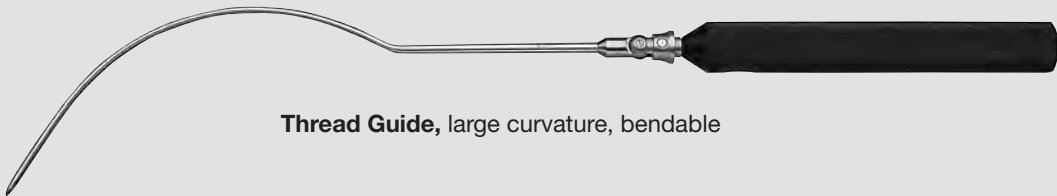
26188 NB BRUCKER/WALLWIENER Instrument Set for Laparoscopically Assisted Creation of a Neovagina including:



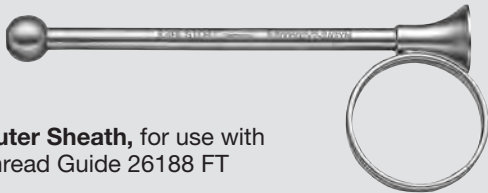
Traction Device



Thread Guide, straight



Thread Guide, large curvature, bendable



Outer Sheath, for use with Thread Guide 26188 FT



Pluggable Segmented Dummy



Distension Dummy, size 2.4 cm x 11 cm



Cleaning Brush, round, rigid, outer diameter 2.5 mm, for working channel diameter 2 – 2,4 mm, length 35 cm

Components/Spare Parts see chapter 21

Instrument Set for Laparoscopically Assisted Creation of a Neovagina

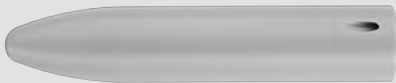
BRUCKER/WALLWIENER Recommended Set

Recommended Accessories



26188 PH

- | | |
|----------|--------------------------------|
| 26188 PG | Dummy , size 2 x 10 cm |
| 26188 PH | Same , size 2.5 x 10 cm |
| 26188 PI | Same , size 3 x 10 cm |



26188 PK

- | | |
|----------|--------------------------------|
| 26188 PJ | Dummy , size 2 x 12 cm |
| 26188 PK | Same , size 2.5 x 12 cm |
| 26188 PL | Same , size 3 x 12 cm |



26166 RK

- | | |
|----------|--|
| 26166 RG | Rectal Plug , large, diameter 35 mm, length 71 mm |
| 26166 RK | Rectal Plug , small, diameter 30 mm, length 62 mm |



26166 GS

- | | |
|----------|--|
| 26166 GL | Handle , for rectal plugs, strongly curved |
| 26166 GS | Same , slightly curved |

Kidney Clamp for Partial Laparoscopic Nephrectomy

The new kidney clamp from KARL STORZ – a crucial step against warm ischaemia during laparoscopic partial nephrectomy

The new kidney clamp from KARL STORZ makes partial nephrectomy not only more straightforward but safer and more effective as well.

Warm ischaemia, due to pedicle clamping, is a limiting factor during laparoscopic partial nephrectomy that can impose time constraints on the operating surgeon. Current methods for clamping the renal artery leaves the surgeon with a limited amount of operating time before the entire kidney loses its function due interrupted blood flow.

The easy-to-use kidney clamp allows safe application and a highly efficient clamping of the affected area. As the blood and oxygen supply is only blocked to the

affected part of the kidney, the healthy part remains supplied with blood over the entire procedure and thus maintains its function (no ischaemia).

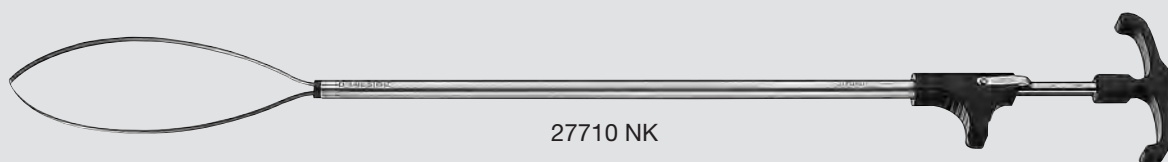
The parenchymal clamp eliminates the need for hazardous pedicle clamping.

As the kidney clamp is easily opened during and especially after resection, it is possible to monitor the resected area at all times and to control bleeding.

*Dr. NOHRA, Beirut, Lebanon,
Dr. HUYGHE, Toulouse, France*

Special Features:

- Continuous blood supply of the healthy part of the kidney
- No time limit for resection and wound closure
- Minimal traumatization of the healthy part of the kidney
- The locking mechanism enables continuous and convenient clamping of the renal part to be treated as well as the control of bleeding of the resected area after wound closure
- Use of standard surgical techniques, except for interruption of the central blood supply



27710 NK

Kidney Clamp, for clamping the kidney and limiting blood supply, size 10 mm, length 29 cm including:
Handle, with ratchet
Outer Sheath
Snare

Components/Spare Parts see chapter 21

LASER Applicator for Laparoscopy ^{NEW}

The new LASER applicator for laparoscopy

Controlled LASER guidance with integrated channel for smoke evacuation

LASER technology presents a safe and efficient option for the laparoscopic excision of small peripheral kidney tumors without ischemia and previous exposure of the renal pedicle.

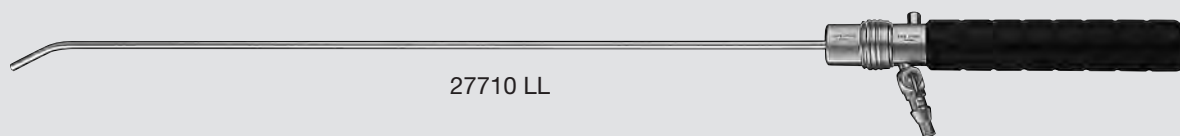
The laparoscopic LASER applicator is used to ensure safe, convenient guidance and precise positioning of LASER fibers at almost a right angle. The curved distal tip allows the introduction of a trocar to obtain the required distance to the renal parenchyma for effective LASER application at an ideal angle. Alternatively, it is also possible to introduce the LASER guide directly into the site via a small skin incision.

The smoke generated during the LASER application can be removed through a second lumen integrated in the instrument by means of a conventional suction system to ensure good visualization during tumor nucleation.

*Prof. med. G. JANETSCHEK,
Universitätsklinik für Urologie,
Paracelsus Medizinische Universität Salzburg,
Austria*

Special Features:

- Safe guidance of the LASER fiber
- Curved distal tip for ideal LASER application
- Integrated suction channel for clear endoscopic vision
- For LASER fibers with a diameter of 0.7 – 0.9 mm



27710 LL

LASER Applicator, for manipulation of the LASER fiber

including:

Handle

Outer Sheath

Inner Sheath, unsterile, package of 5,  for single use

Components/Spare Parts see chapter 21

Fiber Optic Ureter Probe

The illuminating ureter probe is ideal for trans-illumination of the ureter during surgery involving inflammatory or malignant tumors in the pelvis when the ureter is surrounded by tissue (for example, in the case of ovarian tumors).

The cold light fibers are arranged in such a way that there is a band of light every cm along its length.

The illuminating ureter probe is connected to a cold light fountain and positioned, with the aid of a cystoscope, before or during the operation.

The transilluminated light output of this probe is even stronger than normal operating lights.

The probe helps prevent injuries to the ureter.



496 U

Fiber Optic Ureter Probe, 7 Fr.

LED Battery Light Source – “Power of Light”

The new LED battery light source from KARL STORZ for rigid endoscopes and fiberscopes is watertight and completely immersible for cleaning and disinfection

Special Features:

- Exact and powerful illumination of the operating field with absolutely white and specially focused light
- 50,000 lux LED light source
- Battery life more than 120 minutes in continuous use

and can be sterilized with ETO, FO gas, Steris® and Sterrad®.

- No special batteries needed – can be purchased at any store
- LED service life of more than 50,000 hours



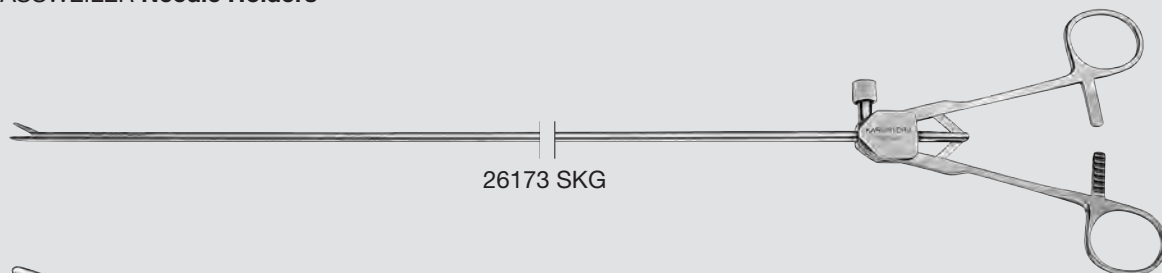
11301 D3

11301 D3

Battery Light Source LED for Endoscopes, with coarse thread, boost mode for temporary increase in brightness, burning time > 120 min, weight approx. 78 g, waterproof and fully immersible for cleaning and disinfection

Size 5 mm

RASSWEILER Needle Holders



26173 SKG RASSWEILER **Needle Holder**, straight jaws, axial ring handle with ratchet, size 5 mm, length 33 cm, for use with suture material 2/0 – 4/0, needle size SH and RB (Ethicon)



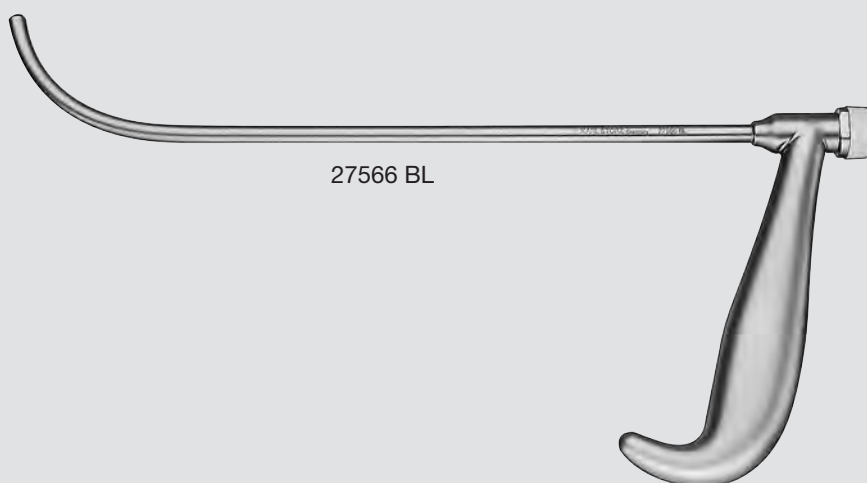
26173 SKL RASSWEILER **Needle Holder**, convex/concave, slender jaws, curved to left, axial ring handle with ratchet, size 5 mm, length 33 cm, for use with suture material 3/0, needle size LH and RB-1 (Ethicon)

Please note:

Using the needle holders with a needle larger than recommended may result in mechanical damage to the instrument.

18 Fr.

RASSWEILER Transurethral Bougie



27566 BL RASSWEILER **Transurethral Bougie**, 18 Fr., with working channel 9 Fr., for anastomosis during laparoscopic prostatectomy



UNITS AND ACCESSORIES

INSUFFLATORS AND SMOKE GAS SUCTION CONTROL
SUCTION AND IRRIGATION SYSTEMS
MOTOR SYSTEMS
HIGH FREQUENCY SURGERY UNITS



- **INSUFFLATORS AND SMOKE GAS SUCTION CONTROL**
- **SUCTION AND IRRIGATION SYSTEMS**
- **MOTOR SYSTEMS**
- **HIGH FREQUENCY SURGERY UNITS**

The units manufactured by KARL STORZ combine long-lasting precision mechanics with state-of-the-art micro-electronic programmable controls. At KARL STORZ, the greatest emphasis is placed on user and patient safety. The quality assurance system of KARL STORZ is certified in accordance with the requirements of ISO 9001/EN 46001. It guarantees constant quality testing in the selection of materials and components. At the end of each manufacturing process, tests are carried out with automatic measuring and testing systems developed specially for this purpose. The results are recorded and logged. That gives each device a distinct "fingerprint" that can be checked at any time before and after it is delivered to the customer.

The standardized, modular design of KARL STORZ units was developed based on extensive ergonomic studies and is conceived for ease of care and cleaning and user-friendly practice, as well as to meet the demands of the special hygienic standards required in surgery. Clearly laid out adjacent function keys and displays guarantee efficient operation and make it easier to constantly monitor actual and set parameters. Acoustic and visual warning signals also assist the user. The settings can be changed manually at any time. Automatic microelectronic control systems guarantee optimum operating conditions and therefore relieve the surgeon in his work who can then fully concentrate on medical procedures.

The overall KARL STORZ product line includes the following categories of units with accessories::

- **Insufflators and Smoke Gas Suction Control**
- **Suction and Irrigation Systems**
- **Motor Systems**
- **HF Surgery Units**



■ INSUFFLATORS

NEW ENDOFLATOR® 40 SCB

NEW ENDOFLATOR® 50 SCB

■ SMOKE GAS SUCTION CONTROL

NEW S-PILOT™

■ INSUFFLATORS FOR FLEXIBLE ENDOSCOPES

NEW COLD LIGHT FOUNTAIN CO₂mbi LED
with integrated insufflation pump

ENDOFLATOR® 40 SCB *NEW*


Recommended Standard Set Configuration

INSUFFLATORS AND
SMOKE GAS SUCTION CONTROL

Special Features:

- Ease of use thanks to touch screen control
- Clear, adjacent displays for set value and actual value facilitate monitoring of the insufflation process
- Fast and reliable insufflation via an adjustable flow rate up to 40 l/min
- Innovative sensitive mode with special safety limits for sensitive applications
- Automatic adjustment of insufflation rate to diverse instrument resistance values ensures the fastest possible insufflation
- Fully automatic, electronically controlled gas refill (e. g. in case of gas loss when changing instruments)
- **SECUVENT® Safety System:** Constant monitoring of intraabdominal pressure; any overpressure is reduced immediately
- With connection possibilities to the **KARL STORZ Communication Bus (KARL STORZ-SCB)** for unit integration



UI 400 S1 **ENDOFLATOR® 40 SCB**, with integrated SCB module, power supply 100 – 240 VAC, 50/60 Hz including:
SCB Connecting Cable, length 100 cm
Universal Wrench
Insufflation Tubing Set*, with gas filter, sterile, , for single use, package of 5
HICAP® Trocar, size 11 mm

Specifications:

Operating mode	- High-flow mode - Sensitive mode
Gas flow	- Sensitive mode: 0.1-15 l/min - High-flow mode: 1-40 l/min
Pressure	- Sensitive mode: 1-15 mmHg - High-flow mode: 1-30 mmHg
Gas	CO ₂
Measuring/control system	Electronic
Parameter display	- Set pressure - Actual pressure (intraabdominal) - Gas flow - Gas consumption: 0-999 l - Status display gas consumption

SECUVENT® safety system	●
Power supply	100-240 VAC, 50/60 Hz
Dimensions w x h x d	305 x 164 x 315 mm
Weight	7.4 kg
Certified to	IEC 601-1, CE acc. to MDD



Optional Accessories for ENDOFLATOR® 40 SCB see pages U 10-11
Components/Spare Parts see chapter 21

ENDOFLATOR® 40 SCB ^{NEW}

System Components

CO₂ Bottle, empty,
Pin-Index connector



26 4000 91

CO₂ Bottle, empty,
German connector



26 4000 90

High Pressure Tube,
Pin-Index connector



20 4000 22 length 55 cm
20 4000 28 length 102 cm

High Pressure Tube,
German connector



20 4000 21 length 55 cm
20 4000 27 length 102 cm

High Pressure Tube,
ISO connector



20 4002 22 length 102 cm

Low Pressure Tube,
for central CO₂ gas supply



UI 001, length 150 cm
UI 002, length 300 cm
UI 003, length 600 cm

UNIT SIDE
PATIENT SIDE



Insufflation Tubing Set



031200-01*

HICAP® Trocar 30103 HC



VERESS Pneumoperitoneum Cannula 26120 J



ENDOFLATOR® 50 SCB ^{NEW}

with Speed-Flow Insufflation (50 l/min),
Recommended Standard Set Configuration




INSUFFLATORS AND
SMOKE GAS SUCTION CONTROL

Special Features:

- Ease of use due to large, color 7" touch screen
- Simultaneous display of set values and actual values facilitate monitoring of the insufflation process
- Automatic adjustment of insufflation rate to diverse instrument resistance values ensures the fastest possible insufflation
- Fully automatic, electronically controlled gas refill (e.g. in case of gas loss when changing instruments)
- SECUVENT® Safety System: Constant monitoring of intraabdominal pressure
- Especially suitable for providing a high gas flow when using smoke generating techniques
- Powerful high-flow mode for fast insufflation of large gas volumes up to 50 l/min
- A high-capability trocar (HICAP®) that allows ideal flow conditions is included in the set
- Tubing set with integrated heating element for preheating gas to body temperature to prevent peritoneum from cooling down
- With connection possibilities to the KARL STORZ Communication Bus (KARL STORZ-SCB) for unit integration



UI 500 S1 **ENDOFLATOR® 50 SCB**, with integrated SCB module, power supply 100 – 240 VAC, 50/60 Hz including:
SCB Connecting Cable, length 100 cm
Universal Wrench
Heated Insufflation Tubing Set*, with gas filter, sterile, 
HICAP® Trocar, size 11 mm

Specifications:

Operating mode	- High-flow mode - Sensitive mode
Gas flow	- Sensitive mode: 0.1-15 l/min - High-flow mode: 1-50 l/min
Pressure	- Sensitive mode: 1-15 mmHg - High-flow mode: 1-30 mmHg
Gas	CO ₂
Measuring/control system	Electronic
Parameter display	- Set pressure - Actual pressure (intraabdominal) - Gas flow - Gas consumption: 0-999 l - Status display gas consumption

SECUVENT® safety system	●
Gas heating	●
Power supply	100-240 VAC, 50/60 Hz
Dimensions w x h x d	305 x 164 x 315 mm
Weight	7.8 kg
Certified to	IEC 601-1, CE acc. to MDD



Optional Accessories for ENDOFLATOR® 50 SCB see pages U 10-11
Components/Spare Parts see chapter 21

ENDOFLATOR® 50 SCB ^{NEW}

System Components

CO₂ Bottle, empty,
Pin-Index connector



26 4000 91

CO₂ Bottle, empty,
German connector



26 4000 90

High Pressure Tube,
Pin-Index connector



20 4000 22 length 55 cm
20 4000 28 length 102 cm

High Pressure Tube,
German connector



20 4000 21 length 55 cm
20 4000 27 length 102 cm

High Pressure Tube,
ISO connector



20 4002 22 length 102 cm

Low Pressure Tube,
for central CO₂ gas supply



UI 001, length 150 cm
UI 002, length 300 cm
UI 003, length 600 cm

UNIT SIDE

PATIENT SIDE



SCB[®]

Heatable Insufflation Tubing Set

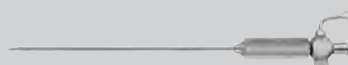


031210-01*

HICAP® Trocar 30103 HC












VERESS Pneumoperitoneum Cannula 26120 J



Optional Accessories










for Insufflators

				for use with	
				ENDOFLATOR® 40 SCB UI 400 S1	ENDOFLATOR® 50 SCB UI 500 S1
	031200-10*	Insufflation Tubing Set , with gas filter, for single use, hydrophobic on both sides, with 3 m insufflation tube and male LUER-Lock, sterile, package of 10, for use with insufflation units with a gas flow up to 50 l/min, tested and approved accessory for KARL STORZ insufflation units		•	•
	031210-10*	Same, heatable		—	•
	031122-25*	Gas Filter , ISO connector, hydrophobic on both sides, sterile, for single use, package of 25, for use with insufflation units with gas flow up to 50 l/min, approved and tested accessory for KARL STORZ insufflation units		•	•
	UI 004	Insufflation Tube , sterilizable, inner diameter 9 mm, length 250 cm		•	•
	26120 J	VERESS Pneumoperitoneum Needle , with spring-loaded blunt inner cannula, LUER-Lock, autoclavable , diameter 2.1 mm, length 10 cm		•	•
	26120 JK	Same , length 7 cm			
	26120 JL	Same , length 13 cm			
	26120 JLL	Same , length 15 cm			
	30103 HC	HiCap® Trocar , size 11 mm		•	•



Optional Accessories

for Insufflators

			for use with	
			ENDOFLATOR® 40 SCB UI 400 S1	ENDOFLATOR® 50 SCB UI 500 S1
	20 4000 21	CO₂ High Pressure Tube , American connection/German connection, length 55 cm	•	•
	20 4000 27	Same , length 102 cm		
	20 4000 22	CO₂ High Pressure Tube , American connection/Pin-Index connection, length 55 cm	•	•
	20 4000 28	Same , length 102 cm		
	20 4002 22	CO₂ High Pressure Tube , American connection/ISO connection, length 102 cm	•	•
	UI 001	Low Pressure Tube , for the central CO ₂ gas supply, length 150 cm	•	•
	UI 002	Same , length 300 cm		
	UI 003	Same , length 600 cm		
	26 4000 90	CO₂ Bottle , empty, with German connection	•	•
	26 4000 91	CO₂ Bottle , empty, with Pin-Index connection	•	•
	UI 005	Bottle Holder , fold-away, holder for KARL STORZ CO ₂ gas bottles 1000 ml, including attachments	•	•
	20 4000 32	High Pressure Inline Gas Filter	•	•
	20 0903 70	SCB Connecting Cable , length 60 cm	•	•
	20 0900 70	Same , length 30 cm		

Special Features:

- Intelligent, fully automatic control of the vacuum generated for smoke evacuation in combination with HF units integrated in SCB
- Footswitch can be activated if using equipment from other manufacturers
- Touch key enables smooth insertion of the tube
- With connection option for KARL STORZ Communication Bus (KARL STORZ-SCB)
- Compatible with all standard insufflation units with pressure control



compatible with all standard
insufflation units with suction control



- UP 501 S1 **S-PILOT™**, including footswitch, power supply 100 – 240 VAC, 50/60 Hz
including:
 One-Pedal Footswitch
 Tubing Set Suction*, sterile, for single use, package of 5
 SCB Connecting Cable, length 100 cm
- UP 501 S3 **S-PILOT™**, without footswitch, power supply 100 – 240 VAC, 50/60 Hz
including:
 Tubing Set Suction*, sterile, for single use, package of 5
 SCB Connecting Cable, length 100 cm

Accessories

- 031447-10* **Tubing Set**, for smoke, gas and fluid suction, for single use, sterile, package of 10
- 030220-48* **VACUsafe Suction Bag**, 2 l, with filter, for single use, package of 48, color code: green
- 030020-18* **VACUsafe Canister**, 2 l, package of 18
- 030648-10* **VACUsafe Connecting Tube**, 30 cm, with green multiadaptor, unsterile, package of 10
- UP 004 **S-PILOT™ Connecting Cable**, diameter 3.5 mm, length 300 cm, for use with ConMed System 2450 or 5000
- UP 005 **S-PILOT™ Connecting Cable**, diameter 2.5 mm, length 300 cm, for use with Covidien Force Triad or Covidien Valleylab Force FX
- 20 0141 30 **One-Pedal Footswitch**, digital, one-stage, for irrigation
- 031111-10* **Smoke Evacuation Filter**, for single use, unsterile, package of 10

Specifications:

Power supply	100-240 VAC, 50/60 Hz	Dimensions w x h x d	305 x 50 x 320 mm
Rated power	30 W	Weight	1.92 kg

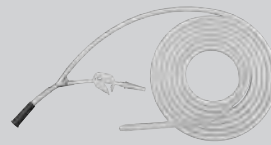


Components/Spare Parts see chapter 21

UNIT SIDE
PATIENT SIDE



Tubing Set, for smoke, gas and fluid suction



031447-10*

for use with



UI 500 S1 ENDOFLATOR® 50 SCB



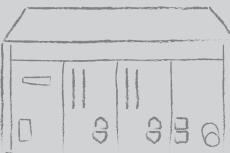
UI 400 S1 ENDOFLATOR® 40 SCB



26 4320 08-1 THERMOFLATOR® SCB



26 4305 08-1 Electronic CO₂ ENDOFLATOR® SCB



Further insufflation units with pressure regulation

Cold Light Fountain CO₂mbi LED SCB ^{NEW}
with integrated insufflation pump

Special Features:

- LED light source with integrated CO₂ insufflator
- Insufflation with regular room air with switchover function for two CO₂ insufflation modes possible
- Future-ready: No new purchases necessary in case of switchover to CO₂
- The best of both worlds: High cost-effectiveness coupled with the brightness and durability of LED technology
- Minimum service life of 30,000 hours LED
- Very high energy efficiency thanks to newest LED technology
- Extremely quiet operation and low heat generation
- Very environmentally friendly as the LED light is free of lead and mercury
- Automatic light source control via the CCU generates optimal illumination



TL 100 S1 **Cold Light Fountain CO₂mbi LED SCB**, with high-performance LED, integrated KARL STORZ-SCB and integrated insufflation pump for air and CO₂ insufflation, for use with KARL STORZ video endoscopes, power supply 100 – 240 VAC, 50/60 Hz including:
Irrigation Bottle Holder
Holding Ring, for water bottles
Water Bottle
Irrigation Adaptor, for water bottles
SCB Connecting Cable
Universal Wrench

Specifications:










Lamp type	High-performance LED
Color temperature	approx. 6400 K
Light outlets	1
Dimensions w x h x d	305 x 84.5 x 238 mm

Weight	2.3 kg
Certified to;	IEC 601-1, protection class 1/CF

Components/Spare Parts see chapter 21

Cold Light Fountain CO₂mbi LED SCB

Accessories

	TL 001	Irrigation Bottle Holder , for use with Cold Light Fountain CO ₂ mbi LED SCB TL 100 S1
	TL 002	Holding Ring , for Water Bottle 13992 BS, for use with Irrigation Bottle Holder TL 001
	TL 003	Holding Ring , for use with Ampuwa Plastipur irrigation bottles, in combination with Irrigation Bottle Holder TL 001
	20 0901 70	SCB Connecting Cable , length 100 cm
	13992 BS	Water Bottle , 250 ml
	13991 SW	Irrigation Adaptor , for Water Bottle 13992 BS for rinsing the double tube
	20 4000 30	Universal Wrench
	20 4000 27	CO₂ High Pressure Tube , American connector/German connector, length 102 cm
	UI 001	Low Pressure Tube , for the central CO ₂ gas supply, length 150 cm
	UI 002	Same , length 300 cm
	UI 003	Same , length 600 cm



HAMOU® ENDOMAT® SCB
ENDOMAT® LC SCB
DUOMAT®

UNIMAT® 30

HAMOU® ENDOMAT® SCB

Suction and Irrigation System,
Recommended Standard Set Configuration




SUCTION AND IRRIGATION SYSTEMS

Special Features:

- Pressure-regulated suction and irrigation system for use in laparoscopy and gynecology
- Modern color touch screen as user interface
- Maximum parameters for LAP and HYST mode are automatically fixed by the choice of the tubing cassette
- Ergonomic tubing cassette system
- Simultaneous display of set values and actual values enables continuous monitoring of suction and irrigation parameters
- With connection possibilities to the KARL STORZ Communication Bus (SCB) as of Software Release 20090001-45 and higher



26 3311 01-1 HAMOU® ENDOMAT® SCB, with integrated SCB module, power supply 100 – 240 VAC, 50/60 Hz including:
SCB Connecting Cable, length 100 cm
Cassette Tubing Set, for single use 
VACUsafe Suction*, 2 l

Specifications:

Pressure	- HYST 0-200 mmHg - LAP 100/ 300/ 500 mmHg
Flow	- LAP 0-1300 ml/min - HYS 200/400/600 ml/min
Suction pressure regulated	- HYST 0.1-(-)0.8 bar (-80 kPa) - LAP 0.1-(-)0.8 bar (-80 kPa)

Power supply	100-240 VAC, 50/60 Hz
Dimensions w x h x d	305 x 164 x 375 mm
Weight	9.3 kg
Certified to	IEC 601-1, CE acc. to MDD



Optional Accessories for HAMOU® ENDOMAT® SCB see pages U 24-27
Components/Spare Parts see chapter 21

HAMOU® ENDOMAT® SCB

System Components

UNIT SIDE
PATIENT SIDE



HYST Tubing Set
LAP Tubing Set

031517-10*
031518-10*



Silicone Tubing Set, for suction,
part 1 of 2

26 3311 42



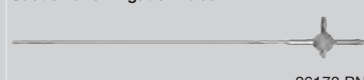
Filter

031124-10*



Suction and Irrigation Tube

26173 BN



Bottle Caps
Suction Bottles, 5 l
Bottle Stands
Holder for
Bottle Stand

20 3000 34
20 3000 50
20 3000 32
20 3000 33



Silicone Tubing Set, for suction,
part 2 of 2

26 3311 42



SUCTION AND IRRIGATION SYSTEMS

ENDOMAT® LC SCB

Roller Pump – Suction or Irrigation System,
Recommended Standard Set Configuration



SUCTION AND IRRIGATION SYSTEMS

Special Features:

- Simple roller pump system, flow-regulated, for irrigation or suction. To improve visibility during irrigation, the second level of Footswitch 200142 30 can be used to activate a flow between 500 and 1000 ml/min.
- SCB model with connections to the KARL STORZ Communication Bus (KARL STORZ-SCB)



- 20 3303 01-1 ENDOMAT® LC SCB**, with integrated SCB module, power supply 100 – 240 VAC, 50/60 Hz including:
Silicone Tubing Set, for irrigation, sterilizable
Silicone Tubing Set, for suction, sterilizable
SCB Connecting Cable, length 100 cm

Specifications:

Flow regulated	0-1000 ml/min	Dimensions w x h x d	305 x 101 x 233 mm
Pressure	non-regulated: max. 1125 mmHg (150 kPa)	Weight	4.4 kg
Suction pressure	non-regulated: -0.46 bar (-46 kPa)	Certified to	IEC 601-1, CE acc. to MDD
Power supply	100-240 VAC, 50/60 Hz		

Optional Accessories for ENDOMAT® LC SCB see pages U 24-27
Components/Spare Parts see chapter 21

8-052

ENDOMAT® LC SCB

System Components

One-Pedal
Footswitch
(optional)



20 0142 30

UNIT SIDE

PATIENT SIDE



SCB®

Silicone Tubing Set,
for irrigation



20 3303 40

Silicone Tubing Set,
for suction



20 3303 43

Suction and Irrigation Tube



26173 BN

Bottle Caps
Suction Bottles, 5 l
Bottle Stands
Holder for
Bottle Stand



20 3000 34
20 3000 50
20 3000 32
20 3000 33

SUCTION AND IRRIGATION SYSTEMS

Special Features:

- Simple, powerful suction and irrigation system for universal use
- Suction bottle with overflow protection
- Low noise level



20 3210 08 DUOMAT®, Suction and Irrigation Pump,
power supply 100 – 120/230 – 240 VAC, 50/60 Hz
including:
VACUsafe Suction*, 2 l

Specifications:

Pressure non-regulated	max. 400 mmHg (53.2 kPa)
Suction pressure	non-regulated: max. (-)0.75 bar (-75 kPa)
Power supply	100-120, 230-240 VAC, 50/60 Hz

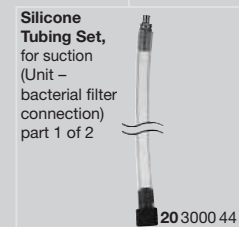
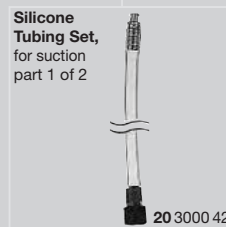
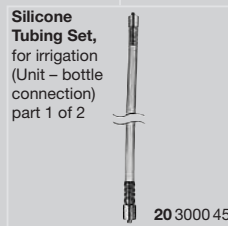
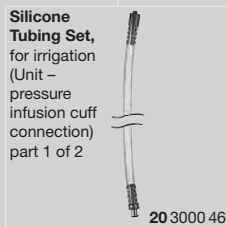
Dimensions w x h x d	305 x 110 x 271 mm
Weight	5 kg
Certified to	IEC 601-1, CE acc. to MDD



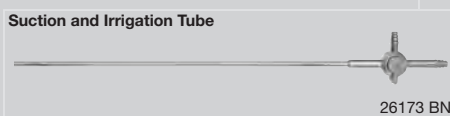
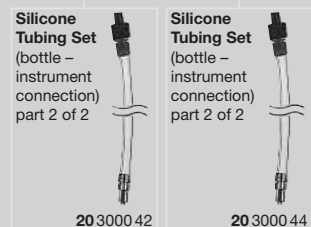
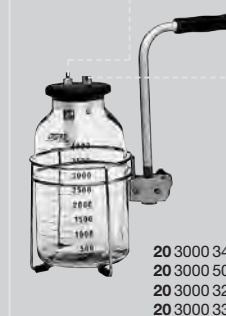
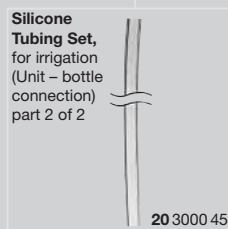
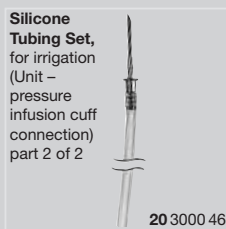
Optional Accessories for DUOMAT® see pages U 24-27
Components/Spare Parts see chapter 21

UNIT SIDE

PATIENT SIDE



Bottle Caps, Suction Bottle 5 l, Bottle Holder, Holder for Bottle Stand











SUCTION AND IRRIGATION SYSTEMS

11-982



Optional Accessories

for Suction and Irrigation Systems

			for use with		
			HAMOU® ENDOMAT® SCB 26 3311 01-1	ENDOMAT® LC SCB 20 3303 01-1	DUOMAT® 20 3210 08
	26 3100 38	Pressure Infusion Cuff, 1.5 l	-	-	●
	26 3101 38	Pressure Infusion Cuff, 3 l	-	-	●
	26 3100 35	Bottle Cap , sterilizable, for use with irrigation bottles 1 l and 1.5 l, sterile (cylindrical and square) type Abbott and Baxter Laboratories	-	-	●
	26 3102 35	Bottle Cap , sterilizable, for use with irrigation bottle 1 l, sterile (round), type Fresenius and B. Braun (old type), Delta Pharma (round)	-	-	●
	26 3103 35	Bottle Cap , sterilizable, for use with irrigation bottle 1 l, sterile (round or square), type B. Braun (old type) and Delta Pharma	-	-	●
	20 3000 52	Suction Bottle, 1.5 l, sterilizable	●	-	●
	20 3000 34	Bottle Cap , for suction bottles 1.5 l and 5 l, sterilizable	●	-	●
	20 3001 30	Bottle Stand , for suction bottle 1.5 l or irrigation bottle 1 l	●	-	●
	26173 BN	Suction and Irrigation Tube , with lateral holes, anti-reflex surface, with two-way stopcock for single-hand control, size 5 mm, length 36 cm	●	●	●
	26173 VG	Puncture Needle , for sterile infusion solution 1 l, sterilizable, working length 22 cm	-	-	●
	860015 B	Puncture Needle , for sterile infusion solution 500 ml, sterilizable, working length 18 cm	-	-	●












Optional Accessories

for Suction and Irrigation Systems

			for use with		
			ENDOMAT® n. HAMOU® SCB 26 3311 01-1	ENDOMAT® LC SCB 20 3303 01-1	DUOMAT® 20 3210 08
	26 3100 50	Irrigation Liquid Bottle , 1 l, sterilizable	-	-	●
	20 3000 50	Suction Bottle , 5 l, sterilizable	●	-	●
	20 3000 34	Bottle Cap , for suction bottles 1.5 l and 5 l, sterilizable	●	-	●
	20 3000 32	Bottle Stand , for suction bottle 5 l	●	-	●
	20 3000 33	Bottle Stand Holder , for Bottle Stand 20 3000 32	●	-	●
	20 0142 30	One-Pedal Footswitch , digital, two-stage, for activating a higher flow for improved visibility	-	●	-
	20 0141 30	One-Pedal Footswitch , digital, one-stage, for irrigation	-	●	-
	20 3004 82	Connector Set , for ENDOMAT® LC, for use with Silicone Tubing Sets 20 3303 40, 20 3303 41 and 20 3303 43	-	●	-
	20 3303 82	Pump Tube , sterilizable, package of 25	-	●	-


Optional Accessories

for Suction and Irrigation Systems

			for use with		
			HAMOU® ENDOMAT® SCB 26 3311 01-1	ENDOMAT® LC SCB 20 3303 01-1	DUOMAT® 20 3210 08
	20 3000 42	Silicone Tubing Set , for suction, sterilizable	-	-	●
	20 3000 44	Silicone Tubing Set , for suction, sterilizable, short	-	-	●
	20 3000 46	Silicone Tubing Set , sterilizable, for use with Pressure Infusion Cuff 26 3100 38 and 26 3101 38	-	-	●
	20 3000 45	Silicone Tubing Set , for irrigation, sterilizable, for use with Bottle Caps 26 3100 35, 26 3102 35, 26 3103 35 and Puncture Needle 26173 VG	-	-	●
	26 3311 42	Silicone Tubing Set , for suction, sterilizable	●	-	-
	031119-10*	Tubing Set , with two puncture cannulas, for single use, sterile, for irrigation, package of 10, for use with ENDOMAT® LC	⊗	●	-
	031247-10*	Tubing Set , for suction, for single use, sterile, package of 10	⊗	●	-
	20 0900 70	SCB Connecting Cable , length 30 cm	●	●	-
	20 3001 45	Silicone Tubing Set , sterilizable, for irrigation/insufflation, for use with Puncture Needle 860015 B	-	-	●
	031124-10*	Filter , for single use, unsterile, for use in fluid suction, specially adapted, package of 10	⊗	-	●
	031517-10*	Cassette Tubing Set , with two puncture needles, for single use, sterile, package of 10, for hysteroscopy	⊗	-	-
	031518-10*	Same , for laparoscopy			

Optional Accessories

for Suction and Irrigation Systems

		for use with		
		ENDOMAT® n. HAMOU® SCB 26 3311 01-1	ENDOMAT® LC SCB 20 3303 01-1	DUOMAT® 20 3210 08
	030020-18* VACUsafe Canister , 2 l, package of 18			
	030220-48* VACUsafe Suction Bag , 2 l, with filter, for single use, package of 48, color code: green	●	-	●
	030847-10* VACUsafe EXTRA-LARGE LUER-Lock Tubing Set	●	-	-

SUCTION AND IRRIGATION SYSTEMS

Special Features:

- High suction performance of 30 l/min
- Particularly low noise and vibration
- Fast vacuum build-up to 85 kPa
- Maintenance-free cylinder/piston system
- Very easy to use
- Hydrophobic bacterial filter protects pump
- Problem-free cleaning
- For use in the doctor's office or hospital



25 3200 01 UNIMAT® 30, Suction Pump Set,
power supply 230 VAC, 50/60 Hz
including:
Bacterial Filter
Secretion Bottle, 2 l
Bottle Cap, with grip
Connecting Tube, short
Patient Tube
Overflow Case
Mains Cord, length 300 cm
VACUsafe Promotion Pack Suction*

25 3200 01C Same, power supply 115 VAC, 50/60 Hz

Specifications:

Suction performance	30 l/min
Vacuum	up to 85 kPa, up to 640 mmHg
Power supply	115/230 VAC, 50/60 Hz
Dimensions w x h x d	245 x 345 x 282 mm
Weight	7.4 kg
Certified to	IEC 601-1, CE acc. to MDD

Rated power/ power consumption	1A, 100 Watt (115 VAC) 0.45 A, 100 Watt (230 VAC)
Protection class	protection class I, BF, IPX 1
Inspections or certifications	MDD 93/42 EWG, EN 60601-1, EN 60601-1-2, EN 10079-1, ISO 9001, UL 2601-1



Optional Accessories for UNIMAT® 30 see page U 30
Components/Spare Parts see chapter 21

UNIT SIDE
PATIENT SIDE



Connecting Tube, short



25 3200 83

Bacterial Filter
Secretion Bottle
Bottle Cap
Overflow Case



25 3200 80
25 3200 81
25 3200 82
25 3200 85

Patient Tube



25 3200 84

SUCTION AND IRRIGATION SYSTEMS
FOR FLEXIBLE ENDOSCOPES

	for Bronchoscopy:	
	10432 N	Aspirator , for collecting secretions, with cut-off hole, can be connected to suction tubes or suction catheters
	10432 T	Same , without cut-off hole
	25 3200 80	Bacterial Filter
	25 3200 81	Secretion Bottle , 2 l
	25 3200 82	Bottle Cap , with grip
	25 3200 85	Overflow Case
	25 3200 83	Connecting Tube , short
	25 3200 84	Patient Tube
	400 A	Mains Cord , length 300 cm
	UG 624	Pump Holder , for mounting suction pump UNIMAT® 30 25 3200 01 to equipment cart UGxxx
	030015-24*	VACUsafe Canister , 1.5 l, package of 24
	030020-18*	VACUsafe Canister , 2 l, package of 18
	030030-12*	VACUsafe Canister , 3 l, package of 12
	030215-48*	VACUsafe Suction Bag , 1.5 l, with filter, for single use, package of 48, color code: green
	030220-48*	Same , 2 l
	030230-48*	Same , 3 l
	mtp*	Gelling Granulate , in 20 g bag
	030748-20*	VACUsafe Suction Tube , 1.7 m, with red and blue multiadaptors, for single use, unsterile, package of 20
	030648-10*	VACUsafe Connecting Tube , 30 cm, with green multiadaptor, unsterile, package of 10
	030971-01*	VACUsafe Canister Holder , for use with 25 x 10 mm and 34 x 8 mm rails





■ MOTOR SYSTEMS

UNIDRIVE® S III SCB

NEW Rotocut G2

SuperCut Morcellator SAWALHE II

UNIDRIVE® S III SCB

Recommended Standard Set Configuration

For use with electronic morcellators SuperCut Morcellator SAWALHE II and Rotocut G2

Special Features:

- Continuously variable revolution range
 - Maximum number of revolutions can be preset
 - Consistently high motor performance over the entire range of revolutions
 - Processor controlled number of revolutions and motor torque
 - Optimized user control
 - Operating elements are simple and clear to read
 - Automatic handpiece recognition
- Integrated control connection for KARL STORZ pump systems in combination mode
 - For use with:
 - Rotocut G2
 - SuperCut Morcellator SAWALHE II
 - With connection possibilities to the KARL STORZ Communication Bus (KARL STORZ-SCB)



26 7010 01-1 **UNIDRIVE® S III SCB**, power supply
100 – 240 VAC, 50/60 Hz
including:
Mains Cord
One-Pedal Footswitch, two-stage
SCB Connecting Cable, length 100 cm

Specifications:

Operation mode	- oscillating (shaver) - clockwise (morcellator)	Dimensions w x h x d	305 x 165 x 233 mm
Max. rotations	40,000 (rpm) (EC motor)	Weight	5 kg
Power supply	100-240 VAC, 50/60 Hz	Certified to	IEC 601-1, CE acc. to MDD

Set Configuration Accessories see pages U 35 and U 41
Components/Spare Parts see chapter 21

Rotocut G2 – Another Step Towards Perfection

Rotocut G2 sets new standards for morcellators in gynecological laparoscopy. Combining ease of operation with maximum performance, Rotocut G2 offers an efficient and time-saving alternative to previous systems. The consistent further development of the proven Rotocut G1 hollow shaft motor provides optimal functionality combined with enhanced user-friendliness, for example, the morcellator can be directly placed on the patient's abdominal wall.

Some important features of the Rotocut G1 have been optimized for Rotocut G2 in close cooperation with the users.

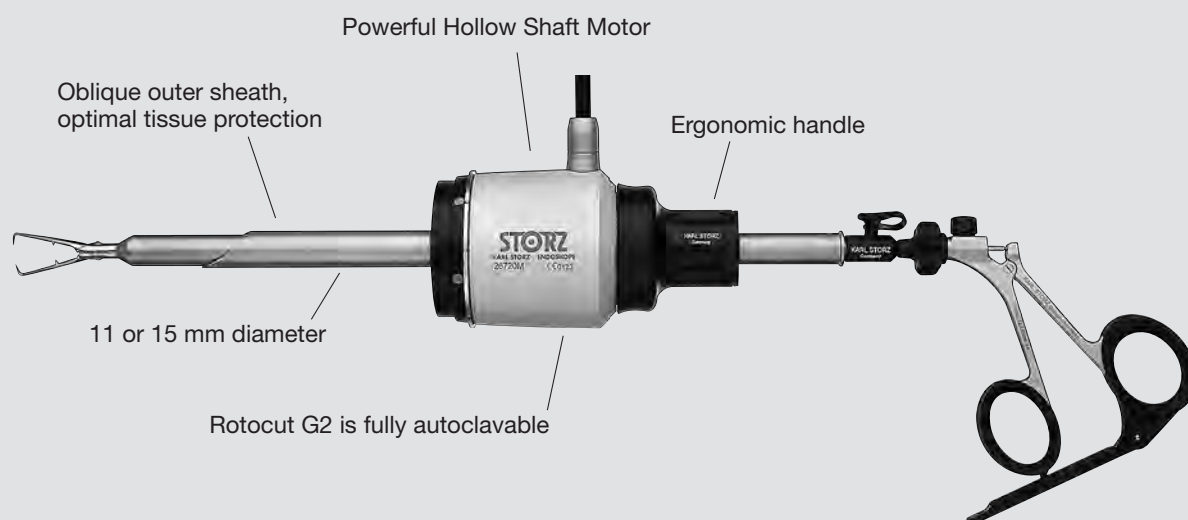
The new Rotocut G2 generation is equipped with a stand-alone trocar that can be coupled with the motor

components. Consequently, the morcellator can be introduced into the abdominal cavity without the motor during initial access. This new feature simplifies handling of the system. The rotatable trocar allows variable positioning of the trocar tip in order to maintain an optimal view of the knife and to facilitate tangential morcellation ("peeling"). After morcellation, the stand-alone trocar without motor serves as an additional port for instruments, for example, for retrieving morcellated tissue from the abdomen.

The fully enclosed motor housing meets the highest reprocessing standards. No additional cleaning adaptors are necessary and the motor does not require lubrication.

Special Features:

- Powerful, gearless hollow shaft motor
- Initial abdominal access without motor
- Time savings achieved through quick-lock mechanism connecting the motor and trocar
- Peeling function for rapid morcellation
- Rotating trocar for variable positioning of the trocar tip
- Stand-alone trocar serves as an additional access after morcellation
- Enclosed motor housing

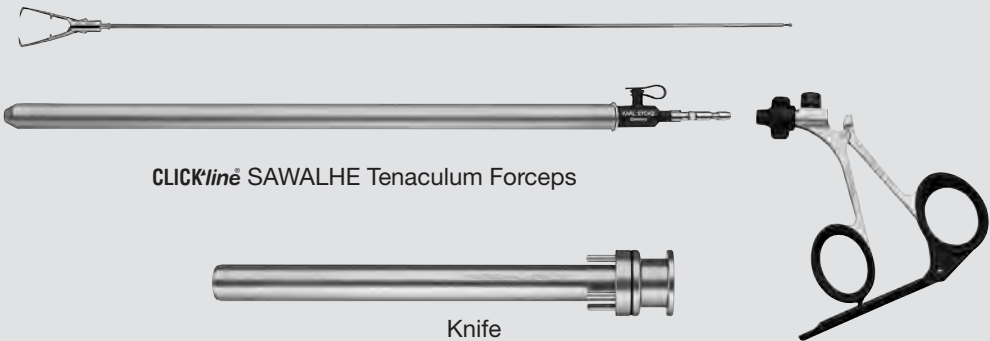


Rotocut G2 ^{NEW}

for laparoscopic applications,
sizes 11 and 15 mm



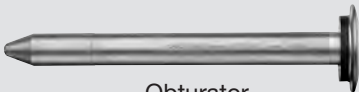
26723 RC/26721 RC/26725 RC



CLICK'line SAWALHE Tenaculum Forceps



Knife



Obturator



Space Plate



Outer Sheath, oblique



Motor Valve



Hollow Shaft Motor



Handle



Sealing Cap

MOTOR SYSTEMS

Rotocut G2 ^{NEW}

for laparoscopic applications,
sizes 11 and 15 mm



Size 11 mm

26721 RC **Rotocut G2**, standard, diameter 11 mm, morcellator for laparoscopic applications, for use with UNIDRIVE® S III 20 7010 20-1
including:
Hollow Shaft Motor Rotocut G2
Handle, 11/15 mm
Trocar, standard, diameter 11 mm, oblique
Obturator, standard, diameter 11 mm, blunt
Sealing Cap, package of 10
Valve, diameter 11 mm
Space Plate Set, package of 5
Valve Plate, package of 10, unsterile
CLICK'line SAWALHE Tenaculum Forceps, size 11 mm
Knife, laparoscopic, diameter 11 mm
Tray, for 10 Valve Plates 26720 P1

Size 15 mm

26725 RC **Same**, diameter 15 mm

Size 11/15 mm

26723 RC **Rotocut G2**, diameter 11/15 mm, morcellator for laparoscopic applications, for use with UNIDRIVE® S III 20 7010 20-1
including:
Hollow Shaft Motor Rotocut G2
Handle, 11/15 mm
Trocar, standard, diameter 11 mm, oblique
Trocar, standard, diameter 15 mm, oblique
Obturator, standard, diameter 11 mm, blunt
Obturator, standard, diameter 15 mm, blunt
Sealing Cap, package of 10
Valve, diameter 11 mm
Valve, diameter 15 mm
Space Plate Set, package of 5
Valve Plate, package of 10, unsterile
CLICK'line SAWALHE Tenaculum Forceps, size 11 mm
CLICK'line SAWALHE Tenaculum Forceps, size 15 mm
Knife, laparoscopic, diameter 11 mm
Knife, laparoscopic, diameter 15 mm
Tray, for 10 Valve Plates 26720 P1

For use with SAWALHE Forceps see chapter 13, page 324
Components/Spare Parts see chapter 21

Optional Accessories

for Rotocut G2



26 7130 39

Space Plate Set, maximum height compensation 10 mm, package of 5 Space Plates **26 7130 38**, for use with instruments up to diameter 16.5 mm



When operating on thinner patients, one or more space plates placed on top of each other can be used to reduce the penetration depth of the sheath. Space plates can be added even when the Rotocut G2 handpiece has been inserted by using the lateral slot.

26720 HA

Handle, 90°

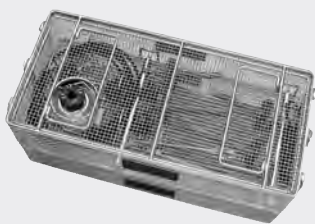
Wire Tray System 39510 G for Rotocut, recommended for cleaning, sterilization, storage and transport of a Rotocut G2 morcellator system for laparoscopic applications

39510 G

Wire Tray System for Rotocut, for cleaning, sterilization and storage of a Rotocut morcellator system, consisting of a lower level, upper level with lid, external dimensions (w x d x h): 535 x 250 x 210 mm

Product Description:

- **Upper Tray**, for components with standard or adipose lengths, also in combination
Following assembly possible:
1x Motor, with connecting cable
2x Knives, 11 or 15 mm
1x Motor Handle, 11/15 mm
4x Sheaths, 11 or 15 mm
2x Valves, 11 or 15 mm
1x Handle 90°
- **Lower Tray**, for components with standard or adipose lengths, also in combination
Following assembly possible:
2x Forceps Handles
2x Forceps Sheaths, 11 or 15 mm
2x Forceps Inserts
2x Obturator, 11 or 15 mm
5x Spacers
1x Sealed Box, for small parts
- **Lid**, for closing tray system or either lower or upper tray, with opening for mounting irrigation adaptor to motor



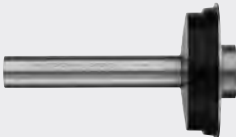




Please note: The instruments displayed are not included in the wire tray system.

Optional Accessories

for Rotocut G2

Further Accessories

for laparoscopic applications, working length 9.5 cm

	26721 TS	Trocar , straight, diameter 11 mm	
	26725 TS	Same , diameter 15 mm	
	26721 OP	Obturator , with pyramidal tip, diameter 11 mm	
	26725 OP	Same , diameter 15 mm	
	26721 OC	Obturator , with conical tip, diameter 11 mm	
	26725 OC	Same , diameter 15 mm	
	091112-05*	Knife , sterile, for single use, diameter 11 mm, working length 9.5 cm, package of 5	
	091115-05*	Same , diameter 15 mm	

Further Accessories

for laparoscopic applications for obese patients, working length 12.5 cm

	26721 TOO	Trocar , oblique, diameter 11 mm	
	26725 TOO	Same , diameter 15 mm	
	26721 TSO	Trocar , straight, diameter 11 mm	
	26725 TSO	Same , diameter 15 mm	
	26721 OBO	Obturator , with blunt tip, diameter 11 mm	
	26725 OBO	Same , diameter 15 mm	
	26721 OCO	Obturator , with conical tip, diameter 11 mm	
	26725 OCO	Same , diameter 15 mm	
	26721 OPO	Obturator , with pyramidal tip, diameter 11 mm	
	26725 OPO	Same , diameter 15 mm	
	26 7134 50	Knife , diameter 11 mm	
	26 7135 50	Same , diameter 15 mm	
	091122-05*	Knife , sterile, for single use, diameter 11 mm, working length 12.5 cm, package of 5, color code: red	
	091125-05*	Same , diameter 15 mm	



SuperCut Morcellator SAWALHE II

The SAWALHE II SuperCut Morcellator implements the most recent innovations so that the instrument offers a greater degree of safety, extensive flexibility, ease of use and smooth ergonomics combined with maximum power.

1. Ergonomic Functionality

The SuperCut handle features a recessed grip so that it fits comfortably and ergonomically in the surgeon's hand.

The oblique line of the handle to the working element blade is harmoniously balanced for convenient and functional use.

The motor is inserted in the handle and locked into place. This locking mechanism ensures a safe hold of the motor during use.

2. Safety

The newly designed obturator features a conical, atraumatic tip so that the morcellator can be introduced through the abdominal wall by a dilation/diffraction mechanism with minimal damage of tissue.

Benefits:

- Risk of vascular injuries and bleeding considerably reduced
- Better adaptation of abdominal layers
- Abdominal entry with minimized risk
- Use is straightforward and easy to learn

3. Safety of the SuperCut Tip

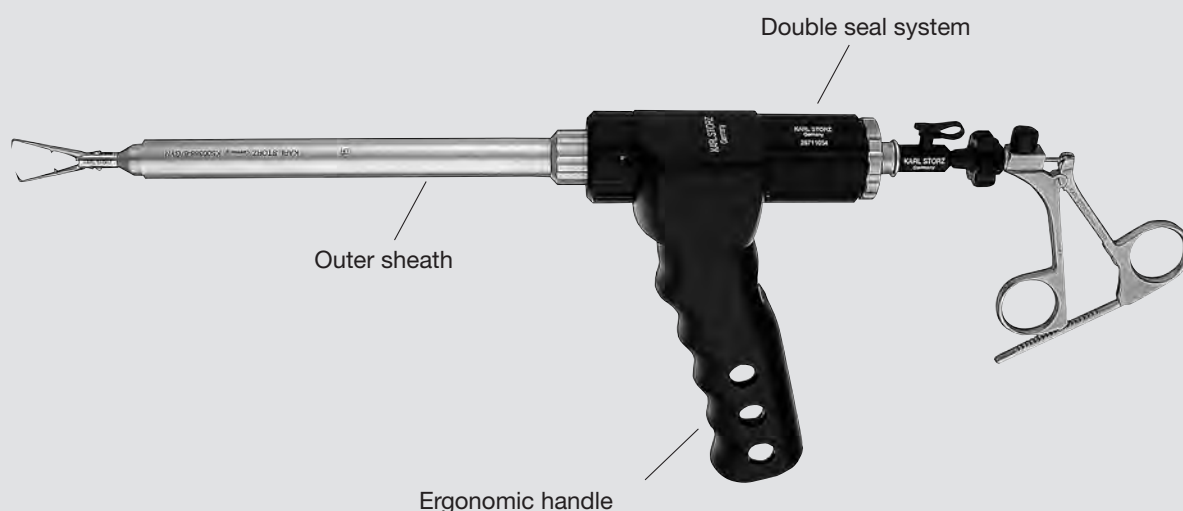
The blade is secured in a protective tube which is introduced into the abdomen in a safe and secure manner.

Benefits:

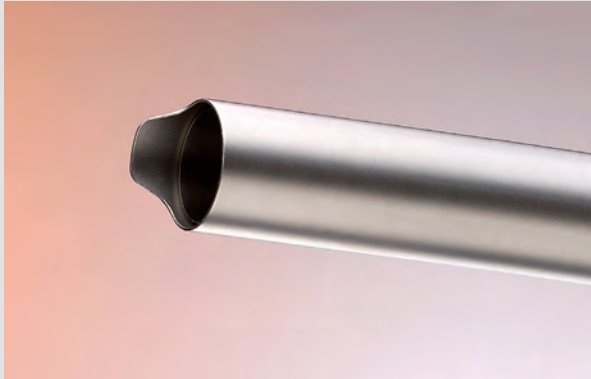
- Minimizes the risk of tissue and nerve lesions to the abdominal wall
- Minimizes the risk of visceralization in the abdomen
- Enables the morcellator to penetrate the abdominal wall without the need for excessive pressure or force

Special Features:

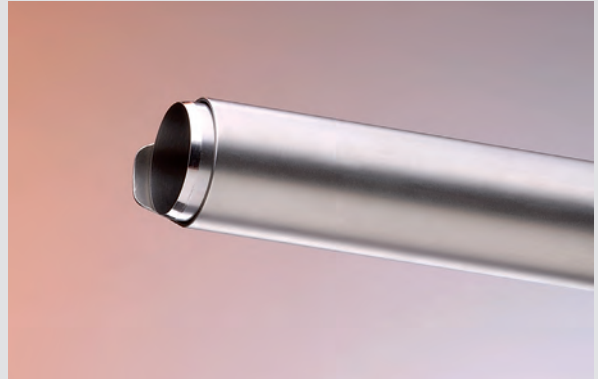
- Handle with high ergonomic functionality
- Powerful high-performance EC motor
- Lightweight construction
- Spiral obturator with conical, atraumatic tip
- Effective peeling effect due to sheath with tip
- Hardened blade edge
- Autoclavable



SuperCut Morcellator SAWALHE II



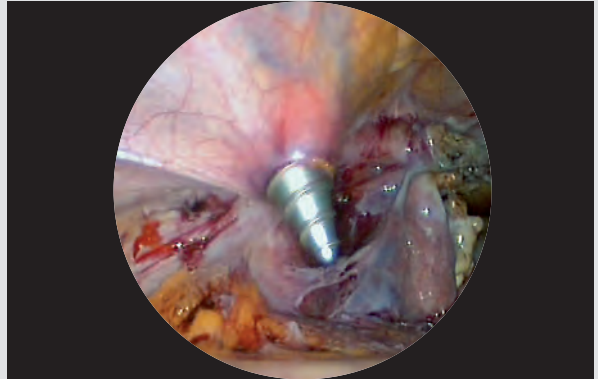
The knife is introduced into the protective tube in a secure manner. This prevents any accidental vascular or even bowel lesions. The morcellator can thus be used like a trocar.



To ensure maximum safety, the knife can be extended and activated manually by withdrawing the protective tube.



The new obturator design features a conical atraumatic spiral for safe abdominal entry.

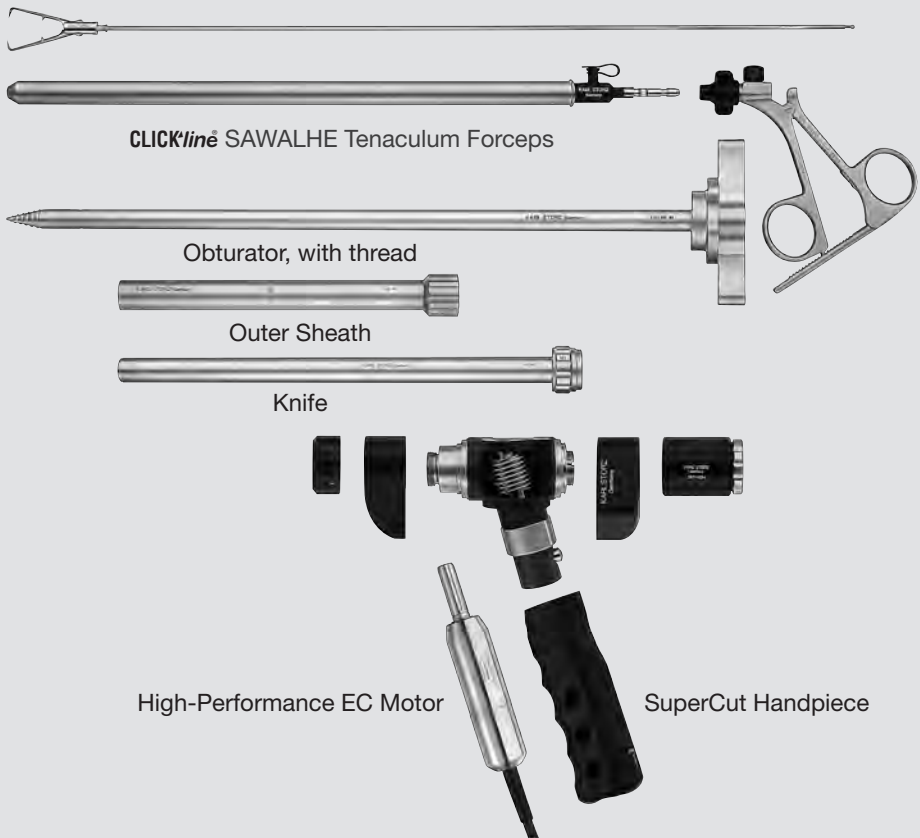


SuperCut Morcellator SAWALHE II

for laparoscopic applications,
sizes 12 and 15 mm



26 7115 13/26 7115 14/26 7115 15



SuperCut Morcellator SAWALHE II

for laparoscopic applications,
sizes 12 and 15 mm

Size 12 mm

- 26 7115 13** **SAWALHE II SuperCut Set**, diameter 12 mm, electromechanical morcellator, for use with UNIDRIVE® S III **20 7010 20-1**
including:
SuperCut Handpiece
Handle
High-Performance EC Motor
Connecting Cable, for connecting EC motor to control unit UNIDRIVE® S III
CLICK'line® SAWALHE Tenaculum Forceps, diameter 12 mm
2x Knife, diameter 12 mm
Obturator, with thread, diameter 12 mm
Sheath, with tip, diameter 12 mm
Sealing Cap, diameter 12 mm

Size 15 mm

- 26 7115 14** **Same**, diameter 15 mm

Size 12/15 mm

- 26 7115 15** **SAWALHE II SuperCut Set**, diameter 12/15 mm, electromechanical morcellator, for use with UNIDRIVE® S III **20 7010 20-1**
including:
SuperCut Handpiece
Handle
High-Performance EC Motor
Connecting Cable, for connecting EC motor to control unit UNIDRIVE® S III
CLICK'line® SAWALHE Tenaculum Forceps, diameter 12 mm
CLICK'line® SAWALHE Tenaculum Forceps, diameter 15 mm
2x Knife, diameter 12 mm
2x Knife, diameter 15 mm
Obturator, with thread, diameter 12 mm
Obturator, with thread, diameter 15 mm
Sheath, with tip, diameter 12 mm
Sheath, with tip, diameter 15 mm
Sealing Cap, diameter 12 mm
Sealing Cap, diameter 15 mm

Optional Accessories

- 280053 B** **Universal Spray**, 500 ml bottle, – HAZARDOUS GOODS – UN 1950, for use with Spray Nozzle 280053 C for INTRA drill handpieces
- 280053 C** **Spray Nozzle**, for the reprocessing of INTRA burr handpieces, for use with Universal Spray 280053 B

Note:

Maintenance of the motor-driven components (SuperCut high-performance EC motor) must be performed with Universal Spray 280053 B/C (not included in delivery).

For use with SAWALHE Forceps see chapter 13, page 324

Components/Spare Parts see chapter 21



■ HIGH FREQUENCY SURGERY UNITS

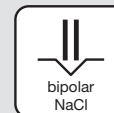
AUTOCON® II 400 SCB

AUTOCON® II 200

AUTOCON® II 400 SCB

Special Features:

- For interdisciplinary use
- Cutting-edge next-generation unit with a convenient, easy-to-disinfect touch screen
- Bi-Vascular-Safe mode for bipolar coagulation and thermofusion of large-lumen vessels
- Equipped with 2 bipolar or 2 unipolar HF outputs depending on unit
- Defibrillator-safe CF outputs for maximum patient and user safety
- Permanent safety due to continuous monitoring of the contact between the neutral electrode and the patient during unipolar use
- 2 freely programmable foot pedals can be connected simultaneously
- Automatic activation of HF energy or via hand-switch or footswitch depending on mode used
- Self-test for maximum patient and user safety
- Unit versions for standard use, bipolar resection and thermofusion of large-lumen vessels according to individual user requirements
- Up to 28 pre-programmed procedures for a wide range of disciplines make the unit extremely simple to operate. 100 program memories are available for individual programming.



AUTOCON® II 400 SCB

Safety Aspects and Main Features

Integrated voltage stability control or arc control

The two state-of-the-art generators both guarantee optimal surgical cutting and coagulation power that adapts continuously to the particular indication, especially when there are wide variations in the tissue structures and tissue impedances. At the press of a button, the operator can switch between arc control (TOP Cut mode) and voltage stability control (POWER Cut mode).

TOP Cut mode

In this mode, the HF energy required for a cutting effect is automatically reduced to the necessary physical minimum in each individual case. The electric arc always remains at a constant level, thus ensuring a uniform surgical effect. Such precise work offers a clear safety advantage and produces a cut that conserves tissue and reduces stress for the patient.

This increased safety with the AUTOCON®II 400 SCB unit is achieved by using the latest and fastest micro-processor and sensor technology, which enables the unit to capture all the important parameters, such as variable incision speed, geometry of the active electrode, different impedance behavior of biological tissue types and fluids, and transition and contact resistances. This data is then used to adjust the HF power output and HF voltage. This means that the operator is not restricted in his work or obliged to adapt to the HF unit. On the contrary, the HF unit adapts optimally to all the user's application and operating techniques.

POWER Cut mode with constant HF voltage and power

This mode ensures a uniform surgical effect and consistent cutting efficiency over a wide impedance range and many different tissue types.

RAM system – return electrode application monitoring

This safety system continuously monitors the contact quality between the neutral electrode and the patient's skin, and additionally indicates it with symbols. If the contact surface area decreases, the safety system gives an early visual and acoustic alarm, thus preventing a burn under the application site of the patient electrode. To increase the contact reliability of the neutral electrode, the user can prevent the application of single-faced electrodes.

Gastro Cut and Papillo Cut

These two new resection modes, which were specially developed by KARL STORZ for use in flexible endoscopy, permit a fractionated and controlled cut with no

bleeding. The special HF generator technology allows controlled output of cutting and coagulation pulse current. Both the pulse sequence and the pulse speed can be set separately and specifically for each mode.

LF/HF leakage currents

Stray currents and the associated risk of burns are minimized by design measures.

SCB- and OR1™-compatible

The units are designed for integration in the KARL STORZ Communication Bus (SCB). Full integratability of the HF unit in the networked, and even speech-controlled, operating room of the future is already a standard feature (system requirement: RUI software release 2009001-26 or later).

C-Cut® mode and LAP-C-Cut mode – the intermittent coagulation-cutting mode with AUTOCON®II 400 SCB

Designed for blood-free cutting during laparoscopy and when using irrigation liquids, the electric current is specially modulated and offers a reproducible coagulation current with high cutting efficiency. This makes time-consuming subsequent coagulation a thing of the past. Using the C-Cut® mode thus reduces the need for blood transfusions and saves surgery time. The result is an overall reduction in operating costs, and for the patient it means additional protection.

Bipolar generator with 370 W HF power

This outstanding performance range allows the unit to be used in conjunction with the newly developed bipolar special and standard accessories. This high-end unit is even suitable for indications using irrigation liquids, which in the past could only be performed with special-purpose HF systems. The safety of the bipolar technology from KARL STORZ eliminates the need for applying a neutral electrode, including for interventions which used to be standard unipolar procedures.

Unipolar generator with 300 W HF power

With a peak power of 300 watts, the AUTOCON®II 400 SCB is ideally equipped for interventions in all areas of use.

AUTOCON® II 400 SCB

Safety Aspects and Main Features

Precise power setting and power limitation

Exact fine tuning in 1 W steps is provided for interventions requiring maximum precision with very low power.

Up to 8 hemostatic effects

Individual selection of up to 8 hemostatic effects for unipolar and bipolar cutting, each with up to 370 W output, permits optimal control of coagulation and the surgical effect in every situation.

Forceps auto-start function

When the forceps tips contact the tissue, bipolar coagulation is activated automatically after a freely adjustable delay of up to 9.9 seconds.

6.5" touch screen

The color touch screen makes the AUTOCON®II 400 SCB the world's first HF unit with this new, user-friendly operating technology. It also offers the important advantage of very easy cleaning and wipe-down disinfection.

100 program memories

Simple programming of the indication-related unit parameters makes the AUTOCON®II 400 SCB easy and intuitive to operate because all the programs can be stored in numeric order or text-based with user name and indication. The stored programs can be called up in the indication list at the touch of a button.

Bipolar coagulation auto-stop function

Automatic power shutdown when the coagulation procedure has been ended.

Self-test program

A comprehensive software safety concept ensures smooth, safe use after switching on. Detected component faults are indicated by an error code display, enabling rapid troubleshooting. The self-test also includes the connected accessories for the specific purpose of minimizing waiting times in preoperative work-up.

Software upgrade

The service port on the back of the unit allows the HF functions of the AUTOCON®II 400 SCB to be expanded economically for future forms of HF treatment. This means that the AUTOCON®II 400 SCB is always up-to-date.



AUTOCON® II 400 SCB, AUTOCON® II 200

Special Features

	AUTOCON® II 400 SCB	AUTOCON® II 200
Special Features:		
Degree of coagulation (effect) can be preselected in several steps: The degree of coagulation measures extent of coagulation depth	●	●
Bi-Vascular-Safe mode for bipolar coagulation and thermofusion of large-lumen vessels	●	—
Easy to use due to automatic mode selection thanks to recognition of instrument-cable connection	●	—
Spray coagulation: Coagulation with modulated HF voltage (Up > 500 V); very long arcs enable coagulation of large and bleeding areas of tissue without contact to tissue	●	—
Autostart function: Manual adjustment of operating time limit for bipolar coagulation	●	●
Voltage-regulated cutting	●	●
Arc-controlled cutting, unipolar	●	—
Separate papillo-cut and gastro-cut functions enable fractionated cutting with regulated HF current at different cutting speeds for flexible endoscopy	●	●
Autostart function for bipolar coagulation: Automatic activation of coagulation current as soon as coagulation electrode touches tissue with both branches	●	●
Activation of HF functions possible via footswitch or manual control switch for unipolar or bipolar	●	●
Bipolar resection with KARL STORZ bipolar electrotomes	●	—
Bipolar application with NaCl irrigation solution	●	—
Modular connecting sockets for unipolar and bipolar applications can be selected according to individual requirements	●	●
100 applications with text can be stored	●	—
Convenient use via 6.5" touch screen	●	—
Switchover function enables switching between two modes within a user program via a footswitch from the sterile area	●	—
Compatible with KARL STORZ Communication Bus (KARL STORZ-SCB)	●	—
Service port for software updates and HF functionality upgrades	●	—

AUTOCON® II 400 SCB

Specifications

HF Modes	Effects	P max. at 500 Ohm	V _p max. at 500 Ohm	Crest Factor	Arc Control	Voltage Control
Unipolar						
TOP-Cut	8	300	1040	1.4	●	–
POWER-Cut	8	300	740	1.4	–	●
C-Cut®	8	200	1450	3.2 – 3.6	–	●
LAP-C-Cut	8	200	1450	3.2 – 3.6	–	●
Gastro-Cut	4	200	880	1.4	–	●
Papillo-Cut	4	200	880	1.4	–	●
Standard Coag	8	200 (at 50 Ohm)	190	1.4	–	●
Forced Coag	4	120	1800	6.0	–	●
Spray Coag	2	120	4300	7.4	–	●

Bipolar

Bipolar-Cut	8	100	740	1.4	–	●
Saline-C-Cut	8	370	770	1.4	–	●
Saline-C-Cut ++*	8	300 (at 75 Ohm)	490	1.4	–	●
Saline-Time-C-Cut	8 time 0.1-1 sec.	370	770	1.4	–	●
Saline-Time-C-Cut ++*	8 time 0.1-1 sec.	300 (at 75 Ohm)	490	1.4	–	●
Saline Coag	8	200 (at 75 Ohm)	190	1.4	–	●
Saline Coag ++*	8	200 (at 50 Ohm)	190	1.4	–	●
Saline-Time-Coag	8 time 0.1-1 sec.	200 (at 75 Ohm)	190	1.4	–	●
Saline-Time-Coag ++*	8 time 0.1-1 sec.	200 (at 75 Ohm)	190	1.4	–	●
Bipolar Soft Coag	8	120 (at 75 Ohm)	190	1.4	–	●
Bipolar Soft with Auto-Stop	8	120 (at 75 Ohm)	190	1.4	–	●
Bi-Vascular-Safe**	8	300 (at 25 Ohm)	220	1.4	–	●

*Only for units with additional resection module

**with software package “Bi-Vascular-Safe”

Specifications:

Safety systems	<ul style="list-style-type: none"> - Automatic self-test - Mالدosage - Neutral electrode safety system (dynamic, two-part, one- and two-part NE) - LF/HF leakage current monitor - Activation time - Deactivable HF 	Power supply	20 5352 2x-12x: 220-240 VAC, 50/60 Hz 20 5352 2xU12x: 100-120 VAC, 50/60 Hz
		Dimensions w x h x d	448 x 164 x 345 mm
		Weight	10 kg
		Certified to	IEC 60601-1, CE acc. to MDD

AUTOCON® II 400 SCB

High Frequency Surgery Unit,
Recommended Standard Set Configuration



AUTOCON® II 400 SCB,
power supply 220 – 240 VAC, 50/60 Hz
including:
Mains Cord
SCB Connecting Cable, length 100 cm

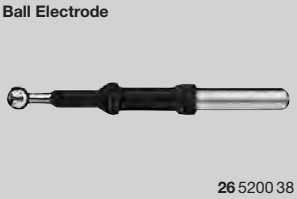
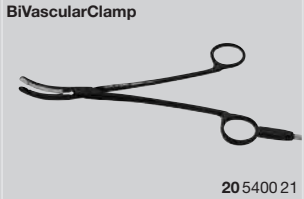
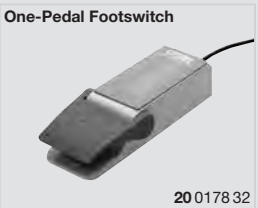
AUTOCON® II 400 SCB,
power supply 100 – 120 VAC, 50/60 Hz
including:
Mains Cord
SCB Connecting Cable, length 100 cm

Application	Standard: Unipolar/Bipolar	High-End
Unit version	-122 (220 – 240 VAC) U122 (100 – 120 VAC)	-125 (220 – 240 VAC) U125 (100 – 120 VAC)
Product No.	20 5352 01-122 20 5352 01U122	20 5352 01-125 20 5352 01U125 basic unit
	–	20 5352 02-125 20 5352 02U125 basic unit, incl. additional resection module
	–	20 5352 03-125 20 5352 03U125 basic unit, incl. Bi-Vascular-Safe mode
	–	20 5352 04-125 20 5352 04U125 basic unit, incl. additional resection module + Bi-Vascular-Safe mode
Socket Position		
1	Bipolar Combination 	Bipolar Combination
2	Bipolar Combination 	Bipolar Multifunction
3	Unipolar 3-pin and Erbe 	Unipolar 3-pin and Erbe
4	NE 6.3 mm jack and 2-pin 	NE 6.3 mm jack and 2-pin

Optional Accessories for AUTOCON® II 400 SCB see pages U 54-57
Components/Spare Parts see chapter 21

AUTOCON® II 400 SCB
System Components

UNIT SIDE
PATIENT SIDE



AUTOCON® II 200
High Frequency Surgery Unit,
Recommended Standard Set Configuration



- 20 5322 01 **AUTOCON® II 200**, power supply
200 – 240 VAC, 50/60 Hz
including:
Mains Cord
- 20 5322 01 C **AUTOCON® II 200**, power supply
100 – 120 VAC, 50/60 Hz
including:
Mains Cord, US version
- 20 5322 01-010 **AUTOCON® II 200**, with GASTRO-Cut,
power supply 200 – 240 VAC, 50/60 Hz
including:
Mains Cord
- 20 5322 01C010 **AUTOCON® II 200**, with GASTRO-Cut,
power supply 100 –120 VAC, 50/60 Hz
including:
Mains Cord, US version

Specifications:

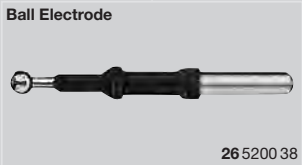
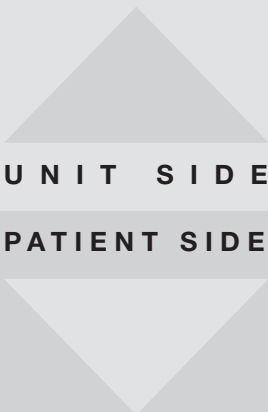
HF rated power	- Cutting Power-Cut (unipolar): 220 Watt/500 Ohm GASTRO-Cut (unipolar): 200 Watt/75 Ohm - Coagulation Standard-Coag (unipolar): 120 Watt/50 Ohm Forced-Coag (unipolar): 120 Watt/500 Ohm Standard-Coag (bipolar): 120 Watt/75 Ohm
Max. voltage	- Cutting Power-Cut (unipolar): 740Vp GASTRO-Cut (unipolar): 550Vp - Coagulation Standard-Coag (unipolar): 190Vp Forced-Coag (unipolar): 1800Vp Standard-Coag (bipolar): 190Vp
Degree of coagulation	Power-Cut: 8 GASTRO-Cut: 4 Unipolar Standard-Coag: 8 Forced-Coag: 4 Bipolar Standard-Coag: 8

Autostart	Coagulation bipolar
Autostop	Coagulation bipolar standard
Safety systems	- permanent power control - maldosage - neutral electrode safety system - automatic self-test
Power supply	100-120 VAC or 200-240 VAC, 50/60 Hz
Dimensions w x h x d	410 x 165 x 385 mm
Weight	10 kg
Certified to	IEC 60601-1, CE acc. to MDD

Optional Accessories for AUTOCON® 200 see pages U 54-57
Components/Spare Parts see chapter 21

AUTOCON® II 200

System Components



3-12i

HIGH FREQUENCY SURGERY UNITS

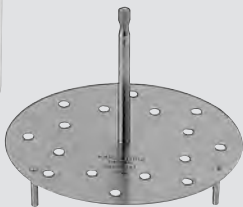
Optional Accessories

for AUTOCON® II 400 SCB and AUTOCON® II 200

			for use with	
			AUTOCON® II 400 SCB	AUTOCON® II 200
	20 0178 31	Three-Pedal Footswitch , for use with AUTOCON® II 400 SCB	•	—
	20 0178 30	Two-Pedal Footswitch , for use with AUTOCON® II 400 SCB and AUTOCON® II 200	•	•
	20 0178 32	One-Pedal Footswitch , for activating coagulation, for use with AUTOCON® II 400 SCB and AUTOCON® II 200	•	•
	27805	Neutral Electrode , of conductive silicone with 2 rubber ties for fastening, contact surface A = 500 cm², for use with Connecting Cable 27806	•	•
	27806	Neutral Electrode Connecting Cable , for Neutral Electrodes 27805 and 860021 E, length 400 cm	-111 -115 -122 -125	•
	27806 UR	Neutral Electrode Connecting Cable , for Neutral Electrode 27805	-112 -116 -122 -125	•
	27806 US	Neutral Electrode Connecting Cable , for Neutral Electrode 27802	-112 -116 -122 -125	•
	27802	Neutral Electrode , for single use, contact surface divided into two, A = 169 cm², package of 50, Connecting Cable 27801 required	⊗ •	•
	27801	Connecting Cable , for connecting Neutral Electrode 27802, length 500 cm	-111 -115 -122 -125	•
	26 5200 43	Electrode Handle , with 2 buttons for activating the unipolar generator, yellow button: unipolar cutting, blue button: unipolar coagulation (Cable 26 5200 45 required)	•	•
	26 5200 45	High Frequency Cable , for Electrode Handle 26 5200 43, length 400 cm	-111 -115 -122 -125	•
	26 5200 46	Electrode Handle , without buttons, with integrated connecting cable, length 300 cm	-111 -115 -122 -125	•

Surgery Electrodes Set

Accessories



20 5300 08 **Surgery Electrodes Set**
including:

**Container with Lid and
Sterilizing Insert**, for
16 electrodes with diameter 4 mm



Wire Snare, 5 mm



Same, 10 mm



Ribbon Snare, 10 mm



KIRSCHNER Spatula Electrode,
straight



MAGENAU Knife Electrode,
angled



Knife Electrode, lancet-shaped



Ball Electrode, 2 mm



Same, 4 mm



Same, 6 mm



Needle Electrode



Flat Electrode, 8 x 10 mm



Same, 10 x 15 mm

For use with Electrode Handles 26 5200 43 and 26 5200 46
Components/Spare Parts see chapter 21

Accessories

Unipolar High Frequency Cords



Unipolar High Frequency Cords

KARL STORZ
Instrument

High Frequency
Surgery Units

	26002 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for models KARL STORZ, Erbe type T, older models and Ellman
	26004 M	Unipolar High Frequency Cord , with 4 mm plug, length 300 cm, for use with Martin HF units
	26005 M	Unipolar High Frequency Cord , with 5 mm plug, length 300 cm, for AUTOCON® II 400 SCB system (111, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, AUTOCON® system (50, 200, 350) and Erbe type ICC
	26006 M	Unipolar High Frequency Cord , with 8 mm plug, length 300 cm, for use with AUTOCON® II 400 SCB system (112, 116) and Valleylab models

Please note: All high frequency cords of this page are delivered with a length of 300 cm. If a length of 500 cm is requested please add letter **L** to the part number, e. g. 26002 **ML**, 26176 **LVL**.

Accessories

Bipolar High Frequency Cords



Bipolar High Frequency Cords

KARL STORZ
Instrument

High Frequency
Surgery Units

	26176 LE	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (111, 113, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, Coagulator 26021 B/C/D, 860021 B/C/D, 27810 B/C/D, 28810 B/C/D, AUTOCON® series (50, 200, 350), Erbe-Coagulator, T and ICC series
	26176 LM	Bipolar High Frequency Cord , length 300 cm, for use with Martin HF units
	26176 LV	Bipolar High Frequency Cord , length 300 cm, for AUTOCON® II 400 SCB system (112, 114, 116, 122, 125), AUTOCON® II 200, AUTOCON® II 80 and Valleylab coagulators
	26176 LW <i>NEW</i>	Bipolar High Frequency Cord , length 300 cm, pin distance on unit side 22 mm, for use with high frequency surgical units with bipolar sockets with 22 mm pin distance



	205400 21	BiVascularClamp , total length 20 cm, with thermoinsulation, for open surgery, integrated MF cable length 4 m
	205400 22	Same , total length 21 cm, with corrugated jaws
	205400 23	Same , total length 27 cm

Please note: All high frequency cords of this page are delivered with a length of 300 cm. If a length of 500 cm is requested please add letter **L** to the part number, e. g. 26002 ML, 26176 LVL.

Compatibility

High Frequency Cords to AUTOCON® HF Surgical Units

AUTOCON® 200 AUTOCON® II 200	20 5225 20 20 5225 20C 20 5225 20-010 20 5225 20C010	—	20 5322 20 20 5322 20C 20 5322 20-010 20 5322 20C010	—	—
AUTOCON® II 400 SCB	20 5352 20-111 20 5352 20-115	20 5352 20-112 20 5352 20-116	20 5352 20-122	20 5352 20-125 20 5352 21-125	20 5352 22-125 20 5352 23-125

Unipolar High Frequency Cords

27806	●	—	●	●	●
27801	●	—	●	●	●
27806 UR	—	●	●	●	●
27806 US	—	●	●	●	●
26 5200 45	●	—	●	●	●
26 5200 46	●	—	●	●	●
26002 M	●	●	●	●	●
26005 M	●	—	●	●	●
26006 M	—	●	—	—	—

Bipolar High Frequency Cords

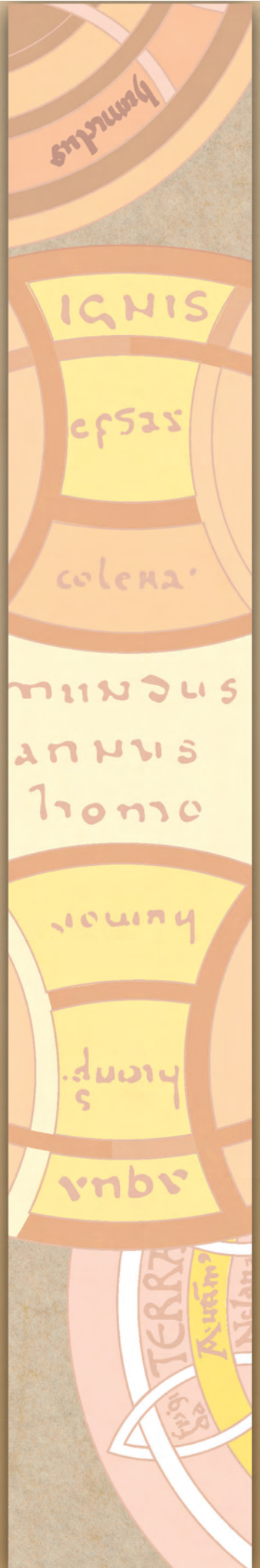
26176 LE	●	—	●	●	●
26176 LW	—	—	●	●	●
26176 LV	—	●	●	●	●

Bipolar High Frequency Cords/Instruments to Multifunction Socket

AUTOCON® II 400 SCB	20 5352 20-115	20 5352 20-116	—	20 5352 20-125 20 5352 21-125	20 5352 22-125 20 5352 23-125
20 5400 21	—	—	—	—	●
20 5400 22	—	—	—	—	●
20 5400 23	—	—	—	—	●



COMPONENTS SPARE PARTS

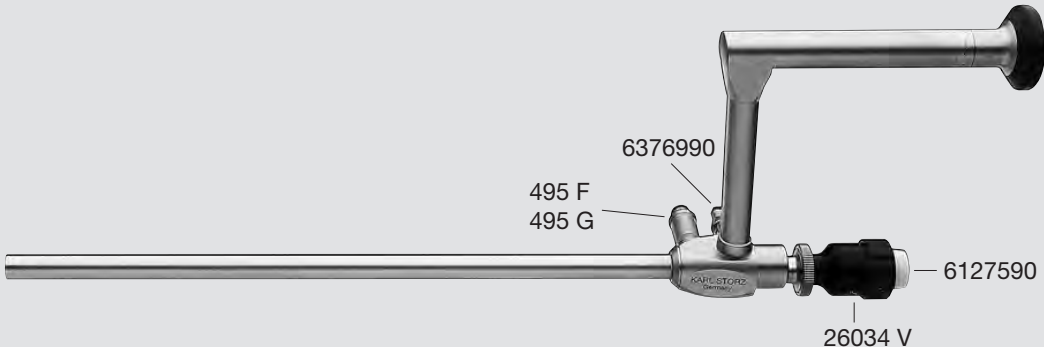









Introduction

The chapter “Components / Spare Parts” contains detailed information on KARL STORZ instruments.
For easy location and reference, an index is available which lists the order number of the spare parts as well as those of the entire instrument, set or unit.

Hotline
Queries concerning products, exchange, maintenance and cleaning can be addressed to the KARL STORZ EP1 Hotline: 07461/708-980, from Monday to Thursday from 7-18 h and Friday from 7-17 h.

Example:

Components / Spare Parts		Catalog page	
26034 AA	HOPKINS® Straight Forward Telescope 0°	40	
			
Spare Parts			
	26034 V Adaptor , with silicone leaflet valve, for working channels		6376990 Stopcock , for irrigation connector
	495 F Receptacle , diameter 9 mm, for Wolf fiber optic light cable		6985691 Spring Cap
	495 G Screw Base , for KARL STORZ fiber optic light cables and Olympus Corporation		7720590 Silicone Leaflet Washer
	6127590 Sealing Cap , (50/4)		

Spare parts assigned to instrument with catalog page reference and order numbers for individual components/spare parts

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Cones	SP 17
Automatic Valves	SP 18
Multifunctional Valves	SP 19-20
Silicone Leaflet Valves	SP 20-21
Reduction Sleeves	SP 22
Reducers	SP 23-SP 24
Thread Sleeves	SP 25
Distance Holders	SP 26
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DISSECTING AND GRASPING FORCEPS

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CLICK <i>line</i> Outer Sheaths	SP 32
CLICK <i>line</i> Percutaneous Pyloric Spreader, CLICK <i>line</i> GEIGER Pyloric Grasping Forceps, CLICK <i>line</i> Dissecting and Grasping Forceps “JET GRASPER®”, Outer Sheath	SP 33
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CLICK <i>line</i> Dissecting and Grasping Forceps	SP 36
CLICK <i>line</i> Dissecting and Grasping Forceps and Scissors, Outer Sheaths with Working Inserts, ROBI® Grasping Forceps and Scissors	SP 37
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MICCOLI INSTRUMENTS FOR VIDEO-ASSISTED THYROIDECTOMY AND PARATHYROIDECTOMY

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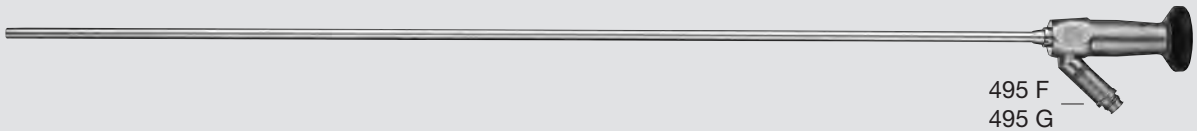
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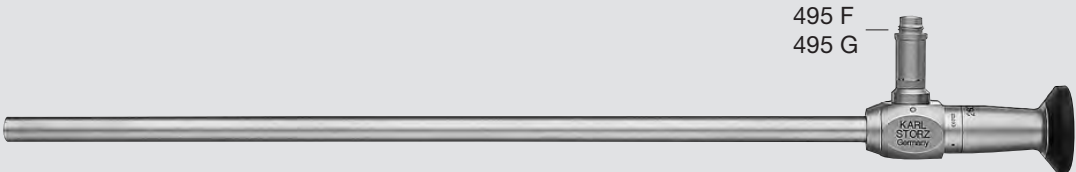


495 F
Receptacle,
diameter 9 mm, for
Wolf fiber optic light cable



495 G
Screw Base, for
KARL STORZ fiber optic
light cables and Olympus
Corporation

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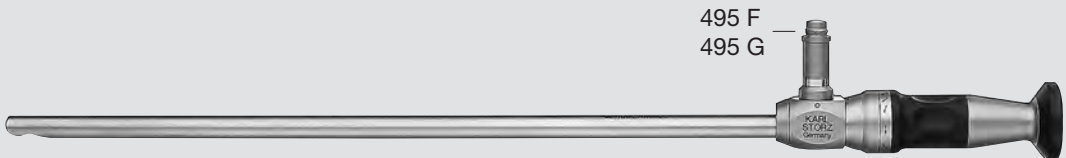


495 F
Receptacle,
diameter 9 mm, for
Wolf fiber optic light cable



495 G
Screw Base, for
KARL STORZ fiber optic
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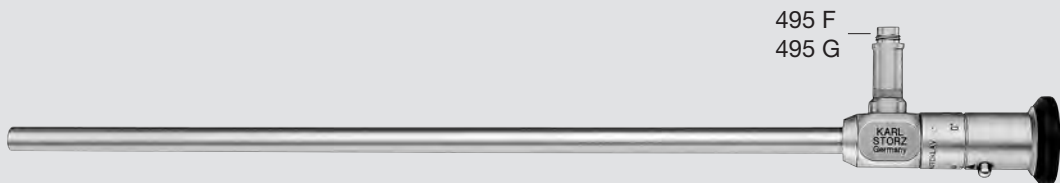


495 F
Receptacle,
diameter 9 mm, for
Wolf fiber optic light cable



495 G
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KARL STORZ fiber optic
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495 G
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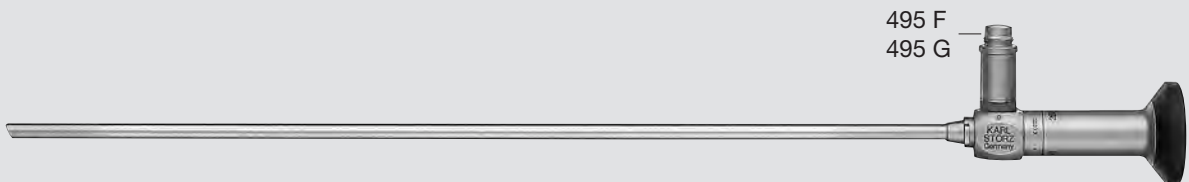


495 F
Receptacle,
diameter 9 mm, for
Wolf fiber optic light cable



495 G
Screw Base, for
KARL STORZ fiber optic
light cables and Olympus
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495 F
Receptacle,
diameter 9 mm, for
Wolf fiber optic light cable



495 G
Screw Base, for
KARL STORZ fiber optic
light cables and Olympus
Corporation

Telescopes

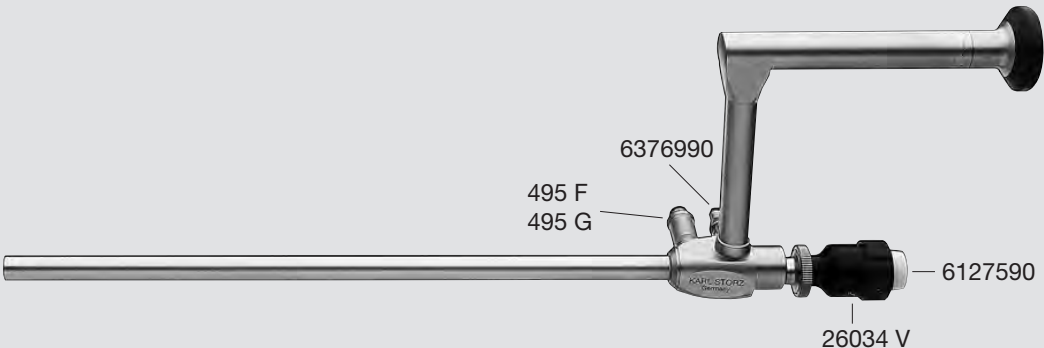
HOPKINS® Telescopes with Working Channel

Components / Spare Parts

Catalog page

26034 AA HOPKINS® Straight Forward Telescope 0°

40



Spare Parts



26034 V
Adaptor, with silicone
leaflet valve, for working
channel



6376990
Stopcock, for
irrigation connector



495 F
Receptacle,
diameter 9 mm, for
Wolf fiber optic light cable



6985691
Spring Cap



495 G
Screw Base, for
KARL STORZ fiber optic
light cables and Olympus
Corporation



7720590
Silicone Leaflet Washer



6127590
Sealing Cap, (50/4)

Telescopes

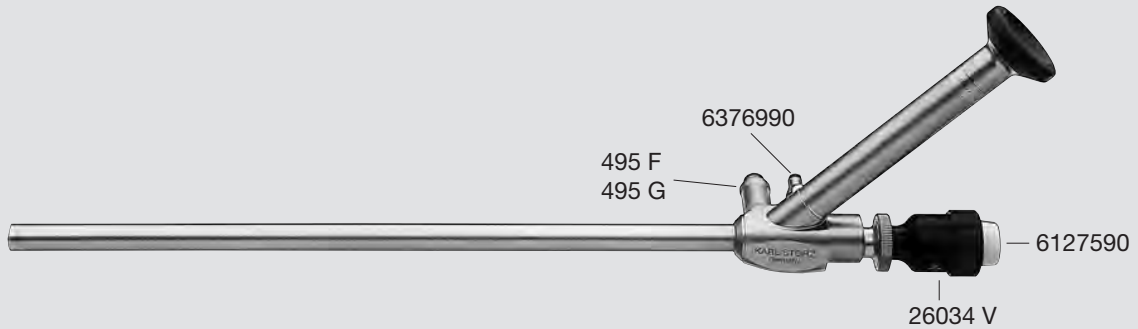
HOPKINS® Telescopes with Working Channel

Components / Spare Parts

Catalog page

26038 AA HOPKINS® Straight Forward Telescope 0°

40



Spare Parts



26034 V
Adaptor, with silicone leaflet valve, for working channel



6376990
Stopcock, for irrigation connector



495 F
Receptacle, diameter 9 mm, for Wolf fiber optic light cable



6985691
Spring Cap



495 G
Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation



7720590
Silicone Leaflet Washer



6127590
Sealing Cap, (50/4)

Telescopes

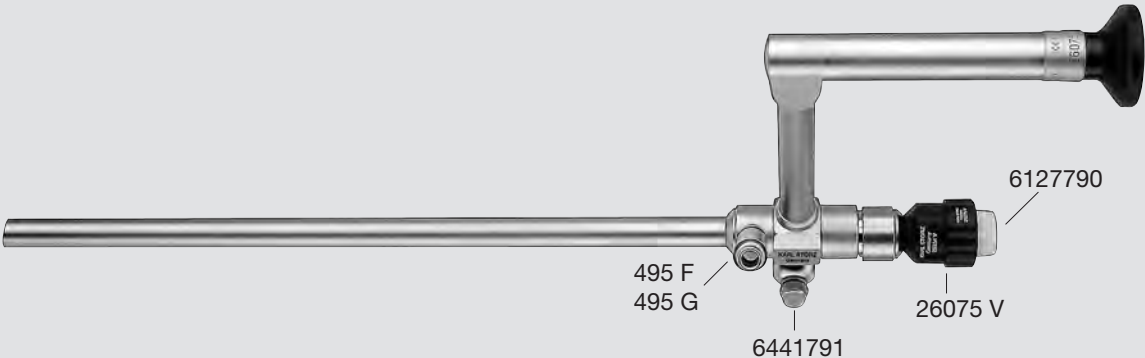
HOPKINS® Telescopes with Working Channel

Components / Spare Parts

Catalog page

26075 AA HOPKINS® Wide Angle Straight Forward Telescope 6°

41



Spare Parts



26075 V
Adaptor, with silicone
leaflet valve, for working
channel



6441791
Spring Cap



495 F
Receptacle,
diameter 9 mm, for
Wolf fiber optic light cable



7720590
Silicone Leaflet Washer



495 G
Screw Base, for
KARL STORZ fiber optic
light cables and Olympus
Corporation



7914890
Stopcock



6127790
Sealing Cap, (50/6)

Trocars

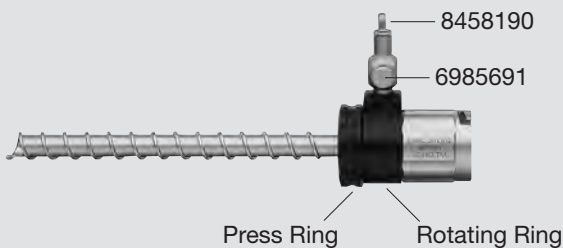
Cannulas

Components / Spare Parts

30160 TM	Cannula
30160 TK	Cannula
30103 TM	Cannula

Catalog page

49
49
51



Spare Parts



6985691
Spring Cap



8458190
Stopcock

Spare parts for 30160 TM/TK



8296591
Rotating Ring, with
stopcock
and O-ring

Spare parts for 30103 TM



8296691
Rotating Ring, with
stopcock
and O-ring



7137295
Press Ring



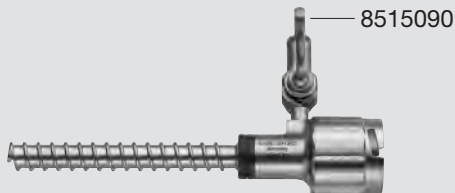
7137595
Press Ring

Components / Spare Parts

30117 T2	Cannula
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Catalog page

48



Spare Parts



6985691
Spring Cap



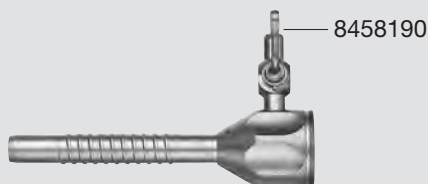
8515090
Stopcock

Components / Spare Parts

30123 TS1	Cannula
30123 G	Cannula

Catalog page

65
275



Spare Parts



6985691
Spring Cap



8458190
Stopcock

Trocars

Cannulas

Components / Spare Parts Catalog page

30120 T8	Cannula	50
30120 T9	Cannula	50



Spare Parts



6985691
Spring Cap



8458190
Stopcock

Components / Spare Parts Catalog page

30114 P3	Very Low Profile Cannula	274
-----------------	---------------------------------	-----



Spare Parts



30114 XA
Silicone Leaflet Washer,
type dome valve,
package of 10



7278695
Trocar Cap



30114 XB
Seal,
package of 10

Components / Spare Parts Catalog page

30160 P3	Very Low Profile Cannula	275
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Spare Parts



30160 XA
Silicone Leaflet Washer,
package of 10



7278195
Trocar Cap



30160 XB
Seal,
package of 10

Trocars

Cannulas

Components / Spare Parts

Catalog page

11603 G5	Cannula	55
30114 G5	Cannula	56
30114 G6	Cannula	56
30160 G5	Cannula	57
30160 G6	Cannula	57
30103 G6	Cannula	58
30108 G6	Cannula	59



Spare Parts for 11603 G5



11603-XV2
Valve Seal, for single use,
package of 10,
color code: blue



29100 BX
Plug, for LUER-Lock
connector, blue,
package of 10

Spare Parts for 30114 G5/G6



30114-XV3
Valve Seal, for single use,
package of 10,
color code: green



29100 GX
Plug, for LUER-Lock
connector, green,
package of 10

Spare Parts for 30160 G5/G6



30160-XV5
Valve Seal, for single use,
package of 10,
color code: black



29100 SX
Plug, for LUER-Lock
connector, black,
package of 10

Spare Parts for 30103 G6



30103-XV10
Valve Seal, for single use,
package of 10,
color code: green



29100 GX
Plug, for LUER-Lock
connector, green,
package of 10

Spare Parts for 30108 G6



30108-XV13
Valve Seal, for single use,
package of 10,
color code: blue



29100 BX
Plug, for LUER-Lock
connector, blue,
package of 10

Trocars

Cannulas

Components / Spare Parts		Catalog page
30214 K	Low-friction Cannula	68, 278
30217 K	Low-friction Cannula	68, 278



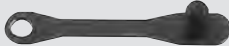
Spare Part

Spare part for 30214 K



29100 G
Plug, package of 10,
autoclavable,
color code: green

Spare part for 30217 K



29100 R
Plug, package of 10,
autoclavable,
color code: red

Components / Spare Parts		Catalog page
30120 DL	Flexible Cannula	286



Spare Part



7705190
Sealing Cap, size 11 mm,
opening 4 mm

Components / Spare Parts		Catalog page
11603 G1	Cannula	62
30117 G1	Cannula	63
30117 G2	Cannula	63
30117 G3	Cannula	63
30160 G1	Cannula	64
30160 G2	Cannula	64
30160 G3	Cannula	64



Spare Part



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10

Trocars

Cannulas

Components / Spare Parts

Catalog page

30101 H2	Cannula	402
30103 H1	Cannula	70
30103 H2	Cannula	70, 349
30108 H2	Cannula	72
30160 H1	Cannula	69
30160 H2	Cannula	69
31160 H1	Cannula	74
31103 H1	Cannula	74
31108 H1	Cannula	74



Spare Parts



6985691
Spring Cap



8458190
Stopcock

Components / Spare Parts

Catalog page

30103 H8	Cannula	71
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Spare Parts

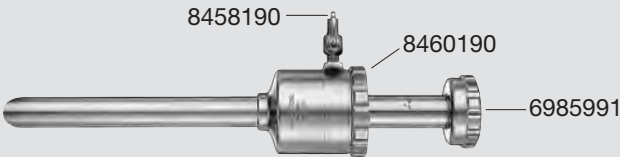


6916191
Spring Cap



8428590
Stopcock

Components / Spare Parts		Catalog page
30105 H2	Cannula	73
30105 K1	Automatic Valve	73



Spare Parts



6985691
Spring Cap



6885490
Seal, diameter 15 mm



8458190
Stopcock



6236195
Seal

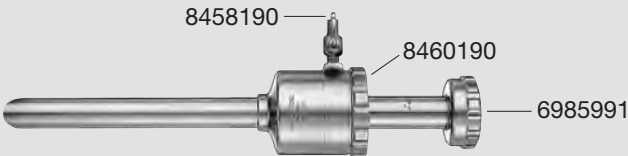


8460190
Cap Nut



6985991
Cap Nut

Components / Spare Parts		Catalog page
30106 H2	Cannula	73
30106 K1	Automatic Valve	73



Spare Parts



6985691
Spring Nut



6885390
Washer



8458190
Stopcock



6236195
Seal



8460190
Cap Nut



6985991
Cap Nut

Trocars

Cannulas

Components / Spare Parts

Catalog page

30120 NL Cannula

66, 276



Spare Parts



6127590
Sealing Cap, (50/4)



7720590
Silicone Leaflet Washer



30120 X
Plastic Cannula,
autoclavable, package of 5

Components / Spare Parts

Catalog page

30123 NL Cannula

66



Spare Parts



7616690
Sealing Cap, (60/10)



8034490
Silicone Leaflet Washer



30123 X
Plastic Cannula,
autoclavable, package of 5

Trocars

Cones

Components / Spare Parts Catalog page

30103 CM1 Metal Cone

45



Spare Parts



6062295
Cone



7391190
Sealing Cap, (60/12)

Components / Spare Parts Catalog page

30160 C3 Cone

45



Spare Parts



8464790
Cone, grooved



6127690
Sealing Cap, (50/5)

Components / Spare Parts Catalog page

30103 C3 Cone

45



Spare Parts



8407390
Cone, grooved



7391190
Sealing Cap, (60/12)

Trocars

Automatic Valves

Components / Spare Parts

Catalog page

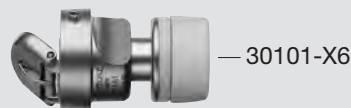
30101 A1 Automatic Valve

402

Spare Part



30101-X6
Seal Set, for instruments
size 6 mm, package of 10,
color code: yellow



— 30101-X6

Components / Spare Parts

Catalog page

30103 A1 Automatic Valve

70

Spare Part



30103-X10
Seal Set, for
instruments size 10 mm,
package of 10,
color code: green



— 30103-X10

Components / Spare Parts

Catalog page

30117 A1 Automatic Valve

48

Spare Parts



6089590
Seal, mushroom-shaped



6089590 —

— 6127090

6127090
Sealing Cap, (40/3)

Components / Spare Parts

Catalog page

30160 A1 Automatic Valve

69

Spare Part

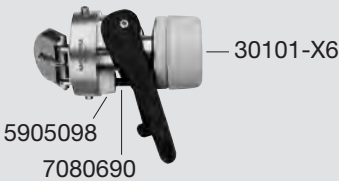


30160-X5
Seal Set, for instruments
sizes 5 and 5.5 mm,
package of 10,
color code: black



— 30160-X5

Components / Spare Parts	Catalog page
30101 M1 Multifunctional Valve	402



Spare Parts



5905098
Sealing Cap, small

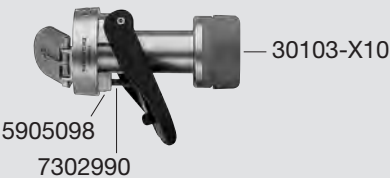


7080690
Tappet



30101-X6
Seal Set, for instruments
size 6 mm, package of 10,
color code: yellow

Components / Spare Parts	Catalog page
30103 M1 Multifunctional Valve	51, 70, 74, 349



Spare Parts



5905098
Sealing Cap, small

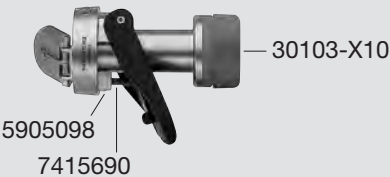


7302990
Tappet



30103-X10
Seal Set, for instruments
size 10 mm, package of 10,
color code: green

Components / Spare Parts	Catalog page
30103 M2 Multifunctional Valve	71



Spare Parts



5905098
Sealing Cap, small



7415690
Tappet



30103-X10
Seal Set, for instruments
size 10 mm, package of 10,
color code: green

Trocars

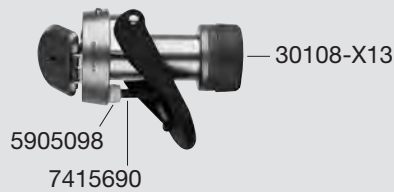
Multifunctional Valves, Silicone Leaflet Valves

Components / Spare Parts

Catalog page

30108 M1 Multifunctional Valve

72, 74



Spare Parts



5905098
Sealing Cap, small



7415690
Tappet



30108-X13
Seal Set, for instruments
size 13 mm, package of 10,
color code: blue

Components / Spare Parts

Catalog page

30160 M1 Multifunctional Valve

49, 69, 74



Spare Parts



5905098
Sealing Cap, small



7080690
Tappet



30160-X5
Seal Set, for instruments
sizes 5 and 5.5 mm,
package of 10,
color code: black

Components / Spare Parts

Catalog page

11603 L1 Silicone Leaflet Valve

62



Spare Parts



11603-X2
Seal Set, for instruments
size 2 mm, package of 10,
color code: blue



7720590
Silicone Leaflet Washer

Components / Spare Parts		Catalog page
30103 L1	Silicone Leaflet Valve	52
30123 L1	Silicone Leaflet Valve	65, 275



Spare Parts



30103-X10
Seal Set, for instruments
size 10 mm, package of 10,
color code: green



7962190
Silicone Leaflet Washer,
large

Components / Spare Parts		Catalog page
30117 L1	Silicone Leaflet Valve	63



Spare Parts



6127390
Sealing Cap, (50/2.6)



7720590
Silicone Leaflet Washer

Components / Spare Parts		Catalog page
30120 L1	Silicone Leaflet Valve	50
30160 L1	Silicone Leaflet Valve	64



Spare Parts



30160-X5
Seal Set, for instruments
sizes 5 and 5.5 mm,
package of 10,
color code: black



7720590
Silicone Leaflet Washer

Trocars

Reduction Sleeves

Components / Spare Parts		Catalog page
30140 KA	Reduction Sleeve	76, 367
30140 DA	Reduction Sleeve	76
30140 DB	Reduction Sleeve	76, 349, 367
30140 EB	Reduction Sleeve	76
30140 FB	Reduction Sleeve	76
30140 GB	Reduction Sleeve	76
30140 HB	Reduction Sleeve	76
30140 DD	Reduction Sleeve	76
30140 EE	Reduction Sleeve	76
30140 HE	Reduction Sleeve	76
30140 FE	Reduction Sleeve	76
30140 GE	Reduction Sleeve	76



Spare Parts

Spare part for 30140 DA/KA



30114-X3
Seal Set, for instruments
sizes 3 and 3.5 mm,
package of 10,
color code: green

Spare part for 30140 DD



6127890
Sealing Cap, (50/7.5)

Spare part for 30140 DB/EB/FB/GB/HB



30160-X5
Seal Set, for instruments
sizes 5 and 5.5 mm,
package of 10,
color code: black

Spare part for 30140 EE/HE/FE/GE



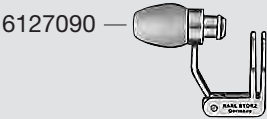
7616690
Sealing Cap, (60/10)

Components / Spare Parts

Catalog page

30141 AA Reducer

76



Spare Part



6127090
Sealing Cap, (40/3)

Components / Spare Parts

Catalog page

30141 DB Reducer

76

30141 HB Reducer

76

30141 HE Reducer

76



Spare Part

Spare part for 30141 DB/HB

Spare part for 30141 HE



30160-X5
Seal Set, for instruments
sizes 5 and 5.5 mm,
package of 10,
color code: black



30103-X10
Seal Set, for instruments
size 10 mm, package of 10,
color code: green

Components / Spare Parts

Catalog page

30142 HB Double Reducer

76



Spare Parts



30160-X5
Seal Set, for instruments
sizes 5 and 5.5 mm,
package of 10,
color code: black



30103-X10
Seal Set, for instruments
size 10 mm, package of 10,
color code: green

Trocars

Reducers

Components / Spare Parts

Catalog page

30103 RE

Reducer

76



Spare Parts



30160-X5
Seal Set, for instruments
sizes 5 and 5.5 mm,
package of 10,
color code: black



7962190
Silicone Leaflet Washer,
large



7228790
Sealing Cap, (60/11)

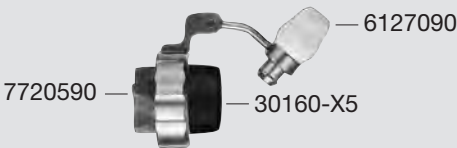
Components / Spare Parts

Catalog page

30160 RE

Reducer

76



Spare Parts



30160-X5
Seal Set, for instruments
sizes 5 and 5.5 mm,
package of 10,
color code: black

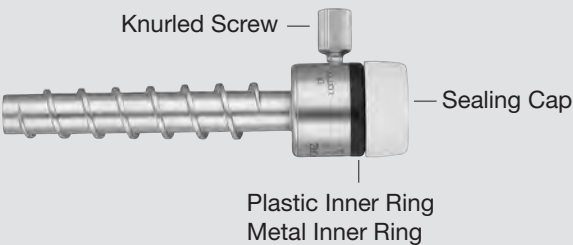


7720590
Silicone Leaflet Washer



6127090
Sealing Cap, (40/3)





Components / Spare Parts		Catalog page
30103 S	Thread Sleeve	77
30108 S	Thread Sleeve	77
30160 S	Thread Sleeve	77







Spare Parts for 30103 S








	7391190 Sealing Cap, (60/12)		7351090 Metal Inner Ring
	7351190 Plastic Inner Ring		7351490 Knurled Screw

Spare Parts for 30108 S

	7482990 Sealing Cap, (60/14)		7482790 Metal Inner Ring
	7413795 Plastic Inner Ring		7351490 Knurled Screw

Spare Parts for 30160 S

	6127690 Sealing Cap, (50/5)		7385590 Metal Inner Ring
	7430790 Plastic Inner Ring		7351490 Knurled Screw

Components / Spare Parts		Catalog page
30103 D	Distance Holder	77
30160 D	Distance Holder	77
<div><div></div><div><div>Knurled Screw</div><div>Plastic Inner Ring</div><div>Metal Inner Ring</div></div></div>		
Spare Parts for 30103 D		
<div></div>	<div>7351090</div> <div>Metal Inner Ring</div>	<div></div> <div>7351490</div> <div>Knurled Screw</div>
<div></div>	<div>7351190</div> <div>Plastic Inner Ring</div>	
Spare Parts for 30160 D		
<div></div>	<div>7385590</div> <div>Metal Inner Ring</div>	<div></div> <div>7351490</div> <div>Knurled Screw</div>
<div></div>	<div>7430790</div> <div>Plastic Inner Ring</div>	

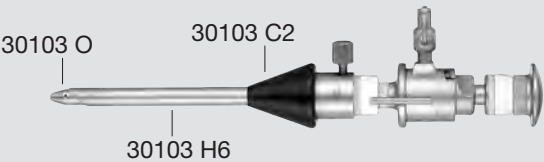
Trocars

Trocar, HEINKEL-SEMM Dilation Sets

Components / Spare Parts

Catalog page

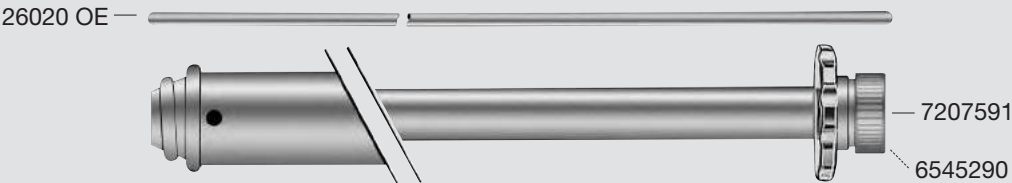
30103 AO	Trocar		45
30103 H6	Cannula		
30103 O	Trocar only		
30103 A1	Automatic Valve		
30103 C2	Cone		



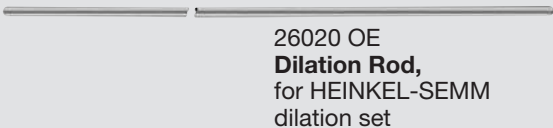
Components / Spare Parts

Catalog page

26020 HL	HEINKEL-SEMM Dilation Set	78
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Spare Parts



26020 OE
Dilation Rod,
for HEINKEL-SEMM
dilation set



7207591
Knurled Ring

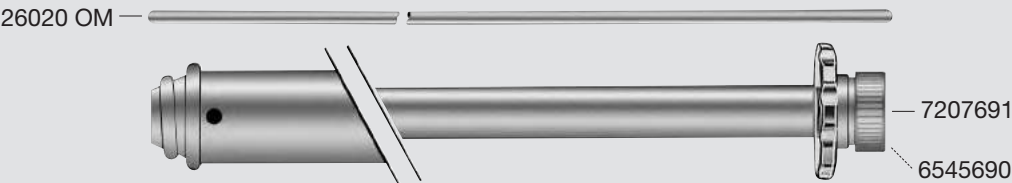


6545290
Seal

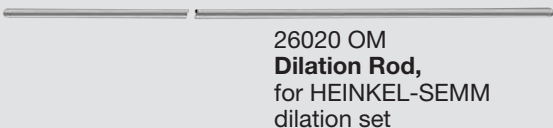
Components / Spare Parts

Catalog page

26020 HM	HEINKEL-SEMM Dilation Set	78
26020 HP	HEINKEL-SEMM Dilation Set	78



Spare Parts



26020 OM
Dilation Rod,
for HEINKEL-SEMM
dilation set



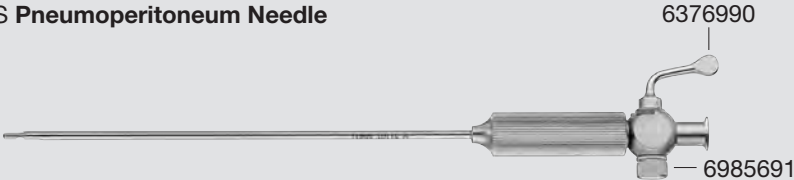


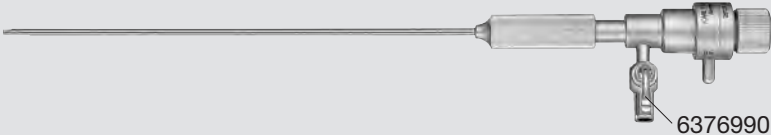


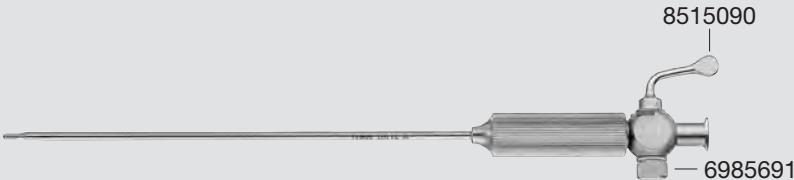


7207691
Knurled Ring



6545690
Seal

Trocars

VERESS Pneumoperitoneum Needles

Components / Spare Parts		Catalog page
26120 J	VERESS Pneumoperitoneum Needle	53, U 10
26120 JL	VERESS Pneumoperitoneum Needle	53, U 10
26120 JLL	VERESS Pneumoperitoneum Needle	53, U 10
		
Spare Parts		
	6985691 Spring Cap	
	6376990 Stopcock , for irrigation connector	
Components / Spare Parts		Catalog page
26120 JK	VERESS Pneumoperitoneum Needle	53, U 10
		
Spare Parts		
	6985691 Spring Cap	
	6376990 Stopcock , for irrigation connector	
Components / Spare Parts		Catalog page
26120 XL	VERESS Pneumoperitoneum Needle	53
		
Spare Parts		
	6985691 Spring Cap	
	8515090 Stopcock	

Components / Spare Parts		Catalog page
23030 PA	LEROY S-PORT®	261

- 23030 P **Port Ring**
- 23030 X **S-PORT® Attachment**, for X-CONE and S-PORT® seals
- 23030 SA **S-PORT® Seal**
- 23030 FA **Wound Protector**, package of 10, sterile, for single use
- 23030 D **S-PORT® Insertion Aid**, to facilitate assembly
- 23030 T **Removal Tool**, to remove the wound protector sheet and to dismantle S-PORT®





Spare Parts

	23030 S Sealing Cap		30103-XDA10 Valve Seal , for instruments size 10 mm, package of 10, color code: green
	23004 A4 Reducer , 13/5 mm and 13/3 mm		30114-XV3 Valve Seal , for single use, package of 10, color code: green
	23004 A5 Reducer , 13/10 mm		30160-XV5 Valve Seal , for single use, package of 10, color code: black

Components / Spare Parts		Catalog page
23030 X	S-PORT® Attachment	261



Spare Parts

	6985691 Spring Cap		8541890 Stopcock
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Trocars

for single portal surgery

Components / Spare Parts

Catalog page

23010 PA CUSCHIERI **ENDOCONE Single Portal Surgery Access System**

263

23010 P **Port**, size 34 mm

23010 SA **Seal Plate**, with 1 x 10 mm, 1 x 10 – 15 mm and 6 x 3 – 5 mm ports

23001 DB **Reducer**, 13/5 mm and 11/5 mm

23005 ID **LUER-Lock Connector**, with insufflation and desufflation stopcock



Components / Spare Parts

Catalog page

23010 P **ENDOCONE Port**

263



Spare Parts



6985691
Spring Cap



8458190
Stopcock

Components / Spare Parts

Catalog page

23001 DB **Reducer**

263

Spare Part



30160-X5
Seal Set, for instruments sizes 5 and 5.5 mm, package of 10, color code: black



30160-X5

Components / Spare Parts

Catalog page

23005 ID **LUER-Lock Connector, with stopcock**

263



Spare Parts



6985691
Spring Cap

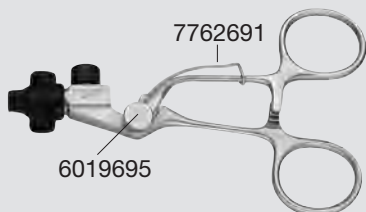


8515090
Stopcock

Dissecting and Grasping Forceps

CLICK'line® Metal Handles for Dissecting and Grasping Forceps

Components / Spare Parts		Catalog page
33144	CLICK'line® MOURET Metal Handle	88
33145	CLICK'line® MOURET Metal Handle	88



Spare Parts



6019695
Knurled Screw



7762691
Expander Spring

Components / Spare Parts		Catalog page
31100	CLICK'line® Metal Outer Sheath, insulated	89, 166
31300	CLICK'line® Metal Outer Sheath, insulated	89, 166
33200	CLICK'line® Metal Outer Sheath, insulated	89, 166
33300	CLICK'line® Metal Outer Sheath, insulated	89, 166
33300 CM	CLICK'line® Metal Outer Sheath, insulated	89, 166
33400	CLICK'line® Metal Outer Sheath, insulated	89, 166
33400 CM	CLICK'line® Metal Outer Sheath, insulated	89, 166



Spare Parts



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10



7909890
Halfround Plate



7944790
Silicone Ring

Dissecting and Grasping Forceps

CLICK'line® Outer Sheaths

Components / Spare Parts		Catalog page
33500	CLICK'line® Outer Sheath, insulated	89, 166



Spare Parts



29100
Plug, for LUER-Lock irrigation connector for cleaning, black, autoclavable, package of 10



7909890
Halfround Plate



7944790
Silicone Ring

Components / Spare Parts		Catalog page
31100 M	CLICK'line® Metal Outer Sheath	90, 167
31300 M	CLICK'line® Metal Outer Sheath	90, 167
33200 M	CLICK'line® Metal Outer Sheath	90, 167
33300 M	CLICK'line® Metal Outer Sheath	90, 167
33400 M	CLICK'line® Metal Outer Sheath	90, 167
33500 M	CLICK'line® Metal Outer Sheath	90, 167
33500 CM	CLICK'line® Metal Outer Sheath	90, 167



Spare Parts



29100
Plug, for LUER-Lock irrigation connector for cleaning, black, autoclavable, package of 10



7909890
Halfround Plate

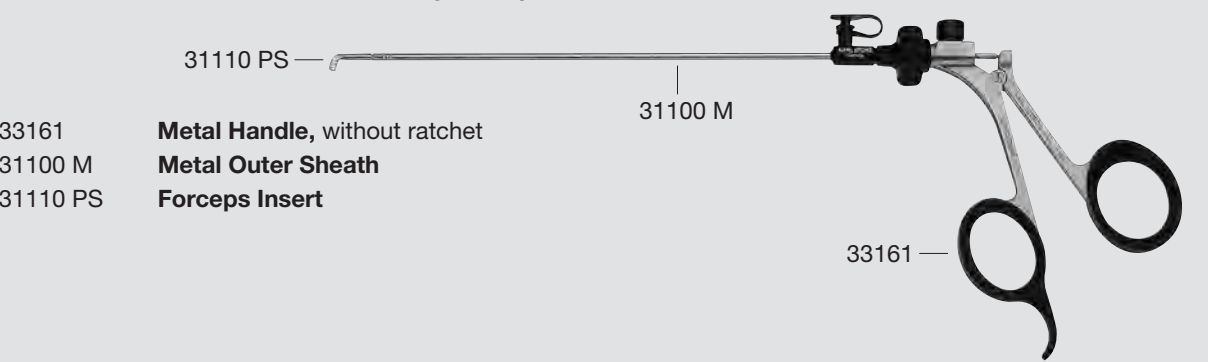


7944790
Silicone Ring

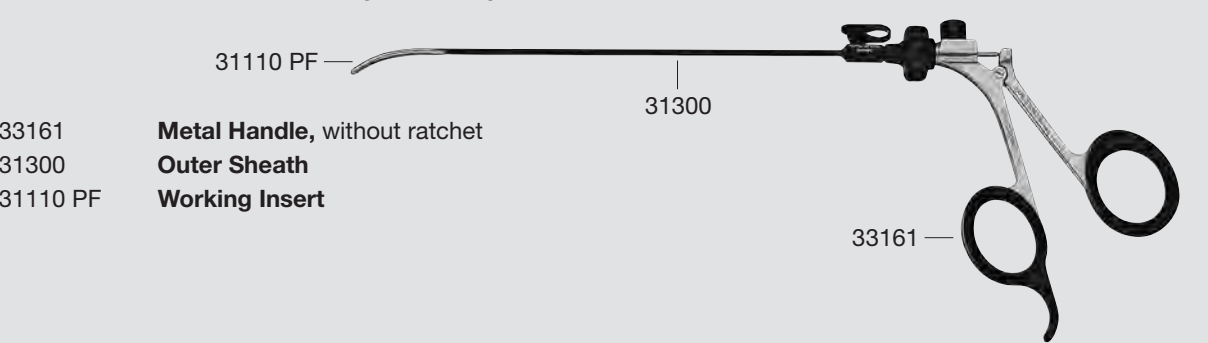
Dissecting and Grasping Forceps

CLICK'linē Percutaneous Pyloric Spreader,
CLICK'linē GEIGER Pyloric Grasping Forceps,
CLICK'linē Dissecting and Grasping Forceps "JET GRASPER®", Outer Sheath

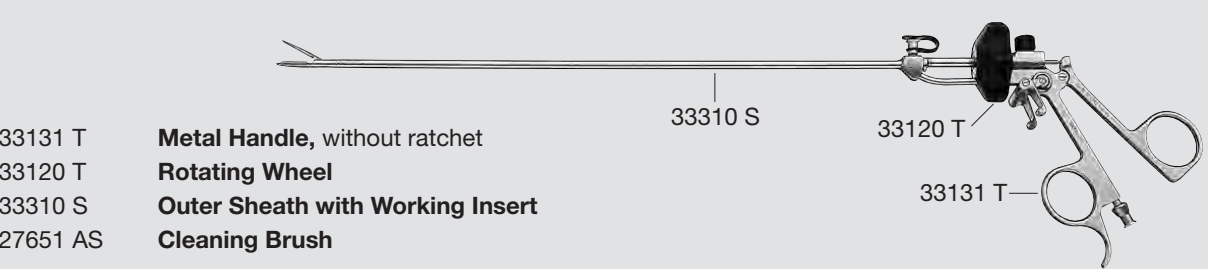
Components / Spare Parts		Catalog page
31161 PSM	CLICK'linē Percutaneous Pyloric Spreader	98



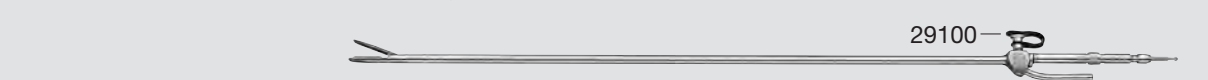
Components / Spare Parts		Catalog page
31161 PF	CLICK'linē GEIGER Pyloric Grasper	98



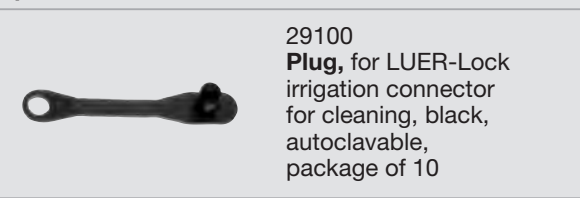
Components / Spare Parts		Catalog page
33331 ST	CLICK'linē TCHARTCHIAN Dissecting and Grasping Forceps "JET GRASPER®"	99



Components / Spare Parts		Catalog page
33310 S	Outer Sheath , with working insert	99



Spare Parts



Dissecting and Grasping Forceps

Surgical Sponge Holders, Handles, Outer Sheaths

Components / Spare Parts

Catalog page

32340 PT **Surgical Sponge Holder**

139

33310 PT

32340



32121 **Handle**

32121

32340 **Outer Sheath, insulated**

33310 PT **Sponge Holder Insert**

Components / Spare Parts

Catalog page

32540 PT **Surgical Sponge Holder**

139

33510 PT

32540



32121 **Handle**

32121

32540 **Outer Sheath, insulated**

33510 PT **Sponge Holder Insert**

Components / Spare Parts

Catalog page

32121 **Handle**

139

32121 K



32121 H

Spare Parts



32121 K
Handle Core



32121 H
Handle Shell

Components / Spare Parts

Catalog page

32340 **Outer Sheath, insulated**

139

32540 **Outer Sheath, insulated**

139

29100



Spare Parts



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10

Dissecting and Grasping Forceps

CLICK'line® Outer Sheaths with Working Inserts

Components / Spare Parts		Catalog page
30210 MSS	CLICK'line® Outer Sheath with METZENBAUM Scissors Insert	168
30210 KJS	CLICK'line® Outer Sheath with REDDICK-OLSEN Forceps Insert	91
30240 AS	CLICK'line® Metal Outer Sheath with BABCOCK Grasping Forceps Insert	91

Spare Parts



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10

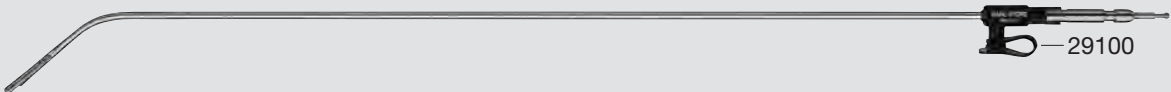


Components / Spare Parts		Catalog page
30310 ONU	CLICK'line® Outer Sheath with Grasping Forceps Insert, CUSCHIERI O-CON sheath curve	270
30410 ONU	CLICK'line® Outer Sheath with Grasping Forceps Insert, CUSCHIERI O-CON sheath curve	270

Spare Parts



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10



Dissecting and Grasping Forceps

CLICKline® Dissecting and Grasping Forceps

Components / Spare Parts

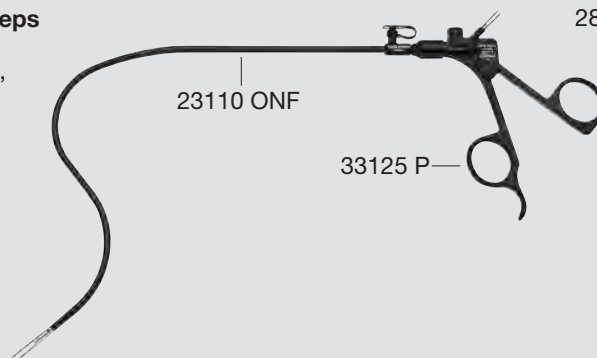
Catalog page

23161 ONF CLICKline® Dissecting and Grasping Forceps

281

33125 P **Metal Handle**, insulated, without ratchet, with 4 locking positions

23110 ONF **Outer Sheath with Working Insert**



Components / Spare Parts

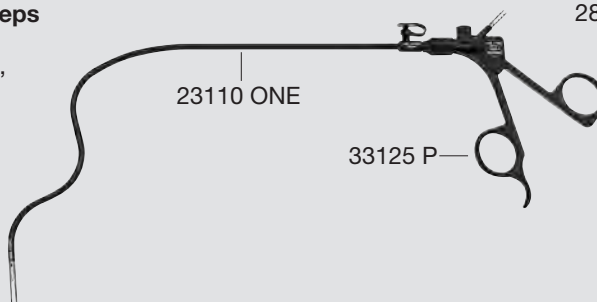
Catalog page

23161 ONE CLICKline® Dissecting and Grasping Forceps

281

33125 P **Metal Handle**, insulated, without ratchet, with 4 locking positions

23110 ONE **Outer Sheath with Working Insert**



Components / Spare Parts

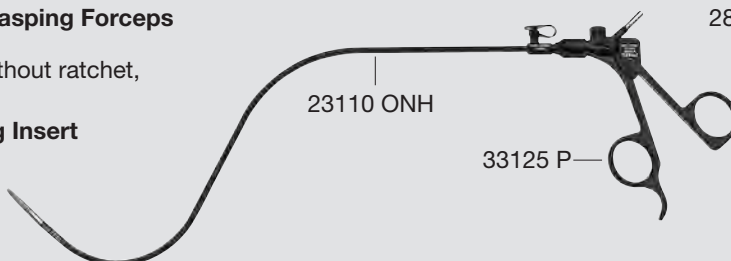
Catalog page

23161 ONH CLICKline® Dissecting and Grasping Forceps

281

33125 P **Metal Handle**, insulated, without ratchet, with 4 locking positions

23110 ONH **Outer Sheath with Working Insert**



Dissecting and Grasping Forceps

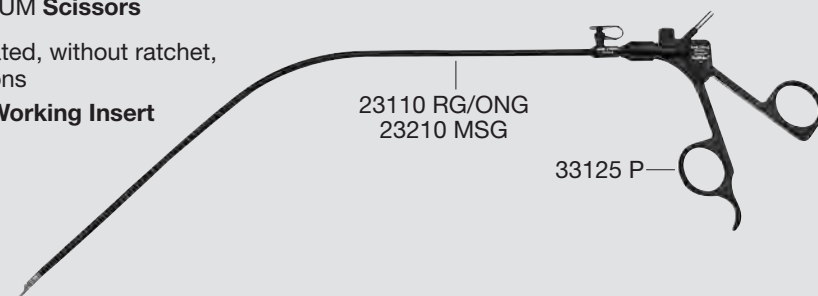
CLICK^{linē} Dissecting and Grasping Forceps and Scissors,
Outer Sheaths with Working Insert, ROBI[®] Grasping Forceps and Scissors

Components / Spare Parts	Catalog page
--------------------------	--------------

- | | | |
|-----------------|---|-----|
| 23125 RG | CLICK^{linē} Dissecting Forceps | 282 |
| 33125 P | Metal Handle , insulated, without ratchet,
with 4 locking positions | |
| 23110 RG | Outer Sheath with Working Insert | |

- | | | |
|------------------|---|--|
| 23125 ONG | CLICK^{linē} Dissecting and Grasping Forceps | |
| 33125 P | Metal Handle , insulated, without ratchet,
with 4 locking positions | |
| 23110 ONG | Outer Sheath with Working Insert | |

- | | | |
|------------------|---|--|
| 23262 MSG | CLICK^{linē} METZENBAUM Scissors | |
| 33125 P | Metal Handle , insulated, without ratchet,
with 4 locking positions | |
| 23210 MSG | Outer Sheath with Working Insert | |



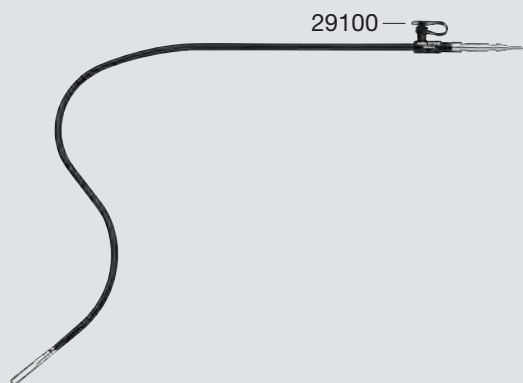
Components / Spare Parts	Catalog page
--------------------------	--------------

- | | | |
|------------------|---|-----|
| 23110 ONF | Outer Sheath with Working Insert | 281 |
| 23110 ONE | Outer Sheath with Working Insert | 281 |
| 23110 ONH | Outer Sheath with Working Insert | 281 |
| 23110 RG | Outer Sheath with Working Insert | 282 |
| 23110 ONG | Outer Sheath with Working Insert | 282 |
| 23210 MSG | Outer Sheath with Working Insert | 282 |

Spare Parts



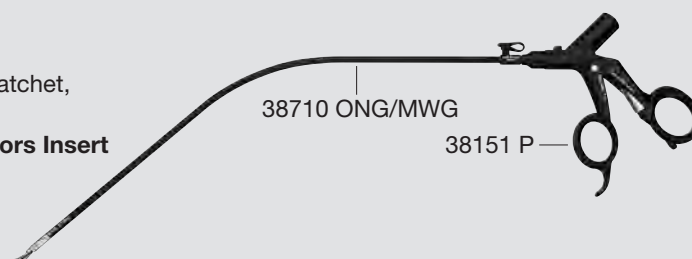
29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10



Components / Spare Parts	Catalog page
--------------------------	--------------

- | | | |
|------------------|---|-----|
| 38752 ONG | ROBI[®] Grasping Forceps | 283 |
| 38151 P | ROBI[®] Plastic Handle , without ratchet,
with 4 locking positions | |
| 38710 ONG | ROBI[®] Outer Sheath with Forceps Insert | |

- | | | |
|------------------|---|--|
| 38752 MWG | ROBI[®] METZENBAUM Scissors | |
| 38151 P | ROBI[®] Plastic Handle , without ratchet,
with 4 locking positions | |
| 38710 MWG | ROBI[®] Outer Sheath with Scissors Insert | |



Dissecting and Grasping Forceps

ROBI® Outer Sheaths, ROBI® Forceps and Scissors Inserts with Outer Sheath, ROTATIP® Outer Sheath

Components / Spare Parts		Catalog page
38600	ROBI® Metal Outer Sheath, insulated	153, 181
38700	ROBI® Metal Outer Sheath, insulated	153, 181



Spare Part



29100
Plug, for Luer-Lock irrigation connector for cleaning, black, autoclavable, package of 10

Components / Spare Parts		Catalog page
38810 ON	ROBI® Outer Sheath with Forceps Insert	154
38910 ON	ROBI® Outer Sheath with Forceps Insert	154
38810 MD	ROBI® KELLY Outer Sheath with Forceps Insert	154
38910 MD	ROBI® KELLY Outer Sheath with Forceps Insert	154
38810 PT	ROBI® TAN Outer Sheath with Forceps Insert	154
38810 MW	ROBI® Outer Sheath with Scissors Insert	182
38910 MW	ROBI® Outer Sheath with Scissors Insert	182
38710 ONG	ROBI® Outer Sheath with Forceps Insert	283
38710 MWG	ROBI® Outer Sheath with Scissors Insert	283



Spare Part



29100
Plug, for Luer-Lock irrigation connector for cleaning, black, autoclavable, package of 10

Components / Spare Parts		Catalog page
23400 BD	ROTATIP® Outer Sheath, insulated	267
23400 UD	ROTATIP® Outer Sheath, insulated	267
23400 AD	ROTATIP® Outer Sheath, insulated	267
23400 CD	ROTATIP® Outer Sheath, insulated	267



Spare Parts

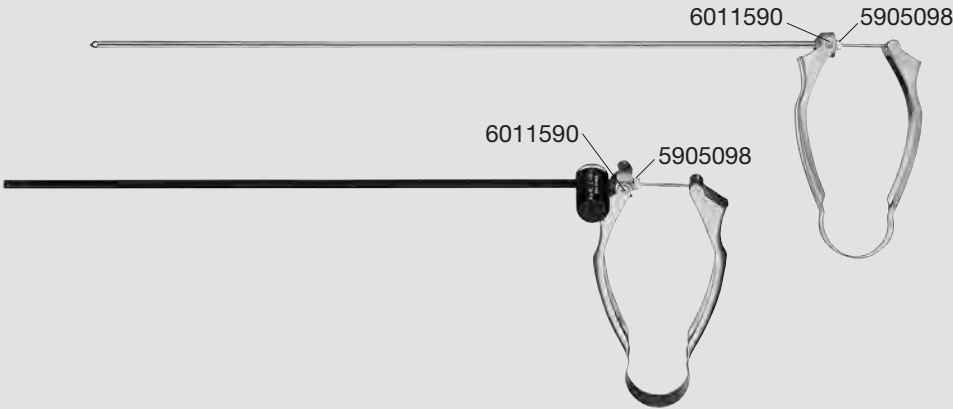


29100
Plug, for Luer-Lock irrigation connector for cleaning, black, autoclavable, package of 10

Dissecting and Grasping Forceps

U-Spring-Handles,
Handles for TAKE APART® Bipolar Forceps and Scissors

Components / Spare Parts		Catalog page
30529	U-Spring-Handle, with outer sheath	140
30535	U-Spring-Handle, with outer sheath, insulated	141



Spare Parts



5905098
Sealing Cap, small



6011590
Plug, for LUER-Lock connector

Components / Spare Parts		Catalog page
26184 HM	TAKE-APART® Bipolar Ring Handle	142
26184 HR	TAKE-APART® Bipolar Spring Handle	142








Spare Part



7072390
Sealing Cap,
diameter 1.8 mm

Dissecting and Grasping Forceps

Handles for TAKE APART® Bipolar Forceps and Scissors

Components / Spare Parts		Catalog page
26296 HM	TAKE-APART® Bipolar Ring Handle	146
26296 HR	TAKE-APART® Bipolar Spring Handle	146
<div> <div>  </div> <div>  </div> </div>		
Spare Parts		
<div> <div>  <div> 6011590 Plug, for LUER-Lock connector </div> </div> <div>  <div> 27550 G-10 Sealing Cap, diameter 2.8 mm </div> </div> </div>		
<div> <div>  <div> 5917800 O-Ring </div> </div> </div>		

Miscellaneous Accessories

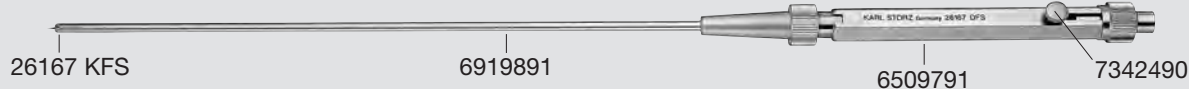
Pylorotome, Endotome, Pyloric Knife

Components / Spare Parts

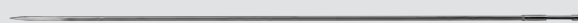
Catalog page

26167 DFS ALAIN-GROUSSEAU Pylorotome

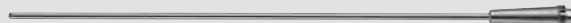
184



Spare Parts



26167 KFS
Micro Knife



6919891
Outer Sheath



6509791
Handle, complete



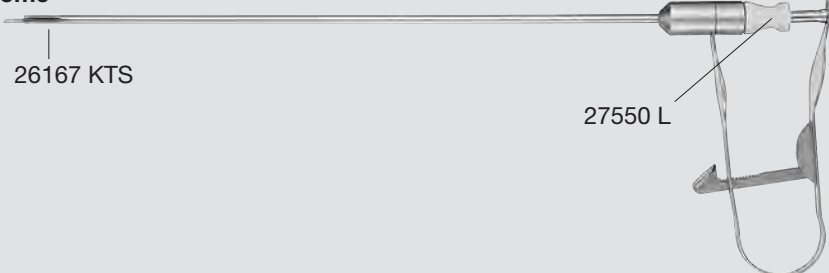
7342490
Cap

Components / Spare Parts

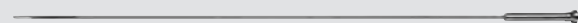
Catalog page

26167 DTS TAN Endotome

184



Spare Parts



26167 KTS
Knife



27550 L-10
Sealing Cap



6011590
Plug, for LUER-Lock connector

Components / Spare Parts

Catalog page

26167 DRS Pyloric Knife

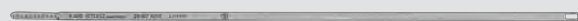
184

26167 KS **Handle, with outer sheath**

26167 KRS **Knife Insert, for single use, unsterile, package of 10**



Spare Parts



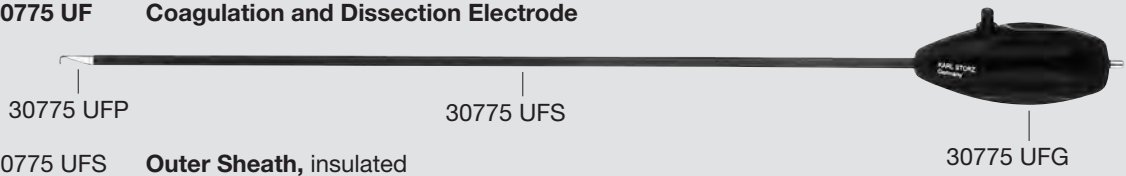
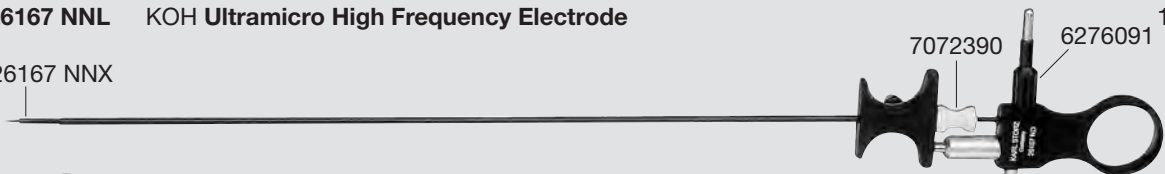



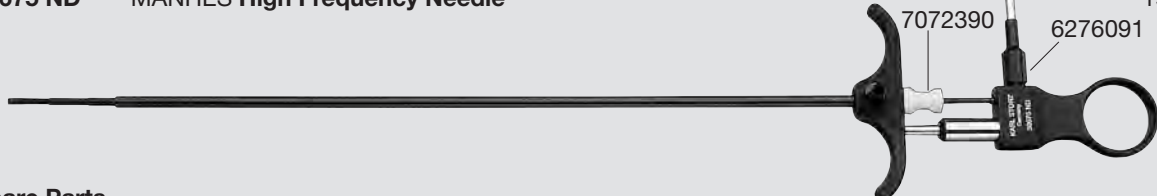

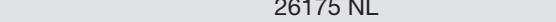


26167 KRS
Knife Insert, for single use, unsterile, package of 10



29100
Plug, for LUER-Lock irrigation connector for cleaning, black, autoclavable, package of 10

Instruments for Unipolar and Bipolar Coagulation

Coagulation and Dissection Electrode, KOH Ultramicro High Frequency Electrode, MANHES High Frequency Needle

Components / Spare Parts		Catalog page
30775 UF	Coagulation and Dissection Electrode	190
		
30775 UFS	Outer Sheath , insulated	
30775 UFG	Plastic Handle	
30775 UFP	Electrode , L-shaped	
Components / Spare Parts		Catalog page
26167 NNL	KOH Ultramicro High Frequency Electrode	192
		
26167 NNX		
Spare Parts		
		
26167 NNX	Spare Needle Electrode , autoclavable, size 3.5 mm, length 36 cm, package of 5	
		7072390 Sealing Cap , diameter 1.8 mm
		
6276091	Plug , with sleeve	
Components / Spare Parts		Catalog page
30675 ND	MANHES High Frequency Needle	192
		
		
26175 NE	Spare Needle Electrode , diameter 0.7 mm, length 31 cm	26175 NS
		Spare Needle Electrode , autoclavable, diameter 0.5 mm, length 31 cm, package of 1
		
26175 NL	Spare Needle Electrode , autoclavable, diameter 1.1 mm, length 31 cm, package of 1	
		7072390 Sealing Cap , diameter 1.8 mm
		
6276091	Plug , with sleeve	

Instruments for Unipolar and Bipolar Coagulation

REMORGIDA Coagulation and Dissection Electrode,
Bipolar Needle

Components / Spare Parts

Catalog page

26785 RL REMORGIDA Coagulation and Dissection Electrode

191



Spare Parts



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10

Components / Spare Parts

Catalog page

26183 E Bipolar Needle

195



Spare Part



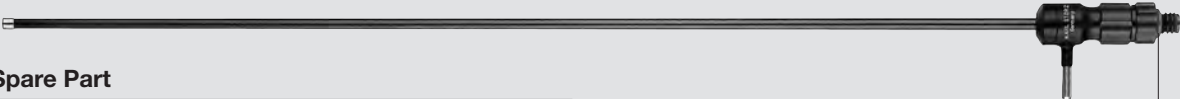
27550 E-10
Sealing Cap,
diameter 1.6 mm,
package of 10

26183 EN
Spare Electrode,
autoclavable, package of 5


Instruments for Unipolar and Bipolar Coagulation

Coagulation and Dissection Electrodes, Coagulation Suction Tubes

Components / Spare Parts		Catalog page
37270 DB	Coagulation and Dissection Electrode	194
37270 DL	Coagulation and Dissection Electrode	194
37270 SC	Coagulation and Dissection Electrode	194
37370 DB	Coagulation and Dissection Electrode	194
37370 DH	CUSCHIERI Dissecting Suction Tube	194
37370 DL	Coagulation and Dissection Electrode	194
37370 DU	Coagulation and Dissection Electrode	194
37370 SC	Coagulation and Dissection Electrode	194
37470 DB	Coagulation and Dissection Electrode	194
37470 DL	Coagulation and Dissection Electrode	194
37470 SC	Coagulation and Dissection Electrode	194



Spare Part

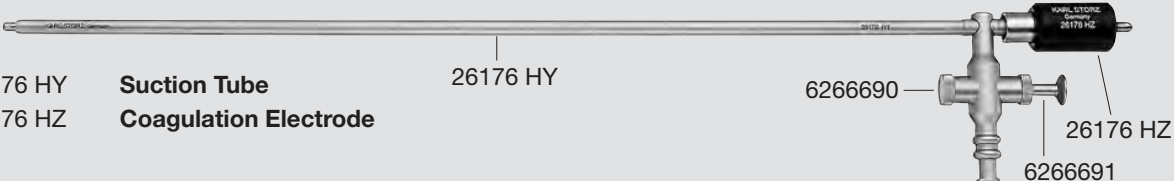


5917900

O-Ring, small

5917900

Components / Spare Parts		Catalog page
26176 HK	TAKE-APART® Bipolar Coagulation Suction Tube	195



26176 HY

Suction Tube

26176 HZ

Coagulation Electrode


26176 HY

6266690

26176 HZ


6266691

Spare Parts




5905610

Spring



6266690

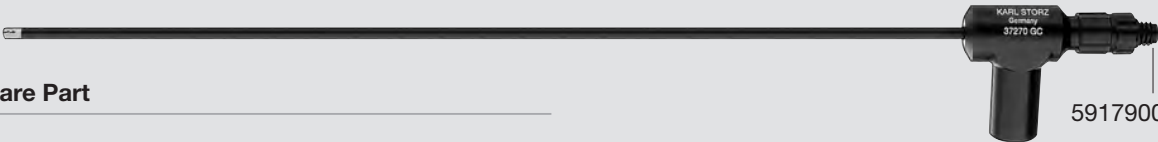
Knurled Cap




6266691

Piston

Components / Spare Parts		Catalog page
37370 GC	GORDTS and CAMPO Coagulation Suction and Irrigation Tube	195



Spare Part



5917900

O-Ring, small

5917900

SP 44





LAP-SP 40

2-15

Components / Spare Parts		Catalog page
30623 U	CUSCHIERI Retractor	202


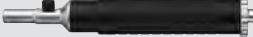
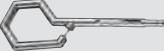



Spare Parts

	30623 UA Outer Sheath		30623 UH Handle , including rotating wheel for deflection
	30623 UI Insert , bendable		30623 US Rotating Wheel , for deflection



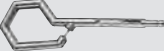

Components / Spare Parts		Catalog page
30623 UR	CUSCHIERI Retractor	202

Spare Parts

	30623 URA Outer Sheath		30623 UH Handle , including rotating wheel for deflection
	30623 URI Insert , bendable		30623 US Rotating Wheel , for deflection

Components / Spare Parts		Catalog page
30623 URL	CUSCHIERI Retractor	202

Spare Parts

	30623 URA Outer Sheath		30623 UH Handle , including rotating wheel for deflection
	30623 ULI Insert , bendable		30623 US Rotating Wheel , for deflection

Retractors, Dilators

MOURET Laparoscopic Needle Retractor,
LEROY Anal Dilators

Components / Spare Parts	Catalog page
26175 LN MOURET Laparoscopic Needle Retractor	200

26175 LNP/LND

26175 LNC

26175 LNC

Cannula, with LUER-Lock connector

26175 LNP

Trocar only, with pyramidal tip and fixed handle

26175 LND

Trocar only, with blunt tip and fixed handle

Components / Spare Parts	Catalog page
24941 H LEROY Anal Dilator	206

24941 HT

24941 HC

24941 HB

24941 HT

Anal Dilator Tube

24941 HC

Conical Obturator

24941 HB

Blunt Obturator

Components / Spare Parts	Catalog page
24941 HS LEROY Anal Dilator	206

24941 HTS

24941 HCS

24941 HBS

24941 HTS

Anal Dilator Tube

24941 HCS

Conical Obturator

24941 HBS

Blunt Obturator

Retractors

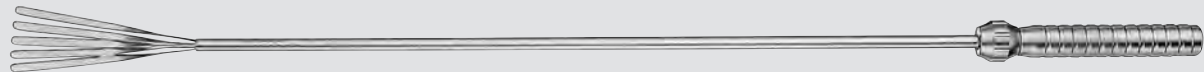
Fan Retractors

Components / Spare Parts

Catalog page

30623 F Fan Retractor

203



Spare Part



6681391
Outer Sheath

Components / Spare Parts

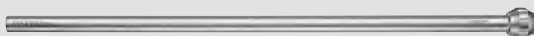
Catalog page

30623 FP Fan Retractor

203, 354



Spare Part



6681291
Outer Sheath

Retractors

Retractors for Gastric Banding,
LEROY Retractors

Components / Spare Parts		Catalog page
30623 G	Retractor for Gastric Banding	204
30623 GB	Retractor for Gastric Banding	204
30623 HA	LEROY Articulating H-Retractor	207
30623 T	LEROY T-Retractor	208
30623 VL	LEROY V-Retractor	208
30623 I	LEROY I-Retractor	208

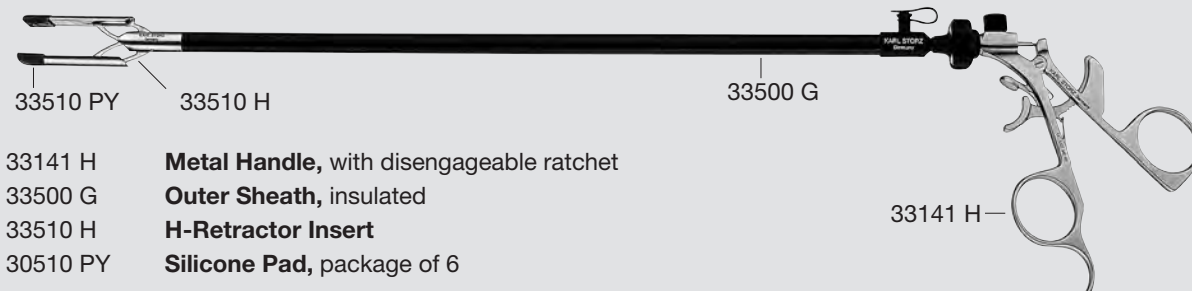
Spare Part



6011590
Plug, for LUER-Lock connector

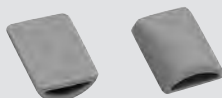


Components / Spare Parts		Catalog page
33541 H	CLICK'liné LEROY H-Retractor	207



33141 H **Metal Handle, with disengageable ratchet**
33500 G **Outer Sheath, insulated**
33510 H **H-Retractor Insert**
30510 PY **Silicone Pad, package of 6**

Spare Part



30510 PY
Silicone Pad, autoclavable, package of 6

Components / Spare Parts		Catalog page
33500 G	Outer Sheath, insulated	207



Spare Parts



29100
Plug, for LUER-Lock irrigation connector for cleaning, black, autoclavable, package of 10



7909890
Halfround Plate

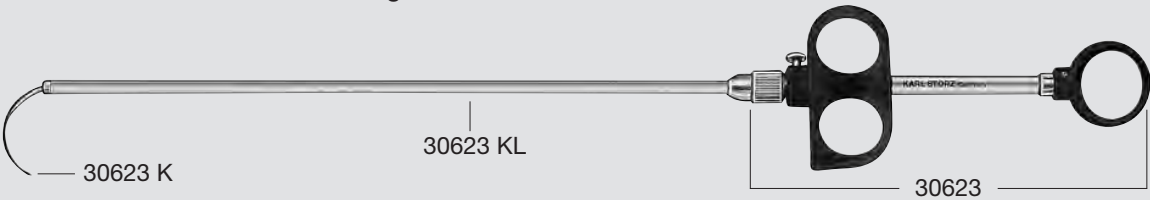


7944790
Silicone Ring

Dissectors

CUSCHIERI Dismantling Variable Curvature Dissector

Components / Spare Parts		Catalog page
30623 GK	CUSCHIERI Dismantling Variable Curvature Dissector	201



30623	Handle
30623 KL	Outer Sheath
30623 K	Insert Dissector, large curvature

Components / Spare Parts		Catalog page
30623	Handle	201



Spare Part	
	5911902 Knurled Screw

Components / Spare Parts		Catalog page
30623 KL	Outer Sheath	201



Spare Part	
	5904900 O-Ring

Palpation Probes, Extractors

Palpation Probes, KÖCHLI Bag Extractor

Components / Spare Parts

Catalog page

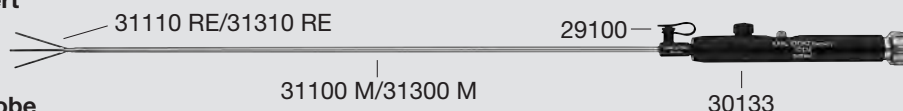
31143 REM Palpation Probe

199

30133 Handle

31100 M Metal Outer Sheath

31110 RE Forceps Insert



31343 REM Palpation Probe

30133 Handle

31300 M Metal Outer Sheath

31310 RE Forceps Insert

Spare Part



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10

Components / Spare Parts

Catalog page

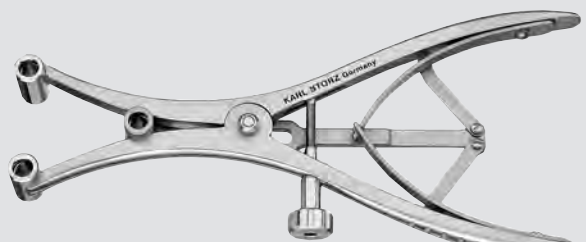
28090 EK KÖCHLI Bag Extractor

210

28090 EA Extractor, without valves

28090 VA Valve, short, for normal
abdominal walls

28090 VB Valve, long, for adipose
abdominal walls



28090 EA



28090 VA

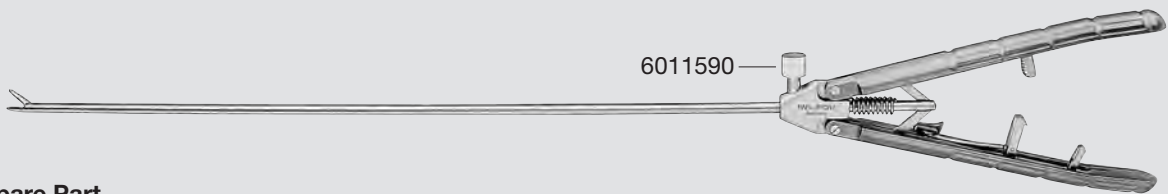


28090 VB

Suture and Ligature

Needle Holders

Components / Spare Parts		Catalog page
26167 LNS	KOH Ultramicro Needle Holder	214
26167 LNL	KOH Ultramicro Needle Holder	214
26167 RNS	KOH Ultramicro Needle Holder	214
26167 RNL	KOH Ultramicro Needle Holder	214
30200 FNS	KOH Ultramicro Needle Holder	214
26173 KAF	KOH Macro Needle Holder	218
26173 KAL	KOH Macro Needle Holder	218
26173 KAR	KOH Macro Needle Holder	218
26178 KAF	KOH Macro Needle Holder	218
26178 KAL	KOH Macro Needle Holder	218
26178 KAR	KOH Macro Needle Holder	218
26173 DQ	SZABO-BERCI Assistant Needle Holder "FLAMINGO-JAW"	217
26173 DR	SZABO-BERCI Assistant Needle Holder "FLAMINGO-JAW"	217
26173 QR	SZABO-BERCI Assistant Needle Holder "FLAMINGO-JAW"	217
26173 SD	SZABO-BERCI Assistant Needle Holder "FLAMINGO-JAW"	217
26173 CE	SZABO-BERCI Needle Holder "PARROT-JAW"	216
26173 CQ	SZABO-BERCI Needle Holder "PARROT-JAW"	216
26173 SC	SZABO-BERCI Needle Holder "PARROT-JAW"	216
26173 SE	SZABO-BERCI Needle Holder "PARROT-JAW"	216
26173 SP	SZABO-BERCI Needle Holder "PARROT-JAW"	216

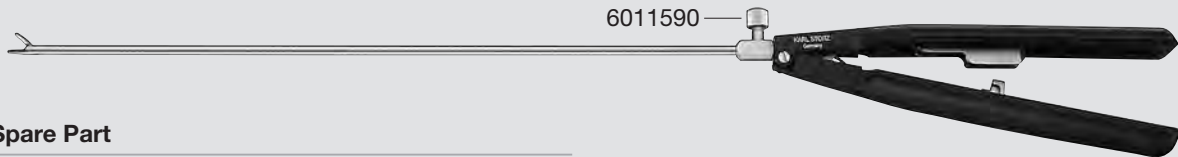


Spare Part



6011590
Plug, for LUER-Lock
connector

Components / Spare Parts		Catalog page
26173 CN	CADIERE Needle Holder	226
26173 KN	KECKSTEIN Needle Holder	225



Spare Part



6011590
Plug, for LUER-Lock
connector

Suture and Ligature

Needle Holders

Components / Spare Parts

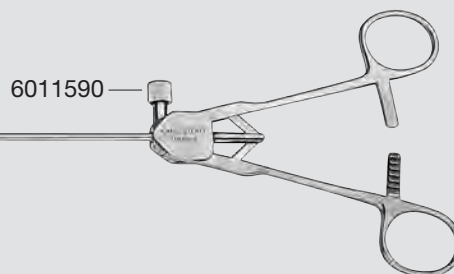
Catalog page

26167 MNS	LIMA Needle Holder	215
26167 SNL	SAWALHE Needle Holder	215
26173 SKG	RASSWEILER Needle Holder	228, 412
26173 SKL	RASSWEILER Needle Holder	228, 412
26173 SW	SAWALHE Needle Holder	228

Spare Part



6011590
Plug, for LUER-Lock
connector



Components / Spare Parts

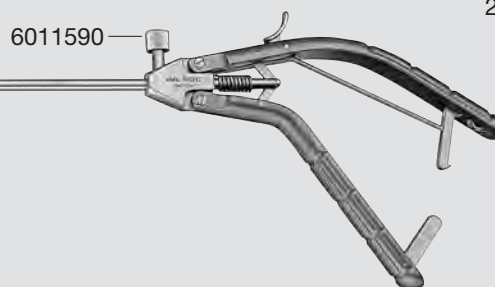
Catalog page

26173 KC	KOH Macro Needle Holder	219
26173 KL	KOH Macro Needle Holder	219
26173 KPF	KOH Macro Needle Holder	219
26173 KPL	KOH Macro Needle Holder	219
26173 KPR	KOH Macro Needle Holder	219
26178 KPF	KOH Macro Needle Holder	219
26178 KPL	KOH Macro Needle Holder	219
26178 KPR	KOH Macro Needle Holder	219
26173 KG	KOH Assistant Needle Holder	219

Spare Part



6011590
Plug, for LUER-Lock
connector



Components / Spare Parts

Catalog page

26173 RG	CUSCHIERI Needle Holder ROTAGRIP	227
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Spare Parts



7826391
Swivelling Handle



6011590
Plug, for LUER-Lock
connector

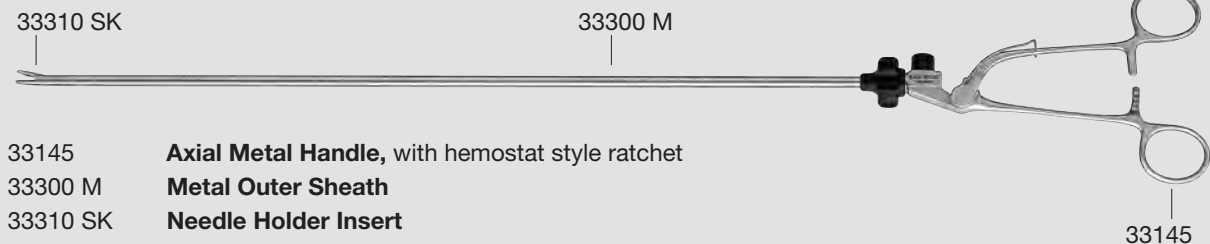


Suture and Ligature

Needle Holders

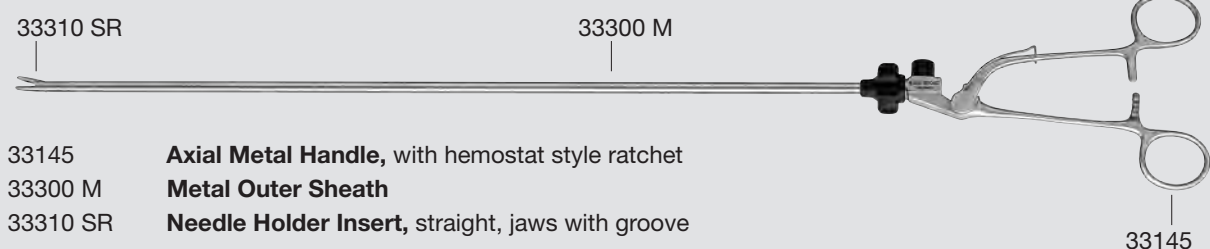
Components / Spare Parts Catalog page

33345 SK **CLICK'line® MOURET Needle Holder** 229



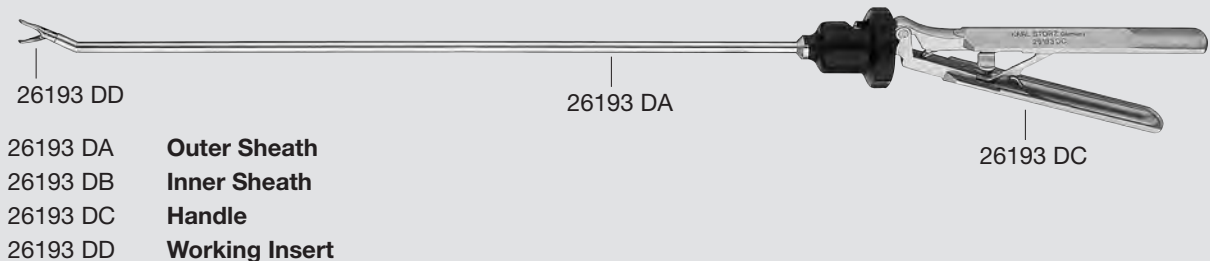
Components / Spare Parts Catalog page

33345 SR **CLICK'line® MOURET Needle Holder** 229



Components / Spare Parts Catalog page

26193 D **DUBECQ-PRINCETEAU Articulating Needle Holder** 230



Components / Spare Parts Catalog page

26193 DC **Handle** 230







Spare Part

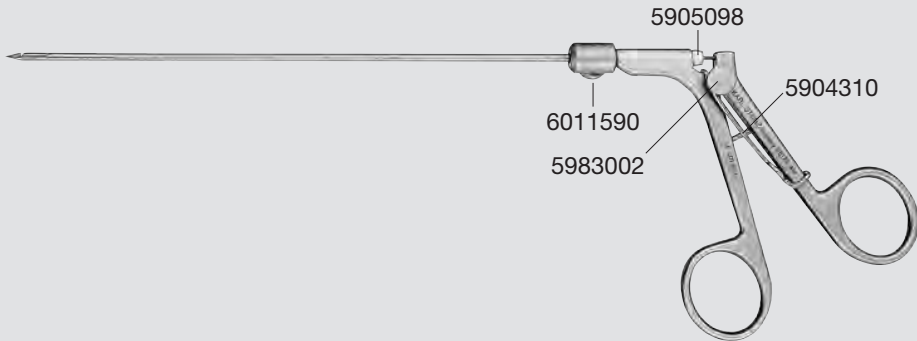






5918710
Spring

Suture and Ligature

Metal Outer Sheaths for Dismantling Needle Holders,
SEMM Needle Holder and Suture Grasper, Berci Fascial Closure Instrument

Components / Spare Parts		Catalog page
30173 A	Metal Outer Sheath	221
30178 A	Metal Outer Sheath	221
<div><div></div><div>29100</div></div>		
Spare Parts		
<div></div>	<div>29100 Plug, for LUER-Lock irrigation connector for cleaning, black, autoclavable, package of 10</div>	<div></div> <div>9562890 Halfround Plate</div>
		<div></div> <div>9562990 Clamping Ring</div>

Components / Spare Parts		Catalog page
26173 MS	SEMM Needle Holder and Suture Grasper	215
26173 AM	Berci Fascial Closure Instrument	237
<div><div></div><div>5905098</div><div>6011590</div><div>5983002</div><div>5904310</div></div>		
Spare Parts		
<div></div>	<div>5904310 Spring, for handle</div>	<div></div> <div>5983002 Knurled Screw</div>
<div></div>	<div>5905098 Sealing Cap, small</div>	<div></div> <div>6011590 Plug, for LUER-Lock connector</div>

Suture and Ligature

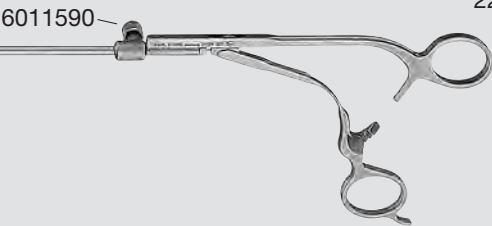
Needle Holder, Knot Tier, MANGESHIKAR Endo-Knotting Device,
CUSCHIERI Integral Knot Pusher and Thread-Catcher

Components / Spare Parts		Catalog page
26174 SQ	SCARFI Needle Holder	224

Spare Part



6011590
Plug, for LUER-Lock
connector

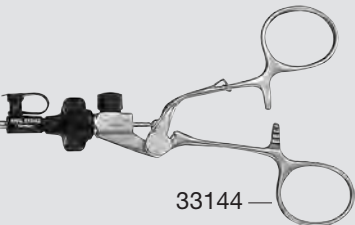


Components / Spare Parts		Catalog page
33344 KM	CLICK'line MOURET Knot Tier	232

33310 KM

33300 M

33144 **MOURET Metal Handle**
33300 M **Metal Outer Sheath**
33310 KM **Knot Tier Insert**

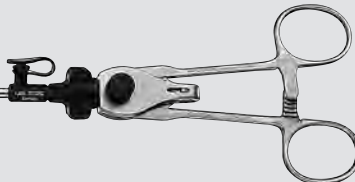


Components / Spare Parts		Catalog page
33346 EK	CLICK'line MANGESHIKAR MUST Endo-Knotting Device	232

33310 EK

33300 M

33146 **Metal Handle**, with ratchet
33300 M **Metal Outer Sheath**
33310 EK **MANGESHIKAR Endo-Knotting Device Insert**

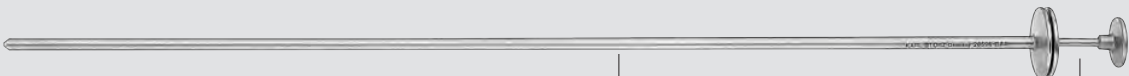


Components / Spare Parts		Catalog page
26596 CA	CUSCHIERI Integral Knot-Pusher and Thread-Catcher	236

26596 CAA **Outer Sheath**
26596 CAI **Inner Sheath**

26596 CAA

26596 CAI



Suture and Ligature

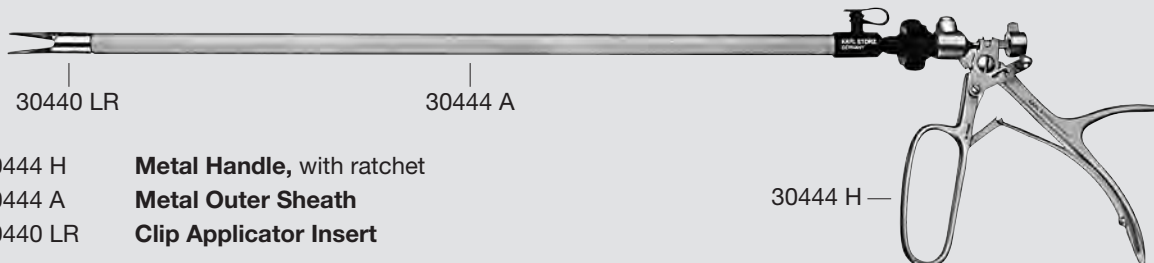
Clip Applicators

Components / Spare Parts

Catalog page

30444 LR **Clip Applicator**

238



30444 H **Metal Handle, with ratchet**

30444 A **Metal Outer Sheath**

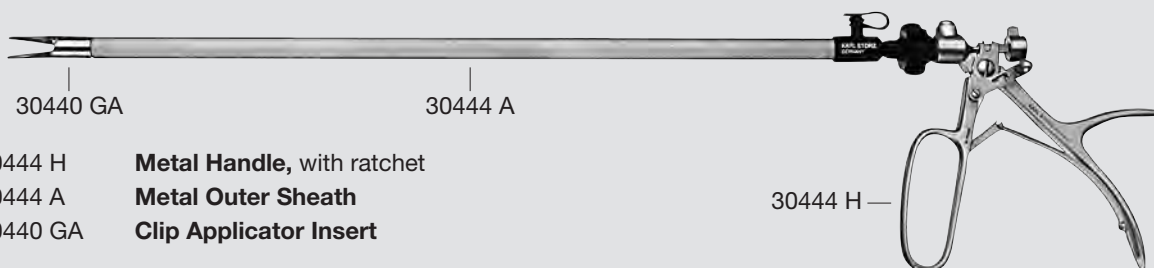
30440 LR **Clip Applicator Insert**

Components / Spare Parts

Catalog page

30444 GA **Clip Applicator**

238



30444 H **Metal Handle, with ratchet**

30444 A **Metal Outer Sheath**

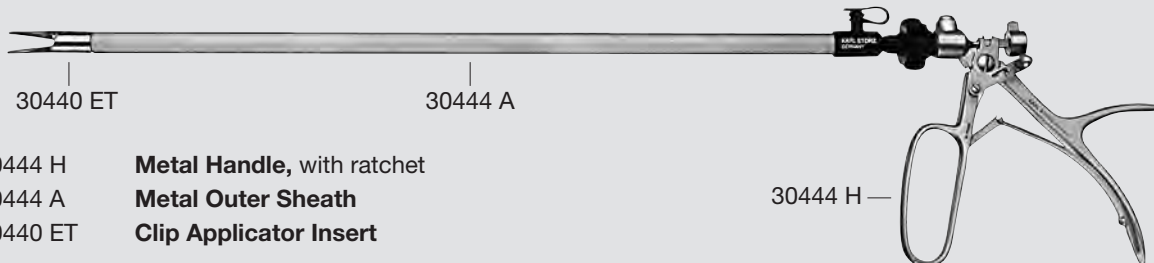
30440 GA **Clip Applicator Insert**

Components / Spare Parts

Catalog page

30444 ET **Clip Applicator**

238



30444 H **Metal Handle, with ratchet**

30444 A **Metal Outer Sheath**

30440 ET **Clip Applicator Insert**

Components / Spare Parts

Catalog page

30444 A **Metal Outer Sheath**

238



Spare Parts



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10



7909890
Halfround Plate

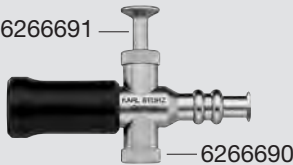


7944790
Silicone Ring

Suction and Irrigation

Handles for Suction and Irrigation

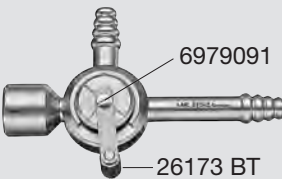
Components / Spare Parts		Catalog page
30804	Handle with Trumpet Valve	193, 243



Spare Parts

	5905610 Spring		6266691 Piston
	6266690 Knurled Cap		

Components / Spare Parts		Catalog page
30805	Handle with Two-Way Stopcock	243














Spare Parts






	26173 BT Stopcock		6979091 Spring Cap
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Suction and Irrigation

Handles for Suction and Irrigation

Components / Spare Parts		Catalog page	
37112 A	Handle, straight	244	
<div>Spare Parts</div>			
	37112 D Seal Set		
	8236791 Adaptor, complete		
			
			8401290 Adaptor
			8401390 Cap Nut

Components / Spare Parts		Catalog page	
37113 A	Handle, pistol grip	244	
<div>Spare Parts</div>			
	37113 D Seal Set		
	8236791 Adaptor, complete		
			
			8401390 Cap Nut
			7648291 Blind Plug
			8401290 Adaptor

Components / Spare Parts		Catalog page	
37112 RV	Suction and Irrigation Handle	244	
<div>Spare Parts</div>			
	37112 D Seal Set		
	8236791 Adaptor, complete		
			
			8401290 Adaptor
			8401390 Cap Nut

Suction and Irrigation

Handles for Suction and Irrigation, Suction and Irrigation Tubes

Components / Spare Parts Catalog page

- 38112 CS** **CADIERE Suction and Irrigation Handle**
- 38112 C** **Suction and Irrigation Handle**
- 031135-10*** **Adaptor, for single use**

246



Spare Part



8401290
Adaptor

Components / Spare Parts Catalog page

- 26172 BN** **Suction and Irrigation Tube**
- 26173 BK** **Suction and Irrigation Tube**
- 26173 BN** **Suction and Irrigation Tube**
- 26174 BN** **Suction and Irrigation Tube**
- 26173 BL** **Suction and Irrigation Tube**

249

249

249, U 24

249

249



Spare Parts



26173 BT
Stopcock

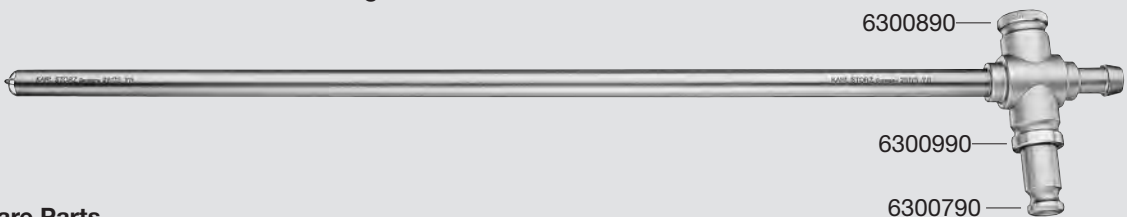


6353591
Spring Cap

Components / Spare Parts Catalog page

- 28175 YR** **OLSEN Suction or Irrigation Tube**

250



Spare Parts



5903110
Spring

6300790
Piston



6300890
Screw Cap



6300990
Threaded Ring, for piston



Suction and Irrigation

Suction and Irrigation Tubes

Components / Spare Parts		Catalog page
26167 ANS	Suction and Irrigation Tube	248
26167 ANL	Suction and Irrigation Tube	248
37260 LH	Suction and Irrigation Tube	248
37360 CP	Suction and Irrigation Tube	248
37360 LH	Suction and Irrigation Tube	248
37360 SC	Suction and Irrigation Tube	248
37460 LH	Suction and Irrigation Tube	248
37360 PB	Suction and Irrigation Tube	248



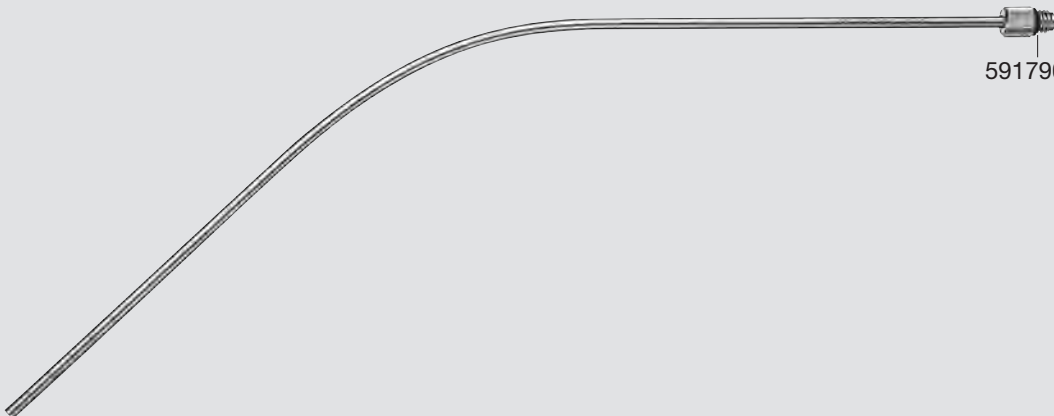
Spare Part

5917900



5917900
O-Ring, small

Components / Spare Parts		Catalog page
23460 LHG	Suction and Irrigation Tube, curved	283



5917900

Spare Part



5917900
O-Ring, small

Components / Spare Parts		Catalog page
37560 LH	Suction and Irrigation Tube	249



Spare Parts

8133590



5903000
O-Ring, large



8133590
Adaptor



5917900
O-Ring, small

Components / Spare Parts	Catalog page
28172 HK Socket , to clamp to the OR table	292

Spare Parts

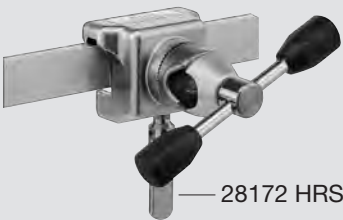
ET35-91-090 Butterfly Nut , for fixing the retaining rod



Components / Spare Parts	Catalog page
28172 HR Rotation Socket , to clamp to the operating table	292


Spare Parts

28172 HRS Butterfly Nut , to clamp Socket 28172 HR to the operating table, one already mounted on Socket 28172 HR



Components / Spare Parts	Catalog page
28272 HA Articulated Stand	292
28272 HB Articulated Stand	292
28272 HC Articulated Stand	292
28272 HD Articulated Stand	292

Spare Parts

	28172 HZ Set Screw , for articulated stands
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Trainer

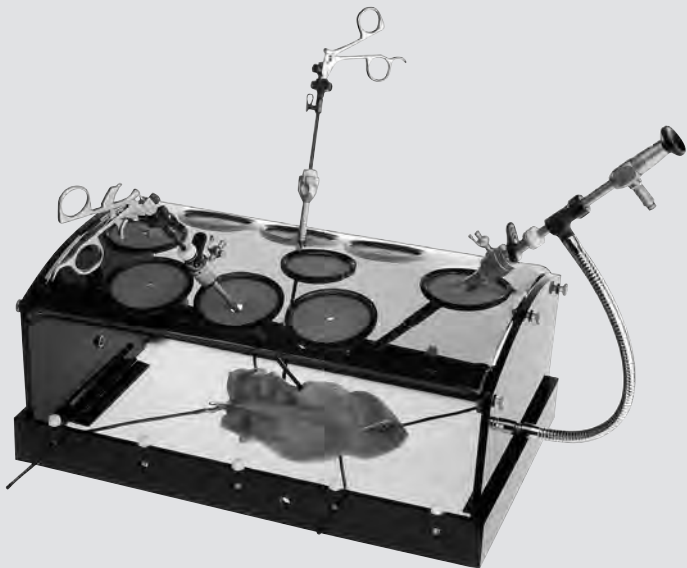
SZABO-BERCI-SACKIER Laparoscopic Trainer

Components / Spare Parts

Catalog page

26348 SZABO-BERCI-SACKIER Laparoscopic Trainer

294



Spare Parts



26348 A
Tissue Clip



26348 N
Plastic Screw



26348 B
Brass Screw



26348 Z
Holding Device,
for fixation of training
materials to be used
with LAP trainer

Trainers

Endoscopic Surgery Trainers,
Training Model for Laparoscopic Surgery, EAGS model

Components / Spare Parts

Catalog page

26332 A Endoscopic Surgery Trainer "SURGERY" Model

296

- 26332 D Base Plate
- 26332 C "SURGERY" Top Plate
- 26332 E Working Plate
- 26332 F Training Module
- 26332 L Fixation Clamps, package of 2
- 26332 P Silicone Insert, package of 4
- 26332 K Case
- 26332 TC Drape



Components / Spare Parts

Catalog page

26332 B Endoscopic Surgery Trainer "GYNECOLOGY" Model

296

- 26332 D Base Plate
- 26332 G "GYNECOLOGY" Top Plate
- 26332 E Working Plate
- 26332 F Training Module
- 26332 L Fixation Clamps, package of 2
- 26332 P Silicone Insert, package of 4
- 26332 K Case
- 26332 TG Drape



Components / Spare Parts

Catalog page

26332 N Training Model for Laparoscopic Surgery, EAGS model

297

- 26332 D Base Plate
- 26332 R Top Plate, EAGS model
- 26332 J Foam Rubber Insert, package of 8
- 26332 K Case
- 26332 T Drape



Trainer

SZINICZ Laparoscopy Trainer

Components / Spare Parts

Catalog page

26342 KB SZINICZ Laparoscopy Trainer

299

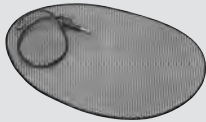


Spare Parts



26341 B
Casing Cover

26341 S
Manual



26341 C
Base Plate



26342 AA
Adaptor, 10 mm



26341 D
Neopren Mat



26342 AB
Adaptor, 12 mm



26341 E
Pump, electronically controlled



26342 AC
Adaptor, 15 mm



26341 F
Perfusion Tube



26342 AD
Adaptor, 26 mm



26341 K
Mains Adaptor, 230 VAC



26342 AE
Adaptor, 35 mm



26341 N
Food Coloring, 250 g



26342 KG
Ball Joint



26341 P
Drain Plug

26342 FR
Fixation Ring



26341 R
Wire Tray



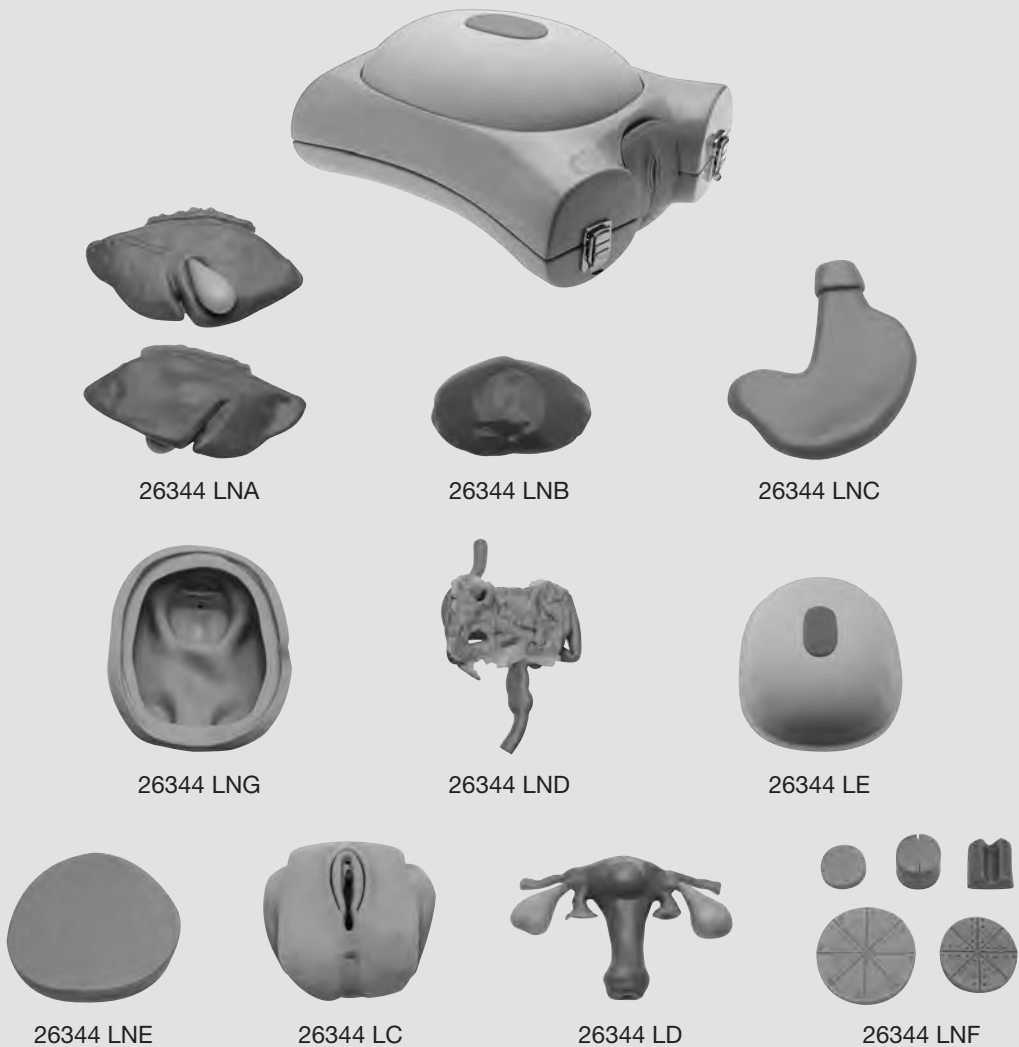
26342 WA
Water Outlet

Components / Spare Parts

Catalog page

26344 L2 LYRA Laparoscopic Simulator

302



26344 X	LYRA Body Laparoscopic Simulator
26344 LNA	Neoderm Organ, liver
26344 LNB	Neoderm Organ, spleen
26344 LNC	Neoderm Organ, stomach
26344 LNG	Neoderm Organ, peritoneum
26344 LND	Neoderm Organ, bowel
26344 LE	Neoderm Organ, abdominal wall
26344 LNE	Neoderm Organ, cul-de-sac
26344 LC	Neoderm Organ, vaginal block
26344 LD	Neoderm Organ, uterus
26344 LNF	Neoderm Organ, suturing model

Morcellators

UNIDRIVE® S III SCB, Rotocut G2

Components / Spare Parts

Catalog page

- 26701001-1 UNIDRIVE® S III SCB**
- 20701020-1 **UNIDRIVE® S III SCB**,
power supply 100 – 240 VAC, 50/60 Hz
- 400 A **Mains Cord**
- 20016230 **One-Pedal Footswitch**, two-stage
- 20090170 **SCB Connecting Cable**, length 100 cm



20701020-1

314, U 32

Spare Part

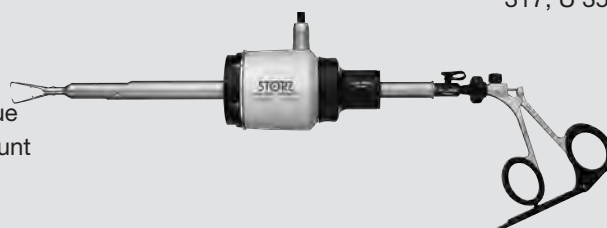


2027690
Mains Fuse,
T 4.0 AL (SB),
package of 10

Components / Spare Parts

Catalog page

- 26721 RC Rotocut G2**
- 26720 M **Hollow Shaft Motor Rotocut G2**
- 26720 H **Handle**, 11/15 mm
- 26721 TO **Trocar**, standard, diameter 11 mm, oblique
- 26721 OB **Obturator**, standard, diameter 11 mm, blunt
- 26713037 **Sealing Cap**, package of 10
- 26721 V **Valve**, diameter 11 mm
- 26713039 **Space Plate Set**, package of 5
- 26720 P **Valve Plate**, package of 10, unsterile
- 33593 UM **CLICK!liné SAWALHE Tenaculum Forceps**, size 11 mm
- 26713050 **Knife**, laparoscopic, diameter 11 mm
- 39510 GV **Tray**, for 10 Valve Plates 26720 P1



317, U 35

Components / Spare Parts

Catalog page

- 26725 RC Rotocut G2**
- 26720 M **Hollow Shaft Motor Rotocut G2**
- 26720 H **Handle**, 11/15 mm
- 26725 TO **Trocar**, standard, diameter 15 mm, oblique
- 26725 OB **Obturator**, standard, diameter 15 mm, blunt
- 26713037 **Sealing Cap**, package of 10
- 26725 V **Valve**, diameter 15 mm
- 26713039 **Space Plate Set**, package of 5
- 26720 P **Valve Plate**, package of 10, unsterile
- 33553 UM **CLICK!liné SAWALHE Tenaculum Forceps**, size 15 mm
- 26713150 **Knife**, laparoscopic, diameter 15 mm
- 39510 GV **Tray**, for 10 Valve Plates 26720 P1

317, U 35

Morcellators

Rotocut G2, Handle

Components / Spare Parts		Catalog page
26723 RC	Rotocut G2	317, U 35
26720 M	Hollow Shaft Motor Rotocut G2	
26720 H	Handle , 11/15 mm	
26721 TO	Trocar , standard, diameter 11 mm, oblique	
26725 TO	Trocar , standard, diameter 15 mm, oblique	
26721 OB	Obturator , standard, diameter 11 mm, blunt	
26725 OB	Obturator , standard, diameter 15 mm, blunt	
26713037	Sealing Cap , package of 10	
26721 V	Valve , diameter 11 mm	
26725 V	Valve , diameter 15 mm	
26713039	Space Plate Set , package of 5	
26720 P	Valve Plate , package of 10, unsterile	
33593 UM	CLICK'line SAWALHE Tenaculum Forceps , size 11 mm	
33553 UM	CLICK'line SAWALHE Tenaculum Forceps , size 15 mm	
26713050	Knife , laparoscopic, diameter 11 mm	
26713150	Knife , laparoscopic, diameter 15 mm	
39510 GV	Tray , for 10 Valve Plates 26720 P1	

Components / Spare Parts		Catalog page
26720 H	Handle , laparoscopic, for Rotocut G2	317, U 35



26713037

Spare Part



26713037
Sealing Cap,
package of 10

Morcellators

SAWALHE II SuperCut Set

Components / Spare Parts

Catalog page

26711513	SAWALHE II SuperCut Set , diameter 12 mm, electromechanical morcellator,	323, U 41
26711530	SuperCut Handpiece	
26711560	Handle	
20711030	High-Performance EC Motor	
20711074	Connecting Cable	
33592 UM	CLICK'line® SAWALHE Tenaculum Forceps , diameter 12 mm	
26711540	Knife , diameter 12 mm	
26711545	Obturator , with thread, diameter 12 mm	
26711547	Outer Sheath , with tip, diameter 12 mm	
26711254	Sealing Cap , diameter 12 mm	



Components / Spare Parts

Catalog page

26711514	SAWALHE II SuperCut Set , diameter 15 mm, electromechanical morcellator	323, U 41
26711530	SuperCut Handpiece	
26711560	Handle	
20711030	High-Performance EC Motor	
20711074	Connecting Cable	
33552 UM	CLICK'line® SAWALHE Tenaculum Forceps , diameter 15 mm	
26711550	Knife , diameter 15 mm	
26711555	Obturator , with thread, diameter 15 mm	
26711557	Outer Sheath , with tip, diameter 15 mm	
26711054	Sealing Cap , diameter 15 mm	



Components / Spare Parts

Catalog page

26711515	SAWALHE II SuperCut Set , diameter 12/15 mm, electromechanical morcellator	323, U 41
26711530	SuperCut Handpiece	
26711560	Handle	
20711030	High-Performance EC Motor	
20711074	Connecting Cable	
33592 UM	CLICK'line® SAWALHE Tenaculum Forceps , diameter 12 mm	
33552 UM	CLICK'line® SAWALHE Tenaculum Forceps , diameter 15 mm	
26711540	Knife , diameter 12 mm	
26711550	Knife , diameter 15 mm	
26711545	Obturator , with thread, diameter 12 mm	
26711555	Obturator , with thread, diameter 15 mm	
26711547	Sheath , with tip, diameter 12 mm	
26711557	Sheath , with tip, diameter 15 mm	
26711254	Sealing Cap , diameter 12 mm	
26711054	Sealing Cap , diameter 15 mm	



Morcellatoren

SAWALHE II SuperCut Set, Sealing Caps,
SAWALHE Forceps, CHARDONNENS Morcellation Knife

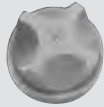
Components / Spare Parts

Catalog page

26711254 **Sealing Cap**, for morcellator handle

323, U 41

Spare Parts



7962190
Silicone Leaflet Washer,
large



8475290
Washer, diameter 12 mm



6985991
Cap Nut



8475290
6985991

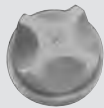
Components / Spare Parts

Catalog page

26711054 **Sealing Cap**, for morcellator handle

335, U 35

Spare Parts



7962190
Silicone Leaflet Washer,
large



6885490
Seal, diameter 15 mm



6985991
Cap Nut



6885490
6985991

Components / Spare Parts

Catalog page

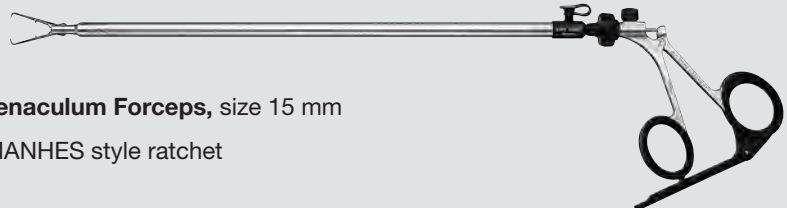
33593 UM **CLICK'liné SAWALHE Tenaculum Forceps**, size 11 mm

324

33162 **Metal Handle**, with MANHES style ratchet

33590 **Outer Sheath**

33510 UM **Forceps Insert**



33553 UM **CLICK'liné SAWALHE Tenaculum Forceps**, size 15 mm

33162 **Metal Handle**, with MANHES style ratchet

33550 **Outer Sheath**

33510 UM **Forceps Insert**

Components / Spare Parts

Catalog page

26190 A **CHARDONNENS Morcellation Knife**

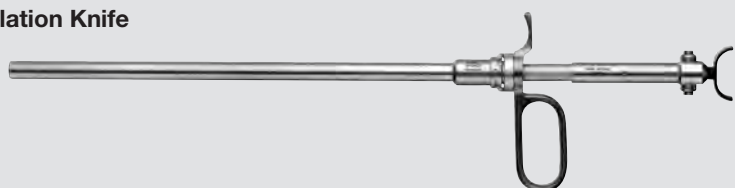
326

26190 AA **Knife Insert**

26190 AB **Outer Sheath**

26190 AC **Handle**

26190 AD **Protection Cap**



Intraoperative Cholangiography, Choledochoscopy, Micro Knives

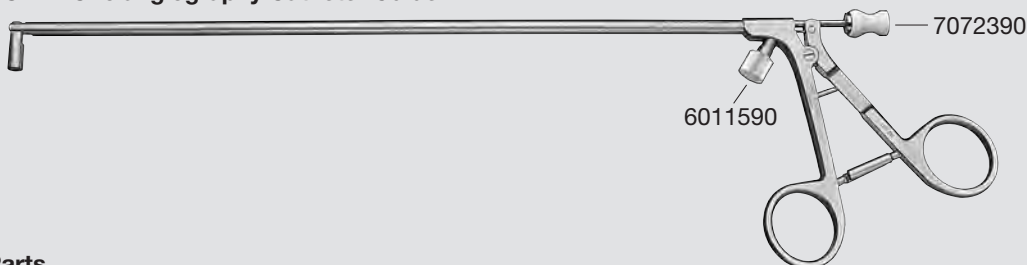
Instruments for Cholangiography

Components / Spare Parts

Catalog page

28378 BC Cholangiography Catheter Guide

328



Spare Parts



6011590
Plug, for LUER-Lock
connector



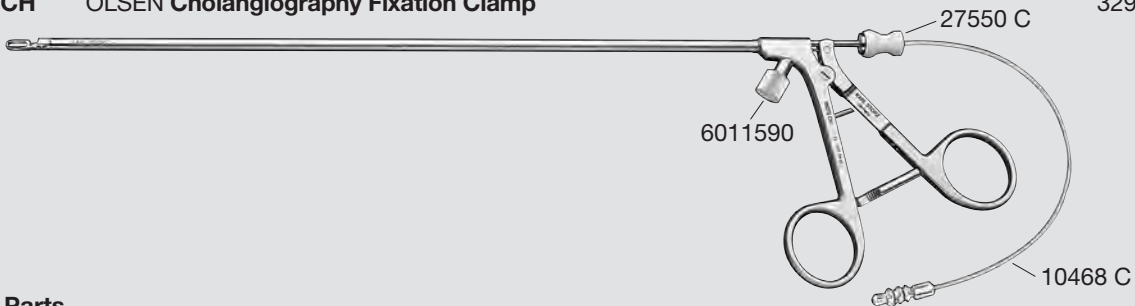
7072390
Sealing Cap,
diameter 1.8 mm

Components / Spare Parts

Catalog page

28378 CH OLSEN Cholangiography Fixation Clamp

329



Spare Parts



10468 C
Suction Catheter, 6 Fr.,
with Adaptor 10479 C



27550 C-10
Sealing Cap, drill hole
diameter 1.2 mm, package
of 10



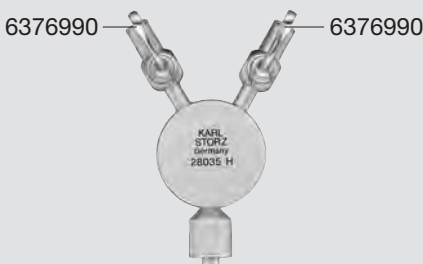
6011590
Plug, for LUER-Lock
connector

Components / Spare Parts

Catalog page

28035 H Two-Way Stopcock, with 2 valves

329



Spare Parts



6985691
Spring Cap

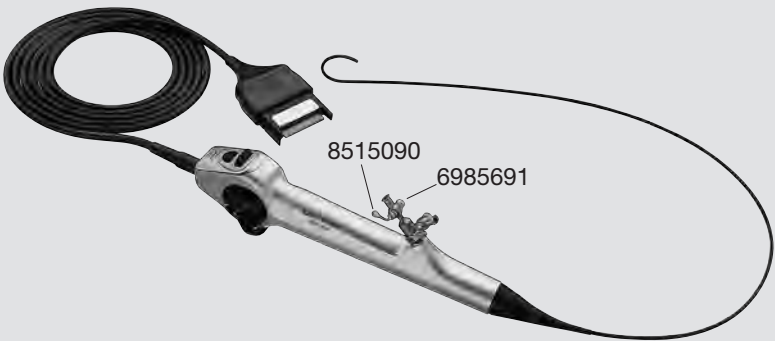


6376990
Stopcock, for
irrigation connector

Intraoperative Cholangiography, Choledochoscopy, Micro Knives

Video Choledochoscopes, Leakage Tester

Components / Spare Parts		Catalog page
11292 VSK	Flexible Video Choledochoscope	332
11292 VSUK	Flexible Video Choledochoscope	332
11292 VP	Flexible Video Choledochoscope	333
11292 VPU	Flexible Video Choledochoscope	333



Spare Parts



6985691
Spring Cap



8515090
Stopcock

Components / Spare Parts		Catalog page
13242 XL	Leakage Tester	334



Spare Parts



5500735
Silicone Tube

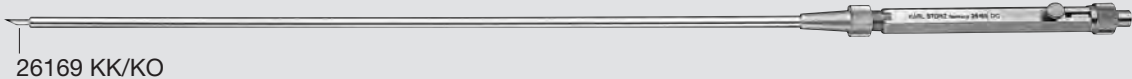


5907900
O-Ring

Intraoperative Cholangiography, Choledochoscopy, Micro Knives

Micro Knife, BERCI Micro Knife and Grasping Forceps, Stone Basket

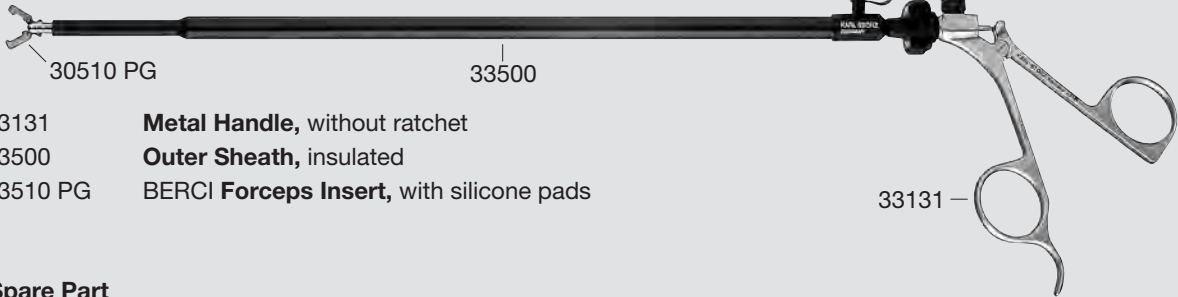
Components / Spare Parts		Catalog page
26169 DK	Micro Knife	336
26169 DO	BERCI Micro Knife	336



Spare Parts

	7354591 Cap		Spare Part for 26169 DO
Spare Part for 26169 DK		26169 KO BERCI Spare Blade	
		26169 KK Spare Blade	

Components / Spare Parts		Catalog page
33531 PG	CLICKline [®] BERICI Grasping Forceps	336



33131	Metal Handle, without ratchet
33500	Outer Sheath, insulated
33510 PG	BERCI Forceps Insert, with silicone pads

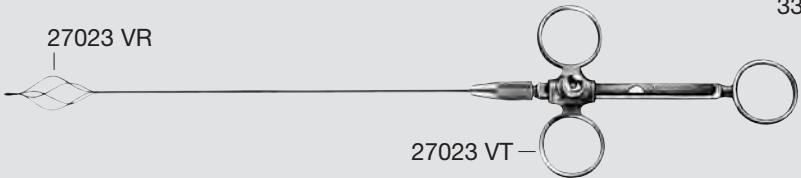
Spare Part



30510 PX
Silicone Pad,
package of 10

Components / Spare Parts		Catalog page
27023 VK	Stone Basket	335

27023 VT	3-Ring Handle
27023 VR	Basket
27023 VS	Coil



Flexible Endoscopes in Surgery

SILVER SCOPE® Gastrosopes

Components / Spare Parts		Catalog page
13820 PKS	Slimline Gastroscope, SILVER SCOPE® series, PAL	340
13820 NKS	Slimline Gastroscope, SILVER SCOPE® series, NTSC	340
13821 PKS	Standard Gastroscope, SILVER SCOPE® series, PAL	340
13821 NKS	Standard Gastroscope, SILVER SCOPE® series, NTSC	



Spare Parts



13991 DA
Sealing Cap, for working channel, package of 10



13991 SRV
Cleaning Valve, reusable



13991 SAV
Suction Valve, reusable



13991 SSV
Air/Water Valve



11025 XE
Pressure Compensation Cap, ETO cap, for ventilation during gas and plasma sterilization



13242 LX
Leakage Tester, with bulb and manometer



4723655
Lanyard, for plugs from the SILVER SCOPE® series

For the water bottle connector at the supply connector:



5944500
O-Ring

Flexible Endoscopes in Surgery

SILVER SCOPE® Gastrosopes

Components / Spare Parts

Catalog page

13991 SRV Cleaning Valve

340

Spare Parts



5925900
O-Ring, red, 3.1 x 1.6 mm



Components / Spare Parts

Catalog page

13991 SSV Air/Water Valve

340

Spare Parts



4720115
O-Ring, red, 3.1 x 1.6 mm



Components / Spare Parts

Catalog page

O-Rings for Supply Connector

Spare Parts



5927500
O-Ring, black, bottom, 23 x 1.5 mm



For the water bottle connector at the supply connector:



5944500
O-Ring

Components / Spare Parts

Catalog page

13242 LX Leakage Tester

340

Spare Parts



5500735
Silicone Tube



5500735

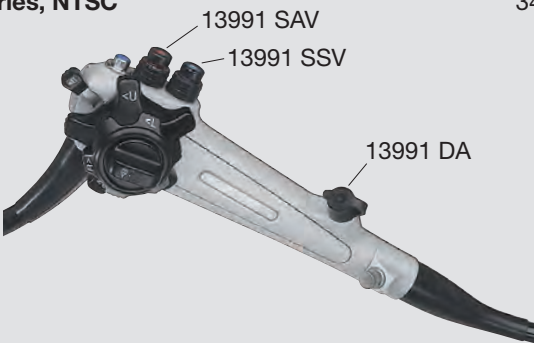


5907900
O-Ring

Flexible Endoscopes in Surgery

SILVER SCOPE® Colonoscopes

Components / Spare Parts		Catalog page
13924 PKS	Standard Colonoscope, SILVER SCOPE® series, PAL	341
13924 NKS	Standard Colonoscope, SILVER SCOPE® series, NTSC	341
13925 PKS	Standard Colonoscope, SILVER SCOPE® series, PAL	341
13925 NKS	Standard Colonoscope, SILVER SCOPE® series, NTSC	341



Spare Parts



13991 DA
Sealing Cap, for working
channel, package of 10



13991 SRV
Cleaning Valve, reusable



13991 SAV
Suction Valve, reusable



13991 SSV
Air/Water Valve



11025 XE
**Pressure Compensation
Cap**, ETO cap, for
ventilation during gas and
plasma sterilization



13242 LX
Leakage Tester, with bulb
and manometer



4723655
Lanyard, for plugs from
the SILVER SCOPE® series

Flexible Endoscopes in Surgery

SILVER SCOPE® Colonoscopes

Components / Spare Parts

Catalog page

13991 SRV Cleaning Valve

341

Spare Parts



5925900
O-Ring, red, 3.1 x 1.6 mm



Components / Spare Parts

Catalog page

13991 SSV Air/Water Valve

341

Spare Parts



4720115
O-Ring, red, 3.1 x 1.6 mm



Components / Spare Parts

Catalog page

O-Rings for Supply Connector

—

Spare Parts



5927500
O-Ring, black, bottom, 23 x 1.5 mm



For water bottle connector at the supply connector:



5944500
O-Ring

Components / Spare Parts

Catalog page

13242 LX Leakage Tester

341

Spare Parts



5500735
Silicone Tube



5907900
O-Ring

Flexible Endoscopes in Surgery

SILVER SCOPE® Gastrosopes, SILVER SCOPE® Colonoscopes

Components / Spare Parts

Catalog page

5682456

Assembly Fixture, for exchanging O-rings,
for use with Cleaning Valve 13991 SRV and
Air/Water Valve 13991 SSV

—



Spare Parts



5925900

O-Ring, red, 3.1 x 1.6 mm



5931500

O-Ring

Laparoscopic Aortic Surgery

Vascular Clamps, Retractor, Vascular Clamp Applicator,
CLICK*line* Grasping Forceps

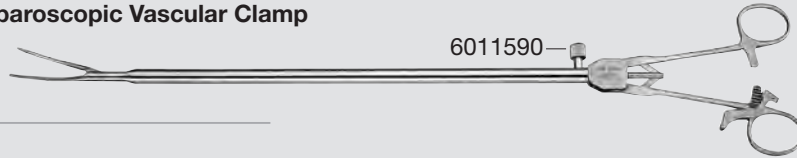
Components / Spare Parts Catalog page

49310 VC	Vascular Clamp	351
49310 SS	Vascular Clamp	351
49310 SB	SATINSKY Laparoscopic Vascular Clamp	351
49310 SC	SATINSKY Laparoscopic Vascular Clamp	351

Spare Part

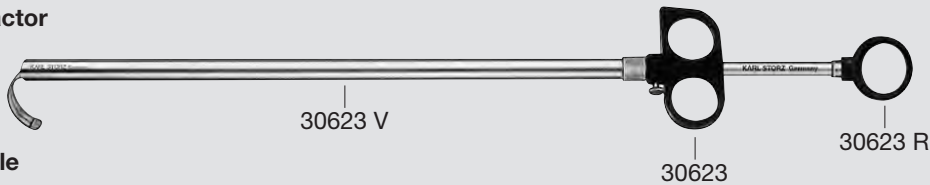


6011590
Plug, for LUER-Lock
connector



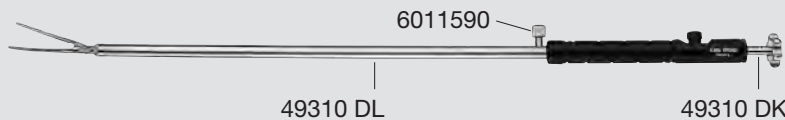
Components / Spare Parts Catalog page

30623 VR	Retractor	354
30623	Handle	
30623 V	Outer Sheath	
30623 R	Insert	



Components / Spare Parts Catalog page

49310 DJ	Vascular Clamp Applicator	352
49310 DK	Inner Rod	
49310 DL	Outer Sheath	



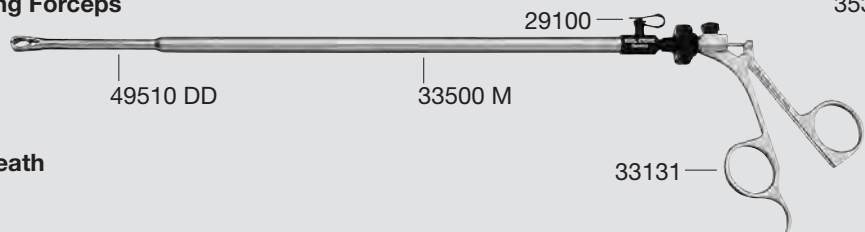
Spare Part



6011590
Plug, for LUER-Lock
connector

Components / Spare Parts Catalog page

49531 DD	CLICK<i>line</i> Grasping Forceps	353
33131	Metal Handle, without ratchet	
33500 M	Metal Outer Sheath	
49510 DD	Forceps Insert	



Spare Part



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10

MICCOLI Instruments for Video-assisted Thyroidectomy and Parathyroidectomy

Dissecting and Grasping Forceps, Scissors, Grasping Forceps

Components / Spare Parts

Catalog page

31151 UL **CLICK'line** REDDICK-OLSEN **Dissecting and Grasping Forceps**

362

33151 **Plastic Handle**, without ratchet

31100 **Outer Sheath**, insulated

31110 UL **Forceps Insert**

31110 UL/MW

31100



31151 MW **CLICK'line** **Scissors**

362, 367

33151 **Plastic Handle**, without ratchet

31100 **Outer Sheath**, insulated

31110 MW **Scissors Insert**

Spare Part



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10

Components / Spare Parts

Catalog page

38851 ON **ROBI**® Grasping Forceps, CLERMONT-FERRAND model

362

38151 **ROBI**® **Plastic Handle**

38810 ON **ROBI**® **Outer Sheath with Forceps Insert**

38810 ON



Spare Part



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10

Instruments for the Extracervical Approach to Thyroid Surgery

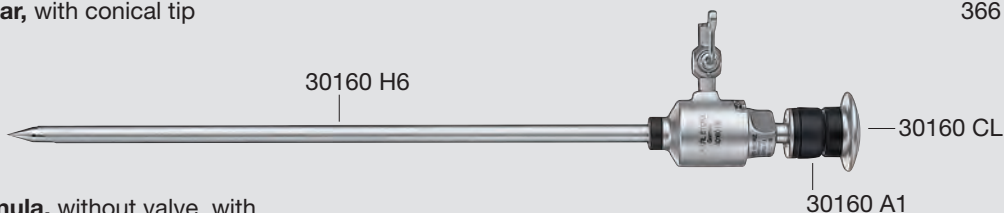
Trocars

Components / Spare Parts

Catalog page

30160 ACL Trocar, with conical tip

366



30160 H6 Cannula, without valve, with insufflation stopcock

30160 CL Trocar only

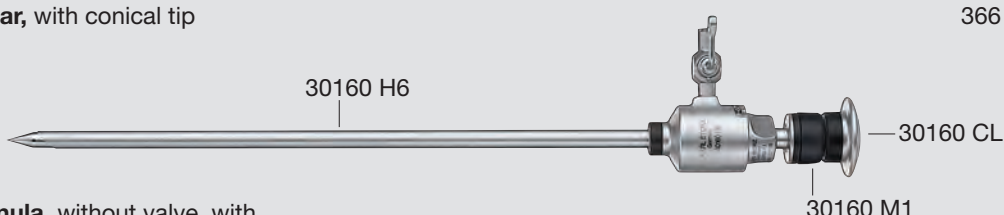
30160 A1 Automatic Valve

Components / Spare Parts

Catalog page

30160 MCL Trocar, with conical tip

366



30160 H6 Cannula, without valve, with insufflation stopcock

30160 CL Trocar only

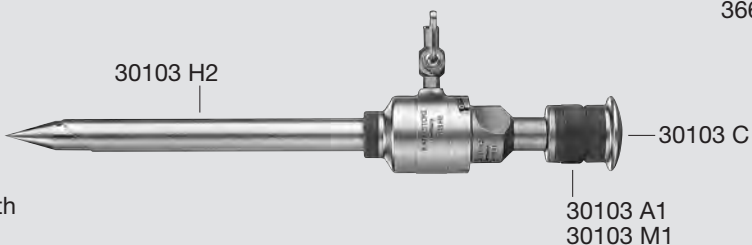
30160 M1 Multifunctional Valve

Components / Spare Parts

Catalog page

30103 AC Trocar, with conical tip

366



30103 H2 Cannula, without valve, with insufflation stopcock

30103 C Trocar only

30103 A1 Automatic Valve

30103 MC Trocar, with conical tip

366

30103 H2 Cannula, without valve, with insufflation stopcock

30103 C Trocar only

30103 M1 Multifunctional Valve

Instruments for the Extracervical Approach to Thyroid Surgery

Dissecting and Grasping Forceps, Grasping Forceps, Scissors

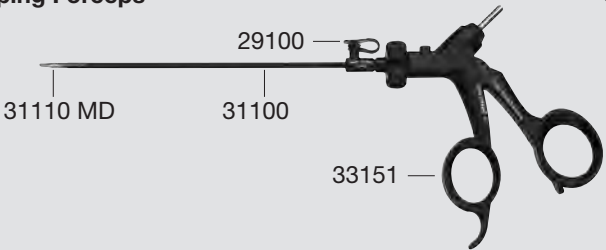
Components / Spare Parts

Catalog page

31151 MD **CLICK!line[®] KELLY Dissecting and Grasping Forceps**

367

33151 **Plastic Handle**, without ratchet
31100 **Outer Sheath**, insulated
31110 MD **Forceps Insert**



Spare Part



29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10

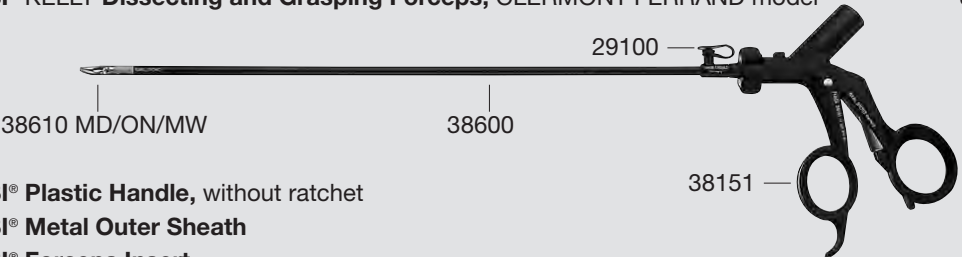
Components / Spare Parts

Catalog page

38651 MD **ROBI[®] KELLY Dissecting and Grasping Forceps, CLERMONT-FERRAND model**

368

38151 **ROBI[®] Plastic Handle**, without ratchet
38600 **ROBI[®] Metal Outer Sheath**
38610 MD **ROBI[®] Forceps Insert**



38651 ON **ROBI[®] Grasping Forceps, CLERMONT-FERRAND model**

38151 **ROBI[®] Plastic Handle**, without ratchet
38600 **ROBI[®] Metal Outer Sheath**
38610 ON **ROBI[®] Forceps Insert**

38651 MW **ROBI[®] METZENBAUM Scissors, CLERMONT-FERRAND model**

38151 **ROBI[®] Plastic Handle**, without ratchet
38600 **ROBI[®] Metal Outer Sheath**
38610 MW **ROBI[®] Scissors Insert**

Spare Part

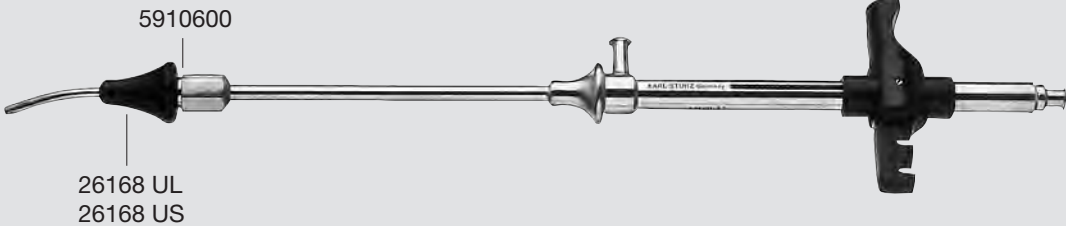


29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10

Gynecology

COHEN Uterine Cannula, Uterine Grasping Forceps

Components / Spare Parts		Catalog page
26168 UN	COHEN Uterine Cannula	372



Spare Parts



26168 UL
Cone, large

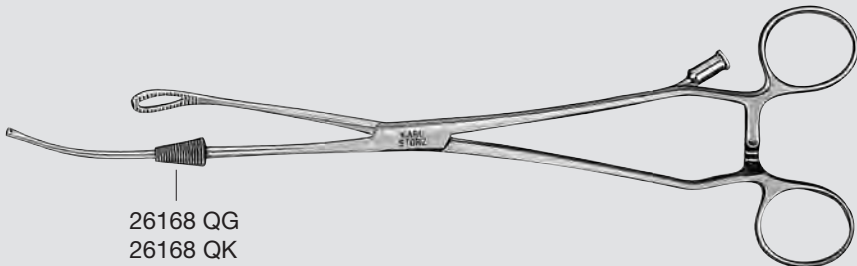


5910600
O-Ring, 3 x 1.5 mm



26168 US
Cone, small

Components / Spare Parts		Catalog page
26168 QB	QUINONES Uterine Grasping Forceps	372
26168 QN	QUINONES-NEUBÜSER Uterine Grasping Forceps	372



Spare Parts

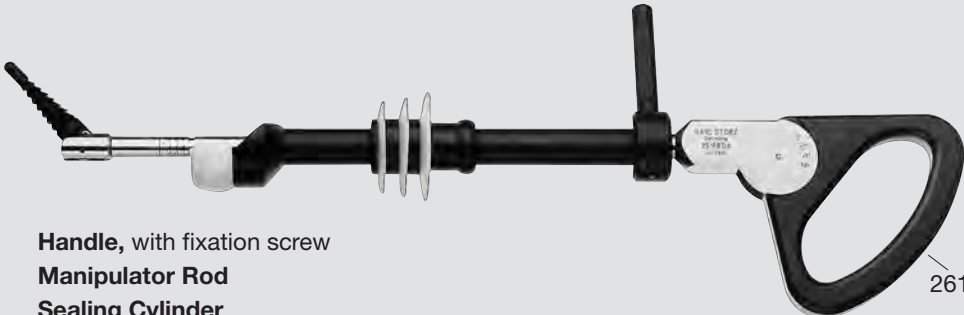


26168 QG
Cone, large



26168 QK
Cone, small

Components / Spare Parts		Catalog page
26168 D	Uterine Manipulator, CLERMONT-FERRAND model	377



26168 DA

26168 DA **Handle, with fixation screw**

26168 DB **Manipulator Rod**

26168 DC **Sealing Cylinder**

26168 DD **Silicone Seal, package of 3 (3 sizes)**

26168 DE **Sheath**

26168 DG **Working Insert, conical, with thread, medium**

26168 DN **Working Insert, atraumatic, diameter 7 mm, length 50 mm**


26168 DP **Working Insert, with connector for chromopertubation, atraumatic, diameter 4 mm, length 40 mm**

26168 DK **Anatomical Blade, short, diameter 36 mm, length 48 mm**


26168 DR **Cleaning Adaptor**

Components / Spare Parts		Catalog page
26168 DA	Handle, for 26168 D	377

Spare Part



5967402
Screw



5967402


Components / Spare Parts		Catalog page
26168 DF	Working Insert, short	377
26168 DG	Working Insert, medium	377
26168 DH	Working Insert, long	377




7978490

7978390

Spare Parts



7978390
Fork, left



7978490
Fork, right

Gynecology

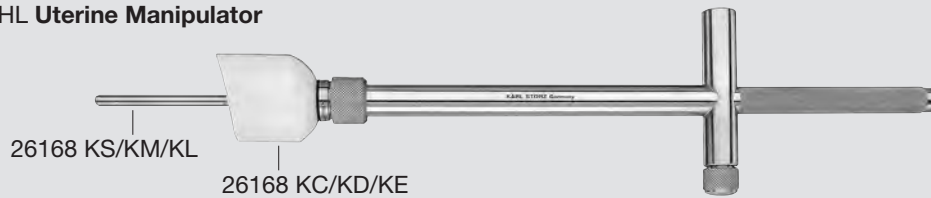
HOHL Uterine Manipulator,
Manipulator Probe

Components / Spare Parts

Catalog page

26168 K HOHL Uterine Manipulator

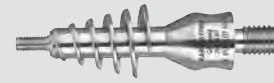
379



- 26168 KA **Handle**
- 26168 KB **Manipulator Rod**
- 26168 KC **Cap**, diameter 40 mm, length 30 mm
- 26168 KD **Cap**, diameter 35 mm, length 30 mm
- 26168 KE **Cap**, diameter 32 mm, length 30 mm
- 26168 KF **Spiral Insert**, diameter 20 mm
- 26168 KG **Spiral Insert**, diameter 15 mm
- 26168 KS **Working Insert**, diameter 6 mm, length 60 mm
- 26168 KM **Working Insert**, diameter 6 mm, length 80 mm
- 26168 KL **Working Insert**, diameter 6 mm, length 100 mm
- 26168 KR **Key**, for spiral caps



26168 KC



26168 KF/KG

Components / Spare Parts

Catalog page

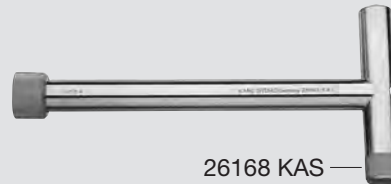
26168 KA Handle

379

Spare Part



26168 KAS
Fixation Screw



26168 KAS

Components / Spare Parts

Catalog page

26168 KO Manipulator Probe, with atraumatic working insert and grasper

380



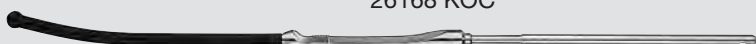
- 26168 KOA **Manipulator Probe**
- 26168 KOB **Working Insert**, diameter 4 mm, length 3 cm
- 26168 KOC **Working Insert**, diameter 4 mm, length 4 cm
- 26168 KOD **Working Insert**, diameter 4 mm, length 6 cm
- 26168 KOE **Hand Wheel**



26168 KOB



26168 KOC



26168 KOD



26168 KOE

Gynecology

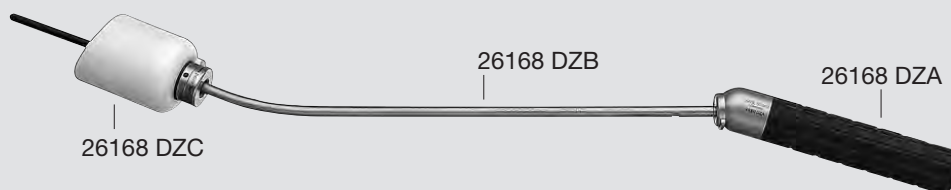
DONNEZ Uterine Manipulator,
KECKSTEIN Uterine Manipulator

Components / Spare Parts

Catalog page

26168 DZ DONNEZ Uterine Manipulator

381



26168 DZA **Handle**

26168 DZB **Manipulator Rod**, including Working Inserts 6290495 (diameter 4 mm, length 22 mm), 7821391 (diameter 5.5 mm, length 42 mm) and 7904791 (diameter 4 mm, length 52 mm)

26168 DZC **Cap**, diameter 34 mm, length 36 mm

26168 DZD **Cap**, diameter 24 mm, length 36 mm

26168 DZE **Cap**, diameter 42 mm, length 36 mm

Components / Spare Parts

Catalog page

26168 Z KECKSTEIN Uterine Manipulator

384

26168 ZA **Handle**

26168 ZB **Manipulator Sheath**

26168 ZC **Cap**, diameter 37 mm, length 30 mm

26168 ZD **Cap**, diameter 42 mm, length 30 mm

26168 ZG **Spiral Insert**, diameter 15 mm

26168 ZH **Spiral Insert**, diameter 20 mm

26168 ZJ **Working Insert**, diameter 6 mm, length 60 mm

26168 ZI **Working Insert**, diameter 6 mm, length 40 mm

26168 ZT **Seal**

26168 ZM **Working Insert**, for chromoperturbation, diameter 3 mm, length 30 mm

26168 ZP **Working Insert**, atraumatic, diameter 5 mm, length 60 mm

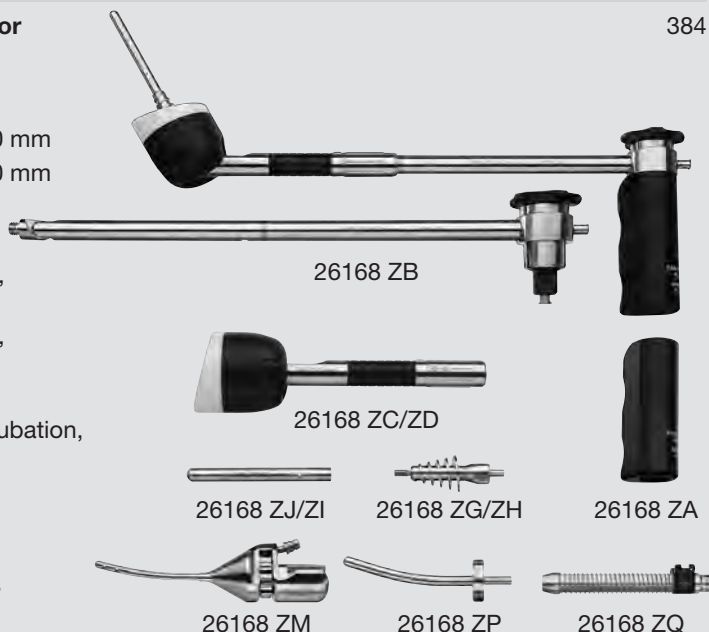
26168 V **Tenaculum Forceps**

26168 ZQ **Holder for Tenaculum Forceps**

26168 TNS **Pertubation Tube**

27500 **LUER-Lock Tube Connector**

7362691 **Y-Tube**



Components / Spare Parts

Catalog page

26168 ZC **Cap**, diameter 37 mm, length 30 mm

26168 ZD **Cap**, diameter 42 mm, length 30 mm

26168 ZE **Cap**, diameter 47 mm, length 30 mm



384

384

384

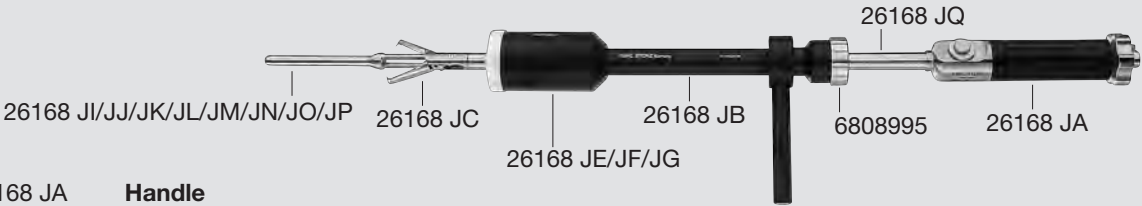
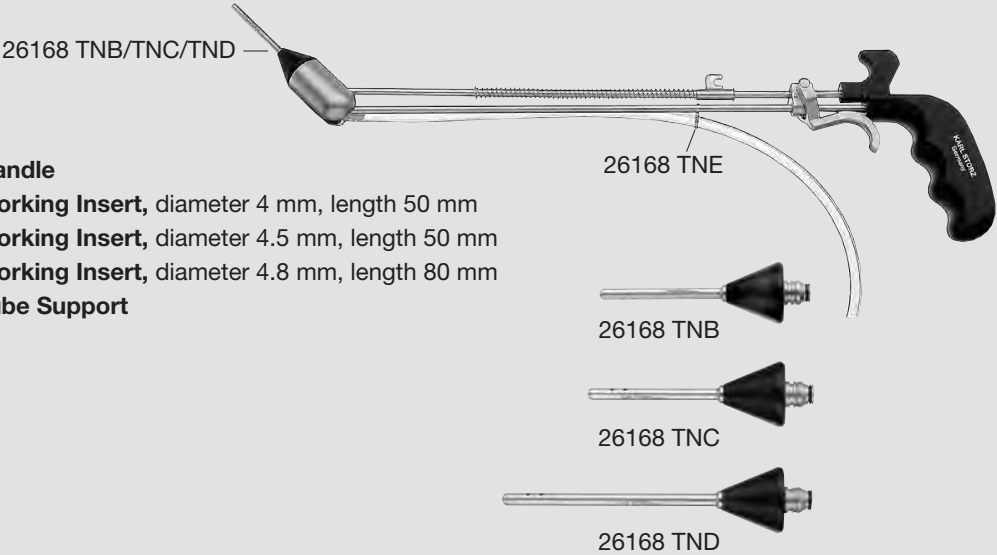
Spare Part



8248091
Control Element,
complete

Gynecology

MANGESHIKAR Uterine Manipulator,
TINTARA Uterine Manipulator

Components / Spare Parts		Catalog page
26168 J	MANGESHIKAR Uterine Manipulator	387
		
26168 JA	Handle	
26168 JB	Outer Sheath	
26168 JC	Forceps Attachment	
26168 JE	Cap, diameter 28 mm, length 66 mm	
26168 JF	Cap, diameter 33 mm, length 66 mm	
26168 JG	Cap, diameter 38 mm, length 66 mm	
26168 JI	Working Insert, diameter 8 mm, length 50 mm	
26168 JJ	Working Insert, diameter 8 mm, length 60 mm	
26168 JK	Working Insert, diameter 8 mm, length 70 mm	
26168 JL	Working Insert, diameter 8 mm, length 80 mm	
26168 JM	Working Insert, diameter 8 mm, length 90 mm	
26168 JN	Working Insert, diameter 8 mm, length 100 mm	
26168 JO	Working Insert, diameter 8 mm, length 110 mm	
26168 JP	Working Insert, diameter 8 mm, length 120 mm	
26168 JQ	Manipulator Sheath	
6808995	Seal	
7962190	Silicone Leaflet Washer	
Components / Spare Parts		Catalog page
26168 TN	TINTARA Uterine Manipulator	389
		
26168 TNA	Handle	
26168 TNB	Working Insert, diameter 4 mm, length 50 mm	
26168 TNC	Working Insert, diameter 4.5 mm, length 50 mm	
26168 TND	Working Insert, diameter 4.8 mm, length 80 mm	
26168 TNE	Tube Support	

Gynecology

C.C.L. Vaginal Extractor, CLICK'line® Claw Forceps,
BRUCKER/MESSROGHLI SupraLoop

Components / Spare Parts

Catalog page

30103 SG C.C.L. Vaginal Extractor

393

30103 A1 Automatic Valve, size 11

30103 V1 Cannula



30103 SK C.C.L. Vaginal Extractor

30103 A1 Automatic Valve, size 11

30103 V2 Cannula

Spare Part



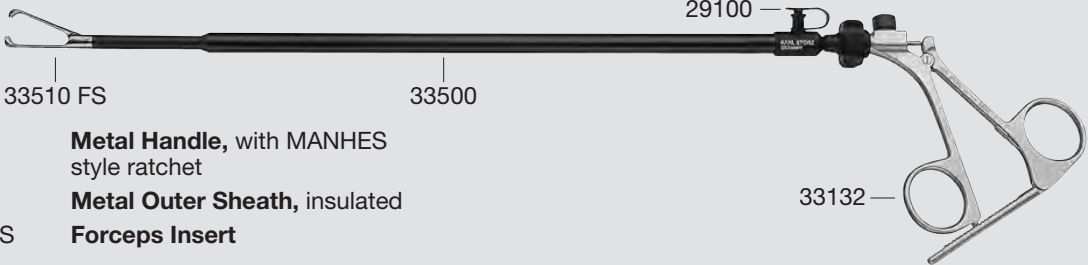
30103-X10
Seal Set, for instruments
size 10 mm, package of 10,
color code: green

Components / Spare Parts

Catalog page

33532 FS CLICK'line® Claw Forceps

393



33132 **Metal Handle**, with MANHES
style ratchet

33500 **Metal Outer Sheath**, insulated

33510 FS **Forceps Insert**

Spare Part



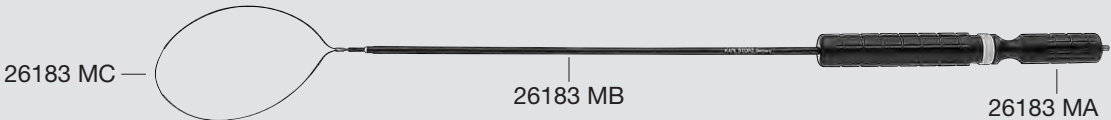
29100
Plug, for LUER-Lock
irrigation connector
for cleaning, black,
autoclavable,
package of 10

Components / Spare Parts

Catalog page

26183 M BRUCKER/MESSROGHLI SupraLoop

396



26183 MA **Handle**, with connector pin for unipolar coagulation, autoclavable

26183 MB **Outer Sheath**, insulated, size 5 mm, length 30 cm

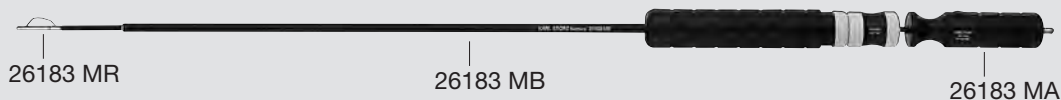
26183 MC **Spare Loop**, size 120 x 85 mm, for single use, unsterile

Components / Spare Parts

Catalog page

26183 MP Resection Loop

397



- 26183 MA **Handle**, with connector pin for unipolar coagulation, autoclavable
- 26183 MB **Outer Sheath**, insulated, size 5 mm, length 30 cm
- 26183 MR **Resection Loop**, for single use

Components / Spare Parts

Catalog page

26183 MB Outer Sheath

396, 397, 399



Spare Parts



6154995
Sealing Cap

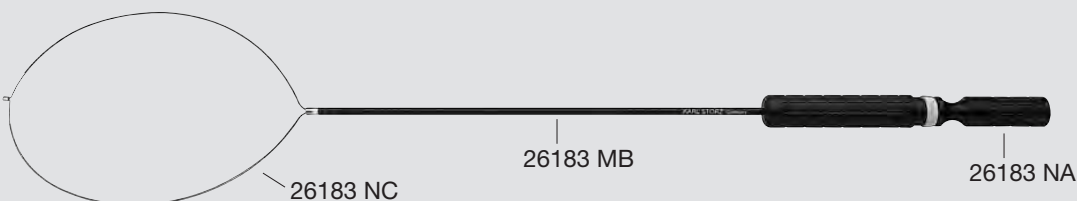
6154995

Components / Spare Parts

Catalog page

26183 N SupraLoop

399



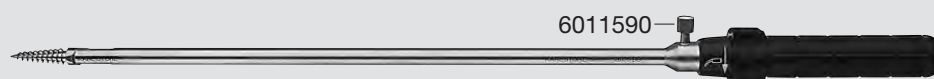
- 26183 NA **Handle**, with connector pin for bipolar coagulation, autoclavable
- 26183 MB **Outer Sheath**, insulated, size 5 mm, length 30 cm
- 26183 NC **Spare SupraLoop**, size 120 x 85 mm, for single use, unsterile

Components / Spare Parts

Catalog page

26175 BB CIRAVOLO Myoma Fixation Instrument

403



Spare Part



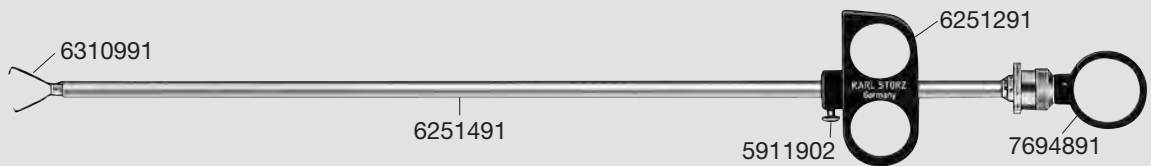
6011590
Plug, for LUER-Lock
connector

Components / Spare Parts

Catalog page

26173 RA Ring Applicator

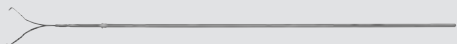
400



Spare Parts



5901910
Spring



6310991
Tension Rod, with grasper



5911902
Knurled Screw



6311890
Mounting Cone



6251291
Traction Handle



7694891
Activator



6251391
Pusher



7694991
Inner Sheath



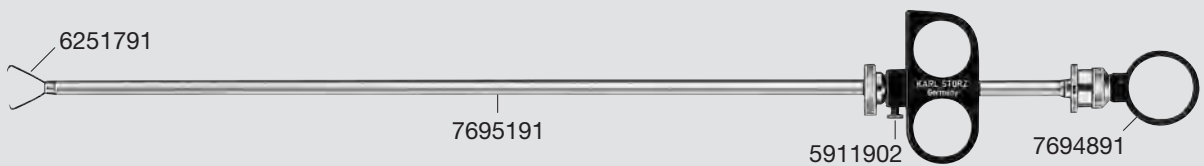
6251491
Outer Sheath

Components / Spare Parts

Catalog page

26174 RA Ring Applicator

400



Spare Parts



5901910
Spring



6311890
Mounting Cone



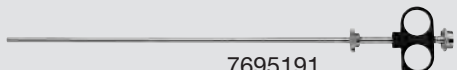
5911902
Knurled Screw



7694891
Activator



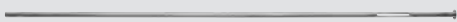
6251391
Pusher



7695191
Outer Sheath



6251791
Tension Rod, with grasper



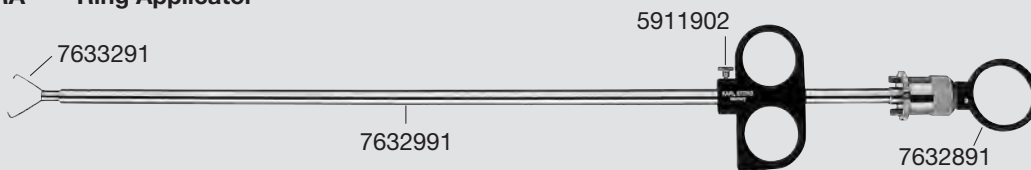
7695291
Inner Sheath

Components / Spare Parts

Catalog page

26171 RA Ring Applicator

401



Spare Parts



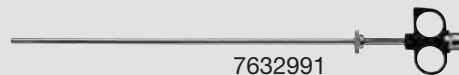
**5905610
Spring**



**7632891
Activator**



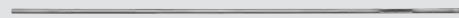
**5911902
Knurled Screw**



**7632991
Outer Sheath**



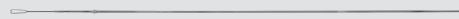
**6251391
Pusher**



**7633091
Inner Sheath**



**6311890
Mounting Cone**



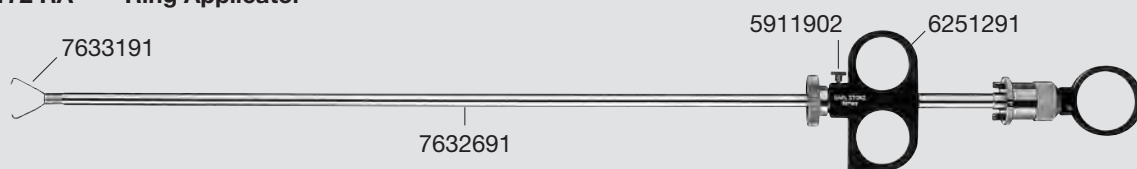
**7633291
Tension Rod, with grasper**

Components / Spare Parts

Catalog page

26172 RA Ring Applicator

401



Spare Parts



**5905610
Spring**



**6311890
Mounting Cone**



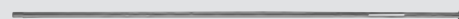
**5911902
Knurled Screw**



**7632691
Outer Sheath**



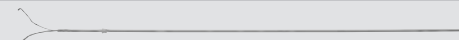
**6251291
Traction Handle**



**7632791
Inner Sheath**



**6251391
Pusher**



**7633191
Tension Rod, with grasper**

Gynecology

BRUCKER/WALLWIENER Instrument Set,
for laparoscopically assisted creation of a neovagina

Components / Spare Parts

Catalog page

26188 NB

BRUCKER/WALLWIENER Instrument Set for Laparoscopically Assisted Creation of a Neovagina

405

26188 SA

Traction Device

26188 FT

Thread Guide, straight

26188 FL

Thread Guide, large curvature, bendable

26188 FA

Outer Sheath, for use with Thread Guide 26188 FT

26188 PP

Pluggable Segmented Dummy

26188 PM

Distension Dummy, size 2.4 cm x 11 cm

27650 C

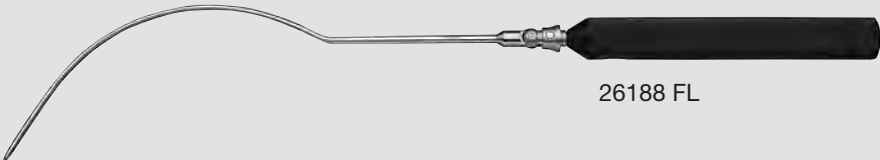
Cleaning Brush



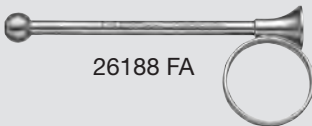
26188 SA



26188 FT



26188 FL



26188 FA



26188 PP



26188 PM



27650 C

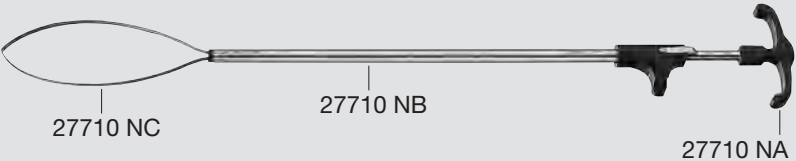
Urology

Kidney Clamp, LASER Applicator, RASSWEILER Transurethral Bougie

Components / Spare Parts

Catalog page

27710 NK	Kidney Clamp	408
27710 NA	Handle, with ratchet	
27710 NB	Outer Sheath	
27710 NC	Snare	



Components / Spare Parts

Catalog page

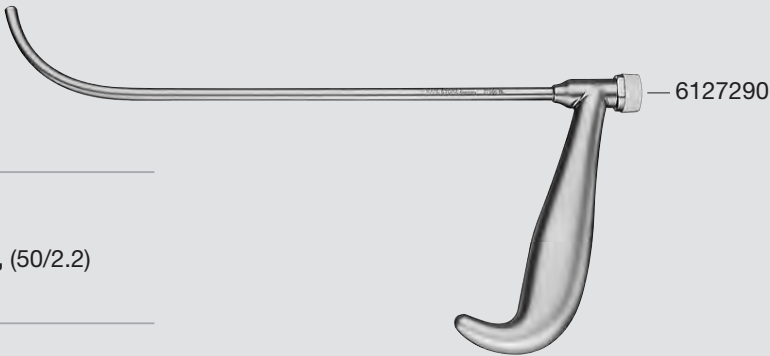
27710 LL	LASER Applicator	409
27710 LH	Handle	
27710 LA	Outer Sheath	
27710 LI	Inner Sheath	



Components / Spare Parts

Catalog page

27566 BL	RASSWEILER Transurethral Bougie	412
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Spare Parts



6127290
Sealing Cap, (50/2.2)

Insufflators

ENDOFLATOR® 40 SCB, ENDOFLATOR® 50 SCB

Components / Spare Parts

Catalog page

- UI 400 S1 ENDOFLATOR® 40 SCB**
- UI 400 **ENDOFLATOR® 40 SCB**, power supply
100 – 240 VAC, 50/60 Hz
- 20090170 **SCB Connecting Cable**, length 100 cm
- 20400030 **Universal Wrench**
- 031200-03* **Insufflation Tubing Set**, with gas filter, sterile,
for single use, package of 5
- 30103 HP **HICAP® Trocar**, size 11 mm



SCB®

U 6

UI 400 S1

- UI 500 S1 ENDOFLATOR® 50 SCB**
- UI 500 **ENDOFLATOR® 50 SCB**, power supply
100 – 240 VAC, 50/60 Hz
- 20090170 **SCB Connecting Cable**, length 100 cm
- 20400030 **Universal Wrench**
- 031210-03* **Heated Insufflation Tubing Set**, with gas filter,
sterile, for single use, package of 3
- 30103 HP **HICAP® Trocar**, size 11 mm



SCB®

U 8

UI 500 S1

Spare Parts



1858390
Mains Fuse,
T 2.0 AH, 250 V,
package of 10



20300184
**LUER-Lock Tube
Connector**, male, tube
diameter 10 mm

Components / Spare Parts

Catalog page

- UI 400 ENDOFLATOR® 40 SCB**

U 6

Spare Part

1815490
ISO Connector,
female



Insufflators

S-PILOT™, Cold Light Fountain CO₂mbi LED SCB

Components / Spare Parts

Catalog page

UP 501 S1	S-PILOT™ , including footswitch
UP 501	S-PILOT™
20014130	One-Pedal Footswitch
031447-03*	Tubing Set Suction , sterile, for single use, package of 5
20090170	SCB Connecting Cable , length 100 cm
UP 501 S3	S-PILOT™ , without footswitch
UP 501	S-PILOT™
031447-03*	Tubing Set Suction , sterile, for single use, package of 5
20090170	SCB Connecting Cable , length 100 cm



UP 501

U 13

Components / Spare Parts

Catalog page

TL 100 S1	Cold Light Fountain CO₂mbi LED SCB
TL 100	Cold Light Fountain CO₂mbi LED SCB
TL 001	Irrigation Bottle Holder
TL 002	Holding Ring , for water bottles
13992 BS	Water Bottle
13991 SW	Irrigation Adaptor , for water bottles
20090170	SCB Connecting Cable
20400030	Universal Wrench



TL 100

U 15



Suction and Irrigation Systems

HAMOU® ENDOMAT® SCB

Components / Spare Parts

Catalog page

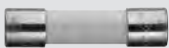
- 26331101-1** HAMOU® ENDOMAT® SCB
- 26331120-1** HAMOU® ENDOMAT® SCB
- 20090170** **SCB Connecting Cable**, length 100 cm
- 031951-10*** **Cassette Tubing Set**, for single use
- 031520-03*** **VACUsafe Suction**, 2 l

U 18



26331120

Spare Part



2027590
Mains Fuse,
T 2.0 AL (SB),
package of 10

Components / Spare Parts

Catalog page

- 26331142** **Silicone Tubing Set**, for suction, sterilizable

U 26



Spare Parts



27500
LUER-Lock Tube
Connector, male,
tube diameter 9 mm

59351111018
LUER-Lock Connector,
male



20300180
Tubing Connector Set

Suction and Irrigation Systems

HAMOU® ENDOMAT® SCB

Components / Spare Parts

Catalog page

20300034 Bottle Cap

U 24, U 25



Spare Parts



20300580
Overflow Case, gray,
for Bottle Cap 20300034



2911590
Plunger Ball, green,
to overflow case,
2 pcs required



031124-10*
Filter, for single use,
unsterile, for use in fluid
suction, specially adapted,
package of 10



Suction and Irrigation Systems

ENDOMAT® LC SCB

Components / Spare Parts

Catalog page

20330301-1 ENDOMAT® LC SCB

U 20

20330320-1 ENDOMAT® LC, with KARL STORZ-SCB,
power supply 100 – 240 VAC, 50/60 Hz

20330340 Silicone Tubing Set, for irrigation,
sterilizable

20330341 Silicone Tubing Set, for suction,
sterilizable

20090170 SCB Connecting Cable, length 100 cm



20330320-1

Spare Part



2027390
Mains Fuse,
T 1.0 A (SB),
package of 10

Components / Spare Parts

Catalog page

20330340 Silicone Tubing Set, for irrigation

U 21

Spare Parts



27500
**LUER-Lock Tube
Connector**, male,
tube diameter 9 mm



20330088
Puncture Needle,
for irrigation bottle



20330393
Pump Tube, sterilizable,
package of 25



20300482
Connector Set

Components / Spare Parts

Catalog page

20330341 Silicone Tubing Set, for suction

U 21

Spare Parts



27500
**LUER-Lock Tube
Connector**, male,
tube diameter 9 mm



20300180
Tubing Connector Set



20330393
Pump Tube, sterilizable,
package of 25



20300482
Connector Set

Suction and Irrigation Systems

DUOMAT®

Components / Spare Parts

Catalog page

20321008 DUOMAT®

U 22

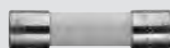
20321020 DUOMAT®, power supply
100 – 120/230 – 240 VAC, 50/60 Hz

031020-03* VACUsafe Suction, 2 l

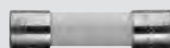


20321020

Spare Parts



1067800
Mains Fuse,
T 0.2 A (SB), package of 10



2084290
Mains Fuse,
T 0.5 A (SB), package of 10

Components / Spare Parts

Catalog page

20300045 Silicone Tubing Set, for irrigation

U 26



Spare Part



600007
LUER-Lock Tube
Connector, male,
tube diameter 6 mm

Components / Spare Parts

Catalog page

20300046 Silicone Tubing Set

U 26



Spare Parts



20330088
Puncture Needle,
for irrigation bottle



600008
LUER-Lock Tube
Connector, female,
tube diameter 6 mm



600007
LUER-Lock Tube
Connector, male,
tube diameter 6 mm



Suction and Irrigation Systems

DUOMAT®

Components / Spare Parts

Catalog page

- 20300042 **Silicone Tubing Set**, for suction
- 20300044 **Silicone Tubing Set**, for suction

U 26
U 26



Spare Parts



27500
LUER-Lock Tube Connector, male,
tube diameter 9 mm



20300180
Tubing Connector Set



20300181
LUER-Lock Tube Connector, female,
tube diameter 8 mm

Components / Spare Parts

Catalog page

- 26310035-335 **Irrigation Bottle**

—

Spare Parts



26310087
Seal Set, for bottle caps



Suction and Irrigation Systems

UNIMAT® 30

Components / Spare Parts

Catalog page

- 25320001 UNIMAT® 30, Suction Pump Set, 230 VAC**
- 25320020 UNIMAT® 30, suction pump, power supply 230 VAC, 50/60 Hz**
- 25320080 Bacterial Filter**
- 25320081 Secretion Bottle, 2 l**
- 25320082 Bottle Cap, with grip**
- 25320083 Connecting Tube, short**
- 25320084 Patient Tube**
- 25320085 Overflow Case**
- 400 A Mains Cord, length 300 cm**
- 031220-03* VACUsafe Promotion Pack Suction**

U 28



25320001

Spare Parts



1069400
Mains Fuse,
T 0.63 A, L 250 V



25320083
Connecting Tube, short



25320080
Bacterial Filter



25320084
Patient Tube

Components / Spare Parts

Catalog page

- 25320001C UNIMAT® 30, Suction Pump Set, 115 VAC**
- 25320020C UNIMAT® 30, suction pump, power supply 115 VAC, 50/60 Hz**
- 25320080 Bacterial Filter**
- 25320081 Secretion Bottle, 2 l**
- 25320082 Bottle Cap, with grip**
- 25320083 Connecting Tube, short**
- 25320084 Patient Tube**
- 25320085 Overflow Case**
- 400 A Mains Cord, length 300 cm**
- 031220-03* VACUsafe Promotion Pack Suction**

U 28



25320001 C

Spare Parts



1069500
Fuse, T 1.6 A, L 250 V



25320083
Connecting Tube, short



25320080
Bacterial Filter



25320084
Patient Tube



Suction and Irrigation Systems

UNIMAT® 30

Components / Spare Parts

Catalog page

10432 N Aspirator

U 30

10432 T Aspirator

U 30



Spare Parts



**6860290
Washer**



**10432 E
Spare Glass**

Components / Spare Parts

Catalog page

25320081 Secretion Bottle

U 30



Spare Parts

**25320082
Bottle Cap, with grip**

**25320085
Overflow Case**

High Frequency Surgery Units

AUTOCON® II 400 SCB

Components / Spare Parts

Catalog page

U 50

2053520x-12x AUTOCON® II 400 SCB

2053522x-12x AUTOCON® II 400 SCB,
power supply 220 – 240 VAC, 50/60 Hz

400 A Mains Cord

20090170 SCB Connecting Cable, length 100 cm



2053522x-12x
2053522xU12x

2053520xU12x AUTOCON® II 400 SCB

2053522xU12x AUTOCON® II 400 SCB,
power supply 100 – 120 VAC, 50/60 Hz

400 A Mains Cord

20090170 SCB Connecting Cable, length 100 cm

Spare Part for use at 230 V:



2027690
Mains Fuse,
T 4.0 AL (SB),
package of 10

Spare Part for use at 110 V:



2028090
Mains Fuse,
T 8.0 AL (SB),
package of 10

High Frequency Surgery Units

AUTOCON® II 200

Components / Spare Parts

Catalog page

U 52

- 20532201** **AUTOCON® II 200**
20532220 **AUTOCON® II 200**,
power supply 200 – 240 VAC, 50/60 Hz
400 A **Mains Cord**, length 300 cm



- 20532201-010** **AUTOCON® II 200**
20532220-010 **AUTOCON® II 200**, with GASTRO-Cut,
power supply 200 – 240 VAC, 50/60 Hz
400 A **Mains Cord**, length 300 cm

20532220
20532220-010
20532220C
20532220C010

- 20532201 C** **AUTOCON® II 200**
20532220C **AUTOCON® II 200**,
power supply 100 – 120 VAC, 50/60 Hz
400 B **Mains Cord**, US version, length 200 cm

- 20532201C010** **AUTOCON® II 200**
20532220C010 **AUTOCON® II 200**, with GASTRO-Cut,
power supply 100 – 120 VAC, 50/60 Hz
400 B **Mains Cord**, US version, length 200 cm

Spare Part for use at 230 V:



2027690
Mains Fuse,
T 4.0 AL (SB),
package of 10

Spare Part for use at 110 V:



2028090
Mains Fuse,
T 8.0 AL (SB),
package of 10

Surgery Electrodes Set

Components / Spare Parts

Catalog page

U 55

20530008 Surgery Electrodes Set

- 20530031 **Container with Lid and Sterilizing Insert,**
for 16 electrodes with diameter 4 mm
- 26520031 **Wire Snare,** 5 mm
- 26520032 **Wire Snare,** 10 mm
- 26520033 **Ribbon Snare,** 10 mm
- 26520034 **KIRSCHNER Spatula Electrode,** straight
- 26520035 **MAGENAU Knife Electrode,** angled
- 26520036 **Knife Electrode,** lancet-shaped
- 26520037 **Ball Electrode,** 2 mm
- 26520038 **Ball Electrode,** 4 mm
- 26520039 **Ball Electrode,** 6 mm
- 26520040 **Needle Electrode**
- 26520041 **Flat Electrode,** 8 x 10 mm
- 26520042 **Flat Electrode,** 10 x 15 mm



20530031



26520031



26520032



26520033



26520034



26520035



26520036



26520037



26520038



26520039



26520040



26520041



26520042